



The Regional Economy of the Southern Levant in the 8th-7th Centuries BCE

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The Regional Economy of the Southern Levant in the 8th-7th Centuries BCE

A dissertation presented

by

Joshua Theodore Walton

To

The Department of Near Eastern Language and Civilizations

In partial fulfillment of the requirements
For the degree of
Doctor of Philosophy
In the Subject of
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Abstract

The late Iron Age in the ancient Near East was a period marked by dramatic changes. Politically, the rise of the Neo-Assyrian empire ushers in the beginning of imperial rule. At the same time, Phoenician expansion efforts across the Mediterranean, and the emerging South Arabian caravan trade led to greater connectivity across the ancient Near East and Mediterranean worlds. In the southern Levant, the late Iron Age is also a period marked by change, including large scale urbanization at sites such as Jerusalem and Ekron, increased scale of production of goods such as wine and olive oil on the coastal plain, and increased settlement in previously marginal areas such as the Negev and Judean deserts. Yet despite all of these changes, the local economy shows a remarkable continuity with previous periods.

In this dissertation we examine the regional economy of the southern Levant, focusing on Judah and the Philistine city-states, during the 8th-7th centuries BCE through the lens of New Institutional Economics. In order to do this, we focus on the different regional players that impacted economic life during this time period: the local producers and consumers living in the southern Levant, the imperial governing structures of the Assyrians, the emerging caravan trade from the Arabian peninsula, and the world of the Mediterranean trade networks of the Phoenicians and Greeks. By examining the archaeological and textual evidence relating to these different players we attempt to build a picture of the diverse social contexts, or institutions, that governed different spheres of economic behavior. Furthermore, we examine how these different regional players encouraged and motivated participation in a large variety of overlapping social

contexts, and explain changes and developments in local economic structures during the late Iron Age.

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Abbreviations

- ABL:** Harper, R.F. 1892-1914. *Assyrian and Babylonian Letters*. 14 vols. Chicago: University of Chicago Press.
- CAD:** *The Assyrian Dictionary of the Oriental Institute of Chicago*. Chicago: The Oriental Institute.
- COS:** Hallo, William, and K. Lawson Younger, eds. 2003. *The Context of Scripture*. 3 vols. Leiden: Brill.
- EA:** Moran, William. 1992. *The Amarna Letters*. Baltimore: Johns Hopkins University Press.
- HALOT:** Koehler, Ludwig, and Walter Baumgartner. 2001. "The Hebrew and Aramaic Lexicon of the Old Testament." In . Leiden: Brill.
- SAA 1:** Parpola, Simo. 1987. *The Correspondence of Sargon II, Part I: Letters from Assyria and the West*. State Archives of Assyria 1. Helsinki: Helsinki University Press.
- SAA 2:** Parpola, Simo, and Kazuko Watanabe. 1988. *Neo-Assyrian Treaties and Loyalty Oaths*. State Archives of Assyria 2. Finland: Neo-Assyrian Text Corpus Project.
- SAA 4:** Starr, Ivan. 1990. *Queries to the Sun god: Divination and Politics in Sargonid Assyria*. State Archives of Assyria 4. Helsinki: Helsinki University Press.
- SAA 5:** Lanfranchi, G.B., and Simo Parpola. 1990. *The Correspondence of Sargon II, Part II: Letters from the Northern and Northeastern Provinces*. State Archives of Assyria 5. Helsinki: Helsinki University Press.
- SAA 11:** Fales, Frederick M., and J. N. Postgate. 1995. *Imperial Administrative Records, Part II: Provincial and Military Administration*. State Archives of Assyria 11. Helsinki: Helsinki University Press.
- SAA 12:** Kataja, L., and R. Whiting. 1995. *Grants, Decrees and Gifts of the Neo-Assyrian Period*. State Archives of Assyria 12. Helsinki: Helsinki University Press.
- SAA 15:** Fuchs, Andreas, and Simo Parpola. 2001. *The Correspondence of Sargon II, Part III: Letters from Babylonia and the Eastern Provinces*. State Archives of Assyria 15. Helsinki: Helsinki University Press.
- SAA 16:** Luukko, Mikko, and Greta Van Buylaere. 2002. *The Political Correspondence of Esarhaddon*. State Archives of Assyria 16. Finland: Neo-Assyrian Text Corpus Project.
- SAA 17:** Dietrich, Manfred. 2003. *The Babylonian Correspondence of Sargon and Sennacherib*. State Archives of Assyria 17. Helsinki: Helsinki University Press.
- SAA 18:** Reynolds, Frances. 2003. *The Babylonian Correspondence of Esarhaddon*. State Archives of Assyria 18. Helsinki: Helsinki University Press.
- SAA 19:** Luukko, Mikko. 2012. *The Correspondence of Tiglath-Pileser III and Sargon II from Calah/Nimrud*. State Archives of Assyria 19. Helsinki: Helsinki University Press.

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Chapter 1: Introduction

Introduction

The late Iron Age in the ancient Near East was a period marked by dramatic changes. Politically, the rise of the Neo-Assyrian Empire ushered in the beginning of imperial rule. At the same time, Phoenician expansion efforts across the Mediterranean, and the emerging South Arabian caravan trade led to greater connectivity across the ancient Near East and Mediterranean worlds. In the southern Levant the late Iron Age was also a period marked by changes; these include large scale urbanization at sites such as Jerusalem and Ekron, increased scale of production of goods such as wine and olive oil on the coastal plain, and increased settlement in previously marginal areas such as the Negev and Judean deserts. In spite of all these changes, the local economy showed a remarkable continuity with previous periods. In order to explore this system, we apply a framework of New Institutional Economics, in order to examine the logic of how cultural institutions encouraged changes in the economic behavior of individuals and polities.

In a recent article, Master (2014) argued that the economy of the southern Levant included a number of “societal spheres” or institutions, each of which formed overlapping economic contexts with their own logic and rules of exchange. He focused on the spheres of the monarchy, the market, and the trade route as separate, but overlapping social contexts, each with its own rules and economic logic (2014, 83). As such, an examination of the logic governing the major participants in the late Iron Age economy will reveal how the different societal spheres shaped economic behavior. In this dissertation we will examine the economy of the southern Levant in the 8th-7th centuries BCE from the perspective of the major players: local producers and governments, the imperial power (Assyria), and traders (Phoenicians, Greeks, and caravans).

We argue that these participants each follow their own larger economic logic based on their social context. By applying a New Institutional framework it becomes clear that the local socio-economic context remained largely unchanged despite the introduction of new alternative structures operating under a different logic.

The three basic actions that comprise a society's economic behavior are production, consumption, and distribution. By examining these elements, one can gain a better understanding of an individual or society and learn how they subsist, thrive, succeed, and eventually fail. One can also examine the mechanisms employed to obtain wealth on a household, polity, or imperial scale. Economic decisions and structures are an essential part of daily life, and the results of these decisions have distinct consequences for individuals on all levels of society. In this study we will examine how production, consumption, and distribution decisions shaped society in the 8th and 7th centuries BCE in Judah and Philistia from the level of the individual or family, to the local state, to the imperial level. In this chapter we will first set the parameters for this study, providing both the historical and geographical framework. Then, we will establish our theoretical framework, by first examining previous models for understanding the economy of the southern Levant, and second, by proposing a better model based on the perspective of New Institutional Economics.

Historical Framework

In his seminal work on history and historic time, Fernand Braudel (1980, 27) examined three types of historical time: 1) *l'histoire événementielle*, the short term history of events; 2) cyclical time (conjuncture), pertaining to a period of 10 to 50 years; and 3) *la longue durée*, or great stretches of time, measured in centuries and or even larger divisions of time, and emphasizing ecological and geographical conditions. Braudel (1980, 32) saw the economy as

primarily cyclical, noting the fluctuation of prices as a classic example of conjuncture, but he also noted that the economy contains an element of the *longue durée*, consisting of certain persistent elements that refuse to die out and make-up certain persisting regularities within a system. These persisting elements can include large-scale aspects of geography—such as topography and its ability to dictate roadways, climate, agricultural potential and yields, prevailing wind patterns that influence shipping routes, and human elements that intersect with these geological and topographical features by locating certain centers at important junctures. Long-term human subsistence strategies are closely linked to geography and landscape, whereby natural resource potentials may be exploited according to economic incentive. The economy also has an element of *l’histoire événementielle*, which can be noted in receipts and sale documents recording different prices paid on specific days and times or tribute lists recording goods captured on a specific campaign. Thus, all three types of historical time are relevant to the economy and address different types of data that must be examined side by side. By looking at a period of two centuries, our central focus is on the *conjuncture*, and, although further patterns extend beyond the scope of this study, we may also get a glimpse of the *longue durée*. Looking at a longer time span minimizes the effect of any singular event, and allows us to draw broader, contextualized conclusions that incorporate multiple phenomena. It is precisely the overlap of these three spans of historical time that shows how the economy functions within and throughout a given society.

By specifically looking at the 8th and 7th centuries BCE,¹ we are able to contextualize this *conjuncture* within the broader geographical and long-term economic framework of the *longue*

¹ The period from 800-586 BCE can be generally lumped together to form what we will term ‘the late Iron Age’ corresponding to the Iron IIB-C or Iron II/III (for example Ben-Tor 1992, table 1.1) depending on which set of terminology one follows. The differences in terminology are unimportant and the dates of this period are generally agreed upon. Cf. Mazar 2005, Table 2.1.

durée within the basic framework of the period of Neo-Assyrian domination of Judah and the Philistine city-states (see Table 1), extending from 734 to ca. 630 BCE (Eph'al 2010, 31; Stern 2001, 1-4). This period begins with the first large-scale invasion of the region by the Assyrians under Tiglath-pileser III, who ascended to the throne in 745 BCE. After conducting campaigns in the north, Tiglath-pileser III directed his attention to the southern Levant. In his 11th year he campaigned against Philistia down to the brook of Egypt in 734 BCE, with further campaigns against the Northern Kingdom of Israel in 733 and 732 BCE (Tadmor and Yamada 2011, 13). While these campaigns marked the beginning of official administrative Assyrian hegemony in the southern Levant, the threat and influence of Assyria had already been looming since the middle of the 9th century BCE. Thus, although we will focus on the reign of Tiglath-pileser III and his successors until the end of Assyrian hegemony in the southern Levant, the pre-existing conditions of the region from the 9th through the first half of the 8th century are also significant for this study and will be discussed in chapter 2.

Table 1²: General Chronology and Significant Historical Figures

Period	Dates	Assyrian Kings	Local Rulers: Israel and Judah	Local Rulers: Philistia	Egyptian Kings
Iron IIB	900-700 BCE	Tiglath-pileser III (744-727) Sargon II (721-705)	Israel: Menahem (745-738) Pekah (738-732) Hoshea (732-722) Judah: Ahaz	Ashkelon: Rukibtu Šarru-lu-dari Gaza: Hanuna	
Iron IIC	700-586 BCE	Sennacherib (704-681) Esarhaddon (680-669) Ashurbanipal (668-630)	Judah: Hezekiah (715-687) Manasseh (687-642) Josiah (640-609)	Ekron: Padi Ashkelon: Šidqa	Tarhaqa (690-664) Psammeticus I (664-610) Neco (610-595)

² Dates used for Rulers in this table coincide with those provided by Kuhrt (1995).

The Assyrian Empire fell with the destruction of Nineveh in 612 BCE, and the subsequent fall of Haran in 610 BCE (Kuhrt 1995, 545). Assyria's influence on the frontier of the empire, however, diminished well before then, and its presence in the southern Levant was gone by the last third of the 7th century BCE (Stern 2001, 4; Tadmor 1966, 101-102).³ The exact date of the Assyrian withdrawal is unclear, but the death of Ashurbanipal around 630 BCE serves as a *terminus ante quem* for Assyrian control in southern Levant. After this withdrawal, there was a vacuum filled partially by Egypt until the Babylonian campaigns at the very end of the 7th century (Tadmor 1966, 101-2; Oren 1993, 103; Gitin 1997, 98-9; Schipper 2011, 279-285).⁴ Thus, the fall of the Assyrian Empire provides a nice bookend for this study since the bulk of our material focuses on the period of Assyrian hegemony from 734-ca. 630 BCE. However, local economic dynamics cannot be interpreted within an exclusively imperial historical framework, and for this reason data from the early 8th century and late 7th century are an essential part of the larger context. These data reflect the period of looming Assyrian influence and contact preceding the campaigns of Tiglath-pileser III, as well as the reactions of the local polities to the Assyrian withdrawal during the last half of the 7th century BCE. Expanding our vision in this way will provide a comparative basis for understanding how the Neo-Assyrian Empire interacted with and changed the local economy of Philistia and Judah, underscoring the fact that Philistia and Judah were not defined solely by their relationship to their Mesopotamian political overlords.

³ Stern (2001, 4) asserts an end of Assyrian domination of the southern Levant dating to 627 BCE at the latest, corresponding with the death of Ashurbanipal, but notes that there is no textual documentation attesting Assyrian occupation of the region later than 645 BCE. Thus, it is likely that Assyrian hegemony was withdrawn from the region much earlier than the death of Ashurbanipal, and the fall of the Assyrian Empire. Stager (1996, 71*) suggests an earlier date ca. 640 BCE, although Gitin (2003b, 58*) maintains the later date, between 630-620 BCE. An Assyrian document from Gezer dated to 649 BCE indicates that Assyrian withdrawal from the region certainly did not precede this date (Becking 1981/1982, 86).

⁴ While the Assyrian capitals were looted by the Babylonians, there is some evidence for the continuation of a small Assyrian presence at sites in the west. This is mostly attested through the finds at Dur-katlimmu (Tell Sheikh Hamad), where a few residences remain, and letters written in Assyrian language and format were found dating to the reign of Nebuchadnezzar (cf. Kühne 2002, 171-75; 2013, 494 and references).

One of the foci of this study is the function of the economies of Philistia and Judah under Neo-Assyrian hegemony. From this perspective, Tiglath-pileser III's ascension to power represents an important watershed in Neo-Assyrian imperial policy. Not only was Tiglath-pileser III the first king to campaign in the southern Levant, but he is also recognized as instigating a major shift in the Neo-Assyrian policy of expansion and its treatment of conquered states and territories (for example see Tadmor 1975, 39; Larsen 1979, 86; Machinist 1993, 92; Schneider 2014, 101-102; but Garelli 1991, 46).⁵ Thus, from a political historical standpoint, understanding Neo-Assyrian policy is fundamental to understanding the economy of the region. The ascension Tiglath-pileser III marked a major shift in the political landscape and introduced a new societal sphere with a new economic logic, based on the interests of the Assyrian Empire. The economic logic of the Assyrian imperial structure, which will be discussed more in depth in chapter 3, introduced new ways for advancement through imperial patronage for individuals and polities of the southern Levant.

Geographical Framework

Why does this study only focus on Philistia and Judah? Or, more specifically, why only focus on Philistia and Judah, and not other neighboring states that were also under Assyrian hegemony? One of the deciding factors in this geographical emphasis is the political status of the region during the late Iron Age. Judah and the Philistine city-states were vassals of Assyria, but were never turned into provinces nor brought under direct rule,⁶ whereas the Northern Kingdom of Israel and the Syrian states were all annexed as provinces. The Phoenician states retained their

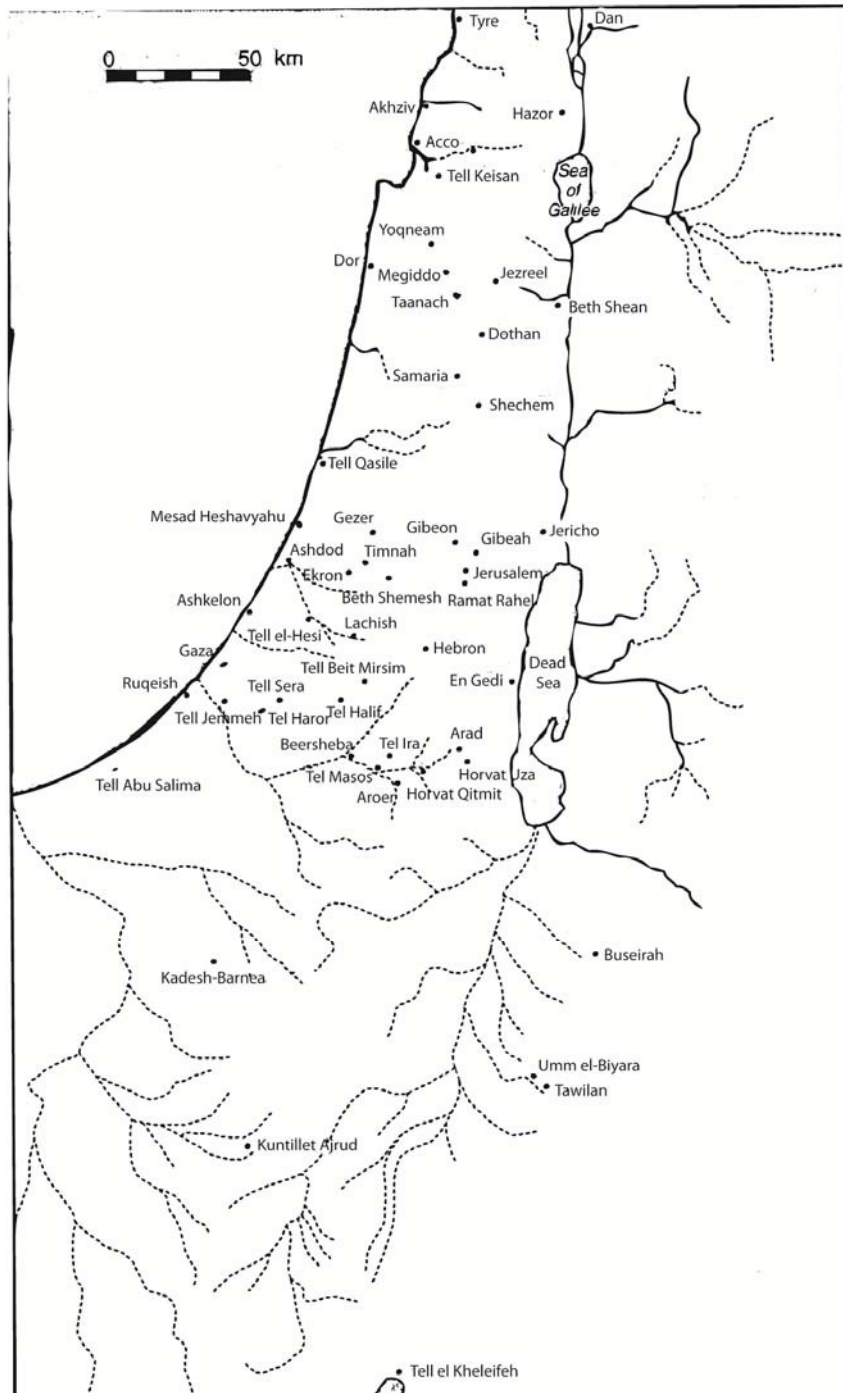
⁵ Garelli agrees that the reign of Tiglath-pileser III marked a time of firsts in the realm of Assyrian expansion, but suggests that his policy was not entirely revolutionary, and doubts that Tiglath-pileser III came with a pre-conceived plan to drastically alter the policies of his predecessors (1991, 51). We acknowledge, with Garelli, that the policy of Tiglath-pileser III built upon pre-existing Assyrian policy, but we also continue to maintain that his reign represents a concrete turning point in the manifestation of those ideas, and thus serves as a logical boundary for our present study.

⁶ With the possible exception of Ashdod under Sargon II, but this will be addressed in chapter 2. Interpretations of direct rule also vary, but this will be addressed in chapters 2 and 3.

vassal status until much later: Sidon was annexed to Assyria during the reign of Esarhaddon and although Tyre remained a vassal throughout the Assyrian period, it loses its mainland holdings in the mid-7th century (cf. Markoe 2000, 41-46). Despite their similar political status, however, the Phoenician states were much closer geographically to the Assyrian center and operated under different dynamics than Judah and Philistia. Still, certain elements of Assyrian policy in Phoenicia will be examined as potentially relevant to the condition in the southern Levant. Similarly, the Transjordanian polities of Ammon, Moab, and Edom retained their vassal status, but these regions do not have the same bulk of textual or archaeological data available as the Philistine city-states and Judah. Therefore, the data from Transjordan will only be used to supplement the data from Judah and Philistia.

By the first millennium BCE, the economies of the various polities of the ancient Near East were somewhat integrated through long-distance exchange and the transfer of goods through tribute payments. Therefore, no study is complete if it focuses on just a single region. By taking an in-depth look at the Philistine city-states and Judah, together with supplemental data from Transjordan, Phoenicia, and other neighboring regions, we will present a clearer picture of the regional dynamics involved, and map how goods moved both internally and externally throughout the system. In order to understand the complex network in which Judah and Philistia participated, it is necessary to examine economic behavior at local, national, and international scales, simultaneously, and alongside overarching historical studies.

Figure 1: Southern Levant in the Late Iron Age



Methodological Framework

Economic activity, as stated previously, consists of three basic activities: production, consumption, and distribution. By examining all three elements we can create a comprehensive picture of economic activity and economic networks of Philistia and Judah in the 8th and 7th centuries BCE. To examine these elements, we will look at both archaeological and textual data. When examined together, the archaeological and textual data can give a clear picture of many aspects of production, consumption, and exchange, and create insight into how these functioned together within a unified economic system.

Production can be examined through a study of archaeological sites with a specific focus on installations used in the production process. Finds such as the winery at Ashkelon, the oil industry at Ekron, or the pottery workshops at Ashdod serve as some well-known examples. Geography and climate are also important aspects of production, impacting the range of crop-types that may grow most successfully in certain regions.

Consumption can be examined through the final (even if unintended) resting place of artifacts which, when examined as a whole, record the (at times complex)⁷ journeys of goods both locally and over distance. Some examples of consumption include: the discovery of Levantine jars across the Mediterranean; the remnants of weeds in charred piles of seeds that attest to the consumption of Judahite wheat on the coastal plain; or shells and fish from the Red Sea, which appear at inland Judahite sites (Van Neer et al. 2004; Mienis 1992; Reese et al. 1986); and the Arad ostraca, which reveal the consumption of Judahite hill country produce in the Negev at the very beginning of the 6th century.

Distribution includes all transactions that result in the allocation and movement of goods or services, and the eventual consumption by persons who did not directly produce them (Pryor

⁷ Cf. for example Tadmor 1995 and Kopytoff 1986

1977, 26). In the archaeological record, distribution is attested through shipwreck data which can be used to trace patterns of the movement of goods around the Mediterranean (cf. Parker 1992, 19). The identification of ancient roads, waystations, and caravanserais can indicate the passage of overland trade. The presence of foreign artifacts at archaeological sites attests to contact between distant regions, and reflects both consumption and distribution. Administrative texts dealing with taxation, tribute, or the provisioning of officials show the redistributive and one-way transfer modes of distribution. By sourcing goods from booty lists we can also get an idea of the trade networks, or “conjunctural” activity, which created the situation evidenced in the event of its capture.

Theoretical Framework

At its heart, theory is designed to be an explanatory framework for understanding the available data. Building a model that describes and explains the archaeological and textual evidence within a framework of attested economic behaviors is central to reconstructing an understanding of the economic system of Philistia and Judah in the 8th and 7th centuries BCE. Models must be investigated in light of the available data in terms of their explanatory usefulness. More specifically, various theories will be examined below for their applicability to the particular historical, economic, and political framework presented by the available data for the 8th and 7th centuries BCE in Philistia and Judah. Some theories that may be useful in describing other economic systems may not be viable for the present application, or they may be useful for describing parts of the economy, but unable to explain why the economy functioned in a certain manner. The remainder of this chapter will focus on various economic theories that have been used to analyze the economic system of the southern Levant in the Neo-Assyrian period, and assess their usefulness as an explanatory tool.

History of Scholarship: Economic Theory and the Southern Levant

An exhaustive study of the history of theoretical scholarship on the archaeology of ancient economies, even the narrow segment that has been applied to the late Iron Age in the southern Levant, is beyond the scope of this study. Thus, we will focus on the major models that have been presented in recent scholarship and examine their applicability to 8th and 7th century Philistia and Judah. One of the most basic debates in economic anthropology is the formalist-substantivist debate. This debate focuses on two different perspectives for understanding how the economy functions. The primary difference between the two is the area of emphasis: the substantivist perspective focuses more on the institutions and the social structure behind the economy, whereas the formal perspective gives more weight to the individual decision-makers. However, more recent studies have tried to move beyond the false dichotomy presented by these two perspectives, in order to explain how cultural constructs and individual rationality work together within an economic system.

Substantive Perspective

A substantive approach to understanding the economy was first introduced by Karl Polanyi. Polanyi (eg. 1944, 1957) focused on two different definitions of ‘economic:’ a formal definition and a substantive definition. According to Polanyi (1957, 243), the substantive meaning of economic “derives from man’s dependence for his living upon nature and his fellows. It refers to the interchange with his natural and social environment, in so far as this results in supplying him with the means of material want satisfaction.” The formal meaning: “derives from the logical character of the means-end relationship, as apparent in such words as ‘economical’ and ‘economizing.’ It refers to a definite situation of choice, namely that between the different uses of means induced by an insufficiency of those means. If we call the rules

governing choice of means the ‘logic of rational action, then we may denote this variant of logic, with an improvised term, as formal economics.’ (ibid. 243). Polanyi thereby suggests that the substantive meaning is derived from fact, whereas the formal meaning is derived from logic. Thus, the substantive concept is “the empirical economy. It can be briefly (if not engagingly) defined as an instituted process of interaction between man and his environment, which results in a continuous supply of want satisfying material means” (1957, 248).

Polanyi’s work was based on his observation that primitive and peasant economies differed from industrial capitalism, which, in turn, came from his study of the Trobriand islanders. In particular, Polanyi noted that “previously to our time no economy has ever existed that, even in principle, was controlled by markets” (1944, 45). Polanyi acknowledged the existence of the institution of the market as early as the Stone Age, but claimed that “its role was no more than incidental to economic life” (ibid. 44). In the case of the Trobriand Islanders, Polanyi noted that the Kula exchange of the islanders was based on principles of reciprocity and gift-giving without focusing on concepts such as profit, hoarding, or possession of goods (ibid. 52). In terms of the material possession of goods, in many cases individuals acted to safeguard their social standing rather than their individual interests. The economy was centered on social relationships, and material goods were valued only to the degree to which they helped an individual meet this end (ibid. 48). Polanyi was concerned with how to apply conventional (that is classical, as defined by Adam Smith) economics to the interpretation of these clear differences between primitive and historical economies (Dalton 1975, 68). According to Polanyi (1944, 71-2), a market economy is directed by market prices and nothing but market prices. It is self-regulating and operates without external interference or intervention. Value in this market is driven by supply and demand, that is, scarcity. Central to Polanyi’s theory was the negative

critique of formal economics as a universal theory, noting how it was unsuitable to describing certain known economies, which were not merely early market variants of modern capitalism.⁸ Secondly his substantive definition was intended to present a positive paradigm for analyzing non-market economies (Dalton 1975, 79-80).

For his positive paradigm, Polanyi emphasized the economy as a culturally embedded process, governed by various cultural institutions that govern economic action. This socially embedded substantive meaning focuses on three main categories of exchange: reciprocity, redistribution and exchange (Polanyi 1957, 250). Reciprocity focuses on movements between symmetrical groups. Redistribution describes the movement of goods or services to and from a center, that is, asymmetrically. Exchange applies to the movements of goods and services that are mediated by a market system. Central to Polanyi's categorization is his definition of market. Polanyi defines markets as 'price-making,'⁹ and can only exist in a system where prices are created in this manner (ibid. 251). Markets that do not integrate into a price-fixing market are compatible within a substantive perspective (Dalton 1975, 91). Polanyi's paradigm has been criticized for focusing on exchange rather than production (Gledhill and Larsen 1982, 199); however, while it is true that Polanyi focuses on exchange, inherent in his substantive definition of economic, that is, 'the material means of want satisfaction,' are the processes of production and consumption.

Based on these categories, Polanyi looked at how various institutions shaped economic behavior in the absence of market dominance (thus economy as an "instituted process"). As part of this research Polanyi also provided substantive definitions for other concepts formerly only associated with formal definitions, including trade, money, and markets. According to its

⁸ Cf. references in Dalton 1975, 79 for examples.

⁹ That is, integrative, where the prices are not fixed, and are set by market mechanisms (Polanyi 1957, 254-55), although cf. a slightly broader definition of markets in Pryor 1977, 32-33.

substantive definition, trade is the peaceful acquisition of goods from a distance by exchanging other goods in various ways including gift-giving and administered trade. Money acts as special-purpose money rather than general-purpose money. The market is a site where buyers and sellers meet to exchange goods at prices fixed in a variety of ways, not necessarily dictated by a price-making market (Dalton 1975, 85; Polanyi 1957, 257ff). Polanyi found the assumptions of scarcity and the ‘logic of rational action,’ that is, a choice of means in relation to ends, to be particularly problematic aspects of formal, or classical economics. Polanyi asserted that the assumption of an insufficiency of means is central to the logic of rational action from a formalist perspective. However, he argued for the existence of a choice of means without necessarily an insufficiency of means, as well as for the insufficiency of means without choice. In the face of such circumstances formal assumptions of scarcity do not hold true in the reality of many societies (Polanyi 1957, 245-6). Polanyi’s perspective was influential in reacting to a view of the economy that was based entirely on capitalist assumptions (price-making markets, supply and demand, scarcity, triumph of economic rationality) that he saw as unique to the modern era. Polanyi did not deny the existence of economies that operated according to formal definitions, but claimed, “only the substantive meaning of ‘economic’ is capable of yielding the concepts that are required by the social sciences for an investigation of all the empirical economies of the past and present” (1957, 244). Polanyi specifically argued against the prevalence of choice and the driving motivation of scarcity in economic decision-making.

Based on Polanyi’s definitions, the substantive perspective was broadened to include studies of ancient economies as well. Notably, Moses Finley (1973) applied substantive definitions of the economy in his reconstruction of the economy of the classical world in his publication, *The Ancient Economy*. The idea of the socially embedded economy has proven

appealing to many scholars in their understanding of the ancient Near East, who recognize noticeable differences between the ancient Near East and modern economies, in particular the role of the temple and palace as redistributive institutions (cf. Renger 1990; 2003; Liverani 2005, 56-57). The tension between the substantive and formal definitions of economic is usually seen in discussions of the role and presence of price-making markets within a society, and whether the market and rational economic logic or culturally bound institutions are driving economic behavior. As such, much of the criticism of substantive approaches to the economy of the ancient Near East tends to focus on proving the existence of markets and “modern” economic behavior (rational action, scarcity as a driving force, etc.) in the ancient Near East (cf. Silver 1982, 1985; Van Driel 2002; Veenhof 1997; Jursa 2010). In the process of this discussion, the ability to integrate cultural constraints and institutions with some level of logical behavior and price-making markets has too often been ignored, and is a subject we will return to shortly. Critiques of substantivism suggest that the perspective adopts a linear evolutionary progression model from reciprocal exchange, to redistribution, to market exchange, and is based on assumptions that the earlier societies were more primitive than the modern west. At the same time, substantivism has been accused of upholding an archaic idealistic view of the community as more moral and less individualistic in non-western society. Underlying this critique is the notion that rational action and market exchange were incongruous with pre-modern complex societies (Blanton and Fargher 2010, Stanish 2010, 191). While not all of these critiques are entirely fair for the broader substantivist perspective, they certainly apply to some of the ways that it has been implemented.

Formalist Perspective

The formalist perspective focuses on the role of individual agents who make rational decisions for economizing purposes functioning as the driving force behind the economy. Formalism focuses on market rationality as opposed to socially prescribed behavior that is non-optimizing. It is assumed that humans will not persist in economically inefficient and irrational behavior just because of social constructs prescribing this type of behavior (Ekholm and Friedman 1979, 41). Earle (1982, 2) defines formalists as those who “seek to investigate the outcome of rational decision-making with regard to the choices available to a population.” Cost consideration and economizing behavior are central. However, contrary to the assumptions of some substantivist scholars, formalism is not ignorant of social structures and institutions. Sociopolitical institutions provide certain constraints but individuals acting within these constraints do so in a cost-conscious manner (Earle 1982, 2). Central to formalism is the question of whether individuals decide their actions within the constraints of the existing social institutions, or whether these institutions drive economic behavior. The assumption that formalist perspectives are incongruous with socially embedded behavior is false, and Polanyi’s assumption that markets are asocial and disembedded is not true of all markets (Garraty 2010, 7).

Garraty (2010, 8) defines pre-modern markets as ‘sticky;’ that is to say, it took large changes in supply or demand to cause a market reaction, while smaller changes went largely unnoticed. He goes on to suggest that both pre-modern markets and market exchange can and should be characterized from the perspective of both the formal economic and the socially embedded contexts of economic transaction (2010, 15). Hirth (2010, 245) suggests that prices in pre-modern markets are influenced by supply more than demand, and that production reacts

slowly to increases in demand, due to the slow movement of information and high transport costs.

As long as the individual acts according to economic rationality in choices of production, specialization, trade patterns, etc., a formalist perspective holds. Formalism has also incorrectly been criticized as anachronizing, interpreting ancient economic behavior in light of the modern western economics. While there are cases where this criticism is warranted,¹⁰ too often this criticism equates formalism with capitalism. Not all formal (that is, economizing) behavior is capitalist, and such a viewpoint can lead to the premature dismissal of formalist views. As Hirth states (2010, 229), all economies are embedded; this, however, does not discount the importance of economic motives for behavior, or imply that they are necessarily of secondary importance to social or political agendas. Other criticisms suggest that in many cases, humans do not act rationally, and assumptions of rationality, economizing, and utility-maximizing behavior often fail to accurately represent human behavior (Stanish 2010, 192). The main problem with formalism is the difficulty of properly weighing the cultural constraints on individual rationality, and explaining for seemingly irrational, or at least economically inefficient, behavior. A critique of Neo-Classical economics in particular, focuses on its assumptions of conditions of perfect competition, perfect knowledge, frictionless transactions, and rational behavior, conditions that do not exist in the real world (Chapman and Buckley 1997, 225).

Models of the Ancient Near Eastern Economy

We will now turn our attention to some specific models for understanding the economy of the ancient Near East in the late Iron Age. These models build on either formalist or substantivist perspectives (or sometimes a mixture of both), and represent the more specific application of broader concepts.

¹⁰ For example Silver 2004.

Models based on a Substantivist Perspective

Command Economy

A command economy is one in which “individual firms produce and employ resources primarily by virtue of specific directives from some higher authorities. The firm’s principal behavioral rule is therefore to execute the commands” (Grossman 1963, 104). As such, a command economy focuses on the role of institutions, mainly “the firm” (which in most cases in the ancient Near East was the palace/empire, or perhaps in certain circumstances the temple) as an agent constricting and dictating economic behavior. Therefore, applications of the command economy usually stem from a substantivist perspective. In most cases the command economy is not absolute, leaving an individual household relatively free in certain choices, but the driving forces are institutions, not individuals (ibid. 105). While a command economy is not, by definition, a non-market economy, this type of organization lends itself to patterns of redistribution by a strong central authority.

One example of this approach to the economy is David Hopkins’ (1985, 1996) reconstruction of a command economy in Judah during the Iron Age. Hopkins focuses on a centralized system of taxation and redistribution of the agricultural sector. Hopkins’ model is based on three assumptions: 1) state control of the production and distribution of the material means of need satisfaction; 2) state maintenance of the social structures linked to the management of the economy; and 3) the coercive power exercised by the state through military means (Hopkins 1985; 1996, 121-2). He assumes a broad redistributive base for the economy, and the state as the major social institution controlling economic action. Whatever trade exists is run by the state-sector, along the lines of what Polanyi would characterize as administered trade. Hopkins’ general model has been followed by other scholars such as Chaney (1989). Hopkins’

focus on agricultural production has come under serious criticism, most notably from John Holladay (2006, 310). Holladay suggests that Hopkins overemphasizes the pervasiveness of a redistributive economy, and further suggests that Hopkins' assumption that Judah had a resource-strapped economy, reliant solely on agricultural production, ignores the importance of Judah's role in international trade, which would have led to a substantial amount of trade-based income. This issue will be discussed further in chapter 2.

A command economy leaves little room for agency outside of the authoritarian center, even in a less than absolute system. As Grossman (1963, 106) notes, command economies do not arise spontaneously; rather they are imposed. If this is the case, what allows the government to impose such a system? According to Hopkins, it is the coercive power of military force; however, evidence for the use of such coercive power by the local Judahite kings is lacking in both the textual and the archaeological record. A further issue is that in a command economy, producers look to the central authority for directives in production. A system of taxation, the evidence of which Hopkins sees as permeating the archaeological record, can exist in market or non-market societies. While taxation is a redistributive transaction, it does not mean that there is any centralized imperative directing production.

While a command economy might accurately describe the inner-workings of a particular state, it is not a helpful characterization for looking at broader regional networks, specifically participants who existed outside the zone of the central authority's control. International trade occurred outside the bounds of the command economy described by Hopkins, and constituted a separate, but important element in understanding interregional economic relationships. Thus a local Judahite command economy is still not a useful model for understanding regional economic dynamics in the southern Levant.

Patrimonial Household Model

The patrimonial household model was discussed most fully by David Schloen (2001), looking primarily at the economy of Late Bronze Age Ugarit, but has been applied more recently to the Neo-Assyrian period by Herrmann (2011), who characterizes Assyrian rule as a patrimonial empire. Schloen builds on the ideas of Max Weber on patrimonialism. According to Schloen (2001, 51), “In a patrimonial regime, the entire social structure is viewed as an extension of the ruler’s household—and ultimately the god’s household. The social order consists of a hierarchy of sub-households linked by personal ties at each level... There is no global distinction between the “private” and “public” sectors of society because governmental administration is effected through personal relationships on the household model rather than through an impersonal bureaucracy.” Patrimonialism is a type of understanding of social relationships, which generates characteristic types of social behavior (ibid. 61). The patrimonial system follows a substantivist perspective in that it focuses on institutions, namely the institution of the household as a model, and the cultural embeddedness of the economic system. The Patrimonial Household Model views economic exchanges as rooted in personal relationships, from small-scale reciprocity and redistribution within the household, to the larger operations of the government such as taxation (Schloen 2001, 64). Schloen goes on to state that “In a patrimonial state characterized by substantive and practical rationality—regardless of its size and degree of centralization—there is typically no real market in basic commodities, most of which circulate instead on the basis of reciprocity and redistribution” (ibid. 79). It is important to note that Schloen applies the Patrimonial Household Model primarily to Late Bronze Age society. He suggests that following the Assyrian conquest of the 8th century BCE major shifts took place in the economic, political, and social structures of the lineage-based system of the southern Levant

due to Assyrian policies such as deportation and forced urbanization. These policies uprooted the existing household structures and disrupted the lineage-based systems (Schloen 2001, 135). Our study focuses on precisely this period, which Schloen (2001, 52) identifies as an ‘axial age,’ involving a shift from patrimonialism towards a rationalized bureaucracy, but he also asserts that while this process begins in the Neo-Assyrian period, it is only later with the emergence of the Greek institutions of the Hellenistic period that the patrimonial system is fully replaced. Returning to Hopkins, while his work precedes Schloen’s and did not interact directly with the patrimonial model, his reconstruction focused on some of the same elements. For example, both emphasize the centrality of the household and clan-based agricultural units within the economic system.

A critique of Schloen is offered by Monroe (2009) among others. Like Schloen, Monroe is primarily concerned with the Late Bronze Age, but his critiques hold true for application to later periods as well. Monroe suggests that Schloen’s Patrimonial Household Model “has been found essentializing, rigid, overly polemical and monocausal” (Monroe 2009, 6). Monroe goes on to suggest that Schloen’s model gives little room for the role of traders or trader-state relations in the economy, and that he presumes an agrarian mode of production without taking into account consumption or exchange (2009, 156-7). Monroe follows instead a modern World Systems approach, looking for links between individual entrepreneurs or traders and state-based institutions, while recognizing the dominance of agrarian production and redistributive systems (ibid. 290).

*Models Based on Formal Principles*¹¹

Mediterranean Market

A Mediterranean market model suggests that in the 8th and 7th centuries BCE a true price-fixing market existed in the Mediterranean world, controlled at least in part by modern market principles and the logic of rational action. This model focuses on the role of individual traders and entrepreneurs. Although Faust and Weiss maintain that the Mediterranean region functions as a World System, with the Phoenicians serving as the core (2011, 198; 2005, 86), they suggest that this system was controlled by market forces. Phoenician trade was the impetus behind the economic system, with demand for trade goods beginning along the coast but percolating inland overtime (Faust and Weiss 2011, 194; 2005). The Phoenicians served as a link between producers and consumers, managing supply and demand and taking advantage of price differentials across the Mediterranean to make profit. Inland production was dictated by Phoenician demand for goods that the Phoenicians knew would yield profit when sold elsewhere (2005, 86). In particular, Faust and Weiss (2011, 195) look at the demand in Egypt for olive oil and wine, which are not produced locally, as a stimulus for increased production of these crops in the southern Levant. Fletcher (2012, 214) agrees with Faust and Weiss, seeing the Phoenicians as part of a World System controlled by market forces. The Assyrian Empire functioned as a large-scale consumer of goods, not as a true economic center – Fletcher (ibid. 217) noting that much of the Mediterranean network of the Phoenicians was beyond the scope of Assyrian political control and taxation. The view of the Phoenicians as the core of a Mediterranean-based

¹¹ While all of the markets are formal, that is based on the prevalence of markets, market principles, and rational, maximizing behavior, they are not all strictly formalist. Some of these models acknowledge the existence of economic activity that may not be bounded by these principles. In these cases, the models are not strictly formalist in that they do not extend rational maximizing behavior to all economic activity within the society. Morris Silver would be an example of a formalist model, whereas the reconstruction of Master and Stager highlights the dominance of formal principles, while not following a strictly formalist perspective.

world economy has been criticized by Momrak (2005), who argues against the presence of infrastructure to support a formal commercial network based on capitalist principles.

Master and Stager (2011, 737) support a Mediterranean market system, but reject Faust and Weiss' World Systems' perspective. Master and Stager base their conclusions primarily on two sets of archaeological data: the excavations of a marketplace in Ashkelon dating to the 7th century BCE, and a pair of 8th century shipwrecks found sunk off the coast of Ashkelon. The marketplace includes finds demonstrative of the weighing of silver in exchange for goods and service, as well as inscriptions dealing with the sale of goods (ibid. 737). The problem with this interpretation, which Master and Stager rightly concede, is that it does not provide a fitting explanation for the entirety of the southern Levant. They note the presence of inscriptions in the highlands that seem to support a more redistributive element of the economy (ibid. 738). What their findings do demonstrate, however, is that least a portion of the economy in the regions tied most closely to the Mediterranean was substantially governed by the market forces of supply and demand. The finding of the marketplace and these inscriptions will be discussed in more detail in chapter 2. An integrative system centered on certain coastal market-based systems linked to intermediate centers in the interior and foothills is in essence an extension of the Port Power model introduced by Stager to explain the economic dynamics of the Middle Bronze Age, as a way of linking different political regions in an economic system (Stager 2001). The port power model is based on clusters of local highland village production centers that converged in regional markets. These regional markets were in turn connected to intermediate markets in the foothills and interior coastal plain, which were then connected to major seaports. These seaports integrated the local and intermediate spheres with the context of international trade (Stager 2001, 625). The Port Power model allows for various economic systems coexisting in each individual

polity, but suggests that market forces were the driving impetus behind interregional economic interactions (ibid. 629).

Morris Silver (1982, 1985) is the strongest supporter of a pure market-based economy in the ancient Near East from a formalist perspective. Silver focuses broadly on Mesopotamia from the 3rd millennium BCE onward; he does not propose a specific model for any particular time or region, but rather attempts to show multiple examples of price-making markets through the ancient texts (Silver 1985; 2004). He then applies the same principle to his interpretation of Israel in the Iron Age in his book, *Prophets and Markets*, where he tries to extend market forces of supply and demand to all aspects of Israelite society (1982). Silver has been accused of being highly anachronistic and modernist in his approach (Nam 2012, 23). In general, Silver's attempts to show market principles at work in the ancient Near East are highly flawed methodologically. He uses textual references that jump across all regions and time spans, with no attempt to unite the data into a single functional system for any period or region. He seems to focus on proving formalist ideals by showing singular examples of formalist behavior, and then applying them broadly to all aspects of economic life, with minimal treatment of any data to the contrary. In his careful examination of prices in the Neo-Assyrian Empire, Fales (1996) offers a much more balanced approach. He notes (1996, 25-6) that price "operated as a vague conditioning force, as a commonly recognized and accepted mechanism which provided general guidelines in space and time for the transaction. Certainly this is a far cry from the reality of a "market economy" *stricto sensu*, but it is admittedly equally remote from the concept and practice of uncontrolled and unconditioned barter."

What is clear from these models is that any model which attempts to ignore the presence of market forces (which we will discuss in the following chapter) as part of the reality of the

Neo-Assyrian world ignores a significant component of the data set. Markets clearly existed and were an important part of the economy of certain parts of the interregional network. This being said, there is no overarching formalist model that adequately explains the totality of economic transactions taking place in the first millennium BCE Near East.

Tax-and-Trade Model

The tax-and-trade model comes from a formalist understanding of economics that sees imperial taxation as a stimulus for interregional trade. Trade was necessary in order to acquire goods to pay taxes, but at the same time the opportunity arose for the exploitation of newly opened networks by traders and entrepreneurial individuals to increase their own wealth. The tax-and-trade model was first presented by Keith Hopkins (1980) to explain the economy of the Roman Empire. Hopkins' basic model asserts that the imposition of taxes in money by the Romans greatly increased the volume of trade in the empire. Monetary taxes levied on conquered provinces were spent in other provinces or Italy. This required the tax-exporting provinces to earn money to pay their taxes by exporting goods of an equal value (Hopkins 1980, 101). Local economies were forced to increase production, specifically for export to meet these demands, resulting in economic growth around the empire, with most of the tax money consumed by the center, Rome, and her armies stationed throughout the empire (1980, 101). Central to this theory is the issue of money, which will be discussed later in this chapter. Taxes in kind do not produce the same economic stimulus, as there is no need for agrarian-based regions to obtain amounts of money. Whether or not money, in the sense of general purpose money, existed in the 8th and 7th centuries BCE is a matter of debate that will be discussed later. A second key element of Hopkins' model is that taxation levels had to be relatively low, allowing for the opportunity for private profit from the increased trade and creation of new networks stimulated by the taxation

(ibid. 122). The issue of taxation levels in the Assyrian Empire is also unclear, and will be discussed further in chapter 3.

While Hopkins' model of taxes-and-trade is not cited in any models of the economy of the ancient Near East in the first millennium BCE, the assumptions and general outline of the model are used in Holladay's analysis of the economic system (cf. also the earlier work of Olivier 1994, 93-4). Holladay (2006, 2009) focuses on the wealth accumulated by Judah, evident in the tribute sent by Hezekiah to Sennacherib, and searches for the means by which such wealth was acquired. Holladay assumes that silver in the Iron II functioned as modern money, with large quantities available to local kings for the payment of taxes as bullion (2009, 207, 212). Holladay (2006, 310) goes on to suggest that the accumulation of bullion was necessary to pay taxes to the Assyrians, due to the fact that it would be too expensive to move bulk agricultural goods that were the basis of the local economy. Instead of agricultural goods, Holladay suggests that Assyria, knowing Judah had connections to certain trade routes, demanded payment from Judah in the form of luxury goods that could be acquired from the South Arabian caravans or Phoenician traders. This in turn created a stimulus to acquire even more of these trade goods (2006, 311). Strictly speaking, the tax-and-trade model focuses on increased production at home and the subsequent sale of these goods on the market for money, in order to pay taxes. Thus, taxation in-kind of luxury goods, such as Holladay suggests, is not strictly in line with the tax-and-trade model, but operates under the assumption that taxation in imported exotica would have had the same effect on the local economy. Holladay (2006, 310) also supports Hopkins' second assumption by asserting that the tribute was generally not heavy-handed, except in cases of rebellion.

Ryan Byrne (2003, 20) offers another formulation of a taxes-and-trade model. Byrne focuses on the Arabian caravan trade and the luxuries available in this trade, asserting that “Israel, in fact, restructured its political economy to facilitate the acquisition of luxury goods explicitly demanded by Assyria.”

The first problem with the taxes-and-trade model in its application to the 8th and 7th c. southern Levant is its assumptions: low taxation rate and the use of money in taxation. Holladay, Olivier, and Byrne circumvent the issue of money slightly, suggesting that rare preciosities and luxury goods serve a similar function in stimulating the exploitation of new networks, leading to the enrichment of astute individuals, and the state. Additional criticism has been raised by Van Minnen, who attacks the tax-and-trade model’s applicability to the Roman Empire, but whose critiques are also viable for any earlier application. Van Minnen (2002, 208) asserts that Hopkins presupposes that the regions taxed in money earned back the money to pay for future taxes via trade. He offers the alternative that these regions became poorer and poorer, due the nature of the one-way transfer of taxation. Holladay counters this critique by looking at tribute paid over time. While the main focus of his article is the tribute paid by Hezekiah to Sennacherib, he also notes earlier payments to judge recovery rates and to suggest that Judah was replenishing its wealth, not getting poorer (Holladay 2009, 208-210). Van Minnen (2000, 208) also suggests that Hopkins mistakenly posits a causal link between money, taxes, and trade. He suggests that rather than creating new networks, the Romans discovered existing networks that they then shared the profits of through taxes. This re-formulation of the model fits well with Holladay and Byrne, who suggest an intensification of exploitation of the Arabian caravan and its preciosities rather than taxes as a stimulus for the discovery of this trade. A final major underlying assumption of Holladay and Byrne is that the Assyrians demanded luxuries not available locally, thus serving

as a stimulus. There is no evidence, however, that the Assyrians demanded foreign goods as taxes with this intent. The lists of tribute cited by Holladay refer to goods on hand. As such, they represent wealth that Judah had accumulated, but not necessarily at the direction of the Assyrians. If Judah had no luxuries or preciosities there is no evidence that this would have led to repercussions. Judah accumulated luxuries for itself, under its own motivations, and then was forced to give them up as the price for rebellion against Assyria. That Assyria accepted what was on hand is clear in Liverani's analysis of the annals of Ashurnasirpal II. In these texts, there is a large distinction between the amounts and quality of the goods taken as tribute from the various conquered regions, which Liverani (1992, 155-62) relates convincingly to the wealth and development of the region being conquered. This aspect of Assyrian policy will be discussed further in chapter 3. Since the existence of money is a central issue to the tax-and-trade model, it is appropriate to include a brief excursus into the question of the existence of money in the Neo-Assyrian period.

Excursus: Money

The first issue in regard to the presence of money is an analysis of Polanyi's substantive and formalist meanings of the term. According to Polanyi (1957, 264), "the catallactic definition of money is that of means of indirect exchange. Modern money is used for payment and as a 'standard' precisely because it is a means of exchange. Thus our money is 'all-purpose' money... The substantive definition of money, like that of trade is independent of markets. It is derived from definite uses to which quantifiable objects are put." Polanyi sees the uses of money as payment, standard, and exchange, to which Dalton (1975, 85) adds hoarding. Payment is defined as "the discharge of obligations in which quantifiable objects change hands." Standard is the accounting use of money, and is used in equating amounts of different kinds of goods.

Money as exchange comes from the need to quantify objects for indirect exchange (Polanyi 1957, 264-5). Thus, Polanyi (*ibid.* 266) concludes that early money is special purpose money, and different kinds of objects can be used for different uses of money. Dalton (1975, 85) notes the key to special-purpose money is that it is not universal and its use is predicated on specific sociological or economic situations.

Polanyi (1957, 202-5) further divides money into commodity money and certain money. Commodity money is a commodity, such as a precious metal or food for example, that happens to function as one of the uses of money. He cites gold and silver as the most common forms of commodity money. Certain money is a means of payment not exchange, and represents purchasing power. It has no inherent value or utility outside of its function as a counter embodying claims to things purchased, eg. paper money. According to this formulation, certain money did not exist in the ancient Near East; however, nor did it exist in the classical period either, for which Hopkins developed his tax-and-trade model. Thus, the difference between commodity and certain money is irrelevant to that discussion, and any money that exists should be considered commodity money. What remains to be seen examined is if any commodity functioned as “all-purpose” money or only as “special-purpose” money.

At this point it is helpful to move beyond Polanyi, although we will return to him shortly, to look at other definitions of money, and more precisely the difference among currency, money, and coinage. Balmuth (1975, 293) sees this process as essentially comprising the transition from valuing, to weighing to stamping, which serves as a good broad framework for understanding the transitions. It should also be noted that the development of ‘money’ is a process, and that there are overlapping stages of development. Just because one society uses a commodity as “all-purpose” money, does not mean that everyone within their economic network does as well. On

the one hand, we agree with Kletter (2004) that a broad definition of money as “a means of speaking about primitive exchange” is unhelpful, and by this definition money has been around since the Bronze Age, and existed in most societies. On the other hand, Kletter’s (2004, 207) attempt to define money as “coins before coinage” ignores the diversity of standards and equivalencies (such as cereals) used before silver’s rise to prominence in the 7th century BCE. To distinguish among currency, money, and coinage, Thompson (2003, 87) applies the definitions of Seltman that currency is metal when used to facilitate the exchange of goods, money is currency used to specific weight standards, and coinage is money stamped with a device. These definitions clearly follow Balmuth’s progression of valuing, to weighing, to stamping. By these definitions, however, there is no stipulation that money functions as “all-purpose” money. It should also be noted that Seltman’s definition of currency and money as metal is difficult. Powell (1996, 224) distinguishes between cheap money and expensive money, with cereals or barley functioning as cheap money. Cereals certainly fulfill the function of ‘standard’ as defined by Polanyi, even if they lacked the liquidity to be brought to market for the function of payment.

Scholars who support the presence of money in the Neo-Assyrian period focus their attention on the role of silver. Silver is by far the most common metal mentioned in economic texts in use as payment, standard, or exchange, and the hoarding of silver is attested archaeologically. Textual sources provide the best evidence for the various uses of silver outside of hoarding. Significant to this study are the Assyrian documents, which provide an indication of the broader uses for silver in the ancient Near East, and more importantly ostraca from the southern Levant, which show its use locally.

Thus, in her analysis of the occurrences of money in the Neo-Assyrian texts Karen Radner (1999a, 128-9) notes that in the Neo-Assyrian period three metals are used as money:

copper, bronze, and silver, with copper and bronze serving as ‘low-range’ money and silver as ‘high-range’ money. Copper is the more commonly attested currency in the 8th century, but by the 7th century silver is used almost exclusively. These data are also supported by Fales’ study of prices in the Neo-Assyrian period (1996; cf. also Gaspa 2014). Fales, Gaspa, and Radner look extensively at the available economic texts recording sales. From their work it is clear that silver functions as a form of payment, as a standard, and in indirect exchange.¹² Examples of the hoarding of silver are well known from the archaeological record, with lists of excavated silver hoards compiled by Thompson (2003) and Gitin and Golani (2001). Gitin and Golani (2004, 204) also cite the use, in ostraca from Ashkelon, of silver for the payment. Thus, even though multiple commodities filled the role of “special-purpose” money, at certain times silver may have served as both a commodity and in the role of “all-purpose” money. This does not mean that silver always functioned as money, and that references to silver in the textual record can always be equated with money. In Assyria it was possible to use silver to fulfill multiple money uses, but other commodities functioned in a similar manner, particularly in the 8th century where Fales and Radner note the prevalence of copper as a standard and a form of payment (Fales 1996, 17-9; Radner 1999a, 128-9; Müller 1997). Attempts such as Holladay’s to understand all silver, and in fact any metal, in monetary terms miss the point that silver money was not the only material to fulfill monetary functions, and that many preciosities were valued as luxury commodities, and not solely in terms of their ‘worth in silver.’

¹² For silver as a standard see Radner 1999a, 130; Fales 1996, 12. For silver as a payment there are numerous examples, for goods and services recorded in Fales 1996, chart 1. Silver as a means of indirect exchange is less common, but is attested in the use of financing trade ventures, with no contact between the buying and selling parties, see for instance Galil 2006.

World Systems Theory

World Systems Theory can be supported by both substantivist and formalist perspectives. The world empire is akin to a command economy, and focuses on the institutions directing a flow of goods to the core. On the other hand, Faust and Weiss (2011) apply World Systems Theory to their formalist perspective, focusing on markets and Mediterranean trade.

A common derivation of the command economy focuses on the imperial rulers, the Neo-Assyrian kings, as the authoritarian center, rather than a local scale. This view of an Assyrian command economy is often very closely linked to World Systems Theory. World Systems Theory was first introduced by Immanuel Wallerstein (1974) in order to describe and account for the rise of capitalism and the dominance of the European economy. For the parameters of his study Wallerstein focused on large-scale or “world” social systems that contained a multiplicity of interconnected cultures. These world systems consist of a strong central entity (or entities) or core that extracts surplus from a weaker surrounding periphery (cf. Champion 1989). Wallerstein separated World Systems into two sub-categories: the world empire, where a single entity dominated these interrelated societies; and the world economy, in which no such dominant political structure existed. It is the latter that is the more problematic in regard to the Neo-Assyrian Empire. Wallerstein (1974, 15) considered the modern European economy to be a ‘world economy’ because the links between the parts of the system were economic, as opposed to a ‘world empire’ which functioned as a political unit. Whereas the world economy was a modern invention, empires have existed for thousands of years, using political strength to guarantee the flow of economic goods from the periphery to the center by force (ibid. 15-16).

A world-empire is one in which “the inter-societal division of labor is encompassed by a single overarching imperial polity” (Chase-Dunn and Hall 1991, 6). As such the basic underlying

principle of World Systems Theory is as asymmetrical exchange between a dominant core and its periphery. The core uses the asymmetrical relationship for its own enrichment.

On the surface some argue this notion of core perfectly describes Assyria (cf. Bagg 2013; Allen 1997; Schloen 2001, 52). According to this model, the Assyrians control production to ensure the continued asymmetric flow of goods from the periphery to the Assyrian center. The World Systems approach, as reconstructed in relation to the Neo-Assyrian Empire, focuses on the Assyrian desire for economic gain and exotic goods (Bedford 2009, 46; Olivier 1994), a collection of what Hunt describes as one-way transfers (2005, 291). The Assyrians certainly participated, at least in part, in a tributary mode of production. This is evidenced through the long lists of booty recorded in the Assyrian royal inscriptions.

However, scholars such as Faust and Weiss (2005, 2011) have argued that Assyria makes a poor core. While they agree that there is a level of asymmetrical exchange between Assyria and its vassals (the periphery) used to enrich Assyria, there are a host of other transactions that are not described within this model. They argue that the Mediterranean trade and the Phoenician traders are a better core of a true world economy (note, not a world empire). Thus, even though Assyria can be categorized broadly as a world empire, this designation only describes a fraction of the transactions in the periphery, and is not a useful framework for understanding the totality of economic activity in its political periphery (as we will discuss presently).

In its original formulation, Wallerstein never intended for World Systems Theory to describe ancient economies. It was only under the direction of later scholars that World Systems Theory was examined for its applicability to ancient contexts. Naturally this shift led to certain changes in Wallerstein's formulation. Notable in this regard was the work of Jane Schneider (1977). Schneider's primary contribution was suggesting that long-distance trade in luxury

goods, which Wallerstein had discounted as unimportant, in fact was central to social change in pre-capitalist societies (1977, 50). More recently Chase-Dunn (Chase-Dunn 1990; Chase-Dunn and Hall 1991; Chase-Dunn et al. 2006) has repeatedly argued for the viability of World Systems theory as explanatory for ancient societies, although scholars such as Stein (1999, 25) have argued that at this point so many changes have been made to Wallerstein's theory that "they have eliminated its specificity as an explanatory construct and reduced the term "world-system" into little more than shorthand for "interregional interaction system" (cf. also Boer 2015, 23).

While World Systems Theory has come under much criticism in recent years (for example Stein 1999), it is seen as having its greatest potential when dealing with empires operating under a tributary mode of production. A brief review of Assyrian texts shows Assyria's implementation of a tributary system, but this does not mean that all economic activity within the boundaries of the empire can be described in this manner. The attractiveness of a World Systems approach to the Neo-Assyrian Empire is understandable. The textual and art historical record demonstrates an asymmetrical flow of goods to the center, due to the politically dominant, exploitative nature of the Assyrian core, in a classic ruler-ruled dichotomy.

The clearest example of a World Systems Theory command economy model is presented by Gitin in relation to the role of Assyria in the production of olive oil at Ekron. Gitin (1997, 78) describes the moving force of the Assyrian expansion as an "aggressive policy of economic exploitation, by means of which the core area, Assyria, dominated its contiguous periphery in the eastern Mediterranean basin" thereby attributing the industrialization of the site to an Assyrian directive for the mass-production of olive oil there (Gitin and Dothan 1987, 216). In general, the need to bring more raw materials, manufactured goods, luxury items, and silver was central to Assyrian foreign policy (1995, 61). This, however, is an example where the command economy

is not necessarily a non-market economy. Gitin sees a large role for a silver-based monetary economy, run through the Phoenicians for the benefit of the Assyrians (Gitin and Golani 2001). The Phoenicians themselves were also part of this World System. Gitin (1995, 63) asserts that Assyrian policy stimulated and fostered a new economic system of worldwide commerce and trade, to which the Phoenicians were central. Phoenician commercial expansion westward was a response driven by Assyrian interest in luxury goods and precious metals, and served the interest of the Assyrian core as its “commercial surrogate” (Gitin and Golani 2001, 40; Gitin 1997, 78-9; Gitin 2012, 244, cf. also Markoe 2000, 96).

Mitch Allen (1997, xxi) also follows a World Systems Theory model, but approaches the topic from the perspective of the periphery, specifically examining actors such as the Phoenicians, Philistines, and Arabs. Allen sees these semi-peripheral polities as acting in two World Systems, one belonging to Assyria and another belonging to Egypt. Allen follows World Systems Theory, not as originally suggested by Wallerstein, but according to the modifications to the theory made by Chase-Dunn and Hall in an attempt to bypass the problems of applying Wallerstein’s formulation to situations for which he did not intend it to cover. Allen supports a substantive view that the world empire established by the Assyrians was based predominantly on the tributary mode of production (redistribution). Trade consisted of only a minor part of the total economy, and was not important in the larger picture (Allen 1997, 25-6). Cline follows Allen’s model, but applies it to areas of the northern kingdom of Israel, namely the Jezreel Valley and Megiddo (Cline 2000, 10), despite the fact that these were securely part of the Assyrian provincial system from the latter 8th century until the demise of the Assyrian Empire in the late 7th century BCE.

Faust and Weiss (2011) also present a World Systems Theory model, but from a formal perspective. Faust and Weiss see the Mediterranean world not as a world empire, bound by the Assyrian military might, but as a world economy with its center in Phoenicia and with its commercial links controlled by the Phoenician traders (Faust and Weiss 2011, 197-8). Despite the politically superior Assyria, it is Phoenicia, through its economic control of the Mediterranean that unites the region into a single system (ibid. 196-7). Fletcher (2012, 214ff.) follows the conclusions of Faust and Weiss in suggesting that the Mediterranean functions as a World System, driven by a Phoenician core. In doing so, he discounts the role of the Assyrian Empire and their desire for precious metals and luxury goods, as a stimulus for Phoenician expansion and trade. In many ways Faust and Weiss, as well as Fletcher, are reacting to the work of Frankenstein. According to Frankenstein (1979, 270-1), the Assyrian Empire sought to re-orientate economic activity and trade towards the Assyrian center, primarily through its tributary demands. The Phoenician cities were thus forced to expand their trade networks westward into the Mediterranean to meet the demands of the Assyrian Empire (1979, 273). In so doing, Assyria maintained its role as the core and Phoenician expansion and trade were merely a function of Assyria's demands. Faust and Weiss and Fletcher disagree with Frankenstein regarding the role of Assyria, preferring to dismiss Assyria as nothing more than a bully with no real influence over the economic behaviors of the Phoenician city-states (Faust and Weiss 2005, 85; Fletcher 2012, 215).

Faust and Weiss emphasize formal behavior by suggesting that market forces and the economizing actions of Phoenician traders in a Mediterranean market were the driving force of the 8th and 7th century economy of the ancient Near East. This conclusion re-emphasizes that nothing inherent in World Systems Theory is either substantivist or formalist (cf. eg. Ekholm and

Friedman 1979, 48ff). When aspects of the central power of a world empire, such as a tributary mode of production or a command economy, are highlighted, World Systems Theory tends to follow a substantive perspective. When issues of trade as part of a world economy are highlighted, then the model can be applied according to more formal principles. Indeed, this is evident in Wallerstein's original formulation of the theory for modern Europe. Monroe (2009, 21) summarizes this perspective well, stating that "Current world systems theorists study how interregional information networks form and how economic structures spread and affect each other. They look at economy not as a unitary system but at the different modes of wealth accumulation practiced in structures from state down to the individual household. Importantly it does not assume that the dominant mode of accumulation determines how all social groups acquire wealth."

The problems in analyzing the Neo-Assyrian economy are not inherently embedded in World Systems Theory, but rather in the underlying assumptions that accompany much of the scholarship in this field. Stein states that "the World Systems model emphasizes the role of long-distance trade dominated by the core area as the main factor explaining both the political economy of the periphery and its trajectory of developmental change" (1999, 1). What is important in this quote is that Stein focuses on what World Systems Theory *emphasizes*, not on what it *necessitates*. This distinction is important, but also relevant is what is being emphasized. For it is precisely these emphases, or assumptions, that have clouded reconstructions of southern Levantine economic systems, focusing as they do on Assyria as the source and impetus behind the political economy of the Southern Levant and its development. By addressing some of these assumptions, we can arrive at a better understanding of the regional economic system in the southern Levant.

Four key assumptions underlie much of the core-periphery based scholarship on the Neo-Assyrian provincial economy: 1) a passive periphery; 2) radial model; 3) top-down, substantivist economy; and 4) primacy of imperial structure over local agency. None of these factors is necessitated by World Systems Theory;¹³ however, they are certainly implied. These implications, even though left unstated, are evidenced in the scholarship based on a World Systems understanding. At the same time we would like to argue that these four assumptions have contributed to the misinterpretation by certain scholars of the economic system of the southern Levant.

A passive periphery model assumes that the driving engine of the political economy and change comes from the core. Such assumptions are apparent in the work of Gitin (1997) and Eitam (1996), evidenced through quotes such as the following (regarding the olive industry at Tel Migne): “Great political power is essential to establish and operate an agricultural industry and commercial enterprise on such a scale. It is doubtful that the local rulers of Ekron had such power” (Eitam 1996, 184). He goes on to conclude that, therefore, the Assyrians must have been the power behind the industry. Gitin (1995, 230-1) similarly attributes the olive oil industry to Assyrian administration, detailing the reasons Ekron “was chosen” as the site for this industrial center (for a counter argument see Na’aman 2003, 87). Even the prosperity of economy is assumed to be the result of a *pax Assyriaca* imposed on a passive periphery (for examples see Gitin 1996, 230; Finkelstein 1995, 152; Na’aman 2003, 83). Finkelstein (1994, 173) perhaps best sums up this assumption stating: “The prosperity of Philistia should be attributed to economic advantages under Assyrian domination.” While we agree with Na’aman’s (2003, 87) assessment,

¹³ At least I should say not in its current existence as an archaeological theory; that is not to say individual theorists, or even Wallerstein himself would agree, but given the expansion and nuancing of the theory, especially at the hands of Chase-Dunn (1991) and Hall (1999) I would argue that in its current iteration a World Systems model could potentially account for all of these factors.

“that Assyria acted above all to advance its own economic interests, not to benefit its vassals,” we would emphasize that the method by which Assyria advanced its economic interests is important. Local taxation was enough for Assyria to benefit, and while the best interest of its vassals was not Assyria’s priority, it does not mean that it was impossible for vassals to build profitable, productive systems on their own within an Assyrian political framework (Na’aman 2003, 87 n.11).

The second problem is an assumption of a radial model. Radial models are those in which lines of interaction either radiate from, or flow into a core (Jennings 2006, fig. 1). The pervasiveness of radial models in most analyses of interregional interaction (World Systems based or not) has been aptly pointed out by Justin Jennings in his study of the Wari State in Middle Horizon Peru (2006, 347-50). In this article, Jennings details how such models cause scholars to overlook activity that is not directed to the political core. Overlooked activity may include trade between various peripheral polities, or even with other cores to whom they are not peripheral. In the case of the southern Levant, key examples of non-radial exchange exist between Judah, Philistia, Phoenicia, Egypt and perhaps the Phoenician colonies (see for example Faust and Weiss 2005, Elat 1978, Weiss and Kislev 2004, Finkelstein et al 2011). Rather than ignore these data, or attribute it all to the imposition of Assyrian policies (Frankenstein 1979, 290-1), we can use a non-radial approach to illuminate the larger activity of an active periphery (cf. Flad and Chen 2013, 7-13).

A third underlying assumption is a top-down, often highly substantivist command economy. Whereas work has been done to remove the link between substantivism and World Empire (Ekholm and Friedman 1979, 48ff), a top-down focus that highlights the redistributive nature of Assyrian taxation systems permeates scholarship on the southern Levant. This is seen

in various models of Assyrian economic imposition and taxation that we will discuss in the following chapters including Gitin's interpretations of the olive oil industry at Ekron (1997, 87ff), Frankenstein's analysis of the motivations of Mediterranean Trade (1979, 290-1), or Finkelstein's understanding of the caravan trade (1995, 152). The substantivist assumption relies on a taxation-based system and locates agency with the Assyrian desire for goods, rather than in formal principles such as supply and demand.

The final assumption reflected in the scholarly literature regarding the economic structure of the southern Levant is that imperial structure overrules local agency. When searching for agency we must also evaluate how actions are constrained by cultural structures. In many cases, individual choices are severely limited by these structures. The Assyrian administrative structure has been seen as one such constraining element, making choices for local individuals. A commonly cited example of this is found in one of the Nippur Letters to Tyre (*SAA 19*, 22), which forbids the Tyrians to trade with Philistia and Egypt. Another example is the establishment of the Assyrian trading posts, or *kārus*, as a mechanism for enforcing imperial structure in the periphery. In this case, perhaps too much stock has been put in the textual evidence. Part of Assyrian imperial propaganda includes rhetoric of imperial domination. As part of this rhetoric the Assyrians wanted to be viewed as a power that fully dominated the lives of its vassals (Holloway 2002, 80). However, these texts must be read critically for what they are – royal propaganda, and as such they reflect an ideal, not an actuality. The archaeological evidence and administrative documents do not coincide with the Assyrian ideal, and seems to suggest a greater deal of individual freedom to act within, or in resistance to, the system than the Assyrian documents portray (see Holloway 2002, 97).

Beyond the Substantivism vs. Formalism Debate

As we have seen in the previous discussion, the models based on strictly substantivist or formalist grounds fall flat when trying to provide a broader framework for understanding the economy of the southern Levant in the 8th and 7th centuries BCE. Each ignores important aspects of the economic system, whether it is the markets and the Mediterranean trade, or the importance of the palace or the empire as a ruling institution. This is partly due to the fact that, in reality, substantivism vs. formalism is a false dichotomy, an overly simplistic division that more recent theory has moved beyond, preferring models that seek to understand the co-existence of markets and institutions and accounting for the role of the individual within an institutional framework. We have already seen how World Systems Theory, as a broad framework, is neither substantivist nor formalist, and has provided a framework used by scholars from both perspectives. Similarly, the Port Power model, despite suggesting that market principles govern interregional interaction, allows for non-market regional behavior.

Stark and Garraty (2010,34) emphasize the complexity of society, noting that multiple mechanisms and spheres of exchange operated simultaneously. As such, they assert that one should expect “no single economic mechanism in ancient states, but rather a range of mechanisms in dynamic relationships propelled by different interests and loci of decision-making. This is particularly true for expansionist states and empires in which new provinces may have had different economic emphases from the imperial core. Tribute or taxes and usually labor service funded the ancient state, but the importance of other mechanisms, such as market exchange, was rather variable” (ibid. 47). This is certainly true for the Neo-Assyrian Empire, which integrated many previously independent territories, operating under a variety of economic mechanisms. Garraty (2010, 6, 18) highlights the co-existence of market and non-market

exchange in pre-modern society, and rather than study presence or absence of markets, it is more useful to study the scalar change of market principles within a society. Hirth (2010, 229) echoes this sentiment, writing that “Economies are multifaceted and dynamic entities composed of an array of different production, distribution, and consumption activities. As a result, characterizing societies as either market or non-market economies is an oversimplification of the diverse socioeconomic institutions that compose society.”

Based on his studies of South India in the 16th-18th century CE, Washbrook (2010, 267-271) suggests that the subsistence and the market economy are interpenetrative. More important than focusing on any one element is the notion of hybridity, examining how market and non-market factors work together to sustain economic structures over a long period of time. Despite the fact that Washbrook’s case study is far removed geographically and temporally from the southern Levant in the late Iron Age, his observations are still valid, especially to a system that shows evidence of both market and non-market forces acting simultaneously. Gommans (2010, 3) recognizes the applicability of Washbrook’s concept broadly to the ancient Near East, highlighting that a dichotomy between tributary empire and markets does not hold up in reality. These ideas have slowly been filtering their way into studies of the ancient Near East. Recently, Roger Nam’s work (2012) on the economy in the book of Kings argues for a ‘mixed-economy.’ In his book, Nam brings forth a number of texts from the Bible, with examples that clearly show market forces at work alongside redistribution and reciprocity in the Iron Age. While the book contains a wonderful discussion of relevant biblical texts and accurately notes that the Bible reveals a complex set of economic realities, Nam is unfortunately handcuffed by his theoretical framework. Nam constructs his argument based strictly on Polanyi’s modes of exchange, assuming that Polanyi’s paradigm is the only applicable model for describing a culturally

embedded economy such as the one revealed by the biblical texts. This assumption drives Nam's attempt to describe the economic activities in the book of Kings according to Polanyi's categories of exchange: reciprocity, redistribution, and market exchange. After a study of the texts, Nam concludes that the economy is both market-oriented and culturally embedded, leading to his conclusion that the economy is mixed. In this conclusion he is undoubtedly correct. Unfortunately, Nam's framework only allows him to describe the types of exchange revealed in the book of Kings, and not to provide an explanatory framework for understanding how and why these modes of exchange co-exist; that is, how cultural embeddedness interacts with individual rationality. As such, Nam provides a very useful first step with a detailed description of economics as described by the book of Kings, but unfortunately his reliance on Polanyi prevents him from expanding to models with more explanatory power (an example of which we will discuss below).

In his analysis of Late Bronze Age trade, Monroe (2009) also moves beyond a substantivist-formalist debate to engage with how market and non-market forces interact. Monroe (2009, 7) suggests that "economies are too complex to be described by a single model of control or ownership and that trade had culture-specific rules falling outside of formalistic model." Monroe (ibid. 15-21) attempts to construct a model that links entrepreneurs and institutions, looking at the practice and organization of entrepreneurs. He claims to work within a current World Systems framework, following particularly modifications suggested by Chase-Dunn and Hall. Monroe focuses on how economic structures spread and affect each other and on the economy as a conglomeration of different interrelated modes of wealth accumulation, rather than a unitary system. Based on this research, Monroe concludes that trade was organized according to both rational and traditional rules, which cannot be easily separated, and that profit

and traditionalism were not mutually exclusive ideals. He goes on to assert that profit-seeking existed as a mode of accumulation, but was secondary to the more dominant modes: agrarian production and the extraction of taxes and tribute (2009, 286-90). While Monroe is dealing with the Late Bronze Age, his integration of market and non-market forces, institutions and entrepreneurs, provides a framework for how these factors can interact within a broader system that is equally viable, with modified application of the historical details, to the Iron Age. In this work, Monroe also highlights the biggest problem with the theoretical framework he claims to support: World Systems Theory. We mentioned above that World Systems Theory has shown a remarkable flexibility in crossing between substantivist-formalist lines, and here it is applied to a case-study moving beyond that dichotomy. However, it is also apparent that World Systems theory is so broad that it has lost any nuance as an explanatory tool, and is merely a framework in which one can take almost any other theoretical position. This in itself is not problematic, and Monroe's model is useful, but not because of his application of World Systems principles, but for his integration of institutions and individuals within a broader economic system. By removing the umbrella of World Systems Theory, Monroe could apply more intentionally his institutional approach, with more nuanced results.

Finally, Master (2014) has recently suggested an institutional approach for examining the economy of the seventh century in the 8th-7th centuries BCE. Master highlights an approach that examines how various institutions, including markets, the palace, the temple, and foreign trade, work together to provide various avenues for subsistence, or to achieving greater prosperity. The application of New Institutional Economics in this article is preliminary, but promising for the development of a model that highlights the complementary roles of various institutional and individual motivations in a single system. Master's focus on multiple societal spheres, each with

their own economic logic, builds on the attempts of Stark and Garraty (2010) and Hirth (2010) to define economies as diverse and complex with numerous mechanisms interacting simultaneously. At the same time, he reconstructs these spheres as overlapping, following Washbrook's assertion that economic spheres are interpenetrative. This is the advantage of the New Institutional perspective. It allows for multiple interacting and competing systems, governed by different societal spheres, each with their own dynamic logic. Let us look at this new model more closely.

New Institutional Economics

New Institutional Economics has been applied as a theoretical framework to move past some of these substantivist-formalist arguments. New Institutional Economics focuses on issues of social order within a classical or Neo-Classical framework by examining the social and legal rules that regulate and enable economic action (Garraty 2010, 16). It highlights certain fallacies inherent in neoclassical assumptions including: frictionless transactions, perfect knowledge, perfect conditions of competition, and rational behavior. New Institutional Economics also accounts for, and to a certain extent quantifies, these real-life imperfections through the concept of transaction costs (cf. Chapman and Buckley 1997, 225-6).

New Institutional Economics is best associated with the work of Douglas North. The focus, as the name suggests, is on institutions, and as such adopts some of Polanyi's understanding of the cultural embeddedness of the economy. Institutions, according to North (1990, 3), are "the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction." Institutions may be formal or informal and provide structure to reduce uncertainty and dictate incentives in human exchange. Within these institutions stability is often preferred over efficiency. In short, institutions are the framework, or

social context, for human interaction (1990, 3-4). While it is possible for the implementation of New Institutional Economics to devolve into a prescriptive list of economic rules dictated by society and its governing structures, this can be avoided in the case of historical economies by focusing on describing the ways in which societal constraints are observed in our data sets. Master's description of institutions as "stable social forms that allowed the people of the Iron Age to function to economic advantage" (2014, 83). Master highlights three social contexts: the palace; the market, which includes Mediterranean trade; and the trade route, which includes caravans (2014, 83-4). To these we might add the local clan structure and the empire. While some of these contexts are new (Assyria, the south Arabian caravans), others show great continuity with earlier periods (the palace, clan structure, or market), though none of these institutions should be viewed as static.

Beyond institutions, a key focus of North's theory of Institutional Economics is the concept of transaction costs. Transaction costs include the costs of acquiring information, bargaining, monitoring and enforcement of contract, implementing a transaction, and the opportunity costs of the non-fulfillment of an inefficient transaction (Rao 2003, 8). North's major criticism of Neo-Classical economics was its inability to explain the persistence of economic inefficiency. This is because Neo-Classical economics are based on the false assumption of costless and frictionless transactions. In reality, transactions are costly. The world, especially the ancient world, was one of imperfect information and costly transactions. Institutions matter in a system where transactions are costly (North 1990, 11-12). Incomplete information plays a crucial role in what is considered 'rational' decision-making and risk management (1990, 23). Thus, New Institutional Economics highlights a concept of imperfect individual rationality, or bounded rationality. Imperfect individual rationality recognizes the

preferences of economic decision-makers are based on their choices of cognitive specialization and are subject to change over time. Decision-makers are only partially informed, and perfect knowledge is too costly to acquire. In reality, decision-makers have limits in their ability to obtain and process information (Furubotn and Richter 2005, 3-4; Williamson 2000, 600-1). Transaction costs are a major factor in governing the economic logic of a given social sphere, incentivizing certain types of behavior and governed in part by the bounded rationality of that sphere's participants.

North (1990, 27) highlights in particular the costliness of information as a major contributing factor in determining transaction costs, including measuring value, protecting property rights, and policing and enforcing agreements and contracts; costs that are ignored by Neo-Classical economic theory. North also asserts that concepts such as honesty, integrity, and living up to one's reputation can pay off in wealth-maximizing terms, especially over long-term interactions (1990, 42).¹⁴ Since maximizing behavior is difficult in a world of uncertainty governed by imperfect information, risk management strategies are prevalent (1990, 81). North focuses on the individual as the agent of change, but in that the individual responds to incentives embodied within the institutional framework (1990, 83). Not only is information costly and partial, but it is also asymmetrically held, which can lead to market imperfections (1990, 108).

The potential application of this theory to ancient economies is enlightening. It allows for bounded rational individual decision-making, but couches rationality within a number of overlapping social frameworks which limit each decision-maker's access to information. There is no clear and singular 'objective rationality.' Risk management strategies brought about by imperfect information lead to different rational decisions in different social structures, operating

¹⁴ Although this will not completely eliminate opportunistic behavior, which is a major contributing factor to increased transaction costs (Rao 2003, 12; Furubotn and Richter 2005, 5).

in different societal spheres. Thus, North (1990, 9) can claim that “Throughout much of the world’s economic history the opportunities for political and economic entrepreneurs were a mixed bag, but they overwhelmingly favor and promote redistributive rather than productive activity, create monopolies rather than competitive conditions, and restrict opportunities rather than expand them.” Economic behavior is influenced by the incentive structure formed by the governing institutions (North 1998, 79). In many ways, Monroe’s analysis of the interaction of entrepreneurs and state structures in the Late Bronze Age, with its focus on different modes of wealth accumulation, is more an implementation of New Institutional Economics than it is an application of World Systems Theory.

New Institutional Economics is also helpful because institutions are dynamic, rather than static, and therefore this theoretical framework also provides room for change within an economic system. A useful model for understanding change in New Institutional Economics has been conducted by Peter Temin in his analysis of the Roman economy. Temin’s analysis of the growth of the Roman economy hinges on the application of three main principles: Ricardo’s theory of comparative advantage, a Malthusian model for economic growth, and New Institutional Economics (Temin 2012; 2013). The first principle is Ricardo’s theory of comparative advantage, which essentially shows how trade can be beneficial to all parties involved (2012, 55). Ricardo’s theory focuses on comparative rather than absolute advantage. A region with an absolute advantage in production can specialize in the most profitable commodity, leaving room for a region with less absolute advantage to still maintain a comparative advantage in the production of other commodities. An important element in this equation is opportunity cost, that is, the amount of a product not grown in order to produce one that is grown. Trade allows regions to limit opportunity cost, specializing in their comparative advantage and trading

for other produce. The system works provided that the transportation cost is less than the opportunity cost of self-producing the product (Temin 2012, 55-7; 2013, 18-22). Due to the diminishing returns of specialization, regions will often produce a certain amount of goods that they also import (2012, 58). While Temin applied this model to the exchange of grain and wine between Rome and Egypt, the concept can also be applied to other regions and other time periods. For example, Faust and Weiss' (2005) reconstruction of the production patterns in the southern Levant is essentially based on the principles of comparative advantage. This will be discussed further in chapter 2.

Temin's second principle is a Malthusian model of economic growth. Malthusian theory of population change argues that increases in productivity lead to corresponding changes in the population size, so that the level of per capita income remains the same, thus preventing real economic growth (Temin 2013, 221). Increases in productivity tend to occur alongside increases in birth rates. The result is that more resources are distributed across more people and no real economic growth can occur. Malthus argued that the size of the population was constrained by the resources available to feed it. However, the main resource required was land, which is fixed and can only increase production to a limited extent, after which any increase comes with diminishing returns. A larger population tends to result in a fixed amount of produce distributed across more people, and thus each individual becomes poorer (Temin 2012, 62). This can be mitigated by a 'shock' to the Malthusian system. Temin (2012, 65-7) sees trade and maximized production through comparative advantage as providing one such type of shock. However, other shocks include a massive population decrease, such as the Antonine or Justinian plague or the Black Plague in Medieval Europe. This second type of shock leads to death rates that exceed birth rates, resulting in a surplus of resources distributed across a diminished population. It is

unclear that comparative advantage was exploited in the Iron Age to provide the type of shock Temin describes for the Roman world. However, the shock of population decrease is more apparent. While there is no plague, there is a source of massive depopulation of the southern Levant in the Neo-Assyrian period—deportation. In particular, Sennacherib’s deportation of a large part of the Judahite population following his 701 BCE campaign could have produced just such a shock, leaving large tracts of fertile land to be distributed among a depleted population, resulting in greater individual wealth. This will be discussed further in chapter 3.

The third major principle in Temin’s reconstruction of the Roman economy is New Institutional Economics, specifically looking at the idea of transaction costs. Limiting transaction costs is essential to maximizing comparative advantage, which can be lost if transportation costs are too high. Central to minimizing transaction costs for Temin was the *pax Romana*. Temin (2012, 59) notes that transaction costs can never be completely eliminated. When transaction costs are high it may still be profitable to trade in luxury goods, but for trade in bulk staples to be profitable, and to take advantage of comparative advantage, the transaction costs must be lowered significantly. Temin (2013, 218) suggests that as in the modern world, political stability, stable laws, cheap transportation, and widespread education should have promoted economic growth in the ancient world. Roman control over the entire Mediterranean provided just such conditions. A central element was the elimination of piracy by Pompey in 67 BCE. This reduced transportation costs by reducing the risk of loss by making transportation safer and more reliable. Lowered shipping costs allowed for production to be spread across the Mediterranean, making it possible for the entire region to benefit from comparative advantage (2013, 222). While there is no equivalent in the Iron Age to the *pax Romana*,¹⁵ the westward expansion of the Phoenicians

¹⁵ The so called *pax Assyriaca* claimed by many scholars fulfills an idealistic function similar to the *pax Romana*, but did not provide the same benefits to the local economy, a topic that will be discussed in depth in chapter 3.

and the establishment of trade colonies could have substantially contributed to limiting transaction costs for a New Institutional Economics perspective, especially when dealing with issues of imperfect knowledge. This will be addressed in chapter 5.

New Institutional Economics and the Southern Levant

Thus far, we have discussed a number of different models that have been used to describe the economy of the southern Levant in the late Iron Age, and demonstrated how they fail to explain adequately the complex network of relationships in which the polities of the southern Levant participated. One of the major deficiencies in these studies is the failure to adequately synthesize the many necessary datasets that address this question. A more complete treatment of the question must examine data sources from many regions across the Near East: from Mesopotamia, to the Mediterranean sphere, to Arabia. Both archaeological and textual sources must be examined, including both the well-documented (such as the Assyrian royal inscriptions and the Biblical text), and well as the minutiae of the administrative data. New Institutional Economics provides a perfect perspective for integrating these regions. Through its focus on overlapping and integrated societal spheres, each with their own economic logic, New Institutional Economics can account for the variety of economic opportunities provided by these newly emerging players, while at the same time allowing for the continuation of traditional economic strategies governed by long-standing societal frameworks.

In this dissertation we will build a model that for the first time incorporates an in-depth examination and synthesis of the diverse data discussed in the previous paragraph. Models and theory in their essence serve as a mechanism for organizing, understanding, and explaining data. As such, the data itself is the central element of this thesis, and our model is a heuristic device for understanding how the diverse data relate and can be understood as part of a greater whole.

With this in mind, the model for our study is based on two elements. First, we will examine the various participants in the regional economy formed certain social contexts and how individuals within society could use these contexts for advancement. In particular, we will examine local organization, the imperial context provided by Assyrian conquest, and developments in the organization of Mediterranean and overland trade. We will focus on understanding the economic logic of these institutions, and how they interacted with pre-existing institutions. Secondly, we will examine specifically the model presented by Temin to describe factors that influence change and development within the economic system. We will look at how comparative advantage, Malthusian growth models, and transaction costs can not only describe, but explain these developments during the 8th-7th century BCE. We will examine how these concepts re-enforced and changed the economic logic of transacting within the different spheres of society.

In the following chapters we will examine the available archaeological and textual data from the Neo-Assyrian period, focusing in each chapter on one of the different regions that made up the economic network of the southern Levant, and examining the various overlapping economic strategies available through these systems.

We begin in chapter 2 by laying the foundation for the rest of the study on the basis of material culture. Understanding the economy of the southern Levant must begin from the ground up, with a study of the archaeological remains from the southern Levant. We will investigate what these remains reveal about the local governing institutions, and their effect on the economic structures and on the development of the region over the course of the 8th-7th centuries BCE. These institutions include long-standing societal structures that show a great deal of continuity with earlier periods, including the household and palace structures, but also show how emergent

factors, both political and economic, such as the Assyrian Empire or the caravan trade, opened up new opportunities.

In Chapter 3 we turn our attention to the Mesopotamian sphere, examining the role and interest of Assyria--- the imperial governing institution during the late Iron Age. In this chapter we examine the policies of Assyria as they are reflected in the Assyrian textual records, both the royal inscriptions and the administrative records, focusing on what these records reveal about Assyrian involvement and economic interests in vassal and provincial territories during this period. We will also re-examine the material evidence for Assyrian presence in the southern Levant, evaluating how these remains compliment the textual sources with the purpose of revealing how the imperial program introduced to the region a new institution with its own economic logic that could be exploited.

Chapter 4 will examine the south-eastern sphere, focusing on the influence of Arabia and Transjordan on the local economy. In particular, the role of the Arabian caravan trade will be addressed, because it has been highlighted as a major source of revenue for the region. Scholars such as Holladay (2006), Byrne (2003), and Finkelstein (1992), have all addressed the role of this trade in shaping the economy of the southern Levant, both due to the wealth of the trade and Assyrian interest in exploiting it. We will examine whether or not this trade opened up a new social context, and whether or not this institution should be seen as providing yet another opportunity for local inhabitants of the region reflecting its own economic logic.

Chapter 5 will turn to the Mediterranean sphere and examine the role of the Phoenician and Greek traders within this system. Faust and Weiss (2005; 2011) have highlighted the role of the Phoenicians as an economic core of the ancient Near East in this period, while Frankenstein (1979) and Gitin (2012) have focused on their role as agents of Assyrian trade. We will examine

how expansion and the emergence of the Greeks worked to change the economic logic of maritime trade, a trade that had existed for centuries, by finding ways to reduce transaction costs.

Finally, chapter 6 will reintegrate these various pieces, examining the variety of economic opportunities available in the Iron Age and the various ways that different societal spheres incentivized different behaviors and strategies. The development of these paths will then be examined according to Temin's model.

Thus far, we have suggested that previous studies of the Iron Age economy of the southern Levant are too focused on a limited number of factors, whether it is the political dominance of the Assyrian Empire, the economic expansion of Mediterranean trade, or the beginning of the lucrative spice trade. A comprehensive analysis of the situation must take into account all of these factors, in the context of local economic strategies. We have further suggested that the application of traditional economic dichotomies of formalism vs. substantivism are insufficient for describing the complexity of the economy.

In order to address both of these issues we have proposed a model influenced by a New Institutional economics perspective. This perspective is designed to examine the ways in which many different societal spheres created overlapping social contexts, presenting a variety of overlapping economic opportunities including: the palace, the empire, the household, the market, and overland trade. We suggest that Temin's focus on comparative advantage, Malthusian growth models, and transaction costs provides a framework for evaluating changes that incentivize choices in economic behavior among these different spheres. By examining these different spheres, and the economic logic behind them, we can examine a number of simultaneously available economic strategies, and how these social contexts reflect continuity with earlier periods alongside newly emerging factors.

Chapter 2: Local Production, Consumption and Exchange in the Southern Levant

Introduction

The first step to reconsidering economic structure of the southern Levant in the 8th and 7th centuries BCE is a descriptive compilation of the available data. Data come from archaeological excavations and surveys, which provide knowledge of production centers and the distribution of goods across the region that can inform on consumption patterns. Shipwreck data in particular inform on trade routes and aspects and goods involved in exchange. Specific artifacts such as seals and sealings contribute to an understanding of administration and bureaucracy. Survey data provide information on demographics and settlement patterns of the population. General data on geography and climate inform on trade routes, growing conditions, and crop production. In addition to the above categories of material evidence, there are textual data that can inform on political and administrative organization, the realities of day to day transactions, and insight into aspects of the lives of individuals living and working in the larger economic system. There are three main sets of texts available to us from this period: 1) Epigraphic finds from archaeological excavation; 2) Assyrian inscriptions, letters, and other documents (these will be primarily discussed in chapter 3); and 3) the biblical text. The textual sources in particular must be analyzed with care in regard to bias, historical reliability, and applicability to the period and region in question.

We will begin our discussion with a brief overview of the three datasets, first examining the available textual sources that will be used throughout the chapter, and following this with a brief discussion of the broader climate, geography, and demographics of the southern Levant in the 8th-7th centuries BCE. After this introduction we will turn to the archaeological and textual evidence for local participation in each of the main economic activities: production, consumption

and distribution. This discussion will be followed by an examination of the evidence concerning local economic administration and the effects of local governing institutions on economic behavior.

Textual Sources

Epigraphic Finds from the Southern Levant

Of the three main textual data sets available, epigraphic material found in archaeological excavations are often the least problematic, but also the least informative. Many of these texts are simple economic documents whose observations give a small window into activity at the site, with little motivation on the part of the author for falsification; these are often in the form of ostraca, broken pieces of pottery recording brief inscriptions. The major problems associated with ostraca are provenience, especially cases where the finds cannot be securely dated due to poor or secondary contexts (such as surface finds), although these can sometimes be dated according to paleography. Worse are objects of unknown provenience that appear on the antiquities market. While we will generally not discuss unprovenanced inscriptions, there are a few exceptions that are quite relevant to this study.¹⁶

Assyrian Texts

A second set of texts is the Assyrian texts. The Assyrian texts include a variety of genres, from royal inscriptions, to letters, to treaties, to administrative documents. For the most part these will be the focus of chapter 3 because they deal more with issues of Assyrian policy and administration rather than with local economic structures. That being said, it is worthwhile to review some of the issues with these texts here. A primary concern with the Neo-Assyrian texts pertains to the accuracy of the royal inscriptions genre. Assyrian royal inscriptions are a

¹⁶ In the case of these unprovenanced inscriptions we will indicate to the best of our knowledge their origin, and the various arguments for or against their legitimacy.

reflection of the way that the Assyrian king intended to be perceived and the way in which he presented himself before the gods of Assyria and to future kings (Radner 2000, 233; Oded 1992, 2; Younger 1990, 64). The royal inscriptions are celebratory in nature and focus on the achievements of the king (Machinist 1993, 79). In this sense, the texts are full of imperial rhetoric and propaganda. Holloway (2002, 80) describes these texts as creating a “partially fictive corpus of state-controlled knowledge,” which served as a means of propagating a message of imperial identity over time. As such, Holloway goes on to note that “historical information is undoubtedly embedded in these texts and images, but forensic, discursive history was the goal of neither the modern nor the Assyrian propaganda facades” (ibid. 93). Oded likewise claims that “there is a gap between historical truth and the tendentious picture that emerges from the royal ‘official historiography,’ between factual history and a biased presentation of events based on ideological notions (1992, 5). This ideological bias led to Oded (1979, 6-7) to state that “it is well-known that the one-sided material of the royal inscriptions is couched in hyperbole and is frequently inaccurate in detail. Royal inscriptions contain well known exaggerations and even at times misinformation, whereas administrative documents are generally more accurate.” Oded may be overreacting. It is true that the exactness of numbers in the texts can be questioned, since in some cases duplicate accounts of the same event containing numerical differences.

Embellishment, rounding, and symbolic numbers are common (Fouts 1994; Millard 1991; de Odorico 1995). However, we agree with Millard’s argument that the authors of the text may have had access to documents such as administrative lists, and therefore “the numbers are worthy of discussion, not dismissal” (Millard 1991, 221).

Another point of contention is that it was in the interest of the Assyrian king to disguise or hide military setbacks. Laato (1995), in particular, has examined such attempts within

Sennacherib's campaigns. The Assyrian inscriptions and annals were also subject to collation over time, with later renditions modifying and rewriting earlier versions (Tadmor 1997, 330). Such difficulties do not mean that the royal inscriptions are not useful for historical inquiry, only that they must be read critically, especially in regards to specific details and numbers. In fact, most corroborative evidence (other texts, archaeological record) points to the general accuracy of the royal inscriptions. Tadmor (1997, 325-8) suggests that they are based on firsthand accounts, even if they are 'unashamedly biased.' The use of these texts for historical, political, economic, and topographic reconstruction has been amply demonstrated by Liverani (1992) in his work of the campaigns of Ashurnasirpal II.

Letters and administrative documents, on the other hand, deal with the everyday issues of imperial governance. As such, these letters are not subject in the same way to the propagandistic rhetoric that fills the royal inscriptions; they are primarily concerned with individuals, and the actualities of governing. Whereas they do not provide a broader historical narrative or framework, letters have the advantage of preserving a single voice and are addressed to a specific, more clearly defined, audience (Miglio 2014, 12-14). This is not to say, however, that these documents are not without problems of their own. The archives for these texts have not, and never will be fully recovered. Some may have even been intentionally destroyed in antiquity, preventing us from accessing most texts from certain rulers. In any case, the lost texts far outnumber the texts available (Holloway 2002, 94-5). Beyond the problems of partial access, many texts are damaged and broken to the extent that they are only partially legible. Furthermore, beyond issues of preservation, the honesty of the authors is not always secure. Miglio (2014, 17) has noted that letters, in particular, are associated with the potential for deception. Attempts for advancement by tattling are rampant. In addition, attempts on the part of

the writers to explain failures or to aggrandize small achievements, are to be expected. The possibility of outright lying is certainly an option, and according to the letters, a favored strategy among certain officials. Still, the archival documents provide a valuable addition to the history recorded by the royal inscriptions, and one that must be considered in any discussion of Assyrian policy in the provinces.

Biblical Texts

Finally, we come to the issue of the biblical texts. The first issue is that like royal inscription the biblical texts are biased, although in this case the bias is towards a religious agenda.¹⁷ The Bible is a book of theology, written from a certain religious perspective, but set within specific historical contexts. The Bible is a compilation work, written, edited and compiled over many years (many more years than the Assyrian inscriptions, which were also edited and revised over the reign of the king), with the involvement of many different people. This raises an important issue of the possibility of anachronistic data infiltrating texts set in earlier periods.

The first major question is “does the biblical authors’ agenda shape the portrayal of economic behavior?” In response to this question we agree with Nam (2012, 15-16) in his analysis of economic behaviors in the book of Kings that “For the most part, the specific nature of economic exchange remains in the background, neutral to the agenda of the authors and subsequent redactors. Because such exchange mechanisms often have little bearing on the religious motivations, one has good reason to accept its legitimacy as an accurate reflection of the economic structures.” Even in the case of ahistorical events, or local folktales, the economic information is merely part of the background, and thus Nam assumes that these behaviors were

¹⁷ Separating religious from political agendas in ancient texts is not a clear distinction. However in the case of the royal inscriptions, the beneficiary of the bias is clearly the king. This is not the case in the biblical text, where the king often comes across quite poorly. The texts are biased towards a specific theological agenda and interpretation of history.

normative to the compilers (ibid. 16). One can also assume that the compilers, even if done in later periods, had access to valid historical information. As Nam notes (2012, 15), many of the political figures and historical events recorded in the book of Kings conform to the information available from Assyrian sources. The same broad framework can be extended to the prophetic texts. This being said, each passage must be examined individually to determine the possibility of anachronistic data from the period of the redactors. As with the royal inscriptions, we assume that the biblical text is generally informative as an historical source when it is used critically in conjunction with the other available archaeological and textual data; particularly in regards to a realistic portrayal of the economic situation in the late Iron Age.

Climate and Geography

The climate and the geography of the southern Levant play a crucial role in the production and distribution of economic resources. Aspects of the environment, such as temperature, rainfall, topography, soil types, and hydrology all play important parts in the dynamic context of human cultural ecology. Geographical features, such as topography and landforms, play a major role in effective trade and transport routes. Both the climate and geography are elements of the *longue durée*, and remain largely consistent over long periods of time.¹⁸ While arguments have been presented for certain dramatic climate change events accompanying specific periods of collapse and unrest, such as the end of the Late Bronze Age, (Langgut et al. 2013; Weiss 1982) or the collapse multiple societies, including the Akkadian Empire during the late 3rd millennium BCE (Weiss et al. 1993; Rosen 2000; Weiss 2000; Wilkinson 2000),¹⁹ much of the research suggests that although the paleoclimate of the region

¹⁸ While there is certain evidence for occasional significant climate changes, these tend to be part of broader cycles, and while they have a variety of effects (positive or negative) on the inhabitants at that time, they do not tend to change the patterns of the *longue durée*, cf. discussion in Hopkins 1985, 99-108.

¹⁹ Cf. Finné et al. 2011 for an argument against such an event.

featured slight variations in aridity and temperature, in general the climate since the Chalcolithic period has been remarkably similar to the present Mediterranean climate (Dannin 1985, 1986; Finné et al. 2011; Neumann et al. 2007). If anything, the climate during the late Iron Age was going through a warmer, more arid cycle (Issar 1998, 122-3; Finné et al. 3162; Langgut et al. 2015). This justifies the cautious use of more recently collected climatological data, such as rainfall estimates, in discussions of the situation in the late Iron Age. This also means that studies of climatological factors from earlier or later periods still retain some degree of relevance for application to the Iron Age.

The Bible describes the southern Levant as “a good land, a land of brooks of water, of springs and deep water, flowing out into the valleys and hills, a land of wheat and barley, of vines and figs and pomegranates, a land of olive, oil, and honey, a land in which you will not eat bread in scarcity, in which you will lack nothing, a land whose stones are iron, and from whose hills you can mine copper” (Deuteronomy 8:7-9). While this description is clearly intended to highlight the abundance of the land and uses a degree of hyperbole, it gives a good depiction of agricultural yield. To be sure, the hills are hardly loaded with iron, and the nearest copper mines are in the south in the area of Wadi Faynan and Timna, but the description of the agricultural produce is accurate. The olive, grape, date, fig, and pomegranate were domesticated in the Levant, and appear in the archaeological record of the Levant from the Early Bronze Age (Stager 1985, 172; Zohary and Spiegel-Roy 1975).²⁰

The southern Levant is defined as a Mediterranean climate, although within this broader distinction Israel is divided into temperate, semi-arid, and arid zones. The Negev, for example, is located in a semi-arid, desert zone (Jaffe 1988, 79; Herzog 1994, 122). The Mediterranean zone is a subtropical climate characterized by long dry summers and wet cool winters (Hopkins 1985,

²⁰ For a discussion of the geomorphology of the southern Levant cf. Hopkins 1985 55-75.

79). Olive trees prefer this type of environment, and thrive in soils typical of the limestone foothills and highlands of Judah, just beyond the coastal plain. These regions feature warm rocky soils that are easily drained (Stager 1985, 173). The grapevine also grows well in this climate and region. Annual precipitation follows a normal distribution curve and with the exception of the Negev and desert regions to the east, the southern Levant lies above the 300mm isohyet that is the cutoff for most dry-farming, although certain areas in the north receive considerably more precipitation, up to 1000mm. (Hopkins 1985, 85-91; cf. also Jaffe 1988, 85-92).

The Levant serves as a major land bridge connecting Mesopotamia and the Fertile Crescent in the north with Egypt in the south. The major route connecting these two regions, the coastal trunk road, runs up the coastal plain through the heart of Philistia. It then crosses into the Jezreel valley near Megiddo before turning east to Transjordan and fording the Jordan river near Beth-Shean and Pella, before finally turning north towards Damascus, Tadmor, and into Mesopotamia proper (Rainey and Notley 2006, 165) The second major north-south highway, the so-called “King’s Highway,” runs across the Transjordanian plateau, connecting Elath and Damascus, with Elath serving as the major exit point for trade coming from the South Arabian Peninsula (ibid. 41).²¹ Another route connects the King’s Highway and the Mediterranean coast. In later times this was the Petra-Gaza road (Deblauwe 1991, 143; Wapnish 1981, 112-4), although it is unclear what route was used earlier. Gaza has been suggested as the main terminal, with the route passing either through the Negev or the Beersheba valley (Tebes 2006, 46; Allen 1997, 164). Rainey (1993, 148) proposes the main route running from Elath to Gaza via Kadesh-Barnea and Beersheba.

The southern Levant is also connected to the Mediterranean. The Philistine city-state of Ashkelon served as the major regional port in the Neo-Assyrian period, connecting the inland

²¹ For a more complete discussion of roads and routes through the Southern Levant cf. Dorsey 1991.

regions with the world of Mediterranean trade (Faust and Weiss 2005, 78). Access to both the sea and land routes and its position as a land bridge linking Egypt and Mesopotamia are features that have affected the economy and politics of the Levant throughout its history, and this is certainly true of the Neo-Assyrian period as well.

Demographics

The late Iron Age saw significant demographic shifts from earlier periods in terms of settlement patterns, particularly heading into the 7th century. These patterns included an intense move towards urbanization, the intensive settlement of previously sparsely occupied marginal regions, and the depopulation of the Shephelah.

Urban centers and their environs evidence signs of large expansion and growth in the 8th and particularly 7th century BCE (Halpern 1991, 49; Schloen 2001, 135; Gitin 1995, 61; Faust 2008, 177-178). Ekron and Jerusalem serve as the two best examples of the phenomenon. In the 7th century, Ekron grew from a city of about 4 hectares in the 10th-8th century to a city of over 30 hectares in size (Gitin 2000, 562), including the development of the olive-producing industrial area. Jerusalem also saw massive expansion during this period. The city increased in size from approximately 44 dunams²² in the Iron IIA to an estimated 130-180 dunams for the 8th century city, increasing again to as large as 500-600 dunams in the 7th century (Broshi 1974, 23; Young 2012, 42-7; Faust 2005b; 2014).²³ This expansion was sudden and intense, and thus not the product of long-term economic and demographic growth (cf. Burke 2012, 274-5). Broshi (1974, 25) attributes the increase in Jerusalem's size to two influxes of refugees, one group coming from the Northern Kingdom after its fall in 722 BCE, and the second coming from the Shephelah

²² A dunam is a measurement of land equivalent to 1000 square meters. There are 10 dunams in a hectare, which is the equivalent of approximately 2.5 acres.

²³ Geva (2003, 204-7; 2006) has suggested that parts of the city may have been sparsely settled, and therefore although the area of the city increased greatly, the population may not have exploded as dramatically. Na'aman (2007), for example has argued for the more gradual growth of the city over the course of the 8th century.

following Sennacherib's 701 campaign, that led to the destruction of the region (also Burke 2012, Reich and Shukron 2003; cf. Na'aman 2014 for a counter argument). Halpern (1991, 49) also sees the move to urbanization as a result of Sennacherib's campaigns and the subsequent loss of the land in the Shephelah, which Sennacherib gave to the Philistine cities. Gitin (2000, 562) attributes the growth in Ekron to an Assyrian policy of forced urbanization, meant to maximize productive capacity. Schloen (2001, 135) also attributes urbanization to the forceful demands of the Assyrians, likely by resettling deportees in urban areas.

A second demographic shift sees increased settlement in the marginal regions of Judah, in particular the Judean Desert and the Negev. In the Judean Desert there is no record of permanent settlement, with the possible exception of En-Gedi. In the 7th and 6th century a number of farmsteads are established in the Buqe'ah as well as a number of sites along the western coast of the Dead Sea (Finkelstein 1994, 175-6, cf. also Stager 1976; Master 2009, 313; Faust 2008, 170). A similar pattern is attested in the Beersheba Valley, with the foundation of larger sites at Horvat 'Uza, Tel Masos, Horvat Radum, Tel 'Ira, and 'Aroer. Based on preliminary survey data, Finkelstein (1994, 176) suggests that a number of smaller sites also appear at this time. All told, the number of sites in the 7th and 6th century BCE in the region grew to a number far beyond that attested in previous periods (Finkelstein 1994, 176, Faust and Weiss 2005, 74; Faust 2008, 175-76).

Finkelstein (1994, 177) links this demographic shift to the fallout of Sennacherib's 701 BCE campaign, and Judah's subsequent loss of the agricultural land in the Shephelah. He suggests that the expansion into the Beersheba Valley was an attempt by Judah to make up for the loss of productive land and was a necessity for feeding the increased urban population of Jerusalem, which housed as much as 23% of Judah's total population. Finkelstein (1994, 177)

claims demographic pressures forced the exploitation of these previously unsettled marginal areas. Central to his argument is the production capacity of the Beersheba Valley, comprising a suggested optimal production of over 5,000 tons of grain a year, following Herzog (1994, 126-7). This interpretation is followed by Gitin (1997, 79, 83), as well as Faust and Weiss (2005, 75) in their model for productivity zones, which suggested that the Beersheba Valley was part of the bread basket of Judah, serving not only the highlands but areas of the coastal plain as well. As noted by Master (2009, 309), this reconstruction is based on a faulty interpretation of the data presented by Herzog, in that the rainfall measurements are based on what Herzog presents as ‘optimal conditions’ of rainfall that may never have existed. Average rainfall for the region has been measured at 204mm per annum in recent years (cf. Herzog 1994, 125-6; also Evenari et al. 1971, 30-2 for data ranging back to 1920), well beneath the 250mm optimum.²⁴ It is certainly the case that, over an extended period of time, the optimal conditions would not have been met consistently.

Herzog (1994) suggested that the agricultural economy of the region was supplemented by pastoralism. Thus, the Beersheba Valley could hardly serve as a bread-basket for the entirety of Judah and the evidence of farming in the region is better attributed to subsistence strategies of the local inhabitants, with any surplus stored locally against future bad years. Dry farming for subsistence was risky enough, not to mention extensive surplus production (Master 2009, 309). Lipschits et al (2011, 23) follow Master in this interpretation. Master (2009, 310) suggests that the demographic shift is political, rather than economic, and stemmed from a desire to protect Judah’s southern frontier, possibly interacting with the caravan trade. Finkelstein (1994, 178) and Halpern (1991, 61) also note the importance of these trade routes as an added economic

²⁴ As we discussed earlier in this chapter the paleoclimate from the Iron Age seems to have been comparable, and if anything more arid than the modern climate.

advantage to expanding into the Negev. Faust and Weiss (2005, 74) minimize the presence of Arabian trade as a reason for expansion into the Negev, countering that this is certainly not an explanation for expansion into the Judean Desert (cf. also Faust 2008, 171, 174). They see expansion into the Judean Desert as an attempt to access the products of the Dead Sea, such as salt and bitumen (2005, 74), an interpretation followed by Master (2009, 313) for this region. The most likely solution to the demographic changes is a combination of elements, including local interest in the Arabian trade, shifting patterns of nomadism and sedentism in the Negev, and security concerns along Judah's southern border, but this will be discussed further in chapter 4.

In contrast, the Shephelah saw a dramatic decrease in population size in the 7th century, following Sennacherib's campaign in 701 BCE (Bunimovitz and Lederman 2003, 21-2; Ofer 2001, 28-29; Lehmann 2012, 294-6). The Shephelah reached its settlement and demographic peak in the mid-8th century, with at least 276 identified sites. This number drops to 38 in the late seventh to early 6th centuries BCE, following the campaign of Sennacherib, with most of them located on the eastern edge, bordering the highlands (Finkelstein 1994, 173). The area just north of the Judahite Shephelah, the area of the Aijalon Valley, did not see this decline, instead revealing a large number of 7th century farmsteads. The location of this area, outside of Judahite political territory, supports the attribution of this demographic change to the effects of Sennacherib's campaign (Finkelstein 1994, 173; Faust and Weiss 2005, 72). The survey data are mirrored by the destruction of large sites in the area, such as Lachish, Beth Shemesh, and Tell Beit Mirsim (for a list of other destroyed sites cf. Faust 2008, 169).

The Economy of the Southern Levant

Production

Given the climate, the major crops of the southern Levant were grapes (often for conversion into wine), olives (often for conversion into oil), and cereals, the majority of which were wheat and barley (Faust and Weiss 2005; Chaney 1989, 18; Hopkins 1983, 196). Evidence of seeds from all of these crops is well attested in archaeological excavations (see for example Zohary and Siegel-Roy 1975, Weiss and Kislev 2004). Wine and olive oil are commonly mentioned in both the Arad Ostraca and the Samaria Ostraca, which will be discussed later. The production of these goods, particularly wine and olive oil, is well attested in the archaeological record.

Subsistence Agriculture

While much of this chapter will focus on larger scale production centers, it must be noted that throughout the Iron Age II a large percentage of the population was involved in rural subsistence level agriculture, farming to supply the needs of themselves, their immediate family, and clan (Hopkins 1996, Schloen 2001, 138; Faust 2000; Boer 2007, 43; 2015, 54). Evidence for this is found in the extensive excavation of small farmsteads across the highlands of Judah, from the Hebron hills, to the areas around Jerusalem to Benjamin, and the environs of Samaria (Faust 2003, 92-94; Gibson and Edelstein 1985). The majority of these farms show evidence of wine production and to a lesser extent olive oil, although we agree with Faust (2003, 95) that it is reasonable to assume these small farms provided for most of their own needs, while perhaps creating small surpluses for the market. Thus, this large percentage of the highland population followed the traditional economy of dictated by their familial structures. The logic of this economy focused on risk-spreading mechanisms including localized production of diverse goods

and limited trade or surplus production beyond storage against potential bad years. This societal sphere was a direct continuation of the familial household and clan structures of earlier periods, and its persistence as the dominant rural highland institution speaks to the continuity from the Bronze and earlier Iron Age (Halpern 1991; 49-59; Schloen 2001; Hopkins 1985).

Wine Production

Wine production is best attested through the discovery of the pressing facilities in archaeological contexts, most commonly the basins. A general survey of the textual and archaeological remains relating to wine production in the iron II has been carried out by Walsh (2000), but we will summarize the most important sites here. The largest wine production facility is found at Ashkelon dating to the 7th century BCE. The winery at Ashkelon consisted of one large building (Building 776) of which over 400 square meters were excavated. This building contained four winepresses as well as various other storage chambers (Stager 2011, 5). In addition to the wine presses, there were a series of channels leading from the presses to a row of wine jars in an alley running the length of the building (Stager et al. 2011, 14). The winery was a single construction with shared walls, sharing similarities to the ‘industrial’ presses at Ekron (which we discuss later). The dimensions of each of the industrial rooms are roughly comparable to those in the oil facilities at Ekron (Master and Stager 2011, 739-40). The rooms of the winery at Ashkelon also featured a number of loomweights, mirroring the facilities at Ekron and Tel Batash (Master and Stager 2011, 740). Stager (2011, 5-6) suggests that since wine production was seasonal the facility was used in the offseason for textile production.²⁵ Finally, the distribution of ceramic forms and the relative frequency of pottery types are similar at all three

²⁵ A similar proposition has been made for the loomweights found in the Ekron industrial area, cf. Eitam 1996, 174; Gitin 1995, 67.

sites. Master and Stager (2011, 740) characterize these as a cellular system of nucleated workshops.

The winery consisted of two main phases: it was constructed in the middle of the 7th century BCE, and was used to its full potential during that time. However, at some point in the late 7th century the winery was remodeled. During this remodeling process one of the northern winepresses was covered over by a new wall, the outlet from the channel to the alley was plastered over, and the wine jars in the alley were broken. Additionally, one of the southern presses was partially covered by a beaten earth floor. The entire structure was destroyed as part of Nebuchadnezzar's conquest of the city in 604 BCE (Stager et al. 2011, 14). Thus, Ashkelon saw an intensification of wine production in the middle of the 7th century BCE.²⁶ Sometime late in the 7th century this production diminished, signified by the remodeling of Building 776, which was destroyed at the end of the 7th century. Unfortunately, little is known about Ashkelon in the 8th century due to heavy disturbances from later Persian period construction.

Another large wine production area was found in the hill country at Gibeon, roughly dated by the excavators to the Iron II (Pritchard 1964, 13-6). The evidence for wine production at Gibeon was attested by numerous storage cellars cut into the bedrock of the hill, in addition to numerous smaller cuttings used for the pressing of the grapes and the processing of the wine (Pritchard 1964, 1). In all, 63 jug-shaped cellars were found cut into the bedrock at an average depth of 2.2 meters, and an average capacity of 1500 gallons, although individual size varies. There is, however, little evidence of plaster in the majority of these cellars in the Iron II, and thus they would not have been able to retain liquid, making their use for liquid storage unlikely (Pritchard 1964, 1, 10). However, a complete storage jar was found in the bottom of one of the

²⁶ Stager suggest a late 7th century construction date (1996), while Na'aman puts construction back into the mid-8th century (Na'aman 2003), although the data from Ashkelon on this point is unclear (Master and Stager 2011, 739).

cellars and many fragments of similar jars were found in other cellars. This led Pritchard to conclude that the cellars were for the storage of wine jars, which could be lowered through the opening and stacked in rows around the cylindrical chamber. In this type of storage system, Pritchard estimates that at least 25,000 gallons of wine could be stored in the 63 cellars (1964, 25).

The other rock cuttings vary in size and plan, but a grouping of nine could have been used as treading or pressing basins. Wine from these basins could have been dipped into another basin and run off into a plastered vat (ibid. 11). Although many of these features were reused in later periods, the pottery is predominantly Iron Age with 37 of the cellars containing exclusively Iron II pottery (ibid. 16). In addition to the presses and cellars, more than 56 inscribed jar handles were found, which seem to have come from wine jars (Pritchard 1964, 24-5). These will be examined later in this chapter. Additionally, dating from the 9th c. BCE, a series of inscriptions from Samaria refer to the growing of wine in that region (Schloen 2001, 159; Walsh 2000, 51-59), a conclusion complemented by archaeological survey in the surroundings (cf. Dar 1986).

The rural highland site near Rogem Gannim is an example of wine production in a non-urban area. While no architectural remains were found on the site, excavations uncovered extensive remains of agricultural installations and storage, primarily winepresses, featuring a treading basin, a settling basin, and collecting vat (Greenberg and Cinamon 2006, 229; 2009, 101-102). These installations were sealed by a mixed fill containing late Iron Age and Persian pottery. The finds included a number of stamped administrative *lmlk* handles,²⁷ dating use of these facilities to the 8th-7th centuries BCE. In the same vicinity, the upper Nahal Refa'im catchment basin, a number of farmsteads have been studied, including a farm at er-Ras which

²⁷ *Lmlk* meaning 'to/for the king,' these handles are found at numerous sites and date from the reign of Hezekiah, these will be discussed in more detail later in this chapter.

included evidence of both a winepress and an olive press (Edelstein 2000), and winepresses at Beit Safafa (Feig 2003, 197), Manahat, and Giv'at Massurah. All of these sites show extensive evidence for the processing of grapes, with at least 35 winepresses of the same type as at Rogem Hagannim uncovered (Greenberg and Cinamon 2006, 233-5; Faust 2003, 92-95). Based on these finds, Greenberg and Cinamon (2006, 235) suggest a highly specialized agricultural economy, designed to produce a surplus of wine, the major cash-crop of the hill country, which is an area particularly well-suited for viticulture. They go on to suggest that this area served as the southwestern wine country of Jerusalem, administered from the site of Ramat-Rahel. This is a new development in the Iron IIB, with the area nearly devoid of settlement in the Iron IIA, following which the area was intensively settled beginning in the 8th century BCE (ibid. 237). Thus this region reveals evidence of intensified and specialized production focused on the surplus production of wine (ibid. 238).

Walsh (2000, 19) has noted that in Sennacherib's reliefs of the siege of Lachish, vineyards are depicted dotting the hills in the background suggesting a well-developed wine industry in the Shephelah prior to (and even during) Sennacherib's campaign. This is further supported by the presence of wine presses at other Shephelah sites, notably nine at Beth Shemesh, and an additional twelve in the surrounding region (ibid. 144).

This brief survey of wine production shows an overarching trend of specialization and intensification, beginning in regions of the hill country surrounding Jerusalem in the 8th century, and on the coastal plain in the vicinity of Ashkelon in the 7th century. At Ashkelon, this production diminishes late in the 7th century, but there is no evidence for a corresponding decrease in the production centers in the hills. This may be due to the different markets the two regions served. The wine of the hill country seems to have been directed to the market of the

expanding urban center at Jerusalem, evidenced in part by the sealings demonstrating a royal administrative presence in the region (Greenberg and Cinamon 2006, 236-8; Faust and Weiss 2005, 81). Master (2009, 311) suggests convincingly that the wine in this region never made its way to the Mediterranean market. On the other hand, the surplus wine production at Ashkelon, a port site closely connected to the sea, was for export to the Mediterranean world (Master and Stager 2011, 739; Faust and Weiss 2005). Thus it seems that in the late 7th century, something happened to motivate a change in production patterns in Ashkelon that did not affect the consumption and production patterns in the hill country.

In sum, the wine production in the southern Levant was governed by multiple institutions. On the one hand, the mass-production of surplus at Ashkelon clearly seems to be heading to the Mediterranean market. The logic of this production, which we will discuss in chapter 5, was likely driven by forces of supply and demand mediated through the Mediterranean market. Smaller presses found at highland farmsteads were likely part of local subsistence or household economy, and part of diversification strategies. The mass production in the highlands was probably driven by the palace. A convincing argument has been made for the consumption of this wine in Jerusalem, and it is possible that this wine was part of a taxation and redistribution system, which is well attested in both the Samaria and the Arad ostraca. It is also possible that it was destined for the local urban market.

Olive Production

The industrial center at Ekron is central to any discussion of production, especially of olive oil in the southern Levant. In total 115 olive presses were identified in excavations at Ekron, and a total of 164 installations related to olive oil production (Eitam 1996, 169).²⁸ The scale of production attested at Ekron makes it the largest production center of this type excavated

²⁸ For a detailed overview of the typology and functionality of the presses cf. Eitam 1996

in the ancient Near East to date (Gitin 2000, 563; 2012, 223). The industrial area at Ekron primarily ran along the inner face of the upper city wall. In the lower city, the industrial complex consisted of two major subdivisions separated by a street running perpendicular to the main roadway from the city gate (Gitin 1996, 223). The olive industry spread across 30% of the city area and was one of its dominant elements (Eitam 1996, 175). Eitam (ibid. 179) suggests that the olive oil industry was a direct result of centralized planning and organization over a short period of time. The installations are relatively uniform in size as were the industrial complexes containing them. These complexes, concentrated on the peripheral belt of the city, were built in close proximity and maximized use of space to fully exploit a limited spatial area. Additionally, a number of presses were located along the western side of the tel and outside of the fortified area, but these constructions were highly scattered across a wide geographical distribution (ibid. 180).

Loomweights were commonly found distributed within the rooms of the industrial complex. Gitin (1995, 67) and Eitam (1990, 287-8; 1996, 174) have suggested that since olive oil production was seasonal, the complex was used for textile production in the other months. In particular, the basins could have been used for washing and dyeing of textiles. This parallels the presence of loomweights in the winery at Ashkelon.

The Ekron industrial complex was constructed in stratum IC, dated to the 7th century BCE, and accompanied a revitalization that saw the city increase drastically in size (Gitin and Dothan 1987, 207). During the late 7th century, stratum IB, the olive industry that had flourished in the previous stratum saw a distinct decline (ibid. 208). In this phase, some of the oil presses were buried, and crushing stones were found reused in the construction of the walls of stratum IB (Gitin 1996, 224). Additionally, parts of certain installation were removed from their original

locations and reused in other functions (Eitam 1996, 182). The entire city was destroyed at the end of the 7th century, suffering the same fate as Ashkelon at the hands of Nebuchadnezzar in 603 BCE (Gitin and Dothan 1987, 215).

The dating of the late Iron Age at Ekron has been the topic of some debate. Gitin's reconstruction, which dates stratum IC to the first quarter of the 7th century and stratum IB to the last third of the 7th century, placing the destruction at the very end of the 7th century at the hands of Nebuchadnezzar (cf. Gitin 2012, 244 for his reconstruction of the dating), has been called into question. In particular, Stager (1996) and James (2006) have proposed alternative dates for these strata. Stager (1996, 70-1) has argued in essence for a merging of stratum IC and IB, suggesting that the rise of Ekron accompanied Assyrian withdrawal from the region. James' (2006, 93) argument moves the date of the destruction of Ekron down to the early 6th century, allowing him to move stratum IB to very end of the 7th and first part of the 6th century, and stratum IC to the mid-7th century. Gitin (2012, 245-8) has convincingly countered these arguments in maintaining his original dating of these strata.

Another site showing evidence of olive oil production is Tel Batash, ancient Timnah. Following the conquest of Timnah in 701 BCE at the hands of Sennacherib, the city was rebuilt and enjoyed a period of economic prosperity in the 7th century until its final destruction by the Babylonians around 600 BCE. This last city, stratum II, was rebuilt in the 7th century BCE. The rebuilding yielded a well-planned heavily fortified city (Kelm and Mazar 1996, 243-4). Oil presses were discovered during the excavation of dwellings and industrial quarters along the city wall south of the gate area. At least two oil presses were found in different parts of the city, suggesting that olive oil production in the city was significant. The presses are similar to those excavated at Ekron, and were laid out according to principles consistent with Ekron and other

sites (Kelm and Mazar 1996, 244). Mazar and Panitz-Cohen (2001, 281) suggest that the oil industry at Timnah was related and subsidiary to that at Ekron, with the excavations revealing a situation that looks like a ‘miniature Ekron.’ The major part of the ceramic assemblage at Timnah stratum II is identical to stratum IB at Ekron, although with a stronger presence of “Judahite” forms.

The 7th century olive oil production areas at Ekron and Timnah are paralleled by 8th century production sites at Beth-Shemesh and Tell Beit Mirsim (Finkelstein and Na’aman 2004, 73-4). At Beth-Shemesh over 20 olive oil production installations were excavated, dating to the 8th century. However, this production ceased with the destruction of the site at the hands of Sennacherib in 701 BCE (Faust 2011, 67-8). An additional 13 installations were excavated over two different areas of Tell Beit Mirsim, also dated to the 8th century (Faust 2011, 67; Eitam 1990, 283).

In a 2011 article, Avi Faust conducted a detailed study of the olive oil installations dated to the Iron II period, highlighting 8th and 7th century sites that showed signs of olive oil production. Of particular note is another 7th century site, at Tel Hadid, containing 25 oil presses dated to the 7th century BCE (ibid. 68; cf. also Beit-Arieh 2008a, 1757-8).

Three things are notable regarding the production of olive oil in the 8th and 7th centuries BCE. First, olive oil production was concentrated in the Shephelah, the low foothill area that was ideal for growing this crop (Faust and Weiss 2005, Stager 1985, 173). Secondly, there was a shift in the centers of production from the 8th century sites, such as Beth Shemesh and Tell Beit Mirsim, to other production sites in the 7th century, such as Ekron, Tel Batash, and Tel Hadid (Faust 2011, 66-8; Finkelstein and Na’aman 2004, 73-4). This shift moved production away from areas of Judah that were the target of Sennacherib’s 701 BCE campaign. Third, the scale of

production in the 7th century was enormous, and showed intensive signs of production at an industrial level, more so than would be required for local consumption (Kelm and Mazar 1996, 246; Eitam 1996, Faust and Weiss 2005). Production also saw a marked decline heading into the last third of the 7th century BCE. The intensification of production and intense specialization in the mid-7th century, and its eventual decline in at the end of the 7th century, matches the patterns seen in the wine production at Ashkelon. Thus, it appears that a single set of forces led to the same reaction in production in both wine and olive oil over the course of the 7th century.

It is notable that Schloen (2001) does not believe the finds at Ekron are indicative of intensification of production, rather that they represent social changes stemming from the fallout of the deportations of Sennacherib as part of his 701 BCE campaign. Schloen (2001, 141) sees the facilities at Ekron as a product of the break-up of the kin-based systems. These kin-based systems were driving agricultural production in the Late Bronze and early Iron Ages; however, following Sennacherib's deportations, Schloen suggests that a number of new families, cut-off from their clan and lineage, arrived in Ekron. Out of necessity, each of these families built its own press and its own production complex. Thus, the use of oil presses continued to be domestic, not industrial. Any potential surplus production was a by-product rather than the goal of this reorganization, and was perhaps part of a tax in-kind system (Schloen 2001, 142). Central to Schloen's reconstruction is the concept of efficiency. Eitam (1996, 183) has produced estimates for the total production of the facilities at Ekron at their peak at 230 tons annually, or 245,000 liters of oil, requiring the minimum employment of 2,000 workers, 10,600 storage jars, and over 600 square meters of storage space.²⁹ Estimates for ancient production are highly problematic, and should be taken as a rough estimate rather than an accurate appraisal. Still, Schloen's (2001, 142-3) model suggests a much lower degree of efficiency, not predicated on

²⁹ See Eitam 1996 for the basis of these numbers.

maximal yields and use. Each family needed and built one press for personal domestic use, and used it to press the olives from their land as needed. This was a highly inefficient system economically, but was socially necessary in the absence of clan-based organization. Perhaps later, seeing the production potential, the king later exploited this surplus. However, if this was the case, it stills means that Ekron did not represent a planned rationality of oil production for export. Instead, each peasant household constructed its own press, motivated by being surrounded by strangers in an unknown city (Schloen 2001, 142). The decline of oil production at the end of the 7th century, characterized by the covering up of, and reuse of presses in other functions, is explained by Schloen (ibid. 145) as a function of re-emerging kinship ties so that each family no longer required its own press. Throughout the process, production remained relatively the same; it is the social dynamics that shifted. This focus on social, rather than economic incentives, allowed Schloen to conclude that “neither free-market incentives nor a planned economy of the modern sort are required to explain the growth of the oil industry of Ekron. And this industry certainly did not signal the emergence of an integrated interregional market in subsistence commodities akin to a modern world-system” (2001, 142). While Schloen’s focus on the importance of social changes introduces an important variable, to which we will return, we disagree with his conclusion that the scale of production at Ekron remained largely unchanged from the 8th to the 7th century BCE.

In the case of olive oil production, as of wine production there is evidence for multiple, different social contexts influencing economic decision-making. Some olive presses, particularly those in the highlands, continued to be part of household contexts following the economic logic of diversified subsistence production. The case of Ekron seems to indicate a social context of surplus production for market. This context, however, is either new, or greatly expanded at

Ekron in the 7th century BCE. We will discuss this in more detail later. In order to explain this change, we return to Temin's model-- in particular, the concept of Malthusian growth models. Following Sennacherib's 701 BCE campaign against the southern Levant, he transferred large amounts of land in the Shephelah from Judah to Philistine city-states including Ekron. This would have shifted possession of many of the olive groves. The new owners, now in possession of larger land, were incentivized to take advantage of this opportunity for surplus production under the economic logic of the market, fueled by demand from places such as Egypt and the Phoenician colonies.

Other Production Facilities

The evidence for cereal production is usually found in the excavation of features such as threshing floors and storage units. Silos and storage pits of this type are ubiquitous in excavated Iron Age villages (Faust 2005a, 206). One example of such evidence is at the site of Motza, which is located in the Judahite highlands by the Sorek valley. The site at Motza was inhabited throughout the 8th-7th centuries BCE. The excavators suggest that the site served as a regional administrative center for the agricultural areas surrounding Jerusalem, and that the site functioned by marketing agricultural products to nearby Jerusalem (Greenhut and de Groot 2009, 219). At Motza, 36 silos were identified in stratum V, which according to their typology served as place for storing grain (Greenhut and de Groot 2009, 219-220). A similar situation is attested at Tell en-Nasbeh, where a number of rock cut installations have also been found (Zorn 1993, 104-105), some of which should be considered grain silos (Greenhut and de Groot 2009, 220-221). Faust and Weiss (2005, 78-80) suggest that the hill country and Negev served as a bread basket for the entire region, but offer very little archaeological data suggesting major production centers in those areas. A series of farmsteads across the Buqe'ah valley in the Judean Desert

were studied by Stager (1976, 146), where he found evidence for the production of cereals and legumes as well as seeds of olives and grapes. Farming in these arid conditions would have struggled to even meet the subsistence needs of the population (Master 2009, 308), though they may be representative of the production strategies of a large portion of the Judahite population, which centered on subsistence farming agriculture of grains (Faust 2000, 18; Ofer 1994, 105). Similarly, wheat fields have been excavated in other marginal areas such as the Beersheba Valley (Master 2009, 309). Cereals are well attested as a major product of the region in the textual sources, with specific mention of cereal export to Phoenicia in 1 Kings 5:8-11 and Ezekiel 27:17. Cereal farming and local storage are both important elements to the household and palatial social contexts. The biblical text and the finding of seeds from the Negev and Judah at Ashkelon suggest that there was also a social context of surplus production for market, either for exchange with neighbors such as Ashkelon or even abroad to places such as Phoenicia. These locations focused more on the market than subsistence production, and required subsidization from neighboring producers.

At Ashdod, there is evidence of the major production of pottery. Part of Area D was termed 'The Potter's Quarter,' due to the amount of kilns and workshops excavated (Dothan 1971, 89). The complex included 7 kilns that were used throughout multiple phases of the Iron II, as well as ample evidence of slag, waste, ash, sherds, and other byproducts of the production process (ibid. 90). The workshop appears to have been constructed in stratum III (dated ca. 780-650 BCE by the excavators), with continued use into stratum II, but with a decline in size and a significant reduction of the living quarters (Dothan 1971, 90-2, 144). Thus, at the end of the 7th century, the workshops at Ashdod, like the winery at Ashkelon and the olive oil production at Ekron, saw a decline in production. As at Ekron, the dating of the late Iron Age strata at Ashdod

has also become a point of contention. Finkelstein and Singer-Avitz (2001, 248-51; 2004) claim that there is no 7th century stratum at Ashdod proper, and following its destruction in the 8th century, the Assyrians relocated the city to nearby Ashdod-Yam. However, Ben-Shlomo (2003, 99-103) discards this re-dating on both archaeological and textual grounds, namely the ceramic assemblage and the Assyrian inscriptions, which mention Ashdod into the 7th century. The traditional dating is further supported by the publication of the 7th century pottery from Ashkelon, which also lacks some of the forms highlighted by Finkelstein and Singer-Avitz in their re-dating of Ashdod. This led Stager et al. (2011, 71) to suggest that such differences are not chronological indicators, but rather signify regional variation. We agree with conclusions that the traditional dating of the site is preferable.

Metal production is poorly attested in the southern Levant during the late Iron Age. One site with some evidence of metal production is Beth Shemesh. At Beth Shemesh, an iron metallurgical workshop was excavated from level 3, dating to the 9th century BCE (Veldhuijzen 2009, 131). This production center, however, dates to an earlier period than our focus, and there is no evidence that its use persisted into the later periods. It does provide limited evidence, however, for the production of iron in the Iron Age southern Levant. A second piece of evidence lies outside of our geographical boundaries in neighboring Edom, and relates to the production of copper. There is extensive evidence for the exploitation of copper mines at sites such as Wadi Faynan and Timna in earlier periods, and there is extensive evidence that the copper ore deposits were exploited extensively in the 12th/11th centuries BCE (Knauf-Belleri 1995, 111). This exploitation declined in the early Iron IIA/B, but was rejuvenated in the 7th century BCE, especially at Wadi Faynan (ibid. 11-12; Ben-Yosef et al. 2014). Scholars have posited that the copper resources of Edom were a major source of Assyrian interest in the region, and that

fluctuations in its exploitation were linked to the accessibility of the copper resources of Cyprus, another major mining center (Knauf-Belleri 1995, 111-13; Gitin 1997, 82; Bienkowski and van der Steen 2001, 24). Overall, the evidence for metal mining and production is underwhelming as a major resource for the Judah and Philistia during the late Iron Age.

While this is certainly not an exhaustive list of the full range of production in Philistia and Judah, we have focused on the evidence for the major crops of the region: wine, olive oil, and cereals (Hopkins 1983, 196; Chaney 1989, 18; Faust and Weiss 2005, 76), a pattern that is reflected in the textual data as well. The production of these crops existed as part of multiple social contexts of production, including subsistence production for local consumption on the part of the household or larger familial/clan structure, production for exchange under the logic of the market, driven by concepts such as supply and demand, and production for the palace under a logic of taxation and redistribution.

From the preceding data, a few specific patterns that are worthy of explanation can be delineated. Two main characteristics of production in this period were the move towards specialization on a grand scale and an intensification of production in certain regions. These changes reached their peak in the early-mid 7th century BCE and declined, at least in Philistia, at the end of the 7th century. In olive oil production there was a regional shift in production centers from the 8th to the 7th century BCE. These changes can be explained by a shift in the social context of production. Producers, primarily in Philistia, increased their participation in the context of market exchange. This change led to a change in the economic logic of production that favored intensification and specialization in high-value crops at the expense of risk-spreading mechanisms such as diversity. In terms of Temin's model the opportunity cost of diversification led areas of Philistia to maximize their comparative advantage within the broader

Mediterranean system. Similarly, Ekron's move towards mass-production of olive oil was motivated by the logic of the market, but was instigated in part by new opportunities for growth and expansion of production, brought about by the deportation of the Shephelah and the acquisition of some of that land by Ekron. This shift introduced a shock to the Malthusian system by adding a significant amount of holdings to Ekron's territory, and incentivizing increased participation in the social context of Mediterranean trade.

Consumption

Building upon our discussion of production, we will turn our attention next to questions of consumption. For whom are these agricultural goods being produced? Who are the primary consumers? For this we look to the evidence for the final destination of the goods that were central to regional production. For the most part, production took place for the consumption of the producing household, or larger family group, as part of general subsistence strategies (Faust 2000, 18; Ofer 1994, 105). The role of subsistence household production and consumption has been highlighted by Schloen (2001, 136), who sees the basic productive and consumptive unit as the joint family household. Hopkins (1983, 177-9; 1996, 124) likewise focuses on the role of the household and the clan in production and consumption. He emphasizes in particular the importance of risk-management strategies and subsistence agriculture for much of the population (cf. also Boer 2015, 78-9). As discussed above, such strategies are consistent with the economic logic of the household or clan, and show a large degree of continuity with earlier periods.

Consumption by Local Urban Centers

Another significant consumer was the large urban centers, which were home to a large non-producing population. A large part of this population included the royal household and administrative system, which would have allowed them to receive subsistence goods out of the

taxation of the generally subsistence based population. Stamped jar handles, in particular, point to this type of taxation and redistribution system, which will be discussed further along with other distribution strategies. The king and high officials were often also land-holders, capable of extracting wealth from a series of royally owned farms throughout the territory. This may explain the destination of the surplus of production at the specialized highland farms, such as Gibeon, and the Nahal Refa'im catchment. These areas specialized in wine production, beyond any local subsistence need, and the specialization in these crops suggests production for consumption beyond the clan or household level. Greenberg and Cinamon (2006, 135) suggest that these farms were part of an agricultural wine-making district under the supervision of the nearby administrative center at Ramat-Rahel. The fact that there were no settlements or nucleated villages attached to these production centers further suggests they were not for use by subsistence based lineages, even those using the collective labor of the larger clan (ibid. 238). Further evidence for the ownership of these production centers by urban elites is the high amount of stamped jar handles, particularly those bearing the *lmlk* impression (to/for the king), found at these sites (Greenberg and Cinamon 2006, 231ff). Rainey (1982) has also advocated for an association between *lmlk* seals and royal wineries. Faust and Weiss (2005, 81-2) similarly argue for oil and wine production centers in the hill country for the purpose of consumption in Jerusalem.

Consumption by the palace and royal administration was a part of the system of taxation and redistribution that characterized the social context of the palace. This redistributive system has been discussed by Master (2014, 83-4) from the perspective of the biblical text, and is also evidenced by epigraphic evidence such as the Samaria and Arad ostraca, which record the collection of goods and the allotment of various rations. It is not always easy to distinguish

between production as part of the context of the clan from production for the palace. However, it is certainly possible that many areas were involved with both. This situation would describe the taxation of production from a clan or household context, or the consumption of grain by a family working on a royal farm. This overlap emphasizes the way in which individuals could act in multiple social contexts at the same time.

Wine and Olive Oil Consumption

The major wine and olive production centers in the foothills and the coastal plain were unlikely solely for local consumption (contra Schloen 2001, 139-45). Thus, these items are generally seen as production for export, especially given the value of wine and olive oil as semi-luxuries (Faust and Weiss 2005, 76; Master and Stager 2011, 739-40). But export to whom? Gitin (1995, 63; 1997, 92-3) argues that the olive oil at Ekron was being produced as an Assyrian directive, for Assyrian consumption, to use in administered trade to obtain silver or other luxury goods desired by the Assyrians. Gitin (1998, 176) suggests that vassal states, like the Philistines and mercantile Phoenician port cities, were used by the Assyrians as building blocks of new long-distance exchange system, involving development of new sources for raw materials and the production of surplus goods. Finkelstein (1994 180) has suggested that the production of oil was to pay Assyrian taxes in-kind. Faust and Weiss (2005, 85-6) suggest the goods were produced for a Phoenician-run market. The Phoenicians exported these goods to consumers around the Mediterranean, in particular Egypt, but also Phoenician colonies in North Africa and Spain.

Egypt was a well-known consumer of Levantine wine and olive oil, from as early as the Bronze Age (Stager 1990, 635; 2003, 243; Markoe 2000, 94; Hadjisavvas 2003, 120; McGovern 2003, 110-4), particularly since these crops grow poorly in the Egyptian climate (Stager 1985, 174; Parsons 2003, 32; Faust and Weiss 2011, 197). Support for Egyptian consumption is

attested by the ceramic evidence from the site of Buto, where Levantine ovoid storage jars of the type attested at Ekron for olive oil production have been found (James 2006, 89). Phoenician torpedo jars are also commonly attested from 7th century strata (Stager 2003, 241). More evidence for Egyptian consumption of Levantine oil or wine is found in the size of the Phoenician transport amphorae. These vessels are of standardized dimensions, with the intent to make a volume of 4 *heqats*. The use of the Egyptian volume unit, the *heqat*, suggests that these jars, which were surely produced in Phoenicia, were designed with a mind for the primary consumer, namely the Egyptians (Finkelstein et al. 2011, 256-7). Canaanite and Phoenician amphorae have also been found in the Iberian Peninsula and at Carthage in North Africa, suggesting that the Phoenician colonies there were also potential consumers (Hadjisavvas 2003, 122; Stager 2003, 243). In contrast, there is no evidence of any oil or wine jars originating in the southern Levant from excavations in Mesopotamia (Na'aman 2009, 354). The evidence for foreign consumption of Levantine wine and olive oil supports the assertion that the coastal polities in particular were ingrained in a social context of market exchange.

Grain Consumption

Grain consumption is another important issue. In particular, Ashkelon was too large to provide for all of its cereal needs based on its immediate hinterland (Weiss and Kislev 2004, 11; Stager 1996, 64; Faust and Weiss 2005, 73). At least some of this grain was produced in the Judean Hills, the northwest Negev, and the Sharon plain (Weiss and Kislev 2004, 11). Weiss and Kislev (2004, 5) examined charred seed remains from the 604 BCE destruction layer at Ashkelon to determine the origins of the grain. In particular, they studied the remains of weeds, which are regionally distinctive to determine the origin of the grain. Based on this study, they determined that most of the locally grown grains came from an area fairly close to the ancient city, but that

these areas were not sufficient to supply the needs of the population. The plant assemblages suggest that much of Ashkelon's grain originated in the highlands of Judah and the Shephelah, as well as from the Sharon plain and the northwest Negev (2004, 11). The evidence of grain from the Sharon is significant because at least during the 8th century, the vicinity of Jaffa was part of Ashkelon's hinterland according to the Neo-Assyrian texts (Na'aman 2009, 351). Additionally, grain from this location could have been shipped to Ashkelon to avoid overland transport (Weiss and Kislev 2004, 11). The grains from the northwest Negev are central to Faust and Weiss' (2005, 74-5) assertion that the Beersheba Valley functioned as a bread-basket, with production for export. The consumption of Judahite grain from the highlands is also evidence supporting Faust and Weiss' model of profitability zones. The presence of these grains at Ashkelon precludes arguments that land transport of bulk grain from Judah to Ashkelon would have been too expensive to be practical. They counter the lack of Judahite pottery in Ashkelon to evidence this movement by convincingly arguing that the grain was transported in sacks, rather than in jars (2005, 83-4). Ashkelon was also a potential consumer of Egyptian grain (Allen 1997, 291; Gitin 1997, 84), although direct evidence for this is lacking, and Faust and Weiss (2005, 84) maintain that grain from Judah, even taking into the account the difference between maritime and overland transport costs, would have been cheaper.

A second consumer of grain from the southern Levant could have been the Phoenician commercial centers. This is best attested through the textual record. Ezekiel 27:17 lists agricultural goods such as wheat, honey, and olive oil as items exchanged between Judah Tyre. In exchange for lumber for the construction of the temple, Solomon paid Hiram of Tyre in foodstuffs: 20,000 cors of wheat and 20,000 baths of olive oil annually (1 Kings 5:8-11). This tradition continued into the Persian period. During the rebuilding of the temple Tyrians and

Sidonians were paid with food, drink, and olive oil, to bring logs from Lebanon down to Jaffa (Ezra 3:7). From this we conclude that it is likely Phoenicia was an important consumer of Judahite grain throughout the Iron Age.

Our study has revealed a number of overlapping social contexts of consumption: from consumption of locally produced goods by the household or clan, to the consumption of extracted surplus by the palace and palatial administration, to consumption both locally and abroad of goods exchanged on the market.

Distribution

Distribution takes into account all transfers of goods, whether through the one-way transfers of taxation or tribute, or systems of redistribution, reciprocity, or trade. A primary resource for the analysis of distribution is a study of foreign, non-locally produced materials which are found in archaeological contexts. However, it is not always clear what mechanism brought these goods to their final resting place, and there are potential confounding factors, such as the movement of people. This problem is attested in the discussion over the presence of East Greek pottery at sites in the southern Levant, in particular Ashkelon and Meşad Heshavyahu. In the case of the East Greek pottery, there is strong debate over whether these items were acquired through trade or whether they were the possessions of Greek mercenaries who carried them to the area. Meşad Heshavyahu is a fortress site located on the coastal plain just south of Yavneh-Yam, and includes an unusually large amount of East Greek pottery (Fantalkin 2001, 3). Fantalkin (2001, 37), following the conclusions of the original excavators, Naveh and Reich, interprets the site as a settlement of Greek mercenaries. Fantalkin's major argument (2001, 137-8) centers on how settlement at Meşad Heshavyahu does not follow the assumed model for the settlement of Greek traders in this period and the fact that the distribution of East Greek pottery

is largely limited to a few sites. Fantalkin argues that if the pottery belonged to a Greek trading colony, there would be a much wider distribution in sites neighboring this colony. He further concludes that the assemblage is one of daily use, rather than the specialty forms one would expect from trade relations.

Contra Fantalkin, Jane Waldbaum (1994, 61-2; 1997, 12; 2011, 133) suggested that the Greek pottery indicates the presence of Greek traders, both at Ashkelon and at Meşad Heshavyahu.³⁰ Waldbaum (2011, 135) notes that: “the distribution of pottery by function at Ashkelon suggest a focus on decorative eating, drinking, and table ware, as well as a significant number of food preparation, transport, and storage vessels. Although this is not a full repertoire of contemporary East Greek forms, it may imply either the presence of Greeks themselves, or some local adoption of Greek eating and cooking customs.” She goes on to note against suggestions to the contrary, that cooking pots and other utility vessels were at times imported, and may have been adopted for foreign use (ibid. 136). Based on the larger Mediterranean assemblage, Waldbaum cites parallels between what was found at Ashkelon and other sites outside of the Levant that would have no reason for housing mercenaries. This leads her to propose the existence of a trading assemblage of Greek wares, which was distributed in varying proportions depending on the demands of the local markets (2011, 140). In any case, the large amount of Greek pottery can be attributed to the presence of Greeks, whether traders or mercenaries. While we support Waldbaum’s opinion that the majority of the Greek pottery should be associated with trade, it is also possible that some Greek mercenaries were present in

³⁰ Waldbaum does not discount completely the presence of a Greek mercenary contingent at Meşad Heshavyahu or Kabri, but claims that this is entirely unlikely at a larger cosmopolitan site such as Ashkelon (2011, 138). It is possible for there to have been both traders and mercenaries at different sites, as is attested in Egypt with Naukratis as a port, but with mercenaries at fortresses such as Migdol and Tell Defenneh (Waldbaum 2011, 139).

the region. This debate highlights the multiplicity of ways that foreign materials can enter into the archaeological assemblage.

A second source for the distribution of foreign goods is the Assyrian booty lists. These lists provide a snapshot of the luxury goods located in one place at the time of a tribute payment to Assyria, and include references to materials of foreign provenience (cf. Jankowska 1947). The most extensive list is Sennacherib's tribute received from Hezekiah following his 701 BCE campaign. By the late Iron Age it is unfortunate that in most cases the exact goods taken as tribute were not listed, with this text providing a notable exception. The value of a study of these tribute lists in reconstructing ancient trade has already been amply demonstrated by Elat's (1977) study of economic relations in the Iron Age Levant. Holladay (2009, 208) also uses these data in his analysis of the importance of the Arabian caravan trade.

Shipwreck Data

Data from the excavation of ancient shipwrecks are some of the most helpful for identifying trade. Shipwrecks show what types of goods were being shipped and in what quantities. Additionally, their locations provide clues as to their intended final destinations (cf. Parker 1990, 2008 on patterns of Roman trade). It is unfortunate that very few late Iron Age shipwrecks have been identified. The most exhaustive study of ancient shipwrecks of the Mediterranean was conducted by A.J. Parker (1992), who found that the distribution curve of discovered wrecks greatly favored the Roman period, and that the early periods in general were poorly represented (Parker 1992, fig. 1-3). Thus, our sample size limits the statistical conclusions we might be able to draw.³¹ However, the limited sample size does not mean that the Iron Age shipwreck data cannot inform us on certain patterns of late Iron Age trade.

³¹ Despite efforts in this regard by Knauf (2008).

The two most important and best studied shipwrecks were found off the coast of Ashkelon, dating to the 8th century BCE (Ballard et al 2002, 156-8). These two ships, named by the excavators the *Tanit* and *Elissa*, most likely originated in Egypt based on the belongings of the crew and their cargo, which included characteristic pottery forms such as cooking pots from the northern coast of Lebanon and Phoenician transport amphorae (Stager 2003, 238). The likely destination of the ships was either Egypt or North Africa, potentially Carthage. The presence of an Egyptian bowl made from Nile mud indicates that Egypt was a stopping point, if not the ultimate destination (Ballard et al. 2002, 161-2). The main cargo of these ships was Phoenician transport amphorae or ‘torpedo jars.’ 385 such amphorae were counted on the *Tanit* and 396 on the *Elissa* (Stager 2003, 239). These amphorae were lined with resin, indicating liquid contents. Testing of this resin revealed residue of tannic acid, a chemical associated with grapes and grape products.³² Based on this testing, the most likely content for the amphorae was wine (Stager 2003, 241).

What does the wreckage of a Phoenician ship heading to Egypt or North Africa tell us about the economy of the southern Levant? It shows that wine was a desirable commodity which was distributed around the Mediterranean and that there was significant enough demand for it to justify the construction of ships capable of carrying almost 400 amphorae of wine. Additionally, these amphorae were all of similar shapes and sizes. Measurements conducted on these jars show that they were manufactured to fit a standardized volume, approximately equivalent to 4 Egyptian *heqats*³³ (Finkelstein et al. 2011), and further supports Egypt as the most likely destination. The volume of the cargo indicates that there was a significant market for which Ashkelon could produce surplus wine to be exported by sea. The location of these shipwrecks

³² Cf. Guasch-Jane 2008 for discussion of chemical analysis.

³³ A *Heqat* was an Egyptian unit of volume equivalent to ca. 4.8 liters (cf. Pommerening 2005, 120).

just off the coast of Ashkelon shows that major shipping lanes traveled along the coast of the southern Levant, and were quite capable of picking up or delivering cargo to the coastal sites.

Another wrecked Phoenician vessel was discovered off the coast of eastern Spain, submerged at Playa de la Isla, Mazarron (Neguerela et al. 1995, 189). Pottery from this vessel included numerous ovoid store jars, from the type common at Ekron (Master 2003, 59). Two more ships were excavated off the coast of Turkey, close to the location of the Late Bronze Age Ulu Burun shipwreck, at the sites of Kekova Adasi and Kepce Burnu. These ships date to the archaic period, likely the 7th or 6th century BCE (Greene et al. 2011, 60). Their cargo consisted predominantly of large basket handled amphorae, with at least 90 vessels uncovered at Kekova Adasi. These jars originated either on Cyprus or the northern Levantine coast, with Cyprus as the excavator's preferred origin for these jars. These vessels most likely contained olive oil, although wine is also possible (Greene et al. 2011, 62-3). In addition to the basket handled amphorae, fragments of south-east Aegean and Corinthian amphorae were also discovered at Kekova Adasi (ibid 63-4). The wreck from Kepce Burnu represents a small ship, probably no more than 17-18 meters in length, and bore a cargo of amphorae that likely contained agricultural goods (Greene et al. 2008). As such, this wreck shows that trade in this period was not restricted to large ships bearing luxury goods, but included smaller cargos of agricultural materials. These two wrecks demonstrate that goods from a variety of origins were collected together and shipped around the Mediterranean. The shipping routes continued to use Late Bronze Age shipping lanes and included stops at Cyprus and in the South-east Aegean. The mixed origin of the cargo fits well with conceptions of the Phoenicians as middle-men, taking advantage of price differentials by carrying a variety of goods across the entire Mediterranean. Similar basket handled amphorae, south-east Aegean amphorae, and Corinthian pottery were excavated from the 7th century layer at

Ashkelon (Stager et al. 2011, fig. 7.57; Waldbaum 2011, 143-50, nos 496-503), showing that the southern Levant was integrated into this trading network. These finds also lend support to the Greek amphorae as items of trade, rather than vessels used by mercenaries. If Greene et al. are correct that the basket handled amphorae carried olive oil, then these wrecks would also evidence the distribution and demand for olive oil in the broader context of the Mediterranean world. Muhly (1998, 318-9) notes that shipwrecks from the 10th and 6th centuries contain metals, mostly copper and lead, with some iron (but not silver), and proposes that the metal trade persisted throughout the Iron II.

Overall, the shipwrecks of the 8th and 7th centuries BCE present a picture of widespread maritime trade of agricultural products, specifically wine and olive oil, which indicates a demand for these goods around the Mediterranean, possibly even in areas capable of producing their own. This trade was run by the Phoenicians, and formed connections between the southern Levant and the Aegean, Egypt, North Africa, Cyprus, and Spain. This is further attested by the spread of Phoenician amphorae across these regions (Niemeyer and Schubart 1975, plate 18.631).

The shipwreck data provide a small window into the extent of the Mediterranean trade in the late Iron Age and also provide substantial evidence that the polities of the southern Levant were an integrated part of a system of Mediterranean trade. The continuity with Late Bronze Age shipwrecks also shows that the social context of Mediterranean trade was not a new development during the Iron Age. At the same time, the wrecks themselves attest to the risks of maritime trade. Part of the valuation process of participating in the market was evaluating the potential for lost cargo. Whereas shipwrecks inform us about the mechanisms of distribution, the examination of foreign artifacts in southern Levantine contexts can also reveal distribution patterns. We will

now turn our attention to a survey of the regions that show strong material connections to the southern Levant.

Egyptian Connections

The archaeological record is full of evidence supporting connections between Egypt and the southern Levant.³⁴ Imported Egyptian pottery and artifacts are commonly found at many sites in the southern Levant, including all the major Philistine cities, Jerusalem, and throughout the Negev. In his analysis of Egyptian and Egyptianizing artifacts found in excavations in the Levant, Mumford (1998, 3986) suggests that the late Iron II (750-600 BCE according to his dating) shows a clear peak in Egyptian activity and relations.

At Ekron stratum IB, the period after the withdrawal of the Assyrians from the region, there is strong evidence for Egyptian connections (Gitin 1997, 98-9). In particular, the Ekron temple complex 650 contained a large number of Egyptian artifacts (Gitin 2012, 233). At Ashkelon, a small amount of imported Egyptian pottery was found in the 604 BCE destruction layer, notably plain ware bowls and jars made from Nile Mud (Walton 2011). These utilitarian vessels, however, may be indicative of Egyptians living at Ashkelon, rather than trade items, but Waldbaum's discussion of Greek cooking pots poses an alternative (2011, 135). In addition, a number of Egyptian scarabs (Keel 2011), amulets (Herman 2011), and bronzes (Bell 2011) were uncovered from the 604 BCE destruction layer at Ashkelon. The question of whether such artifacts are Egyptian, or merely Egyptianizing articles produced locally, determines whether or not these items should be considered as evidence of trade connections. Herrmann (2011, 360) argues against local production, citing the lack of workshops or amulet molds found in ancient Palestine and the complex technology of high-quality faience manufacture. Herrmann suggests that the artifacts were produced in Egypt, and made their way to Ashkelon via commercial

³⁴ For a brief survey of select sites see Mumford 1998.

channels, however the presence of scarabs in Jerusalem with Hebrew inscriptions argues for the presence of local workshops (cf. Brandl 2012, 386), which Brandl (2012, 378) has convincingly argued for, following the arguments of Ben-Tor (1997, 2007) for the local production of scarabs in Bronze Age Palestine.

In the 8th-7th century strata at Ashdod, numerous Egyptian or Egyptianizing scarabs and amulets were excavated, although it is not clear that these were imported as opposed to locally made. Also present are a number of Egyptian dome-shaped weights. While these may be of local make, they show connections to Egypt and Egyptian standards, which would be useful in economic transactions (Mumford 1998, 2070-85). Overall, Mumford (1998, 2099) identifies 12.9% of the artifact in stratum VIII (8th c.), but only 4% of the stratum VII artifacts (late 8th-mid 7th c), as Egyptian or Egyptianizing. The number rises back to 13.8% at the end of the 7th c. and into the 6th c. BCE (stratum VI).

Jerusalem also shows close ties with Egypt. A number of scarabs have been excavated in the City of David from the 8th-7th centuries, but Brandl (2012, 382-7) thinks that these are of local Judahite or Israelite origin (cf. also Reich et al. 2007, 156). Additional examples of clear Egyptian imports are fish and shell remains. There is evidence in the fish bones for the presence of *Lates niloticus*, or the Nile Perch (Van Neer et al. 2004, 112-3; Lernau and Lernau 1989, 158; Reich et al. 2007, 159). Shells of mussels originating in the Nile River have also been found throughout the 8th-7th century strata in Jerusalem (Mienis 1992; 127-8). Fish and shell remains are important because they do not represent luxury goods, but are indicative of the movement of everyday items (Faust and Weiss 2005, 75). In fact, Nilotic fish bones have been found distributed across the southern Levant. In the Iron II, Nilotic fish are found at Beersheba, Kuntillet 'Ajrud and Tell el-Hesi in the Negev, Lachish in the Shephelah, Ashkelon and Ekron

on the coastal plain, and Jerusalem in the hill country (Van Neer et al., Table 3). They are especially prevalent in Ashkelon, where almost 150 bones were identified as belonging to Nile catfish³⁵ in the pre-604 BCE destruction layer, along with an additional 18 Nile perch (Lernau 2011, Table 25.2). Nilotic fish should not be seen as representative of the movement of people, but only goods. Looking at the pattern and extent of their distribution suggests a large overland network connecting the southern Levant to Egypt. These connections are also reflected in the Egyptian data, where numerous vessels originating in the southern Levant have been found at a number of Egyptian sites. These finds have been compiled by Maeir (2002, 241), who suggests that they reflect trade connections rather than the possessions of immigrant settlers from the southern Levant.

Indeed, the evidence reviewed above strongly suggests trade relations between the southern Levant and Judah. While some Egyptian artifacts in the Levant, or Levantine artifacts in Egypt may represent the movement of people, the continued influx over time of primarily luxury items (jewelry) and perishables (fish) seems to be strong evidence for commercial relations. The distribution of these goods in the local assemblages also suggests that these were trade goods. These relations ranged from specialty goods, such as amulets or scarabs, to mundane goods, such as Nilotic fish and shells. While Egyptian artifacts tend to be concentrated along the coast, with a decreasing imprint inland (Mumford 1998), this trade reached important inland centers. The overland caravan routes as well as the maritime routes likely played a role in this relationship, which is suggested by the presence of Nilotic fish at remote Negev sites along the overland routes such as Kuntillet 'Ajrud (Horwitz et al. 2012, Appendix A). Imported Egyptian pottery, figurines, and amulets were also excavated from Beersheba (Singer-Avitz 1999, 44-5). Egypt

³⁵ Note that the Nile or African catfish is also attested in Israel in the Jordan and Yarkon rivers (Lernau and Lernau 1989, 155-6), but these locations are quite possibly less accessible to Ashkelon than Egypt.

had a strong presence in the southern Levant during the Bronze Age, when Egypt was the strong imperial power. Especially in the southern Levant, the ties to Egypt remained strong in later periods. It seems the Iron Age saw the continuation of well-established trade patterns that had connected Egypt and then Levant since at least the Bronze Age (Stager 2001).

An additional sign of Egyptian influence on the economy of Judah was their adoption of the Egyptian weight standard. We have already seen how the Phoenicians adjusted the volume of their amphora to the standard of the Egyptian *heqat*. In Judah, Kletter (1998) has suggested that the primary weight system was based on the Egyptian *qedet*, although Ronen (1996, 122-4) thinks this system changed in the 7th century due to a declining Egyptian presence in the first third of the century. In Ashkelon three weight standards are attested: the Egyptian *qedet*, the Mesopotamian shekel, and the Judahite shekel (Birney and Levine 2011, 483). Judahite weights were also frequently inscribed with hieratic numerals (Aharoni 1966b; Kaufman 1967). Additionally, hieratic numerals and weight standards are attested in ostraca found in Judah (cf. Yeivin 1966; Rainey 1971).³⁶ The use of Egyptian weight standards demonstrates that transactions were occurring in Judah according to an Egyptian standard, and supports claims of commercial relationships between individuals from these two polities.

Phoenician Connections

The Phoenician and Mediterranean influences on the southern Levant, and their role in the economy will be discussed more in-depth in chapter 5, but a brief review, in which we will focus on the presence of Phoenician material culture in excavations from the southern Levant, is relevant to our current discussion. A systematic study of all the Phoenician pottery and other artifacts from the late Iron Age is still lacking, but there is evidence of strong Phoenician connections, particularly with the southern coastal plain. At Ashkelon, in the 604 BCE

³⁶ Note for example the use of the *heqat* in Arad 25 (cf. Dobbs-Allsop et al. 2005, 54).

destruction layer, more pottery comes from Phoenicia than from any other foreign source. This includes both finewares and transport amphorae (Stager et al. 2011, 97ff.). The 8th century stratum at Ashkelon, although poorly preserved, also has a very strong Phoenician presence (Park 2009, 236-40). Fine wares and amphorae are also attested further inland through finds in the late 7th century stratum at Ekron (Stager et al. 2011, 97-101). Phoenician amphorae are attested at Tel Batash (Mazar and Panitz-Cohen 2001, 203-6, SJ15a-b), Lachish (Zimhoni 2004, 26.37.8), and Mešad Heshavyahu (Fantalkin 2001, SJ1).³⁷ These forms are not well attested in the hill country, although scattered examples have been found at sites such as Tell en-Nasbeh (cf. Brody 2014) and in the Beersheba valley (Singer-Avitz 2010). The majority of Phoenician material culture is concentrated on the coastal plain and Phoenician sites further north. This suggests that the Phoenician interaction with the southern Levant was filtered through the coast. Bullae bearing Phoenician imagery have been discovered in Jerusalem, but this does not necessarily mean that the objects themselves originated there (Reich et al. 2007).

Liphshitz and Biger (1991, Table 1, 172; 1995, table 2) have studied the movement of timber from Lebanon to sites in Israel, specifically the distribution of the cedar. They found remains of cedar at 10 Iron Age sites, including Jerusalem and Lachish in Judah, but also at 5 sites in the Negev (Tel Masos, Arad, Horvat ‘Uza, Beersheba, and Tel Sera’). This distribution shows how luxury goods filtered inland and, in the mind of Liphshitz and Biger, reflects strong commercial activity in the Negev region, possibly linked to caravan routes. The presence of these cedars is certainly evidence of a timber trade, something we know Phoenicia was involved in during the late Iron Age from the biblical and Assyrian sources. A letter from Nimrud instructs the people of Tyre not to sell wood to the Egyptians or the Palestinians.³⁸

³⁷ For a petrographic analysis of amphorae from the Iron Age used in the definition of Phoenician, see Aznar 2005.

³⁸ ND2715:25 (Saggs 1955, 127-8).

The biblical account offers another perspective on Judahite-Phoenician interaction. During the reign of Solomon, Phoenician craftsmen and timber were very much desired, especially for the construction of the temple. At this time, Israel was involved in trade relations with Tyre, supplying massive amounts of oil and wheat in exchange for these timbers and crafted goods.³⁹ The historical setting of Solomon's reign pre-dates the period of our study by over a hundred years, but may reflect a tradition of connectivity that lasts into later periods. Another example of this type of trade from the north are a type of 'sausage jars' found in Tyre and commonly attested at Hazor (Geva 1982, 69-71).

References to a grain trade between Judah and Phoenicia persist into later periods. Ezekiel 27, a prophetic oracle against Tyre (this passage will be analyzed in-depth in chapter 5), contains a list that describes trade to, from, and through Tyre. The setting of Ezekiel is the early 6th century, but scholars have claimed that the list is based on an earlier Phoenician text (Liverani 1991, 65-6; Saur 2010, 216). Liverani (1991, 79) warns about the risk of assuming that this text, which is partially corrupt (Lipinski 1985, 213), is a straight administrative list, noting its ideological nature. Even taking into account the ideological nature of the text, it reflects a clear perception of trade between Judah and Tyre involving foodstuffs for luxuries. Ezekiel 27:17 depicts Israel and Judah as trading wheat, meal, honey, oil, and balm with Tyre for "merchandise." Thus, the textual evidence also supports strong connections between Judah and Phoenicia during the late Iron Age. These connections, however, were mediated through different social contexts. On the one hand, Ezekiel 27 focuses on the role of Tyre as a trader, operating in the market system. On the other hand, Solomon's interactions with Hiram come from the context of the palace, and are closer to what one might term "administered trade," a system closer to gift-giving than market exchange.

³⁹ 1 Kings 5:7-12. Note that the numbers in this text are likely exaggerated.

Mesopotamian Connections

A review of Assyrian and Assyrianizing material excavated in the southern Levant has been published by Bloom (1988), with additional studies contributed by Horowitz and Oshima (2006), Reich (1992), Stern (2001), and Bagg (2013). These include studies of architectural remains, epigraphic finds, pottery, seals and sealings, and burials. We will survey the relevant finds briefly here, with a more in-depth discussion in chapter 3. It is important to note that none of these are necessarily indicative of trade. The Assyrian-style buildings, texts, and seals and sealings can all be attributed to Assyrian administration within the region and the presence of Assyrian officials. The burials can be attributed to people from Mesopotamia who died in the southern Levant (perhaps while on campaign, or serving in the imperial administration).

Assyrian pottery, then, is the main potential trade import from Mesopotamia. Unfortunately, all of the so-called ‘Assyrian Palace Ware’ was locally made (Singer-Avitz 2007, 191; Engstrom 2004, 79; Oren 1993, 104; Stager et al. 2011, 119-121) and in fact, many vessels called Assyrian style actually imitated a style originating in Transjordan (Na’aman and Thareani-Sussely 2006, 63).⁴⁰ There are ample textual records, both Assyrian and biblical, attesting to the one-way transfer of goods from Judah and the Philistine city-states to their Assyrian overlords in the form of tribute, taxes, and/or booty. These transfers will be discussed in more detail in chapter 3. One text that suggests the presence of Assyrian trade and traders in the southern Levant occurs in Nahum 3. The book of Nahum is a prophecy against the Assyrians. Addressing Assyria, verse 16 reads: “You (Assyria) increased your merchants more than the stars of the heavens...” The authorship of Nahum is dated to the mid or late 7th century BCE, mentioning the fall of Thebes, which is dated to 663 BCE, and presumably with a *terminus ad quem* around the fall of Nineveh and the collapse of the Assyrian Empire at the end of the end of the 7th century BCE (Roberts

⁴⁰ For counter argument see Singer-Avitz 2007, maintaining that these forms are Assyrian, but mediated via Edom.

1991, 38). Central to this passage is the term *'rokelim'*⁴¹ translated as “traders” or “sellers.” This root appears as the term for merchandise in Ezekiel 27,⁴² but is also attested in a Phoenician cognate on an ostrakon from the 604 BCE destruction layer at Ashkelon (Cross 2008, 346). Unfortunately, the role and function of these traders are not elaborated on in the Nahum text. Nahum is more concerned with the power of YHWH and the fall of Assyria than with the nature of the Assyrian traders in the Levant. We know from Assyrian texts that there were a number of Assyrian trading posts, or *kāru*, established on the coast, specifically at Gaza, and a “sealed *kāru* of Egypt” founded by Sargon II (for a discussion of the role of the *kāru* see Yamada 2005 and our chapter 3). The Assyrian term for traders is *tamkāru*. In the Neo-Assyrian period, Radner describes these people as royal agents, supplying the king with luxury goods from afar (1999b, 101). It is also possible that these individuals were involved with the collection of taxes and tribute (Elat 1987, 245-6). The role of the *kāru* and *tamkāru* as they relate to the Assyrian presence in the southern Levant will be discussed further in chapter 3. If, however, the *tamkāru* is related to the *rokelim* in Nahum 3, it is possible that they were less involved with trade, and were instead part of the Assyrian administrative system.

Thus, while there is strong evidence for imitation of Assyrian styles, and the presence of Assyrian administrative institutions, there is very little evidence of the movement of goods from Assyria to the southern Levant, except in the context of the movement of persons. Routledge has suggested a similar pattern to explain the distribution of Assyrian or Assyrian-style material culture in Transjordan (1997, 39).

⁴¹ In this context the plural construct form with a 2fsg pronominal suffix

⁴² See for example vs. 13.

Southern and Southeastern Connections

Other evidence shows connections from the southern Levant and the regions to the south and east, from Edom, from the area around the red sea, and into South Arabia. These will be surveyed briefly here, and more fully discussed in chapter 4. Of particular importance are the Edomite ceramics found across the Negev. Tebes (2006) and Whiting (2007) have conducted surveys of the distribution of this pottery. Based on petrographic study, much of this pottery is made locally in the northern Negev, although some comes from Edom, most notably from cooking pots, none of which are of local clays (Tebes 2006, 55-7, Thareani 2007, 133). Tebes (2006, 54-5) suggests that the distribution of Edomite pottery follows caravan routes. Intermediaries, such as the Edomites and Negev pastoralists, controlled the caravans through the Negev and were partnering with the Arabian merchants. Based on the local manufacture of much of the Edomite ware, Finkelstein (1992, 158-9) has argued for an ethnic Edomite contingent dwelling in the Negev alongside Judahites, with Qitmit serving as a local Edomite shrine.⁴³ This view is supported by the Arad Ostraca, one of which records an Edomite name of a man living locally (Dobbs-Allsop, 29).⁴⁴ In any case, it is unclear what goods would be traded with Edom, a largely pastoral-agricultural kingdom with few resources of trade interest. Copper provides a possible exception (Knauf-Belleri 1995, 111; Finkelstein 1995, 63, 137), but Tebes suggests (2006, 54) that this was more easily acquired from places such as Cyprus.

Pottery from the southeast is also attested at Ashkelon. A number of pottery vessels found in the 604 BCE destruction layer were produced in the Negev (Stager et al. 2011, 117ff.),

⁴³ Finkelstein's view is presented contra the viewpoint of Edomite domination of the Negev, following the portrayal of Edom in the prophetic texts of the time, a weakened Judah, and references in 2 Kings to hostility between Edom and Judah (cf. Beit-Arieh 1991, 114-5).

⁴⁴ Arad letter 12 line 3, reconstructed as 'qws'nl.'

including one fragment of possible Edomite pottery.⁴⁵ These sherds are evidence of material connections between the coast and the Negev in the late Iron II, a conclusion further supported by the presence of material from the Mediterranean world excavated at Negev sites.

Evidence from the Red Sea consists of shells and fish remains. Fish remains from the Red Sea are rare, but are attested at Ashkelon and in Transjordan at Tell Hesban (Van Neer et al. 2004, Table 3). There is no evidence for the exploitation of Red Sea fish prior to the Iron II and their presence is likely a function of the south Arabian caravan. On this note, it is interesting that of the two sites containing remains of Red Sea fish, one is located at a Mediterranean terminus, the port of Ashkelon, and the other, Hesban, was located along the major north-south route connecting the Arabian Peninsula to Mesopotamia (Van Neer et al. 2004, 137). Red Sea shells have also been found in excavations of the 7th century strata in Jerusalem (Mienis 1992; Brandl 1984a, 17; Steiner 2001, 285), Beersheba (Singer-Avitz 1999, 44), and Arad (Brandl 1984a, 16).

The evidence for direct south Arabian connections is even smaller. The most commonly cited evidence is the incised Old South Arabian inscriptions found in Jerusalem (Shiloh 1987; Höfner 2000, 26-7).⁴⁶ Another inscription in south Arabian script was found from the 8th century (stratum II) at Beersheba (Singer-Avitz 1999, 50-2). At 'Aroer there is an example of a single chiseled letter that has been identified as Sabaeen (Thareani 2011, 228), and a painted South Arabic monogram has been cited from Tell Jemmeh (Van Beek 1983, 19). It is important to note that all of these inscriptions were found on local pottery or in the case of Beersheba, local stone, and thus were not imported.

It is impossible to discuss connections with Israel and South Arabia without considering the Queen of Sheba narrative in 1 Kings 10. The text reads as follows: “and when the Queen of

⁴⁵ Stager et al. 2011, Fig. 5.73 locally made, but similar decoration to material from Kadesh-Barnea.

⁴⁶ Some discussion exists about the identification of these as South Arabian, with Sass suggesting at least some are of Greek origin (1990).

Sheba heard of the news of Solomon regarding the name of the Yahweh, then she came to test him with hard questions. She came to Jerusalem accompanied by a very large caravan including camels carrying spices, much gold, and precious stones. She came to Solomon and told him all that she wanted to know. ...Then she gave the king 120 talents of gold and a very great quantity of spices and precious stones. Never again came such an abundance of spices as these that the Queen of Sheba gave to King Solomon. Moreover the fleet of Hiram, which brought gold from Ophir, brought from Ophir a very great amount of Almug wood and precious stones.⁴⁷ There are many problems with the historical setting of this story, in particular the historical context which it represents.⁴⁸ Primary among these is that there is no solid attestation of the caravan trade running as early as the reign of Solomon, around the 10th century BCE (Groom 1981, 52).⁴⁹ This text and the nature of the Arabian trade will be discussed further in chapter 4.

What the Queen of Sheba narrative accurately⁵⁰ displays are the resources associated with the Arabian caravan trade: namely, gold, spices, and precious stones. An additional resource would be camels. Such goods are mentioned frequently in Assyrian sources that detail their encounters with the Arabs (for a compilation of these texts see Eph'al 1982, and table 5 in chapter 4). These are the same goods mentioned in Ezekiel 27:22 as coming from the traders of Sheba and Raamah.

Mediterranean Connections

Mediterranean connections include artifacts from the Aegean world, such as the East Greek pottery mentioned previously, as well as Cypriote pottery and artifacts. Many of the latter would have been delivered around the Mediterranean by the Phoenicians. The evidence for

⁴⁷ 1 Kings 10: 1-2, 10-11

⁴⁸ Nam, for example dates the text to the Persian period (2012, 86).

⁴⁹ For a counter argument, suggesting that this pericope reflects an Iron IIA dating cf. Aharoni 1967, 1-2; Elat 1979, 531; Liverani 1992, 111; Lemaire 2002, 43-55.

⁵⁰ Even if possibly anachronistically.

Mediterranean connections will be surveyed here, but discussed more fully in chapter 5. One of the more commonly found Cypriot forms are the so-called Cypro-Phoenician vessels, also known as ‘black-on-red ware.’ A review of the presence of Cypro-Phoenician pottery has been conducted by Schreiber (2003). While this type of pottery first appears in the 10th century, it continues in use down into the 8th century and 7th century contexts for this form are dubious (Schreiber 2003, 212-13). This pottery decreases in quantity in later periods, and tends to be concentrated in sites on the coastal plain and in the north (Schreiber 2003, Appendix 1). Other types of Cypriot pottery are attested, particularly at coastal sites. Notable forms include the mortaria bowls and large basket handled amphorae. Both of these forms are attested at Ashkelon (Stager et al. 2011, 112-5), but the mortaria in particular has a much broader distribution. This form was common in the Persian period, but was attested already in 8th-7th century strata at sites in the Shephelah and coastal plain such as Batash, Gezer, Meşad Heshavyahu, Ashdod, and Qasile, as well as in the Negev at Beersheba, ‘Aroer, and Tel Masos (see Mazar and Panitz-Cohen 2001, 51). While this form is petrographically linked to either Cyprus or North Syria, it should still be seen as a sign of Mediterranean connections (Stager et al. 2011, 112-3). The basket handled amphorae seem to be limited to coastal and northern distributions. Examples are attested from the southern Levant at Ashkelon and Meşad Heshavyahu (ibid. 114). Decorated Cypriot forms are rare in this period, although a number of them are attested at Ashkelon, and also seem to be limited to coastal and northern sites (Stager et al. 2011, 103). East Greek pottery is very rare in the southern Levant outside the sites of Ashkelon and Meşad Heshavyahu (cf. Fantalkin 2001, Waldbaum 2011), but a few scattered sherds are attested at sites throughout the coastal plain and into the western Negev (Waldbaum 1994, fig. 1). This distribution follows the patterns of Cypriot pottery and other artifacts with Mediterranean origins (Waldbaum 2011,

140), which show a steep fall-off curve in their representation from coastal to inland sites. Still, the number of forms suggests strong Mediterranean connections with the coast of the southern Levant.

As we have already discussed, Fantalkin (2001) links the presence of Greek pottery to the presence of Greek mercenaries, rather than trade connections. The presence of Mediterranean persons living in the Levant is also suggested by the Arad ostraca through the mention of a group of people labeled “*kittim*.” These ostraca date to the early 6th century BCE, likely between 598 and 587 BCE, but there is no reason to assume that they do not address a situation in place during the 7th century (Aharoni 1966a, 1). In these texts, there is a group of people called the Kittim, to whom Eliashib, the recipient, is directed to distribute supplies on a regular basis. In the biblical texts of this period the term Kittim generally refers to people originating from Greece or other Aegean locations, perhaps Cyprus. Based on the connection to the Aegean, Aharoni (1966a, 4) interprets these Kittim as mercenaries for Judah, serving on the southern frontier.⁵¹ However, it is interesting to note that there is no sign of Greek pottery at Negev sites such as Arad and certainly not in quantities paralleling to assemblage at Meşad Heshavyahu. Thus, if both represent Greek mercenaries, then there must be multiple patterns for Greek mercenary enclaves. It is also important to note that the presence of Greek mercenaries would not provide an explanation for the distribution of Cypriot and north Syrian pottery, which follows similar distribution patterns to the Greek pottery. Thus, while the presence of mercenaries cannot be discounted, we follow Waldbaum in attributing much of the Greek pottery to commercial connections between the southern Levantine coast and the Aegean world.

⁵¹ Na’aman maintains that these and the fortress at Meşad Heshavyahu reflect mercenaries, but suggests they serve Egypt rather than Judah (1991b, 44-51).

Case Study on Consumption and Distribution: The Tribute of Hezekiah to Sennacherib

Throughout this discussion of consumption and distribution we have made reference numerous times to the importance of goods mentioned in the tribute lists of the Assyrian kings. The best example of such a list is the one detailing the tribute received by the Assyrian king Sennacherib from Hezekiah, the king of Judah at the end of the 8th century BCE. This list serves as an excellent case study for examining the movements of goods around the ancient Near East. The goods mentioned in this list reflect materials that were in possession of Hezekiah's palace at the time of Sennacherib's invasion, and thus reflect the consumption practices of the Judahite court. Therefore, an examination of these goods sheds light on the distribution networks of Judah in the years leading up to Sennacherib's invasion, during which the Judahites must have acquired these commodities.

In his campaign to Judah, according to his annals preserved on the Oriental Institute Prism (and other editions), Sennacherib recorded taking 200,150 people great and small, male and female, horses, mules, donkeys, camels, cattle and sheep (Luckenbill 1924, 33; iii:24-5; cf. also Grayson and Novotny 2012, 65, line 51). Later, he received from Hezekiah 30 talents of gold, 800 talents of silver, gems, antimony, slabs of some type of precious or semi-precious stones, couches of ivory, thrones of ivory, elephant hide, ivory, ebony, boxwood, all kinds of heavy treasure, as well as Hezekiah's daughters, his harem, and his male and female singers (Luckenbill 1924, 34; iii: 41-8; cf. also Grayson and Novotny 2012, 133, lines iii: 71-74). To this list, the Rassam Cylinder adds multi-colored (embroidered?) textiles, linen textiles, purple and red purple wool, vessels of copper, iron, bronze and lead, iron, chariots, shields, lances, armor, iron daggers, bows and arrows, spears, and countless implements of war (Luckenbill 1924, 60; lines 56-60; Grayson and Novotny 2012, 66, lines 56-60). From this list, we are mostly interested

in the trade goods, whose source we can identify. The presence of weapons, people, gold and silver all have interesting connotations but are less pertinent to the current discussion. For this investigation we will focus on a few key elements: gemstones, antimony, ivory, ebony, boxwood, linen, purple and red purple wool, and the vessels of copper, iron, bronze and lead. By tracing the production or raw material centers for these goods, we can better understand the extended trade networks in which Judah was a participant.

Egyptian or African goods are well attested among the items of Hezekiah's tribute including ivory, elephant hides, ebony and linen. Elephant tusks and hides can come from two potential sources: African elephants or Asian elephants. The former are native to Africa, and their hides and tusks would have been filtered to the Near Eastern world via Egypt. The most likely source, then, for the ivory is Egypt, although India cannot be completely ruled out. The presence of elephants in North Syria is attested,⁵² but by the time of Neo-Assyrian contact their numbers seem to be in decline.⁵³ Ashurnasirpal II and Shalmaneser III record hunting elephants in North Syria, but their viability as a productive ivory source is doubtful. In circumstances where ivories have been scientifically tested, the African variety is dominant (Moorey 1994, 116-7). Ivory was imported to Egypt from areas to the south (Punt, areas of Southern Sudan) as early as the 5th millennium BCE (Barnett 1982, 16). The quantities of ivory imported from Nubia in the Bronze Age were quite large by the middle of the 2nd millennium (Hayward 1990, 104).

⁵² Thutmose III, for example, hunts elephants in North Syria, as do multiple Assyrian rulers including Tiglath-pileser I, Adad-Nirari II, Ashurnasirpal II and Shalmaneser III.

⁵³ The so-called Syrian Elephant is not a zoological term, but refers to Asian elephants that lived at some point in the region of North Syria (Kryszkowska 1988, 227). This herd is thought to have become extinct sometime around the 8th c. BCE. Assyrian kings mention hunting them in North Syria in the 9th c., through the time of Shalmaneser III. Collon (1977, 219ff.) has tried to suggest that they became extinct even earlier, but that there was an exchange network of live elephants between Syria and India. This argument would lead to an increase in the importance of Egyptian Ivory. Winter (1973, 226-7) has made a similar argument that at some point a herd was transplanted from the east, based off of a lack of ivory early in the 2nd millennium. These arguments are in opposition to suggestions that the herd is a remnant of a relict population from the Pleistocene (cf. discussion in Miller 1986, 29-30). Hayward (1990, 103) has noted that only 45% of Asiatic Elephants have tusks, and that their tusks are generally smaller than those of African Elephants, so that even with the presence of a fairly large herd, the amount of exploitable ivory would be quite modest (cf. also Miller 1986, 32).

Another option for African elephant ivory would be from areas of North Africa, via the Phoenician settlements in the region, exploiting connections that Hayward (1990, 105) suggests may have existed since the Bronze Age.

Whereas the raw materials, the tusks and hides, most likely come from Africa via Egypt, the beds and chairs had to be manufactured in workshops. When Sennacherib speaks of “ivory beds” and “ivory chairs” he undoubtedly refers to beds and chairs featuring carved ivory inlay (cf. Barnett 1982, 24-5). Such furnishings were a common part of palace décor, reminiscent of Ahab’s ‘Ivory Palace’ in 1 Kings 22:39. The discovery of numerous carved ivory inlays and panels in Phoenician styles featuring Egyptian motives were discovered in excavations at Samaria (King and Stager 2001, 204). Amos also spoke of ‘houses decorated with ivory’ (3:15) in addition to ivory beds and couches (6:4), indicating that these crafts were part of the common palace decorations of the late Iron Age in Judah.

Egypt was a center for ivory carving from the Pre-dynastic through New Kingdom, but its influence in the craft declined in later periods (ibid. 16-22). The Levant was an important craft center through the Late Bronze Age, evidenced in part by a large collection of ivories at Megiddo (cf. Liebowitz 1977 for a discussion of Bronze Age schools; Barnett 1982, 23-31), but like Egypt did not remain a major craft center in the late Iron Age. The most famous ivory workshops from the Iron Age were located in North Syria and Phoenicia (Barnett 1982, 43), although centers have been located in North Syria, Eastern Anatolia, North Western Iran, the Levant, and Cyprus (Caubet 2013, 455). The two schools can be distinguished on stylistic grounds (cf. Herrmann and Laidlaw 2009). Thus, by locating the raw material in Egypt and the workshops in Phoenicia, the presence of Ivory suggests exchange connections with both these

locations (both the raw material and workshops are relevant to this discussion due to the mobility of craft specialists, who could have been located in Judah).⁵⁴

Ebony sources for the Mediterranean existed in Ethiopia and further south in Africa, the latter being exploited from an early period and distributed throughout the Mediterranean via Egypt (Meiggs 1982, 282-3). While ebony is also found in India, the logical source is Egypt due to its proximity (Leemans 1960, 27). Ebony is known to have been a part of the Mediterranean coastal trade from as early as the Late Bronze Age, with fragments discovered on the Ulu Burun shipwreck, as well as in furniture fragments recovered throughout the Mediterranean (Postgate 1992, 185; Meiggs 1982, 282-5). Linen is most closely associated with byssus, and is also of Egyptian origin (Elat 1978, 31). The production of textiles and the cultivation of flax are well attested aspects of the Egyptian economy (Forbes 1956, 27-8). The multi-colored textiles (*lubulti birme*) are harder to identify. The term *lubulti birme* is quite general and appears commonly in the tribute lists from all regions. It is not of a specific material or color, making a particular source hard to identify. However, it is quite possible that the manufacture of fine textiles was part of the local economy: that these were locally produced. We have discussed above, for example, the evidence for weaving as a second industry at sites such as Ekron or Ashkelon.

There is also strong evidence for Phoenician connections in this list including “blue-purple” and “red-purple” wool (Grayson and Novotny 2012, line 56). The blue purple and red purple wool are best associated with the Phoenician coast, particularly the areas around Sidon and Tyre (Nunn 1928, 115-6). The shells used to produce the variations of these dyes came from a number of different species. The primary sources are two forms of *murex*, a genus of predatory, carnivorous, sea snails in the family Muricadae (Jensen 1963, 105; Mienis 1992, 124). Of this genus, there are two main sub-species found in association with the dyeing industry: *Murex*

⁵⁴ Regarding mobility of specialists see Barnett 1982; Pappa 2013, 190, also 1 Kings 7:13.

brandaris and *Murex trunculus*. *Murex brandaris*, also known as the spiny murex, is found in sandy/silty or muddy habitats off the Mediterranean coast at depths ranging from 10-150 meters (Smith 601; Ziderman 1990, 99). *Murex brandaris* is found in quantity in the shell mounds outside of Tyre (Jensen 1963, 105) *Murex trunculus*, or banded murex, is found in shallow waters along the Mediterranean coast, on rocky or coarse sand bottoms at depths of 1.5-12 meters (Ziderman 1990, 99; Smith 2010, 601). This type of murex is found in the shell mounds of Sidon and along the Mediterranean coast to the south. The range of the murex stretches from Mt. Carmel in the south to Sidon in the north, but the primary region of extraction seems to lie between Haifa and Tyre (Jensen 1963, 106). The two different species yield different toned dyes. *Murex trunculus* forms a blue-violet color, whereas *Murex brandaris* forms a reddish-purple color, although the colors can be modified by controlling the exposure to sunlight (Jensen 1963, 109; Michel and McGovern 1987, 138-9; Smith 2010, 607). Discarded piles of *murex* shells can be found as an archeological indicator for dyeing industry and have been identified at Tyre and Sidon. It should also be noted, however, that dyeing could also be local to the coast Southern Levant. *Murex* deposits have been identified at Ashdod as well as at the northern coastal sites of Tell Keisan, Acco, and Dor (King and Stager 2001: 161-2). At least two examples of *Murex trunculus* were found in the 8th and 7th century strata of Jerusalem (Mienis 1992, 123-4).

Another example of a Phoenician good is boxwood. According to the textual sources boxwood is local to the Lebanon and Mt Amanus region, as well as Cyprus (Meiggs 1982, 73,281). A particularly popular source seems to be around Mt. Amanus, which according to the Assyrian records of Tiglath-pileser III, was called the boxwood mountain.⁵⁵ Boxwood sources were centered along the North Syrian coast between Ras Shamra and Iskenderun (Rowton 1967,

⁵⁵ Rowton discusses the merit of “tree-toponyms” in the Assyrian records, who counters that although there is a preference in these toponyms for boxwood it is “nowhere a prominent tree” (1967, 271).

269). Workshops for boxwood are assumed to have been located near the sources in Phoenicia and North Syria. Carchemish seems a likely place due to its role as an artistic center, as well as the amount of boxwood taken from there as tribute by Ashurnasirpal II (Grayson 1991, 217; iii: 67).

Regarding goods with Arabian connections, Sennacherib records a large amount of gold (30 talents) in his record of the tribute received from Hezekiah in Jerusalem. In the Rassam Cylinder (Grayson and Novotny 2012, 66: line 56), camels are also mentioned (ibid. line 51). The Rassam cylinder also mentions large blocks of an unidentified stone.⁵⁶ Conspicuously absent from this list is any mention of spices. Holladay (2006, 321) suggests this absence is because spices were so common in Judah at the time that they were not worth mentioning. This conclusion is entirely unsupported, especially given the mention of large amounts of spices in tribute and booty received from the Arabs and the inclusion in the list of much more mundane resources such as livestock. Whereas gold is strongly associated with the caravan trade and the Arabs, and is mined along the Arabian shield (cf. Eph'al 1982; Kitchen 1997, 145; Hoyland 2001, 110-12), the Arabian Peninsula is not the sole source for gold, for Egypt serves as another key source (Holladay 2009, 208; cf. also Klemm and Klemm 2013). In his evaluation of Arabian trade, Holladay (2009, 208) suggests that gold is the “primary key” and “gold in quantity seems to be an excellent surrogate measure of the activity of this (South Arabian) traffic.” Central to this statement is Holladay’s claim that Egypt was extraordinarily possessive of its gold hoard, based primarily on his interpretation of the Amarna letters. We disagree with Holladay that gold can so easily be attributed to solely southeastern connections, especially given the wealth of evidence for close ties between Egypt and Judah which have been noted above.

⁵⁶ NA₄.AN.ZA.GUL.ME GAL.MEŠ. note that Grayson and Novotny leave the stone type untranslated, but it is read incorrectly by Luckenbill as carnelian (1924).

The NA₄.AN.ZA.GUL.ME GAL.MEŠ is difficult. It is clear from the NA₄ determinative that it is a type of stone. It is also clear that the stone is taken in the form of large blocks (*takkasi rabûti*). References to this type of stone are quite rare. It appears in Old Babylonian lexical texts in the form of blocks or slabs (LAGAB), but also as the material for a cylinder seal (KIŠIB). The stone also appears among a long list of stones in the bilingual text LUGAL-e, but unfortunately the Akkadian is not preserved, and Van Dijk identifies the stone as “?” (1983, 120). A vessel made out of this type of stone is mentioned in a Neo-Assyrian ritual text (Von Soden 1939, 42,44: lines 11,25), and an Amarna letter refers to the handle of a spoon made out of this type of stone (*EA 25 ii 43; CAD R, 386*). The South Arabian trade is closely associated with gemstones, but it is unclear that these fit into this category. They appear to be either precious or semi-precious stones based on their use. The presence of this stone in an artifact mentioned in the Amarna letters suggests that it may have been available from Egypt.

Camels are a strong indicator of Arabian presence, but camel bones are also noted in Judah, most significantly at Tell Jemmeh (Wapnish 1981, 102). Thus, while it would be premature to discount any Arabian presence in the tribute lists from Judah, Holladay massively overstates the evidence for this trade, which we will discuss further in chapter 4. While other goods mentioned in the tribute lists could have been distributed by the caravan trade, namely ivory, ebony, and elephant hides, these goods originate in Africa, and not the Arabian Peninsula.⁵⁷

Various metals are also mentioned in Hezekiah’s tribute to Sennacherib, including utensils of bronze, iron, copper, and tin (Grayson and Novotny 2012, line 57), many of which are best associated with Mediterranean origins. In dealing with the metal vessels, we need to identify both the sources for the raw materials and the workshops. Copper has the broadest range, with significant deposits in Cyprus and the Taurus mountains (Reiter 1997, 149). Mining has also

⁵⁷ See for examples the goods taken from the Suhu caravans. This issue will be discussed further in chapter 4.

been identified in the Transjordan, particularly at Wadi Faynan (Bienkowski and van der Steen 2001, 24; Ben-Yosef et al. 2014). Iron is best sourced to Cyprus or the Taurus with lead sources in southeastern and northern Anatolia (Reiter 1997, 112, 344). Bronze is a tin-copper alloy, for which the tin sources are slightly problematic. The most abundant tin sources, to which most of the Mesopotamian artifacts have been sourced, is in Afghanistan (Reiter 1997, 206). Previous reconstructions of Mediterranean sources of tin had focused on Afghanistan or Cornwall England as the most likely sources, constructing convoluted trade networks to explain its presence in the Levant (for a deconstruction of this theory see Penhallurick 1986, 123-31) or abandoning the question (Bass 1986, 295). More recent work, however, has identified a tin source in the Taurus region (Yener 2000, 71-2). Perhaps the most likely source is Iberia, where there are abundant tin resources (Muhly 1985, 286), specifically northern Portugal, which fits nicely with the origins of the other metals on the southern coast of Spain (for Phoenicians in Portugal cf. Neville 2007, 35). The movement of metals in ingot form throughout the Mediterranean is attested from as early as the Late Bronze Age, with the most significant data coming from the Ulu Burun shipwreck (Bass 1986, 272). Sixth century BCE shipwrecks attest the continuation of this tradition, evidencing the transportation of copper, lead, and iron across the Mediterranean (Muhly 1998, 319).

The manufacture of the metal vessels is more difficult to locate. Winter (1983, 188-9) suggests Carchemish as a likely production center due to its access to the iron, copper, and tin sourcing. While her argument is sound, we once again encounter the problem of Carchemish's destruction in 717 BCE. This occurred only 16 years prior to Sennacherib's arrival at Jerusalem, and while some of the vessels could have been stockpiled over time from a period when Carchemish's workshops were still active, it is preferable to locate other possible sources as well.

Crete has been identified as an 8th c. BCE bronze-working industrial center based in part on the finds at the Idaean Cave (Markoe 2003, 211-2). Markoe (2003, 215-6; 1985) suggests that for precious metals in general, on-site production by Phoenician specialists is a likely possibility, and notes the spread of Phoenician finished products across the Mediterranean.

The Akkadian term *guhlu* is written NA₄.ŠIM.BI.ZI.DA, which translated woodenly means ‘the stone of the eye paste/kohl.’⁵⁸ The use of antimony in eye-paint is based primarily on classical sources (cf. Forbes 1965, n.39; Lucas 1962 n.5, n.6). The archaeological examination of eye paints from the ancient Near East, and especially Egypt, has revealed that antimony is rarely present, and instead these compounds tend to include materials such as galena or green malachite (Forbes 1965, 18; Lucas 1962, 195-96; Moorey 1994, 241; Thompson 1936, 117). Thus, Thompson suggests that *guhlu* should be identified with *kohl* and not necessarily with antimony, because it is not until later periods that antimony becomes the common material used in *kohl* manufacture.⁵⁹ Earlier examples have been shown to be compounds of malachite or galena, which could be alternatives for the ‘stone of the eye paste’ (1936, 49-50). It is also noteworthy that the adjective *nisiqti* modifying *guhlu* is unique in this context. The adjective is used most commonly to indicate precious, semi-precious, or gemstones (*CAD N2*, 271-72).

During the third campaign of Shamshi-Adad V against the land of Gizilbunda, he recorded crossing the “mountain of *guhli*,” suggesting an association between this region and *guhlu* (Grayson 1996, 185, line iii: 3).⁶⁰ Quantities of antimony are known from mines Iran, Kurdistan, and Transcaucasia (Moorey 1994, 241), which roughly matches the account of

⁵⁸ Cf. *CAD E*, 47, *egû B* = ŠIM.BI.ZI.DA as a paste, presumably of antimony.

⁵⁹ Regarding the etymological link between *kohl* and *guhlu* cf. Meissner 1914, 53.

⁶⁰ We must be careful, however, not to put too much stock in the precision of this stone-toponym. In his study of tree toponyms Rowton has pointed out that these have more to do with Assyrian associations than ultimate origin (1975, 271).

Shamshi-Adad, locating *guhlu* in the region of Gizilbunda, located northeast of Assyria, by the Medien empire.

If it was not used as eye-paste, it is unclear exactly for what antimony was used. Archaeological objects made of antimony include small ornaments, jewelry, beads, and a small vase, although the metal is quite brittle and difficult to work. Antimony may have been used as an alloy to alter the color of metals such as tin (Moorey 1994, 241-242; Lucas 1962, 195-96). Antimony has been found in archaeological excavations in Israel in the form of four beads excavated from an Iron Age tomb at Tell el-Farah south.

In the Akkadian texts, *guhlu* is most frequently cited as part of tribute received from certain regions: including Egypt (Esarhaddon, Borger 1956, 101: line 21), from Abijate the Arab (Ashurbanipal), and Hindanu on the Middle Euphrates (Tukulti-Ninurta II; Grayson 1991, 175).⁶¹ This is an odd combination of locations, but the Middle Euphrates region has always shown close ties to the South Arabian caravan trade (for example the Suhu caravan inscriptions), and it is therefore possible that antimony is better associated with sources in the south and southeast. Lucas (1962, 195), however, maintains that antimony sources are unknown in Egypt, with the exception of trace compounds in copper or lead ores.

The tribute of Hezekiah encompasses goods from a number of different regions, as we have discussed above and summarize below in table 2. In some cases, these goods have a long history of movement before reaching Judah (and then travel again to Assyria), including the potential of raw materials entering workshops, or for partial production and treatment (such as the dying of cloth or garments) before arriving in the Judahite court. In particular, the metals and ivory final products may have been crafted by workshops in Phoenicia.

⁶¹ Antimony is also mentioned by Sargon II in a summary list of the vast tribute he received during his reign, but it cannot be linked to any specific geographical area (Fuchs 1994, 312, lines 62-69).

Table 2: Sources for Goods mentioned in the Tribute of Hezekiah

Goods Received as Tribute	Source
Gold (30 Talents)	Nubia, Arabia
Silver (800 talents)	Taurus, Cyprus, Anatolia, Spain
Antimony	Iran, Transcaucasia (possibly via Egypt)
Blocks of stone	Unknown, possibly Egypt based on references in the Amarna Letters
Ivory (beds, armchairs, tusk)	Egypt, Phoenicia/Anatolia
Elephant Hide	Egypt, Phoenicia/Anatolia
Ebony	Egypt
Boxwood	Lebanon
Textiles	Local (possible connections with Egypt or Phoenicia)
Linen	Egypt
Dyed Wool (blue-purple and red-purple)	Phoenicia
Bronze (utensils)	Cf. copper and tin
Iron (utensils, daggers)	Anatolia
Copper (utensils)	Transjordan (Edom), Cyprus
Tin (utensils)	Taurus, Afghanistan, Portugal
Chariots, shields, lances, armor, bows, arrows, equipment	
Horses	Anatolia, Egypt
Mules	Local
Donkeys	Local, Egypt
Cattle	Local
Camels	Arabia (possibly local, Negev)
Sheep and goats	Local

To summarize this section: an examination of the tribute paid by Hezekiah to Sennacherib reveals very little that is of local origin (possibly textiles, dyed wool could have

been produced in Philistia), and much that is of Egyptian origin (linen, ebony, possibly gemstones and antimony). This pattern was already noted by Elat (1978 23-6) regarding tribute lists that concern the Philistines. The second area of contact seems to be Phoenicia, particularly Sidon and Tyre which had access to boxwood, ivory, purple and red purple dyes as well as the workshops to produce finished items. The metals show connections to Anatolian sources in the Tauruses, with possible workshops located in multiple places around the Mediterranean. This list conforms to the import and export patterns of products from the southern Levant discussed earlier in this chapter, and seems largely to be a continuation of already established trade networks from the Late Bronze Age. The diversity present in this list also suggests that Judah was an economically active periphery whose non-radial exchange relationships were much more significant than the tributary relationship with the Assyrian core.

Administration in the Southern Levant

To this point, this discussion has focused on the archaeological and textual evidence for local production, and connections between the southern Levant and other neighboring regions. During this examination, we concluded that two of the most important social spheres of economic activity were the household or clan and the market. Foreign connections, for the most part, are best attributed to the presence of trade based commercial interactions, and reflect the logic of production for exchange on the market. Production for local consumption, on the other hand, reflects a logic of the household or palace. We have not yet addressed in detail the social context and economic logic of the palace and royal administration, which followed an economic logic of taxation and redistribution. We will now turn our attention to these other forms of distribution that were taking place within the local administrative systems. These contexts include the redistributive strategies related to taxes and tribute alongside the provisioning of

various officials. In this section, we focus on the context of the local administration and palace as entities separate from the empire and its administration, which will be discussed in chapter 3.

Stamped Jar Handles

The most common material remains are found in the form of seals or seal impressions. Among the different seal types, the most widespread finds are the various stamped jar handles. These seal impressions tend to be found affixed to handles of a specific type of jar, although not all jars of this type are stamped. These jars tend to be petrographically similar, potentially from the same clay source in the Shephelah, which suggests a single as of yet unknown workshop of origin, and by the late 8th century these jars showed a certain degree of standardization (Sergi et al. 2012, 67, 84-5).⁶² The most well-known and common type of these seal impressions are the *lmlk* impressions, which are a sub-type of a larger group of artifacts that have been considered “royal sealings.” All told, Lipschits, Sergi, and Koch (2011, 5) have identified over 2000 royal inscribed handles dating from the 8th century until the fall of Judah to the Babylonians in the late 6th century BCE, and in addition to the *lmlk* seals there are varieties with incised concentric circles and rosette patterns. A typology of the variations found on the *lmlk* seals has been conducted by Lemaire (1981), and it remains the standard for understanding the physical appearance of these seals. In general, these seals have three features: 1) the inscription *lmlk*, meaning “to/for the king,” although this is not present on all of the seals; 2) the symbol of a winged disk, which are divided into a 2-wing sun disk or a 4-wing scarab variant; and 3) one of four place names: Hebron, Socoh, Ziph, and the elusive *mmšt*. Lemaire (1981) further divided the types according to the combination of these elements, and their spatial distribution on the seal. These seal impressions are found throughout the Shephelah and the hill country; however, a few examples are attested in areas outside of Judahite control, namely at Philistine cities such as

⁶² Note that not all jars of this general type fit the most common standard (Sergi et al. 2012).

Ashdod and Ekron, although such finds are rare and make up a negligible part of the assemblage. These seal impressions are also attested, but rarely, at Negev sites (see Lipschits et al. 2011, Table 1 for distribution of *lmlk* jars by type).

The conventional interpretation of these sealings has been put forward by Na'aman (1979a, 71). First, Na'aman assumes that the different variations in the *lmlk* seals have no chronological significance, citing the occurrence of both types side by side *in situ* in Lachish stratum III (the 701 BCE destruction layer at the hands of Sennacherib), and the similarity in the paleography across the types. Based on this observation, and the numerous attestations of these finds at destruction layers attributed to Sennacherib, Na'aman (1986, 11) has proposed that the stamps were part of a royal administration system instituted by Hezekiah as part of his preparation for the impending Assyrian invasion. He suggests the different typologies are explained by regional variances, noting that the four-wing variety is prevalent in the Shephelah, and the two-wing variety is common in the hill country. Based on these data, Na'aman (1979a, 80) proposes the existence of two distinct workshops producing these jars: one in the hill country, and one in the Shephelah. According to this analysis, all of the stamps date to a very narrow time period from the late 8th century until the completion of Sennacherib's campaign in 701 BCE.

This reconstruction has recently come under criticism from Lipschits, Sergi and Koch (2010; 2011). These scholars suggest that rather than representing a short term administrative policy necessitated by the fast approaching Assyrian army, the *lmlk* seals were part of a single, long-term, administration system of royal sealing stretching from the late 8th to the late 6th centuries BCE-- a span of approximately 140 years. Lipschits et al. (2010, 6) suggest the quantity of seals in circulation represent a well-developed and sophisticated administration system that

was unlikely to have developed spontaneously in the short time span between Hezekiah's revolt and Sennacherib's invasion. Instead, they suggest that the stamped royal jar handles are indicative of a new administrative system established in Judah when it became an Assyrian vassal, which persisted throughout the period of Neo-Assyrian hegemony (ibid. 7). Central to Lipschits, Sergi, and Koch's argument is a denial of Na'aman's assertion that the typological differences between the seals reflect a regional, rather than chronological distinction. Lipschits et al. (2010, 18) note that the 4-wing variety was not attested after 701 BCE, and the two-wing type only became common in the 7th century BCE. This includes a period of overlap where both types were in use, and explains the presence of the two varieties side by side at Lachish. Later in the 7th century, these seals move away from the winged *lmlk* variety and were replaced by incised concentric circles and rosettes heading into the 6th century BCE. The *lmlk* jars and the jars with the incised concentric circles also show a degree of overlap, with some examples including both the incised circles and the *lmlk* inscription. Jars bearing all three seal types appear to have originated from a single production center (Lipschits et al. 2011, 8-9). Lipschits et al. (2011, 11-15) explain the geographical spread of the two different seal types to the relative demographic strength of the Shephelah and the hill country in the 8th-7th centuries BCE. During the 8th century, the Shephelah was at its peak, in terms of both settlement size and administrative importance to the Judahite monarchy. Following Sennacherib's destruction of the region, its depopulation, and the removal of much of the land to Philistine territories, the Shephelah diminished in importance. As such, fewer examples of the later 7th century two-winged seals are attested from this region. Furthermore, these destruction layers provided the dating for the seals. Since sites in the hill country were not destroyed at the end of the 8th century, the distinction between 8th-7th century strata are not always present or clear (2010, 7-8). This new reconstruction has not yet been

widely accepted and Ussishkin (2011, 237) argues for the continuation of Na'aman's understanding.

What is the alternative function of these royal stamped jars, if not as a part of a new Neo-Assyrian influenced administration in Judah? Lipschits et al. (2011, 13) suggest that these stamped jars were used for the collection of goods produced on royal farms or estates, primarily wine and olive oil (cf. also Young 2012, 55-6). Overseeing these estates were royal collection centers, located at sites where large quantities of these seals were found, such as Lachish for the Shephelah, or Ramat Rahel for the farmland around Jerusalem, or Beth Shemesh for the fertile areas of the Sorek valley. Lipschits et al. (2011, 11-2) suggest sub-districts represented by second-tier sites in the Elah-Guvrin-Lachish basin, including sites such as Azekah and Tel Goded. The suggestion that these sealings should be linked to royal farms is not new. The idea was first presented by Rainey (1982), who suggested that the *lmlk* seals were used to mark crown property, particularly wine. According to Rainey's (1982, 57-9) reconstruction, the locations (Hebron, Socoh, Ziph, and *mmšt*) refer to the location of royal wineries meant to process the wine, one corresponding to each of the southern districts of Judah as recorded in Joshua 15.⁶³ A similar system is supported by Greenberg and Cinamon (2006, 230-5), who suggest that the Nahal Refa'im catchment basin, which was located conveniently close to, and under the jurisdiction of Ramat Rahel and included a number of agricultural installations but no permanent settlements, served as part of a royal estate system. Faust and Erlich (2011, 205-6) have argued that a certain type of structure found in the highlands during the late Iron Age at sites such as Khirbet er-Rasm and Khirbet abu-Tuwein, comprises remains of royal estates, functioning as central buildings in large agricultural areas cultivated for the crown. Mazar (1982, 108),

⁶³ Although this is based on Rainey taking Ziph and Socoh as alternative sites in the hill country, rather than the better known sites by the same name in the Negev and Shephelah respectively, and conjecture that then *mmšt* is located in the district north of Hebron (1982, 59).

however, suggested that these constructions represent fortresses, built at strategic hills with a view over long distances, and may also have served as administrative and storage centers. Greenberg and Cinamon (2006, 238-9) argue that such administrative centers flanked the wine country of Jerusalem, providing security for expanding vineyards located further from nucleated settlements or villages. Both Rainey (1982, 61) and Greenberg and Cinamon (2006, 238) suggest that the wine grown on these estates was destined for consumption or redistribution among the palace officials. In Rainey's opinion (1982, 60-1), this identification can also explain the dearth of finds from the Negev. The Negev was not a wine-producing region and therefore it was not included in the *lmlk* administrative system because the logistics of the Negev administration were not heavily involved in shipments from royal vineyards.

Lipschits et al. (2010, 8) take the idea in a different direction, and emphasize the role of Assyria and Assyrian interest in organizing this new administrative system. They assume widespread changes in Judah after it became an Assyrian vassal, many of which were related to the need to pay taxes and tribute in-kind. These changes led to the rise in agricultural estates and a shift from small scale local production to standardized mass-industry. The Assyrians encouraged this behavior in order to supply their local garrisons and administrative centers (2010, 7). Lipschits et al.'s reconstruction (2011, 14) also requires differing degrees of royal administrative interest in different regions, with interest centered in the Shephelah (pre-Sennacherib) and the hill country, and small scale administrative involvement in the marginal regions of the Negev and Beersheba valleys. They suggest that the *lmlk* system acted as a sort of royal financing for taxes, and that the Beersheba-Arad valleys were not directly financed by the royal economy. This reconstruction is problematic. We agree with Ussishkin (2011, 222) that "there is no archaeological evidence to support this theory either in Judah or in Assyria."

Ussishkin correctly notes that such stamping procedures are unattested in Assyria proper, or in any other vassal state or province under Assyrian control. Furthermore, there is no evidence for the Assyrian taxation of wine, olive oil, or any other agricultural product from Judah (Liverani 1992, 158; Holladay 2006, 311). On top of this, there is no evidence for the strong presence of Assyrian administration or garrisons in Judah that would require such provisioning.⁶⁴ In fact, the strongest indicators for an Assyrian presence in the region are in the Negev sites at Tel Haror, Tel Sera', and Tell Jemmeh (Oren 1993a). We will return to this issue in chapter 3, but in short, the archaeological evidence and our knowledge of Assyrian policy do not support this reconstruction.

At the same time, Lipschits et al.'s suggestion that the royal sealings represent a long-term administrative process, instituted under Hezekiah and persisting until the fall of Judah in the early 6th century, is appealing. The rapid expansion of Jerusalem was likely accompanied by an enlarged bureaucracy, which would require provisioning through the kind of organized administrative system that the stamped jars suggest. That such a system would be implemented, and then stopped following Sennacherib's invasion is unlikely, and the continuity between the various stamping systems is logical and well-supported by Lipschits et al (2010, 2011). It has already been mentioned that such a stamping system is nothing new in Judah, but is unattested elsewhere in the Assyrian Empire. Thus the best explanation seems that the *lmlk* stamps are the continuation and outgrowth of an earlier local system of private stamps. These earlier stamps bear the preposition *lamed* followed by a personal name (in addition to *lmlk*), and are frequently attested throughout the 8th-7th century BCE (Lipschits et al. 2010, Table 2). Lipschits et al. (ibid. 25-6) attribute these early stamps to preparation for Sennacherib's invasion, a function Na'aman

⁶⁴ The possible exception would be if one follows Na'aman's understanding of Ramat Rahel as an Assyrian residence (2001), which is problematic and will be discussed further in chapter 3.

had originally proposed for the *lmlk* seals. However, this attribution ignores key pieces of evidence for a longer tradition attached to this administrative mechanism, namely the Samaria ostraca.

The Samaria ostraca are from the capital of the northern Kingdom of Israel and date to the early 8th century (Rainey 1988). In these texts, the formula of *lamed* + PN is common, occurring either once or twice in the inscriptions. The term *l-men* is used to identify the role of these individuals. It has been variously suggested that the *l-men* were either the owners of the estates, the producers, or the recipients of the goods listed (Dobbs-Allsop et al. 2005, 425). Rainey (1962, 62-3) has suggested that these *l-men* are the recipients of royal grants, receiving provisions from landholding worked by tenant farmers. It has also been suggested that the system represents some form of tax paid to government officials, and these *l-men* are the recipients of payments (Shea 1977). Either way, Samaria shows evidence of a complex administrative system, based around the redistribution of goods, marking the owner or recipient, with a preposition *lamed*. In fact, the construct *lamed* + PN is one of the most commonly attested forms marking jars in the southern Levant (cf. the compilation of inscriptions by Dobbs-Allsop et al. 2005; Cross 2008). Converting an already existing system of marking possession and redistribution for use by the royal administration is thus a logical progression of a system that was already in place at neighboring Samaria. We prefer, in other words, to see the *lmlk* system as a locally developed means of collection and redistribution in the form of provisions that developed out of local administration up to the royal level and persisted throughout late Iron Age, beginning during the reign of Hezekiah in the late 8th century BCE. The redistributive aspect of these seals is supported by the diversity of sites at which *lmlk* jars are found, rather than concentrated all in a few central storehouses.

Arad Ostraca

Despite the lack of *lmlk* seals found in Negev contexts, we disagree with claims that the Negev was governed under a different administrative system. Aspects of the Negev administrative situation are most clearly depicted in the Eliashib archive at Arad. The Eliashib archive is a set of ostraca, all addressed to the same individual, one Eliashib, possibly an officer or commander of the fortress, dating to the early 6th century BCE. These texts primarily deal with the distribution of provisions to various local persons, in particular, a group of people referred to as the Kittim (Dobbs-Allsop et al. 2005, 8). These texts deal with the distribution of three main commodities: wine, flour/bread, and oil to residents of the Negev (Dobbs-Allsop et al. 2005, 15). Provisioning for these persons seems to have occurred every six days, based on Arad 7 and Arad 8. Both letters mention this time frame, for which a standard consignment was 3,000 loaves and 3 baths of wine,⁶⁵ however other consignments are also attested (Dobbs-Allsop et al. 2005, 23).⁶⁶ These rations were also distributed to people over a distance, indicated by the instruction to seal various goods (cf. Arad 4, for example), which then would have been delivered via middlemen (Dobbs-Allsop 2005 et al. 19).⁶⁷

Contra suggestions that the Negev was not incorporated into the same administration system as Judah is Arad 25. This text records the receipt of barley (measured according to the Egyptian *heqat*) from Lower Anim, Upper Anim, and Ma'on, three sites from the hill country of Judah mentioned in Joshua 15 (Aharoni 1981).⁶⁸ If this identification is correct, it shows that some of the supplies redistributed throughout the Negev originated in the hill country of Judah, which is supported by the presence of pithoi made from Motza clay, originating in the hill

⁶⁵ Based on these numbers the estimates of the number of Kittim have ranged from 25 (Mittman 1993, 47) to 75 (Lemaire 1977, 229-30); a bath of wine is measured at approximately 22-24 liters (Powell 1992, 902-4).

⁶⁶ See for example Arad 2

⁶⁷ Note also that 3 of Eliashib's seals have been found at Arad (Dobbs-Allsop et al. 2005, 8).

⁶⁸ This reading is followed by Dobbs-Allsop et al. 2005.

country, at Negev sites (Master 2009, 310). Mentions of olive oil almost certainly originated outside the Negev, and possibly wine as well. It is possible to grow grapes in the Negev, but olive oil production is less likely (Rainey 1982, 61). Rainey (1982, 61) offers an alternative suggestion for the reading of this ostraca. He suggests that the wine mentioned in the Arad ostraca was grown, collected, and distributed locally, and that this text refers not to sites in the hill country, but people groups in the Negev supplying barley locally produced for redistribution (1971). Rainey's argument is based on the presupposition that the Negev is a self-sufficient administrative and productive entity; however, the climate of this marginal region suggests that at least some of their consumption was supplemented by the more productive hill country regions, especially regarding olive oil.

Conclusions

An examination of the evidence concerning production, consumption, and distribution in the southern Levant has led to us a number of observations: First of all, there is ample evidence for the co-existence of market and non-market systems at work in the local economies of the southern Levant. Roger Nam has already illuminated the co-existence of these patterns in the biblical record (2012), and the archaeological record further supports these conclusions. Non-market relationships based on patterns of either redistribution or one-way transfer are both attested. Judah and the Philistine city-states were clearly in a tributary relationship to Assyria, involved in the one-way transfer of goods to the imperial center.⁶⁹ The existence of a taxation and redistribution system in Judah is further represented by artifacts such as the stamped jar *lmlk* handles and its later derivations, as well as the redistributive directives in the Arad ostraca from the Eliashib archive. Traditional-lineage based subsistence strategies were dominant in the hill country and Shephelah at least through the 8th century BCE, as well as in regions of the

⁶⁹ The Assyrian textual evidence for this will be discussed in detail in chapter 3

Beersheba Valley and Judean Desert. The Bible records multiple accounts of a taxation and redistribution system (cf. Nam 2012), existing as early as the reign of Solomon. 1 Kings 4 records the establishment of an administrative system in which “Solomon had twelve officials over all of Israel, who provided food for the king and his household. Each man had to make provision for one month in the year” (1 Kings 4:7). Menahem, an 8th century king of Israel, is recorded as having collected a special tax of 50 shekels of silver from all the wealthy men of Israel to pay off Assyria (2 Kings 15:20), and a similar situation in Judah in the late 7th century when Jehoahaz exacted a levy of gold and silver to pay off the Pharaoh Neco (2 Kings 23:35, cf. Nam 2012, 149-50). These interactions are representative of one set of social contexts in which the individuals of the late Iron Age southern Levant could participate. These include the context of the household or clan, which was based on an economic logic of diverse subsistence production and risk-spreading strategies and the context of the palace and royal administration, which operated under a logic of taxation and redistribution.

Secondly, however, alongside these non-market social contexts, there is also substantial evidence for the work of market forces, especially along the coast. The excavation of the 7th century marketplace at Ashkelon (cf. Stager et al. 2011, 31-49) is a significant contribution which supports the textual attestations of markets in the southern Levant. Most notably is the mention of the market at the gate of Samaria mentioned in 2 Kings 6, and Ben-Hadad’s treaty with Ahab, which allowed for the setting up of marketplaces⁷⁰ in Damascus “as his father had in Samaria” (1 Kings 20; cf. Nam 2012, 164-7). While both of these texts refer to events in the 9th century northern kingdom of Israel, they reflect conditions of market exchange that likely persisted throughout the southern Levant in the late Iron Age. This marketplace is representative of a third context, alongside the previously mentioned contexts of the household and the palace,

⁷⁰ Hebrew term שוק, for a discussion of this as the term for marketplace in this context cf. Nam 2012, 166

which was especially prevalent in coastal cities, and operated under the logic of supply and demand and market exchange.

The published ostraca from Ashkelon further support the coexistence of multiple types of economic contexts, including both market and non-market behavior. Master and Stager (2011, 738) note that among these texts are reflections of multiple patterns of distribution. They highlight the common forms of *lamed* + PN and the verb *ntn*, meaning “to give,” in inscriptions dealing with disbursements and provisioning, likely related to royal storehouses. These same patterns are also attested at Ashkelon (cf. Cross 2008, 1.1, 1.6). Another ostrakon mentions a tithe of wheat, also in line with redistributive system (Cross 2008, 1.9).⁷¹ Additionally, however, there are ostraca that clearly indicate a more market-based system. One ostrakon, in particular, records the purchase of grain (Cross 2008, 1.2). This ostrakon was found in a context containing a number of cuboid weights and a balance pan, which are indicative of the weighing of silver to make such a purchase (ibid. 337). Silver is attested in coin hoards throughout the region (cf. Thompson 2003), and Gitin and Golani (2001, 43) claim that these represent a silver-based monetary economy. While this certainly does not apply to all transactions, the frequency of weights and silver hoards in the archaeological assemblage points to the use of silver as payment as an important aspect of the local economy. Omri, the king of Israel in the 9th century BCE, is said to have purchased the hill of Samaria for two talents of silver (1 Kings 16:24). In 6th century Judah a similar situation is attested where Jeremiah purchased a field for 17 shekels of silver (Jeremiah 32:9-10). Nam has adequately addressed a passage in 2 Kings 4, where a widow is instructed by Elisha to “Go, sell the oil and pay your debts, and you and your sons can live on the rest” (2 Kings 4:6b). Hosea, an 8th century prophet, records purchasing a woman for a combination of silver and barley, suggesting that silver was not the sole medium of exchange in

⁷¹ See Arad 5 for another example of this.

this period (Hosea 3:2).⁷² Although the story of Elisha and the widow appears in the context of the miraculous provision of oil, the underlying economic conditions that the story assumes cannot be ignored. The underlying assumption of the passage is that if one had access to large supplies of olive oil, it would be possible to sell it to pay off one's debt and live off the surplus (Nam 2012, 170-2). The use of silver as a standard equivalence alongside the possibility of purchasing goods for silver is also attested in the passage recording the siege of Samaria. This text also deals with market forces of supply and demand in the case of a besieged city, where prices greatly inflated in these dire conditions (2 Kings 6, cf. Nam 2012, 167).⁷³ Thus, there is ample evidence for the ability to buy and sell goods and land for silver in the Iron Age southern Levant, indicating that this was a significant aspect of the economy alongside redistributive, non-market measures (cf. Master 2014). These texts also make it clear that it was possible for individuals in the same community, or even the same individual, to operate simultaneously in different social contexts.

The archaeological evidence of networks connecting the southern Levant to Phoenicia, Egypt, the Mediterranean, and Arabia is best described as reflecting trade relations. While it is possible that parts of this trade were carried out under the direction of the palace as administered trade (cf. 1 Kings 10:28-9, for example), this cannot explain the wealth of evidence outside of palace settings, nor the presence of the marketplace at Ashkelon. Additionally, while luxury goods were greatly desired in the palaces and among the high officials of the ancient Near East, this does not account for the finds of fish and shell or worked stone from the Red Sea or Egypt, which were not of a larger trade in preciosities.

⁷² Note that this follows the observations of Holladay that barley functioned as low value "money" (2006, 313), see also Powell 1996, 224 for attestation of this on a broader scale.

⁷³ This phenomenon is also attested in other ancient Near Eastern sources, cf. Silver 1985, 78; Klein 2014.

Through the examination of the complexity of these networks, it is clear that the economic system was not merely part of a core-periphery relationship focused on the Assyrian center. Whereas it is true that much wealth was directed in one-way transfers to Assyria via tribute, core-periphery models ignore the many networks integrating the region outside of this relationship. In this matter, Jennings' work (2006, 349-50) on the Wari state in Peru is particularly applicable. Jennings' main complaint is against the prevalence of radial modeling in which regionalism is neglected and contact between peripheral areas is downplayed in favor of transactions that take place to and from the core area. This type of interpretation is prevalent in interpretations that trade with Arabia or Phoenicia is an Assyrian directive, removing the role of local agency. In fact, it seems that although Assyria took advantage of whatever goods were present at the time of contact, these networks flourished largely independent of Assyria, bringing in goods from all of the surrounding regions to locations in Judah and Philistia.

We have also highlighted that these non-radial models are quite complex. Connections between ivory sources in Egypt and artisan workshops in Phoenicia may have preceded the arrival of carved ivories to the southern Levant. Connections between south Arabian caravans and Egypt may have supplied ebony and ivory to Judah. Before reaching their final resting places, artifacts underwent a series of distribution patterns along multiple networks. Some of these eventually made their way to Assyria as booty or tribute (such as the ivories of Samaria, some of which were found in Nimrud, cf. Heltzer 1978, Dobbs-Allsop et al. 2005, 391-6). The complex movement of goods best reflects trade relations between many parties, each integrated with the other, and operating independently according to local interests, rather than from a command directive from the center. The complexity of this network is highlighted by Ezekiel 27, which lists the many goods filtered to, from and through Tyre. These include exports, imports,

and import for re-export. The list includes goods moving from across the Mediterranean as well as overland connections (Diakonoff 1992, Table 1). That many of these goods are attested with wide distributions archaeologically only adds to our understanding of the complexity of the networks involved. In short, the evidence for non-radial trade within the Assyrian Empire (and with regions outside it) is extensive. This trade seems to have been brokered primarily by the Phoenicians, but other connections also existed. Thus, Phoenicia cannot be considered the true economic center of a Mediterranean world system as claimed by Faust and Weiss (2005, 2011). This suggestion maintains all the problems of radial modelling, replacing the Assyrians with the Phoenicians. The Phoenicians were hardly responsible for Red Sea fish in Ashkelon, for example. This leads Faust and Weiss (2005, 75) to completely discount any significant presence of the Arabian trade. The identification of a new center only serves to propagate radial modeling and to discount the existence of any other networks, which is not supported by the evidence. This is especially true of the late 7th century, when an increasing presence of Greek material suggests that the Phoenicians had competition in the realm of Mediterranean trade. Non-radial models can also focus on down-the-line transfer, where goods move primarily through middlemen from one region to the next, filtered through major hubs. Ashkelon seems to have served as such a hub, featuring a greater quantity of imports, particularly from the Mediterranean, filtered in lesser numbers to inland sites in the hill country and Negev. The evidence supports the co-existence of a plethora of non-radial networks connecting many different regions, either directly or indirectly, rather than one overarching system with a definable center, from which all networks radiate.

There are many other features of the economy of the southern Levant in the late Iron Age worthy of further discussion and synthesis. The period sees an increase in specialization and intensity of production in the early 7th century, which diminishes in the later third of the 7th

century, at least in coastal sites. There is a dramatic demographic shift that features the rapid expansion of urban centers, a decrease of settlement in the Shephelah, and an increase of settlement in the marginal regions of the Negev and Judean desert. The period also sees intensive connection between the southern Levant and Egypt, Phoenicia, the Mediterranean, and the southeast. All of this activity takes place under the umbrella of Assyrian hegemony, which was initiated in the mid-8th century, and lasted until the last third of the 7th century BCE. All of these factors must be taken into account to describe accurately the complexity of the southern Levantine economy, but we will return to these in the conclusion after we discuss the role of Assyria, Arabian trade, and the Phoenicians within this system.

Returning to our model of New Institutional Economics, this chapter has demonstrated the co-existence of multiple societal contexts or “institutions,” each operating under their own system of economic logic, and each influencing the economic behavior of individuals engaging with that system. We have highlighted the continued prevalence of multiple co-existing contexts of economic behavior including: 1) the context of the household or clan as the economic unit in rural production and consumption, 2) the context of the palace, which was built on the logic of taxation and redistribution, and 3) the context of the market, run by Mediterranean trade and the forces of supply and demand. We have also shown how individuals act in multiple contexts at different times, and that all of these contexts must be understood together as part of a larger system that shows continuity with the institutions of earlier periods. In the case of Ekron, certain socio-political changes helped incentivized a change in economic behavior. In this case, changes in landholding facilitated economic growth, and encouraged a movement towards increased participation in Mediterranean trade, in which individuals preferred to exploit their comparative advantage over more diversified risk-spreading strategies.

Chapter 3: The Impact of Assyria

Introduction

In this chapter we will turn our attention to the way in which the Assyrian Empire helped shape economic behavior in the southern Levant. The majority of life in the late Iron Age southern Levant took place under the shadow of the Neo-Assyrian Empire. Encounters with Assyria began as early as the mid-9th century, with the Northern Kingdom participating in the battle of Qarqar against Shalmaneser III in 853 BCE. On Shalmaneser III's Black Obelisk there is a depiction of Jehu, a 9th century Israelite king, submitting to Shalmaneser. At this point, the focus of the Assyrians was directed against the north Syrian Aramaean States, and their influence in the southern Levant was felt only indirectly. With the ascension of Tiglath-pileser III the situation in the southern Levant changed drastically as the local polities changed from a grouping of independent city-states just outside the Neo-Assyrian Empire to vassal states owing tribute and allegiance to their Assyrian overlords. From this point onward, Assyrian policy was an aspect of life in the southern Levant until Assyrian forces withdrew sometime during the last third of the 7th century when the Assyrian Empire began to collapse.

Thus, understanding Assyrian practice in governing its vassals is of central importance to understanding the nature and extent of their impact on the economic structures of the southern Levant. The arrival of the Assyrian Empire also introduced a new social context into the region: the empire. Imperial patronage provided a new mechanism for certain individuals, especially within the palace or nobility, to obtain advancement. Additionally, Assyria tried to insert itself into other societal contexts, such as the palace and the market. The impact of the Assyrians on the daily life and economy of the southern Levant rests on analyzing the degree to which this

insertion was intended to pervade local contexts (eg. the interests of Assyria) and how successful they were at inserting themselves into these contexts (the actual impact of Assyria).

In this chapter, we will first briefly review the history of Assyrian involvement in the Levant and the organization of the Assyrian Empire. Secondly, we will discuss Assyrian policy as it is reflected in the royal inscriptions, administrative documents, and the archaeological remains in the southern Levant. This will allow us to determine the extent to which Assyria tried to insert itself into the local institutional structure. Finally, we will synthesize these sources to form a picture of Assyria's actual involvement in peripheral areas more broadly and the southern Levant specifically, highlighting the impact of Assyria on the local economy by examining the ways in which they successfully entered into, or changed local institutions.

Historical Overview

While the focus of this dissertation is on economic issues, the economy cannot be discussed independently from political events. Political institutions affect and govern economic behavior. Therefore, understanding the context and nature of these institutions is essential to understanding the system as a whole. Thus, a brief historical overview is helpful, highlighting the major campaigns of the Assyrians and their results for the vassal states of the southern Levant.

*Tiglath-pileser III/Shalmaneser V (744-722)*⁷⁴

The first invasion of the southern Levant took place during the 11th year⁷⁵ of Tiglath-pileser III's reign (734 BCE) and was directed against the coastal plain, up until the brook of Egypt (Tadmor and Yamada 2011, 13). The main brunt of the assault was focused on Gaza. Hanuna, its king, fled to Egypt and the city was captured and looted. Tiglath-pileser III later

⁷⁴ Dates taken from Kuhrt 1995.

⁷⁵ 12th "palu"

reinstated Hanuna and set up the city as an emporium (*kāru*), erecting a stela at the ‘Brook of Egypt’ (Tadmor and Yamada 2011, 132; rev. 13-15).

Following this incident Mitinti, the king of Ashkelon is recorded as neglecting his loyalty oath and rebelling, but he then submitted without military intervention following the conquest of Damascus. He was replaced in power by Rukibtu. The text is broken, but Na’aman reconstructs Ashkelon as part of an anti-Assyrian coalition including at least Rezin of Damascus, Israel and Tyre. Upon the arrival of the Assyrian army, Ashkelon quickly withdrew (2009, 352). Tadmor (1966) dates the Ashkelon episode to Tiglath-pileser III’s 733-732 campaign against the Syro-Ephraimite league. As of this point, at least Judah, Ashkelon, and Gaza entered into a tributary relationship with Assyria. Jehoahaz of Judah, Mitinti of Ashkelon, and Hanuna of Gaza are recorded as paying tribute, as well as the Transjordanian polities of Ammon, Moab, and Edom (Tadmor and Yamada 122, rec. lines 10-13). No mention is made of Ekron or Ashdod, and we must assume that they did not rebel (although cf. Tadmor 1966, 89). None of these areas were annexed into Assyria. The reign of Tiglath-pileser III’s successor, Shalmaneser V, was short and did not involve campaigns against Philistia and Judah, although the fall and annexation of the Northern Kingdom of Israel in 722 BCE coincides with the end of his reign.⁷⁶

Sargon II (721-705 BCE)

With the ascension of Sargon II in 721 BCE, rebellion broke out throughout the empire. This was a common occurrence when power shifted and tributary states tried to take advantage of political change hoping for a weak ruler or internal upheaval. Sargon II apparently took over from Shalmaneser V via a violent coup, and thus he first had to deal with the internal consolidation of his rule. This distraction presented a perfect opportunity for vassal states to re-

⁷⁶ Note that though Sargon II takes credit for this in the first year of his reign, 2 Kings 18:9 attributes the destruction to Shalmaneser V.

assert their independence (Kuhrt 1995, 497). Gaza was apparently a participant in this revolt, and Hanuna of Gaza was captured and taken back to Assyria (Fuchs 1994, 90, line 56). At this time, it is also clear from letters and administrative documents that all of the Philistine cities, as well as Judah, were in a tributary relationship with Assyria. Assyrian letter ND 2765 records the receipt of horses from Egypt, Gaza, Judah, Moab, and Ammon, as well as the emissaries of Edom, Ashdod and Ekron (*SAA I* 110, lines 33-46). ND 2672 records another payment of tribute, this time received from Ashkelon, including silver, textiles, horses, and fish (Postgate 1974, 387-8, lines 1-16).

In 712 Azuri, king of Ashdod, rebelled against Sargon II, while apparently unsuccessfully attempting to incite neighboring kingdoms to do the same. Because of his rebellion, Azuri was replaced by his brother, Ahimiti, at the hands of Sargon II. However, an individual by the name of Yamani was elevated to rulership in an apparent coup, leading to another campaign to the region. This campaign specifically targeted Ashdod and its environs and resulted in the conquest of Ashdod, Ashdod-Yam, and Gimtu (Gath?). The cities were reorganized and resettled with deportees from the east. Sargon II claimed to have placed governors over them and to have counted them among the people of Assyria, bearing his yoke. A fragment of a victory stela was found in Ashdod celebrating this event (Tadmor 1966, 95). Thus, it appears that at this point Ashdod was annexed into the Assyrian Empire (Fuchs 1994, 134-5, lines 241-254). It is possible that Ekron participated in this revolt, which is suggested by a wall relief from Dur-Šarrukin, depicting the siege of Ekron (labeled *Amqarruna*, Tadmor 1966, 94). Thus, by the end of Sargon II's reign the entirety of the southern Levant was either vassal to, or a province of, Assyria.

Sennacherib (704-681 BCE)

Sargon II died on the field of battle in 705 BCE, shocking the ancient world. As was expected, this event was seized by many vassal states as an opportunity to rebel (Kuhrt 1995, 499). The southern Levant was no exception. Thus, having secured his rule at home and quelled the Babylonians and other rebellious polities to the east, in 701 BCE Sennacherib marched his army to the Levant in his third campaign, targeting Phoenicia, Philistia, and Judah. The first stop on his campaign was Sidon, which promptly surrendered. Following this, with Sennacherib's arrival in the southern Levant impending, he received tribute from other Phoenician cities (Arwad and Byblos), Transjordanian polities (Ammon, Edom, and Moab), and Mitinti of Ashdod (Grayson and Novotny 2012, 64, lines 36-8). Gallagher (1999, 106-10) has suggested that these polities had withheld tribute following Sargon II's death, waiting to see how things played out. When Sennacherib turned his attention westward, they quickly came and presented their tribute, along with those of the missed years, hence the reference to gifts 4-times the normal amount (line 38).⁷⁷ Gallagher asserts that these are portrayed in the annals as gifts rather than tribute to mask the fact that Sennacherib is being lenient with rebellious kings.⁷⁸ Thus, Ashdod is not portrayed as taking part in Judah's rebellion, but interestingly enough appears with other vassal rulers, with its own king, despite suggestions that it was annexed in 712 BCE by Sargon II and that the king was replaced by an Assyrian governor.

The same cannot be said for Ashkelon and Ekron. Regarding Ashkelon, the Rassam cylinder records "Moreover, (as for) Šidqa, the king of the city Ashkelon who had not bowed down to my yoke, I forcibly removed the gods of his father's house, himself, his wife, his sons,

⁷⁷ Covering 705, 704, 703, and 702, with 701 to come later in the year, or if 705 had already been paid, 704, 703, 702, 701.

⁷⁸ Although he also notes the possibility that due to the turmoil in the region they may have been unable to deliver the tribute (Gallagher 1999, 110).

his daughters, his brothers, (and other) offspring of his father's house and took them to Assyria. I set Šarru-lu-darri, son of Rukibtu, their former king, over the people of the city Ashkelon and imposed upon him the payment of tribute (and) gifts (in recognition) of my overlordship so that he (now) pulls my yoke. In the course of my campaign, I surrounded conquered, and plundered the cities of Bit-Daganna, Joppa, and Banayabarqa, (and) Azuru, the cities of Šidqa that had not submitted to me quickly" (Grayson and Novotny 2012, 64, lines 39-41). Thus, Ashkelon seems to have been the first target of Sennacherib, who traveled down the coastal plain, but no battle was needed. The city surrendered and the rebellious king Šidqa was replaced. Certain cities in Ashkelon's hinterland were destroyed, including Jaffa, indicating that part of this hinterland lay further north along the coastal plain.

Next, Sennacherib turned his attention to Ekron, where apparently a coup had been formed to depose Padi, a pro-Assyrian ruler. This coup was seemingly instigated by Hezekiah of Judah with the backing of Egypt. The Rassam cylinder records that: "the governors, the nobles, and the people of Ekron who had thrown Padi, their king who was bound by oaths to Assyria, into iron fetters and who had handed him over to Hezekiah of the land of Judah in a hostile manner..." (ibid. line 42). After defeating an Egyptian army Sennacherib "approached the city Ekron and I killed the governors (and) nobles who had committed crime(s) and hung their corpses on towers around the city; I counted the citizens who had committed the criminal acts as booty; (and) I commanded that the rest of them, (those) who were not guilty of crimes or wrongdoing, (to) whom no penalty was due, be allowed to go free. I brought out Padi, their king, from the city of Jerusalem and placed (him) on the lordly throne over them, then I imposed upon him payment (in recognition) of my overlordship" (ibid. 65, lines 46-48). Thus, for the most part

Ekron escaped punishment. The majority of the population was not held accountable for the rebellion. Padi was re-instated and the leaders of the anti-Assyrian movement were executed.

The bulk of Sennacherib's wrath was reserved for Hezekiah and Judah. Sennacherib claimed to conquer "46 of his (Hezekiah's) fortified walled cities and small(er) settlements in their environs without number" (ibid. line 49), he deported a large portion of the population (line 51), took away the plundered land from Judah and awarded it to Ekron, Ashdod, and Gaza (line 53), and exacted a massive tribute from Hezekiah (ibid. 66, lines 56-8). Gaza is only mentioned by Sennacherib as a recipient of Judahite land, thus we may assume that it remained loyal, although it is conspicuously absent from the list of kings bringing tribute to Sennacherib after the surrender of Sidon. However, this problem may be accounted for in the biblical text. 2 Kings 18:7b-8 records "He (Hezekiah) rebelled against the king of Assyria and would not serve him. He struck down the Philistines as far as Gaza and its territory from watchtower to fortified city." The Rassam cylinder shows Hezekiah's attempts to coerce his neighbors into joining his coup. It seems likely that Gaza refused and was subject to an assault by Hezekiah, which likely would have prevented them from meeting with the Assyrians, to whom Gaza remained loyal (Gallagher 1999, 110-1). None of the rebellious states were annexed, but retained their vassal status, although each with increased tributary demands.

Esarhaddon/Ashurbanipal (680-630 BCE)

Following Sennacherib's third campaign it seems the southern Levant had received the message that rebellion against Assyria was a bad idea, and there were no further revolts during the reigns of Esarhaddon and Ashurbanipal. Both kings campaigned against Egypt, and in the course of these campaigns drew upon the resources of the local kings of the southern Levant, with Gaza, Ekron, Ashdod, Ashkelon and Judah specifically mentioned as participants in

Ashurbanipal's 1st campaign against Egypt (Berger 1996, 18-9; lines CII 37-67). These same kings were involved in the construction of Esarhaddon's palace, contributing supplies and labor (Leichty 2011, 23-4, lines v: 54-vi: 1). Thus, the polities of the southern Levant seem to have remained loyal vassals throughout the period of Assyrian influence in the 7th century.⁷⁹

Organization of the Assyrian Empire

Before discussing the policies implemented by Assyria to govern and control its empire, we will first describe the organization and structure of the empire, including the major types of relationships between the governing and the governed. Understanding the structure and organization of the empire will in turn shed light on Assyria's relationship to the polities under its control. First, we will briefly review the main theories regarding empire construction and maintenance. In particular, our concern is with the economic implications of these theories, rather than the theories themselves, which have been the subject of many excellent works, including recent research by Parker (2001) and Herrmann (2011).

World Empire

In chapter 1, we already examined how the Neo-Assyrian Empire could be understood through a World Systems perspective filling the role of a world empire. According to this viewpoint, the Assyrian Empire served as a parasite, feeding off of the peripheral smaller vassal states in the form of taxes and tributes which flowed into the Assyrian core and capital cities. On the one hand, this reconstruction is appealing because of the textual support for the extensive tributary system employed by the Assyrian rulers, and the centrality of tribute payments in their relationship with vassal states. On the other hand, the category of world empire is lacking, in that it ignores other important sets of relationships between the core and its periphery as well as

⁷⁹ There is some debate about this. Tadmor (1966, 99-100) argues that *SAA 4*, 82-83 and the Nahr el-Gelb inscription (Leichty 2011, 192-3) suggest that Ashkelon allied with Egypt in Esarhaddon's first campaign. 2 Chronicles 33:10-13, although a later text, also suggests some rebellion on the part of Manasseh of Judah.

relationships between peripheral regions independent of the core. The economic activities of the Assyrian Empire, as we will discuss later in this chapter, were not limited to the extraction of wealth in the form of tribute. The world empire perspective is flawed primarily in that it focuses too heavily on one specific type of economic transaction (tributary transfer), at the expense of others, thus oversimplifying the complexity of economic networks in the ancient Near East, which involved the movement of goods along many axes-- and not just from periphery to center.

Territorial-Hegemonic Empire

A territorial-hegemonic model of empire attempts to account for the variations in degrees of imperial control present across an empire's holdings. These degrees of control exist along a continuum featuring different balances of power and levels of integration, thereby providing an extensive range of imperial strategies (D'Altroy 1992, 19). On one end of the spectrum is the hegemonic system, which consists of a core polity and client polities working under varying degrees of autonomy to implement imperial policy and extracting material goods for imperial consumption. The other end of the spectrum is a territorial model, which implies a more direct control and occupation of subject territories by the imperial core, as well as higher involvement on the part of the central state for the governance, administration, and security of the dependent regions (ibid). The territorial-hegemonic model has been applied to the Neo-Assyrian Empire by Bradley Parker (2001). Parker suggests that this model is ideal because it provides a range of imperial strategies, from full incorporation and annexation, to limited involvement with a vassal state.

In his analysis of the organization of the northern frontier of the Assyrian Empire, Parker (2001, 249) outlines a "territorial-hegemonic continuum" of imperial control. According to Parker, the Neo-Assyrian Empire included a range of zones of control varying from full

territorial to hegemonic. Full territorial rule consisted of turning conquered states into an Assyrian province, incorporated into the Assyrian Empire and ruled by an Assyrian governor. Another option was hegemonic rule. This type of rule took the form of converting existing autonomous states into vassals by binding them to the empire via loyalty oaths, but maintaining the infrastructure of the existing local government. Along this spectrum of incorporation, Parker highlighted the important role of buffer states and buffer zones. Buffer states were those polities in which the Assyrians chose not to exert any control, leaving them as neutral entities separating them from rival hostile polities. Buffer zones were similar, but unlike buffer states they existed in territories where there were no existing state level structures (ibid. 251-2). Beyond these zones of “positive” or “neutral” control, Parker also emphasized the presence of hostile zones, or areas of “negative” imperial control (ibid. 253-4).

Parker’s application of a territorial-hegemonic model provides a broad framework for productively investigating the range imperial control, and in turn, the effects of imperial policy in any region. Therefore, even though Parker’s study focused on the northern frontier of the empire in the 9th-8th centuries, this model is equally relevant for the study of the southern Levant.

Economically, D’Altroy suggests that in areas of hegemonic control the result of the imperial-client relationship is an intensification of production in the vassal region. This intensification is motivated by the extraction of surplus for tribute by the imperial power. D’Altroy suggests that this intensification is the result of a hands-off approach, and that the means of intensification and reorganization are left in the hands of the vassal polities, although he suggests in certain cases there is the more direct intensification of the production of key resources (1992, 21). Thus, economically, D’Altroy suggests that the impact of a hegemonic model on a local economy is best described in a manner similar to the tax-and-trade model

discussed in chapter 1. We argue that while intensification of production accompanied the hegemonic incorporation of the southern Levant into the Assyrian Empire, the accompanying intensification of production is not best understood according to tax-and-trade models or their derivatives, but rather according to an increased participation by local decision-makers in the social context of the market. These decisions were influenced by lowered transaction costs that incentivized mass production for export (which we will discuss further in chapter 5), not by imperial taxation demands.

Patrimonial Empire

Parker's application of the territorial-hegemonic model to the Neo-Assyrian Empire has recently come under criticism from Virginia Herrmann (2011, 73-4), who suggests that the Neo-Assyrian Empire is better understood as a patrimonial empire. Herrmann follows the definitions of Eisenstadt, characterizing empires along a bureaucratic to patrimonial continuum. In a patrimonial empire, few symbolic or institutional differences exist between the core and the periphery, whereas in a bureaucratic empire the distinctiveness of the center is highlighted. Concerning imperial integration, patrimonial kingdoms show little evidence of restructuring conquered territories, whereas the bureaucratic empires attempt to fully reconstruct and micromanage peripheral territories (ibid. 74). Herrmann suggests that the advantage in the patrimonial-bureaucratic model lies in its perspective, which focuses on the local social organization of the periphery. According to her analysis, variability within a territorial-hegemonic model is found in the local conditions of a peripheral territory, and that the policy applied by imperial decision-makers is always the same: a formally rational cost-benefit analysis. In contrast, within the patrimonial-bureaucratic model variability lies in the organization and

social structure of the peripheral territory: the worldview of the elites, the existing social structures, and political institutions, etc. (ibid. 75-6).

Thus, according to Herrmann (ibid. 149), the territorial-hegemonic model is too rigid, and reliant on formal economic principles of maximization and rational cost-benefit analysis. Herrmann argues that concepts of economic maximization are less important in areas where Assyria took a more active, involved interest than questions regarding security of the empire. This is, however, a false dichotomy, and assumes that any cost-benefit analysis of imperial incorporation carried out by the Assyrians was strictly “economic” and that “economic” issues can be separated from political ones. The formation of secure buffer zones would certainly have had economic benefits, but not in the sense of direct revenue. Herrmann’s critique of the territorial-hegemonic model assumes a proto-capitalist focus on revenue. However, if we consider aspects such as security as a non-economic benefit that was still part of Assyria’s decision-making process, then Herrmann’s critique is avoided. A wider understanding of what constitutes a cost or benefit allows for a multiplicity of interests to be encompassed in any cost-benefit analysis.

Herrmann’s argument that elements of the Neo-Assyrian Empire are best understood from a patrimonial perspective, especially regarding social structures and organization in peripheral regions, are convincing. However, it is not necessary to assume that such a model is incompatible with a hegemonic-territorial continuum of control, where the existing social institutions and historical behavior are other relevant factors influencing Assyria’s decisions on how to incorporate a given region. As discussed previously, Parker has adequately shown how some of these non-economic factors can be incorporated into a working model of imperial

integration in the north, and such a model can also prove productive for examining the situation in the southern Levant.

Vassals vs. Provinces

Returning to a territorial-hegemonic model, the organization of the Assyrian Empire can quickly be divided into two main groupings along the territorial-hegemonic continuum: vassals and provinces. The former exist closer to the hegemonic end of the spectrum, whereas the latter occupy the territorial end of the spectrum. Unfortunately, the division between these modes of governance is not always clear, and a mixture of imperial governing strategies can be found across these initial groupings. The first important distinction that must be made regarding the difference between vassal states and provinces is establishing a definition of direct (territorial) and indirect (hegemonic) rule. Allen (1997, 138) suggests that direct mechanisms of Assyrian control include military conquest, mass deportation, manipulating royal succession, holding hostages, tribute, taxes, corvée, manipulation of trade relations, and legal proscriptions on trade. In contrast, indirect mechanisms include co-optation and indoctrination of the elite, bureaucratic co-optation, control of capital, and economic rationalization. This break down is entirely unhelpful, and has to do with methods of enforcement (hands-on/hands-off), not everyday rule and administrative control of territories. According to this model, almost every region in contact with Assyria was controlled both directly and indirectly, therefore rendering this model heuristically unhelpful.

Singer-Avitz (1999, 7) suggests that direct control refers to areas under permanent military occupation with constant supervision of the provincial government by the central government. The economic system is based on tribute and also the control and ownership of the means of production by the center. In contrast, indirect control is when the central government

supervises the local population without the aid of a military garrison, and only the threat of military force. Under indirect control, economic ties are based on taxation and the means of production is left in the hands of the local population. This model may be too rigid. Even in the provinces, the king did not have absolute ownership and control of the means of production. Similarly, garrisons could be stationed, especially in border zones, for reasons other than political control of the vassal population (cf. Parker 1997).

Stanish (1997, 196) suggests that indirect control involves minimal changes to the local political economy of conquered territories, while direct control involves substantial reorganization of the territory. This model, although quite broad and perhaps vague in details, is useful for separating concepts of direct and indirect Assyrian rule, and directly follows distinctions made between vassals and provinces by scholars such as Eph'al (2010, 36), Machinist (1993, 88), Parker (2001, 249), and Bagg (2012, 296-97). The key here is a focus on reorganization, not oversight, as the condition for direct rule. In the Assyrian provincial system, local kings and rulers were replaced by governors, and the bureaucracy and administration was rebuilt under an Assyrian governor and a host of officials. In the case of the vassal kingdoms, the local king became subservient to Assyria but retained his position, his officials, a local army, and a large degree of autonomy. Oversight is certainly present. The presence of Assyrian officials (*qēpu*),⁸⁰ assigned to be watchdogs in vassal states, is well-documented, but while they provide oversight and surveillance, they were not part of any massive political reorganization process. Similarly, replacing the local king was not necessarily the same as the reorganization of the political system. In many cases the system remained the same and only the head of that system changed, often to an individual more inclined to remain loyal to the Assyrian king. Thus, if we understand direct and indirect rule as a matter of reorganization vs. *laissez-faire* tactics in regards

⁸⁰ Cf. Esarhaddon's treaty with Tyre (Parpola and Watanabe 1988, 25, lines 6-14).

to the political organization of a region, it becomes clear that Assyrian provinces were ruled directly and vassal states were ruled indirectly. This distinction is also seen in the taxation structure. The Assyrian provinces were taxed in the same manner as the Assyrian core, and were responsible for all the same types of payment and service (cf. Radner 2007a, 214-5). They were not, however, subject to annual tribute, which was the payment structure imposed on the vassal states (Postgate 1974, 217).

Parker (2001, 249) suggests that the degree of imperial control was linked to the benefits of infrastructural investment. Thus, on one hand: “territorial control was a high-cost, high benefit system. It was high cost because establishing complete control involved considerable expense in the form of the construction of infrastructure and the establishment of administrative systems. However, having established territorial control, the imperial capital was then in a position to extract directly a considerable amount of income from the subject territories through taxation, the exploitation of labor and the extraction of natural resources.” Hegemonic rule, on the other hand, “was imposed in areas where the potential success of that policy was high and where the benefits-to-cost ratio was seen as insufficient to justify territorial control” (ibid. 252). Bedford (2009, 42) has argued that the maintenance of provinces was more cost-effective, suggesting that they did not require regular visits from the king in order to procure the tribute payments. Eph‘al (2010) has suggested the opposite. Eph‘al rightly notes that in most cases tribute was sent to the capital, obviating the need for regular visits to vassal territories. From the administrative documents dealing with the delivery of tribute (cf. *SAA 15*, 95; *SAA 1*, 29; *SAA 1*, 33), it is clear that tribute was delivered to certain regional centers, from whence it was then sent to its final destination (often the capital, but sometimes other places as well, particularly in the case of horses or building materials; cf. also Bär 1996, 11-28). Eph‘al (2010, 36ff) also correctly notes

that in the case of vassal states the Assyrian Empire was not responsible for the costs of administrative infrastructure and upkeep, all of which were under the control of the vassal king. In certain circumstances, when a vassal was particularly rebellious and required regular intervention to ensure its loyalty, it became economically advantageous to turn the area into an Assyrian province (for example Sidon under the reign of Esarhaddon, Ashdod and Samaria during the reign of Sargon II), but in general, as long as the vassal remained loyal, indirect rule was more cost-effective and less intensive –in terms of both time effort-- than converting an area into a province (cf. also Berlejung 2012, 30; D’Altroy 1992, 21).

Thus, we agree with Parker that the organization of the Assyrian Empire is best understood along a continuum of imperial control ranging from lower levels of control and integration (hegemonic) to higher levels of control and integration (territorial). The polities that interest us most, Judah and the Philistine city states, were all on the hegemonic end of the spectrum, although for a period of time, Ashdod was closer to the territorial end. The Northern Kingdom of Israel was under territorial control from 722 BCE onwards. An important question arises as to why certain areas were maintained as vassals and never incorporated into the Assyrian Empire. To answer this question we must turn our attention to Assyrian policy and an in-depth analysis of the cost/benefit ratio of incorporating subjugated regions over time.

Textual Sources on Assyrian Policy

A discussion of Assyrian policy is better focused on Assyrian policies. It is a fallacy to assume that Assyrian policy was uniform or monolithic. In reality, Assyrian policy was varied depending on the historical and political circumstances. Policy was determined on an individual basis by the king, who applied said policy, to a specific vassal or province, in light of that vassal or province’s past behaviors. In fact, each king had different policy preferences, and each region

that was conquered was treated differently by the Assyrians on a case-by-case basis. The assumption that Assyria had an overarching foreign policy that was universally enforced cannot be supported by the available data. Thus, we agree with Herrmann (2011, 147) that it is “highly unlikely that we will be able to isolate general ‘policies’ that were applied consistently to abstract types of territories, environments, polities, or peoples and means that the course of development in any particular location is quite unpredictable.” This is not to say, however, that there were no larger patterns or ideas that governed the various ways each Assyrian king implemented these regionally tailored policies, nor that the policies implemented were random; only that the influence of local variables had a profound effect on the final implementation of Assyrian foreign policy. As such, the best approach for understanding Assyrian policy is descriptive, rather than prescriptive. By describing Assyrian policies as they are reflected in the archaeological and textual record we gain important insight into these unifying features, while still maintaining flexibility for the irregularities and personalized implementation of Assyria’s larger overarching agenda.

In his study of the mechanisms of Assyrian imperial control in the regions to the north of Assyria, Parker (2001, 252) concluded that “Assyrian imperial expansion was...meticulously planned and expertly executed policy that took into account the unique conditions of each region. Flexibility was the key factor in forming Assyrian policy. The Assyrian administration carefully weighed the potential military, political, and economic benefits of expansion into new regions and chose a specific policy for each region that would maximize imperial gains. The decision to expand into new areas and the type of control imposed in those areas can therefore be understood as a cost/benefit equation.” Herrmann (2011, 149) claims that despite the variability of Assyrian policy, we can “define a baseline expectation that in general, beyond the maintenance of security

and the support of the local administration and garrison, the Assyrians will have adopted a non-interventionist, laissez-faire attitude toward the internal workings and economies of newly conquered territories.” We agree with Parker that Assyrian policy was both flexible and personalized to each individual case, and that as a whole, Assyrian policy can broadly be interpreted in light of a cost/benefit analysis. At the same time, we agree with Herrmann’s characterization that, in general, Assyrian policy was not predisposed to intense intervention in local economies.

Determining the thought process behind the empire’s cost/benefit analysis is quite complex. Parker (2001) notes that a combination of political, military, and economic factors was involved in how the Assyrians treated conquered territory. Bagg’s claim (2013, 131) that: “the logic of Assyrian world domination was based on the principle of maximum profit with minimum infrastructural investments” is overly simplistic because of its focus on profits and the economic potential of a region, excluding non-economic factors such as security, which were equally if not more important to the Assyrians, and will be discussed more in-depth later in this chapter. This interpretation of the Assyrian Empire has rightly been criticized by Herrmann (2011, 104-5) as ‘proto-capitalist’ and overly focused on questions of profit maximization. Parker’s cost/benefit analysis takes into account other factors, such as security, that incentivized the decision-making of Assyria in the maintenance of its empire. In the case of examining Assyria’s cost/benefit analysis, a New Institutional Economics perspective of transaction costs is especially helpful. In addition to non-economic the costs of the cost/benefit equation we can also include transaction costs of establishing imperial control. In particular, we note the costs of acquiring information, maintaining infrastructure to enforce contracts, and the opportunity costs

of investing time, resources, and manpower in these endeavors as opposed to other, potentially more profitable arenas.

Assyrian foreign policy is presented through a number of different lenses, which must be collated and examined together to construct an accurate picture of Assyria's relationship with its vassals and provinces. On the one hand, there is the view of the imperial royal inscriptions. These inscriptions tell the story from the perspective of the Assyrian king. They represent the rhetoric of imperial rule as the king and palace wanted the nature of imperial rule to be perceived. Thus, these texts focus primarily on an intended perception of Assyrian rule. They were not as concerned with the accuracy of these policies in individual circumstances, as much as the rhetoric of absolute dominance and control. This is not to say that these texts are an unreliable historical source, or that they do not provide a valuable contribution to our understanding of Assyrian policy. In reality these texts are central to such an understanding, forming the baseline against which we can examine other documents.

On the other hand, there is a plethora of letters dealing with issues of provincial governance and Assyrian foreign relations. These letters represent the correspondence between various provincial administrators and the palace, regarding the various issues of daily, life and maintaining an empire. These letters, now more widely available through the publications of the *State Archives of Assyria* series, provide a different perspective for examining Assyrian policy. This perspective is less focused on the king, but more on the daily realities of the problems and situations at work in the governance of the provinces. More recently, scholarship on the policies of the Neo-Assyrian Empire has increasingly focused on the centrality of these letters to provide a balanced perspective of Assyrian governing practices (cf. for example Parker 2003, Younger

forthcoming,⁸¹ Fales 2008, Eph'al 2010, Holloway 2002; Yamada 2008). While these texts are exceptionally helpful, they provide only partial information. There are many letters from the reign of Sargon II, in particular dealing with the regions to the North in the vicinity of Urartu, as well as areas of North Syria. Similarly, there are many letters from the eastern provinces and the area of Babylon. All of these letters can provide valuable insights to how Assyria interacted with subservient states, however, most come from contexts within the provincial system, and are not necessarily applicable to vassal states. Similarly, there is very little evidence from the southern Levant itself. In this case, the best parallels are often from Phoenicia, which like the southern Levant maintained vassal status late into the Neo-Assyrian period. Still, all of these texts must be understood in the context of providing a framework for understanding Assyrian policy, and it cannot be assumed that the polities of the southern Levant were treated identically.

A third source for understanding Assyrian policy comes from the viewpoints of the Assyrian vassals themselves, and their view of the Assyrian overlords. This type of data is unfortunately quite lacking, but certain information can be gleaned from the Hebrew Bible, as well as selected Aramaic texts from Syria that record a local perspective of Assyrian rule.

In addition to these three textual perspectives, there is also the story told by the archaeological remains. An examination of the archaeological traces of Assyrian presence in the southern Levant provides an important reflection of their interests. Of particular importance is identifying where Assyrian materials have been found, and in what contexts.

⁸¹ I am very grateful to Professor Younger for providing me an advanced copy of this paper, and for giving me preliminary feedback on some of the ideas presented in this chapter.

Assyrian Policy in the Royal Inscriptions

As we discussed above, the Assyrian royal inscriptions⁸² are a reflection of the way that the Assyrian King intended to be perceived, and the way in which he presented himself before the gods of Assyria (Radner 2000, 233; Oded 1992, 2). In this sense, these texts are full of imperial rhetoric and propaganda. Holloway (2002, 80) describes these texts as creating a “partially fictive corpus of state-controlled knowledge,” which served as a means of propagating a message of imperial identity over time. As such, Holloway (ibid. 93) goes on to note that “historical information is undoubtedly embedded in these texts and images, but forensic, discursive history was the goal of neither the modern nor the Assyrian propaganda facades.” Oded (1992, 5) likewise claims that: “there is a gap between historical truth and the tendentious picture that emerges from the royal ‘official historiography,’ between factual history and a biased presentation of events based on ideological notions.” We do not claim that these texts have no historical value, only that they must be read properly with attention to the literary structures (cf. Younger 1990, 61-124). These elements of how Assyria and the Assyrian king portrayed themselves, and how they wanted to be perceived by other nations and the gods, are often discussed as part of the broader concept of ‘Assyrian ideology,’ which is worthy of a brief discussion.

Assyrian Ideology

It is not the intent of this dissertation to review the details of Assyrian ideology, which have adequately been tackled by Liverani (1979), Machinist (1993), and Holloway (2002), among others. Rather, our goal is to discuss how to understand ideology as an aspect of imperial decision-making and a driving force behind Assyrian policy. Ideology can be a vague term,

⁸² For a discussion of the text genres included under the broader category of Assyrian royal inscriptions cf. Grayson 1980, 150-159

which is too often used as an explanatory catch-all to explain what we would otherwise consider illogical. Still, a number of careful, well-defined studies exist on the ideology of the Assyrian Empire. The first step in analyzing how ideology affects economics is coming to a useful definition of ideology. Holloway (2002, 72) defines ideology as “any belief or value system that validates or informs a political structure.” Liverani (1979, 298) suggests that ideology has the aim “of overcoming the resistance; in the case of imperialism...bringing about the exploitation of man by man, by providing the motivation to receive the situation of inequality as right.” He goes on to define ideology as having the function of “explaining how and why men are different...and some countries exist for the sake of others...and why certain groups must devote themselves to certain activities and not others,” thus concluding that its main function is “presenting exploitation in a favorable light.” Machinist (1993, 78) follows this concept in defining ideology as an attempt to deal with the challenge of governing and legitimizing the ruling group. Parker (2011, 360) defines ideology as “a set of ideas and practices used by a particular group to create shared solidarity and/or to justify actions. Ideology creates belief systems and structures knowledge in order to generate a particular view of how the world works and in doing so serves to legitimate the interests of particular groups.” Thus, more specifically, ideology is rhetoric of legitimation. Although perhaps rhetoric does not fully encompass how pervasive these ideas were in a society, and leaves absent a concrete way of using ideology as an explanatory device for decision-making. Ideology consists of the informal social constraints of tradition that governed the action of the king. It is linked to his reputation, which in turn is linked to his ability to hold power. An unsuccessful king, according to the informal traditions and standards of society, could quickly end up a dead or deposed king. Thus, it was worthwhile for a king maintain a strong reputation in-line with the expected cultural, religious, and social norms.

The same is true of the empire as a whole. A weak empire quickly falls prey to internal rebellion and predatory neighbors. For this reason, once a region was conquered it had to be retained. The appearance of strength was a larger benefit than the costs of mounting a campaign to, or maintaining, a region that was a drain on the economy. Thus, an ‘ideology of terror’ or an ideology of enemy, served an important function in maintenance and control of the empire and is an important example of the importance of non-economic matters for Assyria’s implementation of foreign policy (Younger 1990, 66-69).

The broad depiction of Assyrian policy in the royal inscriptions is in many ways quite consistent and has been generally summarized by Miller in his treatment of the Neo-Assyrian imperial exercise (2009). In this article, Miller focuses on an Assyrian policy of conquest and domination, with willfully submissive kings allowed to retain their thrones. Rebellion was dealt with swiftly and harshly with increased sanctions, converting a vassal into a province, strict loyalty oaths, etc. (2009, 126-128, cf. also Watanabe 1987, Lauinger 2013). Such motives for going to war are more fully discussed by Oded (1992). Miller (2009, 129) goes on to claim that “the periphery is primarily a source of raw material, both goods and persons, to be plundered by the core.” This view of the Assyrian imperial mission as one of conquest and tribute acquisition is central to interpretations of Assyria as a typical world empire from the theoretical standpoint of World Systems Theory (cf. Liverani 1979, 297; Larsen 1979). These viewpoints of Assyria as a parasite, drawing on the wealth of conquered nations, have a long history in Assyriology, dating back to the earlier work of Saggs (1984) and Olmstead (1923), but also in general summaries of the topic such as those provided by Schneider (2014) and Bedford (2009). In his summary of the Assyrian rule of western Asia, Grayson (1995, 959-962) notes that militarism was at the heart of Assyrian rule, driven by greed for the acquisition of plunder. However, even

the royal inscriptions offer a variety of viewpoints. Radner (2000), for example, highlights the king's role as a farmer and Oded (1992, 101-120) has highlighted the depiction of the king as an enforcer and maintainer of peace and well-being.

Development of Assyrian Policy as Presented in the Royal Inscriptions

In addition to the broader portrayal of Assyria and its king that is presented in the royal inscriptions, a close examination of the Neo-Assyrian royal inscriptions reveals each king maintained an individual policy that differed from his predecessors and successors in slight, but at times, significant ways. These are visible through an analysis of the changes in language used in the royal inscriptions to discuss the process of conquest over time.

One traditional understanding of the organization of the Assyrian Empire sees the transition from hegemonic to territorial rule as a linear development. According to a linear model, upon first contact with and submission to the empire, a local kingdom becomes a tributary vassal. According to the linear theory, polities are allowed to retain vassal status as long as they co-operate, pay their tribute on time, avoid rebellion, and generally “behave” (Pecirkova 1987, 164-5; Holloway 2002, 225; Bedford 2009, 45; Miller 2009, 127). However, once a vassal rebelled by withholding tribute, joining forces with a hostile enemy, or inciting rebellion, the offending vassal state was converted into an Assyrian province (Pecirkova 1987, 164-5). Bagg (2001, Tab. 5B) suggests a tripartite division of vassal, puppet state, and province (cf. also Otzen 1979, 253), wherein a rebellious vassal king might be replaced by a puppet king before attempts were made to incorporate the territory into the provincial system.

Whereas it is certainly the case that in some circumstances this linear progression was followed, it cannot be considered a central part of Assyrian policy. Machinist (1993, 88) has already noted that in certain circumstances a territory might be directly annexed. Similarly, there

are numerous examples where repeatedly rebellious territories were never incorporated into the provincial system, including the examples of the Philistine city states in the southern Levant.⁸³ The assumption that such a policy of linear progression exists has led to claims of “special treatment” for non-annexed regions, especially in the face of multiple rebellions. Most commonly, this “special status” is attributed to the city states of Phoenicia and Philistia. There have been multiple attempts to explain this “special status,” most of them focusing on economic issues. A primary assumption is that provincializing the Phoenician city states would have interfered with their ability to conduct the Mediterranean trade, whose goods were greatly desired by the Assyrians (Elat 1991, 21; Larsen 1979, 101, Pecirkova 1987, 165; Gitin 2012, 225), or the difficulty inland empires have exerting direct rule over maritime polities (Master 2003, 50). However, areas without these economic advantages, such as Judah, Moab, Edom, and frontier regions in the north of the empire (cf. Radner 2012), all retained vassal status. Parker’s cost-benefit model of incorporation ignores this linear progression, and he suggests that Assyrian policy was applied flexibly based on considerations of what was in the best interest of the empire. Further evidence of why the Assyrians treated the territories of the southern Levant as they did can be found in the individual policies of Assyrian kings.

For our analysis of the individual policies of Assyrian kings we will focus on the language found in the royal inscriptions. Certain patterns in terminology have been investigated by Machinist (1993) and Oded (1979), which form the basis for this analysis. Machinist is concerned with identity --who is considered an “Assyrian” and what makes someone “Assyrian,”-- while Oded’s study focuses on the status and role of deportees in the Assyrian Empire, but their observations are equally applicable to a study of Assyrian policy. Machinist focuses on what he terms “sovereignty idioms.” Two of these idioms in particular, the

⁸³ With the possible exception of Ashdod for a brief time during the reign of Sargon II.

accounting of taxes and service “like Assyrians”⁸⁴ and “accounting” the captured territories “to/with the Assyrians,”⁸⁵ both saw a major a major break in use after the mid-8th century. Thus, Machinist concludes that something changed following the reign of Sargon II (1993, 93). At the same time, the reign of Sennacherib witnessed the rise of the phrase “accounting” captives as booty.⁸⁶ Oded (1979, 90) explains this change in terms of a “sterner attitude towards deportees” which “sharpened the differentiation between Assyrians and non-Assyrians,” brought about by a feeling of superiority. Machinist (1993, 95) suggests that the changes reflect the difficulties of identity in an expanding empire, incorporating new territories and the accompanying challenges to the order and identity of the state. Without discounting these observations, we propose that such changes also reflect key changes in Assyrian policy, with a major shift occurring after the reign of Sargon II. In order to further explicate this development we will look chronologically at each king and examine how the sovereignty language changes over time.

Tiglath-pileser III

Tiglath-pileser III applied an aggressive policy of deportation, resettlement, and annexation to conquered regions. Early in his campaigns he commonly claims to have “settled people from foreign lands conquered by me therein,” and “imposed on them the tax and tribute like Assyria,” as well as “returned them into the border of Assyria.”⁸⁷ Other common phrases include the placing of a “eunuch of mine as governor over them” and “accounting” them “as inhabitants of Assyria.”⁸⁸ All of these are phrases of annexation and the implementation of territorial control. This is not to say that Tiglath-pileser III annexed every conquered region. This

⁸⁴ *Biltu u maddattu ki ša aššuri*

⁸⁵ *Manû + ana/itti nišē māt Aššur*^{ki} alternatively *Manû + ana mišir māt Aššur*^{ki}

⁸⁶ *Manû + šallatiš*

⁸⁷ *Tarû + ana mišir māt Aššur*^{ki} Cf. for example Tadmor and Yamada (2011, 27, line 3b-4a, 7b-8a; 31, line 5-6; 42 line 3)

⁸⁸ Cf. Tadmor and Yamada (2011, 27, line 7b-8a; 32 line 7; 46 line 9b-10)

language is more common in his earlier campaigns that occur closer to home. This follows generally with the observations of Garelli (1991, 49) and Tadmor (1966, 88) that in general, the Assyrians followed a policy of annexing the closest polities first, and only annexing those polities bordering adjacent to the empire. Many of the states in north Syria and the northern Levant remained in a tributary vassal relationship throughout the reign of Tiglath-pileser III. The main flow of deportees was directed towards newly annexed regions, rather than the imperial capital or Assyria proper, although undoubtedly some ended up there.⁸⁹

In his early campaigns, the conquered territories were immediately annexed into Assyria. There was no linear progression of vassal-province. Similarly there was no mention of provocation on the part of the neighboring regions. In later inscriptions it is clear that rebellion, oath-breaking, and hostility were the cause for Assyrian conquest and annexation, but this is not always the case under Tiglath-pileser III, especially in his earliest campaigns.⁹⁰ Mitinti of Ashkelon is also cited as having neglected his loyalty oath, but his land was never annexed.⁹¹ Tiglath-pileser III rarely mentioned the tactic of replacing a rebellious ruler with a puppet king. The best example is the installation of Hoshea over Israel following the demise of Peqah.⁹² Even this circumstance is unclear, as it appears that the revolt against Peqah was internal, and represented a conflict between pro and anti-Assyrian factions. Thus, Tiglath-pileser III's "intervention" may not have been akin to the later installation of puppet kings.⁹³ Mitinti of Ashkelon, who died, was replaced by his son Rukibtu, but this seems to have occurred without Assyrian intervention. Tiglath-pileser III preferred to replace rebellious rulers with governors,

⁸⁹ Cf. for example Tadmor and Yamada (2011, 46, lines 3b-6a).

⁹⁰ *Haṭu*, cf. Tadmor and Yamada 39, line 3), cf. also the events of the 3rd *palû* (ibid. 84, lines i:21'ff.) and 7th *palû* (ibid. 91, line 16ff).

⁹¹ Cf. Tadmor and Yamada 2011, 61, line 12'

⁹² Tadmor and Yamada 2011, 106, line 17'b-18'a.

⁹³ Cf. Tadmor and Yamada 2011, 112, line 18' and also 2 Kings 15:30

which was reflected in his use of the epithet “the one who ousted rulers and installed his governors.”⁹⁴ In the case of a rebellious king such as Hanuna of Gaza, Tiglath-pileser III reinstated him to rule upon his submission.⁹⁵ Similarly, Tiglath-pileser III did not generally employ the tactic of taking royal hostages back to the Assyrian capital.⁹⁶ The wives, sons, and daughters of Hanuna whom he carried off may be an exception.⁹⁷ Both of these were standard procedures attributed to the Assyrians that are poorly reflected as major elements in the policy of Tiglath-pileser III.

Sargon II

Sargon II maintained Tiglath-pileser III’s policies of aggressive deportation and annexation. He continued to use the idiom “tax and tribute I imposed on them like Assyrians,”⁹⁸ as well phrase “settled people from foreign lands conquered by me therein.”⁹⁹ Similarly, phrases regarding the installation of governors over conquered territories persisted.¹⁰⁰ Following the policy of his predecessor, Sargon II returned lands “to the border of Assyria”¹⁰¹ and counted captured people “with the land of Assur.”¹⁰²

In regard to his motivation, every opponent of Sargon II either rebelled, or “sinned,” “thrown off the yoke of Aššur,” or “broken a loyalty oath.” Sargon II continued to redistribute deportees around the provinces, although prisoners were frequently brought to the center as well.¹⁰³ He also began a policy of fortifying the army with additional recruits from the armies of

⁹⁴ Tadmor and Yamada 2011, 96, line 3.

⁹⁵ Tadmor and Yamada 2011, 106, line 12’b-15’a.

⁹⁶ He does take kings and their families as prisoners, but not hostages, cf. Tadmor and Yamada 2011, 119, lines 19b-21.

⁹⁷ Tadmor and Yamada 2011, 127, line 15’

⁹⁸ Fuchs 1994, (87, line 10; 88, line 17); 147 line 286c.

⁹⁹ Fuchs 1994, 88 line 16; 104, line 97-8 (V:17,5); 135 line 253

¹⁰⁰ Fuchs 1994, 99, line 17; 102, line 94; 104, 97-8; 135, line 253-4

¹⁰¹ *Tarû + ana mišir māt Aššur^{ki}* Fuchs 1994, 96, line 82; 116 line 163

¹⁰² Fuchs 1994, 132, line 240; 135 line 254

¹⁰³ Cf. Fuchs 1994, 127, line 213

newly conquered territories.¹⁰⁴ Sargon II was the first of the Neo-Assyrian rulers to implement the specific tactic of taking members of the royal family hostage.¹⁰⁵ Sargon II also employed the specific policy of replacing a rebellious king, for instance when he replaced Azuri of Ashdod, who refused to send tribute, with Ahimiti.¹⁰⁶ Thus, Sargon largely followed the policy of Tiglath-pileser III. It is clear that he had to spend more time quelling rebellions and combatting Urartu than expanding to new territories, although like all Assyrian kings, he claimed to have expanded into areas that had never before offered tribute. In order to deal with rebellious vassals, Sargon II applied numerous policies including converting them into provinces, taking hostages to ensure loyalty, and replacing the ruler with a puppet governor. Thus in many senses, Sargon II's reign epitomized the general consensus of Assyrian policy. During his reign many polities that were tributary vassals under Tiglath-pileser III became fully incorporated into the provincial system and their kings were replaced with governors. Sargon II's policy of incorporating military units from defeated adversaries was also an important development, which will be discussed later, and was a logical response to the drain of personnel within the Assyrian center that continuous campaigning must have caused.

Sennacherib

As already noted by Machinist (1993) and Oded (1979), the reign of Sennacherib marked a major shift in sovereignty language within the royal inscriptions, corresponding with major shifts in policy during his rule. Taxes and tribute were frequently imposed upon vassals, but not "like that of the Assyrians/land of Assur." As Machinist has noted, this phrase is replaced by the idiom "counted x as booty," which Sennacherib used frequently.¹⁰⁷ Sennacherib also generally

¹⁰⁴ Fuchs 1994, 94, line 75 cf. also Fuchs 1994 201, line 36, Olmstead 1931, 263.

¹⁰⁵ Fuchs 1994, 106, line 102; 147-8, 287-8

¹⁰⁶ Fuchs 1994, 133, line 244

¹⁰⁷ Cf. Grayson and Novotny 2012, 34, line 24; 36, line 52; 43, line 22

ceased to place governors over newly conquered territories or rebellious vassals (for an exception cf. the districts of Chaldea).¹⁰⁸ Instead, Sennacherib followed a policy of land re-allocation. In certain cases he added conquered territory to already existing provinces, thus “enlarging” his territory.¹⁰⁹ A similar policy is reflected when Sennacherib took away territory from the rebellious Hezekiah and reassigned it to the Philistine city states of Ekron, Ashdod, and Gaza.¹¹⁰ In a similar fashion, he detached lands and cities from Ellipi and added them to Assyria.¹¹¹ He did “return” a number of cities “to the border of Assyria,” but these were cities that had been conquered by the Elamites, not rebellious vassals, and they were assigned to a garrison commander, rather than incorporated into the empire as a province.¹¹² The phrase “settled therein people of the lands that I had conquered,” which was a common idiom of his predecessors, continued in use, although less frequently.¹¹³ Sennacherib did, however, emphasize the settlement of deportees in Nineveh,¹¹⁴ or more generally to the Assyrian center.¹¹⁵ Sennacherib continued the policy of Sargon II by replacing rebellious rulers with puppet kings, most notably replacing Šidqa of Ashkelon with Šarru-lu-darri,¹¹⁶ and Luli of Sidon with Tu-Ba’lu.¹¹⁷ Sennacherib did not record taking hostages back to Assyria; however he described Bel-Ibni, who he installed on the throne at Babylon as growing up “like a young puppy in my

¹⁰⁸ Ibid. 61, line 11

¹⁰⁹ Ibid. 43-4, lines 25-6; 63, line 30

¹¹⁰ Ibid. 65, line 52-4

¹¹¹ Ibid. 44, lines 30-1

¹¹² Cf. *ibid.* 180, line iv:54-61a.

¹¹³ cf. *ibid.* 136, line 88; 149, line 37; 174, ii:30

¹¹⁴ Ibid. 165, lines 3-4; 136, lines 83-5

¹¹⁵ Ibid. 196, line 37

¹¹⁶ Ibid. 64, 39-40

¹¹⁷ Ibid. 192, lines 44b-45a; 210, lines 9'-11'

palace,”¹¹⁸ which attests to that practice. Sennacherib also maintained the policy of Sargon II, incorporating enemy troops into the Assyrian army.¹¹⁹

Overall, Sennacherib avoided the annexation and creation of new provinces. He preferred to shift possession of land between existing territories. While he did replace some rebellious rulers, this was not a commonly employed tactic, and there is little evidence for the practice of hostage taking. Deportees more regularly flowed to the center than into the conquered areas of the provinces.

Esarhaddon

While for the most part Esarhaddon continued the policy of Sennacherib in avoiding the creation of new provinces, he was more active than his predecessor. Most notably, he created a new province and subsequently installed a governor at Kar-Esarhaddon, formerly the kingdom of Sidon. Esarhaddon claimed to “return the city to the borders of Assur,” and installed an official as the governor over it.¹²⁰ Esarhaddon also apparently attempted to convert Egypt into some form of province, claiming “I appointed anew kings, governors, commanders, customs officers and trustees,” as well as instituting payments of offerings for Aššur,¹²¹ a duty reserved for provinces. In Ashurbanipal’s inscriptions he claimed that his father Esarhaddon returned Egypt “to the border of Assyria.”¹²² This is particularly significant because Egypt was not adjacent to Assyria proper, and was separated from Assyria and its provinces by the vassal states of the southern Levant, and thus its annexation runs counter to the preceding practices of annexing only adjacent regions (cf. Tadmor 1966, 88). The attempted annexation of Egypt is further supported

¹¹⁸ Ibid. 36, line 54

¹¹⁹ Ibid. 66, line 59

¹²⁰ Leichty 2011, 17, lines 12-14, cf. also the similar treatment of the cities of Kulimneri, Markuha, and Kalzu in Šubria, 85, lines 6’-10’; 87, lines 1’-5’

¹²¹ Leichty 2011, 186, lines 47-50a

¹²² Piepkorn 1933, 10, line i:13

in the texts of Ashurbanipal, who records that the appointed kings, governors, and officials were overthrown, inciting Ashurbanipal's own Egyptian campaign.¹²³

Esarhaddon continued the policy of Sennacherib to redistribute land, handing over the cities of Ma'rubbu and Sarepta to the kingdom of Tyre,¹²⁴ but later when Tyre rebelled, Esarhaddon added these territories to the border of Assyria.¹²⁵ In this episode we also see another aspect of Esarhaddon's policy, the increase of tributary demands. Esarhaddon claimed to "increase and impose tribute and payment greater than before," and later to "increase my lordly tribute beyond his earlier, annual giving and imposed it on him."¹²⁶ This practice was mentioned once during the reign of Sennacherib, regarding the tribute payments of Hezekiah of Judah, but does not appear to have been a significant policy at that time.¹²⁷ Esarhaddon used this policy frequently. In the case of the Arabs he even listed the increase: 65 camels and 10 donkeys in the case of lady Tabua, and 10 minas of gold, 1,000 choice stones, 50 camels, and 100 bags of aromatics to Iata'.¹²⁸ These texts demonstrate that the increases to tribute were subjective and varied greatly, possibly in relation to the wealth and available resources of the different vassals, although this would be mere conjecture.

While Esarhaddon was prone to beheading rebellious kings,¹²⁹ he also continued to engage in the practice of replacing rebellious rulers with puppet kings, as is demonstrated in the case of Bit-Dakkuri and the Arabs.¹³⁰ In the case of Lady Tabua, who he installed as the ruler of her people, it is clear that she was a hostage under Sennacherib, as she was described as "raised

¹²³ Borger 1996, 17, lines A I 56-57

¹²⁴ Leichty 2011, 17, lines 16-17

¹²⁵ Ibid. 76, lines 8'-9'

¹²⁶ Ibid. 17, lines 14-15, 19.

¹²⁷ Grayson and Novotny 2012, 65, line 54

¹²⁸ Leichty 2011, 19, lines 17-18, 20-22

¹²⁹ Leichty 2011, 17, line 32-3

¹³⁰ Ibid. 18, 69-70; 19, lines iv:15, 19-20, cf. also 21, lines 72b-77; 30, lines 27-33

in the palace of my father.”¹³¹ It is unclear the extent to which Esarhaddon made use of this policy, although he also carried off the wives and sons of Taharqa in his Egyptian campaign.¹³² Esarhaddon also continued the policy of incorporating the military force of rebellious states for his own uses.¹³³

Esarhaddon does not appear to have conducted deportation and resettlement in as large a scale as his predecessors. He resettled the people of the cities of Sidon, as well as “people from the eastern mountains and the sea” in Kar-Esarhaddon,¹³⁴ and he frequently carried off non-submissive chieftains and peoples to Assyria,¹³⁵ but his texts lacked reference to the mass movement and deportations of large numbers of people around the empire. In general, the phrase “counted as booty,” common to Sennacherib, was infrequent in the royal inscriptions of Esarhaddon, although he used it regarding his campaign against Šubria.¹³⁶ Thus, during the reign of Esarhaddon there was a brief renaissance of the policy of annexation, including Sidon, parts of Tyre and Šubria, and Egypt. While not on the scale of Tiglath-pileser III or Sargon II, Esarhaddon was more active in this regard than Sennacherib. Still, it cannot be claimed that annexation was central to Esarhaddon’s foreign policy, and with the exception of Egypt it seems to be reactionary to cases of repeated rebellion from former vassals. Esarhaddon developed a policy of increasing the tribute of rebellious vassals as a deterrent for future revolt. He was also active in replacing rebellious rulers with those loyal to him. He does not appear to have followed an aggressive policy of deportation and resettlement, rather, carrying off specific prisoners from non-submissive regions to the Assyrian center.

¹³¹ Ibid. 19, 15-16

¹³² Ibid. 63, lines 7’-10’; 185-6, lines rev. 43b-45; cf. also the removal of the daughters of Ba’lu king of Tyre and their dowries 76, line 5’

¹³³ Ibid. 19, lines 82-3; 84, lines 14’-19’

¹³⁴ Ibid. 17, lines 10-11

¹³⁵ Ibid. 20, lines 50-2; 18, lines 40-1; 21, lines 70-2

¹³⁶ Ibid. 85, line 31’

Ashurbanipal

The reign of Ashurbanipal witnessed the height of the popularity of hostage taking and the replacing of rebellious kings with submissive ones (or at times formerly rebellious, but repentant ones).¹³⁷ Ashurbanipal in particular took the daughters of rebellious kings back to Nineveh to serve as “handmaidens” in his court.¹³⁸ Although Ashurbanipal was not known for annexing new regions he did “return the border” of cities of the Mannaeans “to Assyria.”¹³⁹ It becomes clear, however, that these cities were formerly part of the Assyria, and had been captured by the Mannaeans during the time of Ashurbanipal’s predecessors,¹⁴⁰ thus paralleling Sennacherib’s annexation of the eastern cities conquered by the Elamites. Following the defeat of Qirbit in his 4th campaign, Ashurbanipal forcibly resettled its citizens in Egypt.¹⁴¹ However, he also continued the tradition of counting people as spoil, listing them as booty along with livestock, and carrying them off to Assyria, following the precedent set by Sennacherib.¹⁴² Ashurbanipal also followed the policy of Esarhaddon by increasing the tribute of rebellious vassals when they were finally brought back under Assyrian hegemony.¹⁴³

Discussion

Thus, we see a basic set of oppositions in Assyrian policy, with a major break occurring after the death of Sargon II. During the reigns of Tiglath-pileser III and Sargon II Assyria followed an aggressive policy of annexation of polities bordering the empire. These kings also employed a policy of deportation and resettlement, in which they removed people from rebellious areas of the empire and resettled them in distant provinces. Under Sennacherib, the

¹³⁷ Borger 1996, 24, line BII10-12; 30, line BII 88-9; 32, AII 120; 104, lines BVI 8-9; 108, lines BVII:3-4

¹³⁸ Ibid. 28, line AII 56-7; 29, line BII76-8; AII63-6.

¹³⁹ Ibid. 34, line BIII:56; 35, lines BIII:80-1

¹⁴⁰ Ibid 34-5, lines BIII 74-7

¹⁴¹ Ibid. 94, line BIII14-15; 181, E 40-1.

¹⁴² Ibid. 33-4, lines BIII, 40-2; 105, line BVI 28-39

¹⁴³ Ibid. 37, line BIV:1

policy of annexation diminished drastically. Whereas the deportations continued, the deportees were more frequently brought to the Assyrian center, especially the capital city. Instead of annexing territories, Sennacherib enlarged some provinces or vassal territories and reduced others, but did not add significantly to the administrative and bureaucratic systems in the process. Esarhaddon was more expansive than Sennacherib, but less so than Tiglath-pileser III or Sargon II, annexing Phoenician city-states and Egypt, while maintaining Sennacherib's policy of land distribution. Esarhaddon was active in the deportation of political enemies to Assyria as prisoners, but did not seem overly concerned with the resettlement of peoples (with a few exceptions). Ashurbanipal avoided annexation, but actively deported people as booty to the capital in Nineveh, and invested most of his energy on devastating campaigns against the larger neighbors of Assyria, such as Egypt and in particular Elam.

In order to deal with the increasing size of the empire, different methods were employed to ensure or incentivize loyalty among vassals. The most common of these included replacing a rebellious ruler with a puppet ruler, the taking of members of the royal family as hostages, and increasing the tribute owed by vassal states. The first two methods were first attested in the reign of Sargon II and were used sparingly until the reign of Ashurbanipal, when both methods were employed liberally. Increasing the amount of tribute was first attested under Sennacherib, but was widely employed by Esarhaddon and occasionally by Ashurbanipal.

The variance and development of policy between the Assyrian kings corresponds with broader theories of empire and imperial development. Sinopoli (1994, 159) defines empires as “geographically and politically expansive polities, composed of a diversity of localized communities and ethnic groups, each contributing its unique history and social, economic, religious and political traditions.” Empires exist in three phases: expansion, consolidation and

collapse. The consolidation process of incorporated territories is essential to the endurance of an empire over a prolonged period of time, and involves a range of constructive and destructive processes which may result in either greater or lesser degrees of control (ibid. 162-4, cf. also Bagg 2013, 121). Sinopoli (1994, 164) emphasizes the necessity of administrative changes for coping with the increased size of an expanding empire as part of this consolidation process. One then expects changes in policy from the early expansion phase to the later consolidation phase. In the case of Assyria, we have traced some of these patterns through the use of sovereignty language.

Following this basic model, Tadmor describes the reigns of Tiglath-pileser III and Sargon II as the expansion phase of the empire, with the consolidation occurring under Sennacherib, Esarhaddon, and Ashurbanipal (1966, 87, see also Scheepers 2006, 598). As an example, the annexation of provinces into the empire was an integral part of the expansion phase under Tiglath-pileser III, but decreased during the reign of Sargon II and was generally avoided following Sennacherib. This is not to say that annexation was altogether abandoned (Machinist notes rare occurrences of these phrases in later periods: 1993, 94-5), but once all of the smaller neighboring states became incorporated into the empire, Assyria paid more attention to its larger neighbors and territories further away from their geographical center. In the consolidation phase, Assyria preferred to leave these more distant polities under local organization and control, and annexation should be considered the exception rather than the rule. The reign of Esarhaddon saw a minor renaissance of expansive activity in some of these more remote territories, which was then consolidated under the rule of Ashurbanipal.

Annexation and the redistribution of deported populations around the provinces were key mechanisms of expansion, repopulating conquered areas as part of their incorporation, whereas

later these were directed towards the core. The consolidation phase focused on mechanisms of ensuring loyalty, whether reappropriating land, economic sanctions (increased tribute demands), hostage taking, or installing a puppet governor. The historical situations that each king faced led some kings to focus on growing the empire while maintaining it, and others to focus on maintaining the empire while growing it.

Assyrian Letters and Administrative Documents

Whereas the royal inscriptions focus broadly on the ideology and policy of the king, letters and administrative documents, on the other hand, deal with the everyday issues of imperial governance. As such, they are not subject in the same way to the propagandistic rhetoric that fills the royal inscriptions, nor are they concerned with ‘ideal state’ of affairs so much as the particular issues in governing large areas. This is not to say, however, that these documents are not without their own problems. As was mentioned in chapter 2, the archives for these texts have not, and never will be fully recovered. Some may have even been intentionally destroyed in antiquity, preventing us from accessing most texts from certain rulers. In any case, the lost texts far outnumber the texts available (Holloway 2002, 94-5; Radner 2014b, 64, 81-83). Beyond the problems of partial access, many texts are damaged and broken so that they are at best partially legible; these texts raise questions of their own regarding accuracy (cf. Radner 2014b, 88-92). The honesty of the authors is not always secure and the potentiality of deception is high (cf. discussions in Miglio 2014, 13-17; Holloway 2002, 93-5). Still, the archival documents provide a valuable addition to the history recorded by the royal inscriptions, which must be considered in any discussion of Assyrian policy in the provinces. In this section, we will examine key aspects of Assyrian policy as preserved in the letters and administrative documents.

Treaties

Treaties provide some of the most helpful documents for understanding Assyrian policy in relation to its vassals. They highlight Assyrian interests in vassal territories, and Assyria's perspective on the duties of an Assyrian vassal. The most complete vassal treaty preserves the agreement between Esarhaddon and Ba'al, king of Tyre and dates to the 7th century BCE. Unfortunately, the first two columns of this text are largely illegible, apart from the first few lines, which contain a standard opening formula common to treaties. Column III, lines 6-11 then discuss the role of the *qēpu* official, the Assyrian administrative agent within the foreign court (we will discuss this office in more detail later in this chapter). The *qēpu* was required to be present at all council meetings, for the receipt of any letters or messengers, and to meet foreign ships. The reasons behind this stipulation may be reflected in a letter from Na'id-Marduk, an official in Sealand, who writes to the king that: "the messenger of the king of Elam did bring letters but did not come into my presence; I did not see him and nobody opened his letters before he went back...My lord should know that my heart is completely devoted to my lord's house" (*SAA 18*, 85, lines 5'-9', 13'-14').¹⁴⁴ Clearly this stipulation was intended to prevent seditious talk amongst kings (which the royal inscriptions make clear is happening), and to ensure that the best interests of Esarhaddon were being carried out in all political correspondence. This stipulation, however, clearly ties in with one of the primary duties of an Assyrian vassal: information.

One of the central duties of vassals was to supply the Assyrian king with information. Parker (2001, 250) highlights the evidence for this duty in the letters between from the northern provinces, primarily dating to the reign of Sargon II (cf. also Dubovsky 2006), but the role of

¹⁴⁴ The potential contents of such a letter are revealed in *SAA 18*, 86-87, where the elders of Sealand write concerning correspondence they have received from Teumann, king of Elam, requesting that they join with him against Assyria (and containing threats if they fail to comply).

informant is also emphasized in the Assyrian treaties. Sennacherib's succession treaty declared: "If you should hear improper things, you shall speak out to Sennacherib, king of Assyria, your lord, and totally devote yourselves to the king, your lord."¹⁴⁵ A similar phrase appeared in the accession treaty of Esarhaddon which stated: "Should I hear an ugly word about him from the mouth of his progeny, should I hear it from the mouth of one of the magnates or governors, from the mouth of the bearded or from the mouth of the eunuchs, I will go and tell it to Esarhaddon my lord."¹⁴⁶ Esarhaddon's succession treaty reiterated this point as follows: "If you hear any improper, unsuitable or unseemly word concerning the exercise of kingship which is unseemly and evil against Ashurbanipal, the great crown prince designate, either from the mouth of his brothers, his uncles, his cousins, his family, members of his father's line, or from the mouth of magnates and governors, or from the mouth of the bearded and the eunuchs, or from the mouth of scholars or from the mouth of any human being at all, you shall not conceal it, but come and report it to Ashurbanipal, the great crown prince designate."¹⁴⁷ Thus, keeping the king informed about potential plots was a key part of the vassals' duties. This also extended to information on the goings-on in the provinces, and the intentions of neighboring regions.

A letter, *SAA 16*, 21, written from Šamaš-šumu-ukin to Esarhaddon suggests that this was a common treaty stipulation and that it was taken quite seriously by some people. In this letter, Šamaš-šumu-ukin wrote about a word he received from certain citizens of Babylon and Borsippa. These citizens wrote to inform him that certain astrologers were performing their art without informing the king of their results. The letter opens declaring "The king concluded a treaty with us concerning you: 'Tell your Lord whatever you hear.'" This language is similar to that of Esarhaddon's succession treaty. The letter concludes claiming that "we have now heard

¹⁴⁵ Parpola and Watanabe 1998, 18, lines 2-4

¹⁴⁶ Ibid. 22, lines 4-7.

¹⁴⁷ Ibid. 31-2, lines 73-82

(about this illicit activity) and informed the crown-prince of Babylon (Šamaš-šumu-ukin).”

Another letter, *SAA 18*, 80, is similarly prefaced with a statement: “it is written in the treaty: write to me about anything you see or hear,” and a report follows (cf. also *SAA 18*, 81, 83). *SAA 16*, 71 contains similar information, with the author writing: “I am a servant of the king; his father made me enter the treaty. You will hear whatever I hear.”

The second set of stipulations in Esarhaddon’s treaty with Baal of Tyre involved trade and property rights concerning shipping. Esarhaddon claimed rights to all goods from shipwrecks anywhere within Assyrian territory (from the coast off the land of the Philistines northward), and ensured the protection and safe return of the sailors (III: 15-17). Additionally, Esarhaddon opened certain trade routes for Baal of Tyre, including Akko, Dor, all the cities in Assyrian territory on the seacoast, up to Byblos and the Lebanon and all the cities in the mountains (III:18-21). As part of this agreement Baal was allowed to enter these areas and conduct trade, provided that his ships paid tolls ‘as in the past’ (III: 22-26). Finally, Esarhaddon granted protection to the sailors and the ships participating in trade (III: 27-30). These stipulations show that the Assyrians were interested in maritime trade, and the taxes received from it. This is clear evidence for some of the strategies Assyria used to break into and influence the social context of market exchange in the Mediterranean. Whether or not this practice was effective, the language of the treaty benefited the sailors with the protection of Assyria while in Assyrian lands. Esarhaddon appears in favor of extensive trade, provided that appropriate tolls and taxes were paid. There were no preserved stipulations for with whom, or how much the Tyrians should trade. The specifics of Tyre’s trade agenda were left open (although, especially in the case of broken texts, arguments from silence are particularly problematic).

Thus, the preserved portions of treaties highlight three main Assyrian interests: 1) information (particularly involving rebellion/seditious rumors), 2) trade (at least broadly), and 3) oversight (through the office of the *qēpu*). None of these duties seem to have been particularly onerous to the Assyrian vassals, although Elat (1991, 27-8) suggests that “the right of the Assyrians to confiscate the cargo of stranded ships, however, must have been a heavy burden on Tyrian Sea trade,” as well as that this policy was unique and “contradicted international as well as private maritime conventions as practiced in the ancient Near East both in river traffic and open sea.” In support of this, Elat cites documents from Ugarit dealing with stranded or rammed ships. From two instances, Elat concludes that stranded ships and their cargoes were returned to their owners, and that whoever damaged a ship was responsible to compensate the owners for damaged property and cargo, citing additional private law from 2nd millennium Mesopotamian contexts. Although it is possible that Elat is correct in his interpretation, it is not at all clear that the stipulations of Esarhaddon were an attempt to grab the cargo of all stranded ships for Assyria. In the context of the treaty, Esarhaddon was ensuring the protection of Tyrian sailors shipwrecked in Assyrian territory. One must assume that a beached ship would have been a prime target for looting by local kings or individuals. Previously, as Elat described in the case of the ‘Ammurapi’s ship from 2nd millennium Ugarit, it was the responsibility of the king to protect and ensure the cargo. In the case of ‘Ammurapi this went well, however one could easily imagine other scenarios. Thus, it is possible that this statement in the treaty was part of a larger situation where shipwrecked cargos and persons belonged to Esarhaddon, in that they were under his protection. In this case, to loot them would be equivalent to stealing from the Assyrian king. If this interpretation is true, then this provision was hardly as onerous as Elat suggests.

Letters

The Assyrian letters add valuable information on the day-to-day process of Assyrian administration and bureaucracy in the periphery. In particular, they emphasize the role of Assyrian officials, Assyria's official interests, and the success of Assyrian policies in the face of various mechanisms of local resistance to imperial rule. While none of these texts originated in the southern Levant, with the closest coming from Phoenicia and Syria, they help provide a broad picture of Assyrian policy in the periphery, both in the provinces and vassal kingdoms. From this large corpus, certain patterns appear which can then be examined for their relevance to other locations. Thus, rather than the specific details of these letters, we are interested instead in patterns and trends across different time periods and regions, paying particular attention to situations that provide analogs to the situation in the southern Levant.

The Assyrian administrative documents stress a number of priorities for Assyrian peripheral administration. These interests included issues such as manpower, agricultural maintenance, the building or repair of cities or fortresses, the effective payment and transport of tribute, security, and information.

Manpower

Manpower was essential for the goals of the Assyrian Empire, both in the center and across the periphery. Manpower was needed to fill the Assyrian armies, to work the fields in order to provide the necessary agricultural produce to supply the labor force, and to construct new capitals, cities, temples, palaces, or fortresses. Within Assyria proper, the labor force was provided through a combination of factors including the work of captives and deportees (cf. Oded 1979) as well as the labor tax or *ilku* (cf. Postgate 1974, 80-93; 1979, 203; Pecirkova 1987,

169).¹⁴⁸ The availability of manpower to accomplish daily tasks was an important issue for provincial officials. Popular requests include: more workers/troops from the king or a neighbor to accomplish a task (*SAA 15*, 37, 42, 365; *SAA 17*, 70, 175), that persons not be taken away to perform someone else's tasks, as the author barely has enough (*SAA 5*, 121, 42, *SAA 15*, 151), or that certain persons or groups of persons are missing (*SAA 1*, 240, 224), lazy (*SAA 1*, 154-155), have run away (*SAA 19*, 183), refuse to work (*SAA 5*, 118; *SAA 17*, 120) or are insufficient (*SAA 1*, 241). These include both laborers and in certain instances soldiers. The organization, feeding, and provisioning of these persons was also a much discussed issue (*SAA 1*, 195, 239, 247), including the review of military personnel available at certain mustering points (*SAA 19*, 189).

Building Projects

Building projects are another common feature of the letters (*SAA 15*, 94), often including status updates as to the completion (or reasons for the delays in completion, *SAA 19*, 183, *SAA 11*, 15-18) of fortification projects (*SAA 19*, 198), or city repairs, alongside various public projects such as digging a moat (*SAA 19*, 26, *SAA 15*, 176) or constructing a dam (*SAA 17*, 120). The construction of forts was especially common in border regions (*SAA 1*, 176; *SAA 5*, 80, 211, *SAA 15*, 113, 129, 156, 222, *SAA 18*, 142). The fortress system along the Assyrian frontier served multiple functions including setting a staging ground for future military expansion, serving as a base for gathering military intelligence, serving as an administrative center in a frontier region, and functioning as bastions for keeping control of, and establishing a foothold in, newly conquered territory. (Parker 1997; 2001, 265; Malbran-Labat 1982, 13). In addition to public building works, there is also frequent mention of house building, particularly for deportees or

¹⁴⁸ The issue of hired labor within Assyria proper is beyond the scope of this chapter, but has been discussed by Radner 2007b and Postgate 1987.

other newcomers to an area (*SAA 15*, 219, 41, *SAA 5*, 210; *SAA 16*, 154), including newly arriving officials (*SAA 1*, 124).

Organization of Tribute and Taxes

The proper payment and shipment of taxes, tolls, and tribute is another common concern among provincial officials. Issues abound from individuals refusing to pay taxes, to questions on whether or not certain lands or fields are taxable or benefit from some kind of exemption (*SAA 19*, 39). There seems to have been an element of confusion on this issue in particular, ranging from whether or not taxes were collected (*SAA 19*, 35), to who was responsible for collecting and shipping the taxed material. There were also updates on the process of obtaining taxes levied (*SAA 19*, 36, 33, 193), and reports of taxes or tribute submitted (*SAA 19*, 173, *SAA 5*, 133, *SAA 15*, 60), including accounts of the problems encountered during this process (*SAA 1*, 175).

Other Economic Issues

In the administrative letters there is a clear sense that there were certain economic issues in which the Assyrians were very interested. *SAA 1*, 46 records a letter asking if the author should arrest a certain Arzabia who “is residing in the center of Kumme and doing business with articles of value to Assyria.” This shows that the provincial official recognized articles that were considered ‘of value to Assyria’ and could potentially arrest an individual engaged in the illicit trade of such materials. One can presume from this letter that the guilty party was not merely dealing in a few items traded at a single point in time, but had rather set up some kind of regular trading business that somehow cut out Assyrian interests. This may parallel the instructions of Qurdi-Aššur-lamur to the timber cutters of Sidon, instructing them to continue their cutting, but not to sell their material to the Philistines or Egyptians (*SAA 19*, 22).

Timber was a commodity of specific Assyrian interest, a fact demonstrated by this same letter from Qurdi-Aššur-lamur, which discussed the problems with the Sidonian timber cutters, who were chasing away their tax-collector and his use of force to rectify the problem. Numerous texts deal with the felling (*SAA 1*, 98; *SAA 5*, 25, 33), transportation, delivery (*SAA 1*, 63; *SAA 5*, 4, 6, 111), and inspection (*SAA 1*, 62, 101, 248) of timbers. In addition to timber, horses were of great interest to the empire and were a subject of multiple letters, particularly from the eastern and northern provinces (*SAA 19*, 33, 193, 190, *SAA 5*, 64).

Security and Information

The importance of information, in terms of spying on enemy activity, gathering military intelligence, seeking out signs of rebellion or insurrection, keeping the king informed of details related to provisioning, troop movements, supplies, etc. was a central function of Assyrian foreign policy, particular on the edges of the empire, and has already been discussed by Parker (2001, 250; 1997, 77; 2011, 370), Dubovsky (2006), and Malbran-Labat (1982, 41-57). The communication networks and infrastructure of this system have been the subject of research by Kessler (1995) and Radner (2014a). We have already examined the importance of information gathering to the Assyrian Empire as reflected in the treaties. Keeping the king informed allowed him to better sniff out insurrection and rebellion in its early stages.

Information in the form of spying was also critical to the Assyrian military machine. This type of information was especially critical in border regions, where fortresses kept a close eye on their neighbors and their activities. Such spying was particularly valuable for countering the movements of Assyria's more powerful neighbors, such as Elam, Urartu, and later Egypt. In the case of Elam and Urartu, the Assyrian archives preserve letters from local administrators manning these border fortresses, keeping the king updated on the movements of Assyria's

neighbors to the east (*SAA 15* 113-118; 129-30, 141) and the north (*SAA 5*, 84-93, 112).

Information systems also allowed Assyria to keep up to date with the activities of particularly troublesome regions or persons, such as Babylon (*SAA 15*, 155, 162, 159, 177-179, 200; *SAA 17*, 56). In addition to military information, there were many letters informing the king of the various goings-on in different areas of the kingdom (*SAA 18*, 56). These included “tattling” on neighbors (*SAA 18*, 56-57, 102, 125), much of which may have been exaggerated, because we have a number of texts where the author claimed that people were slandering him to the king (*SAA 18*, 105; *SAA 1*, 205; *SAA 16*, 11; *SAA 17*, 164, *SAA 18*, 181; *SAA 19*, 91).

Texts from Non-Assyrian Sources

Texts from outside of the Assyrian administrative system and royal propaganda circle are useful for providing a view of Assyrian policy and administration from the perspective of the outsider, the ruled. As such, they serve as an important source to counter some of Assyrian centric viewpoints expressed in the Assyrian documents. These texts, like all the others previously discussed, are not without issue. The main sources in this category are the Hebrew Bible and Aramaic and Phoenician documents from North Syria.

Hebrew Bible

The Hebrew Bible, in general, does not present a positive view of Assyrian hegemony. Throughout 2 Kings the biblical view of the Assyrians is generally ambiguous, but this depiction is less positive through the eyes of the prophets and the Chronicler. The Assyrians are described as a conquering force, deporting the northern Kingdom of Israel, but in this event they are judged to be the weapon of judgment used by God to punish Israel for its sins (2 Kings 17; 1 Chronicles 5:26). This perspective is best summarized in 1st Isaiah, where God is depicted describing Assyria as “the rod of my anger, and the staff which in their hands is my wrath. Against an

ungodly nation I send them and against a people of my fury, I command them to capture booty, to carry off plunder, and to trample like mud in the square.” (Isaiah 10:5-6).

Assyrian influence is blamed for the sin of Ahaz (2 Kings 16:18) in the building of a new bronze altar after the fashion of one seen in Damascus. Similarly, in the case of Sennacherib’s encounter with Hezekiah, the Assyrian king and his servants are portrayed as blasphemous (2 Kings 18: 22-33; 19:4-6, 10-13; Isaiah 10:12), and the king is prophesied to die violently in his own land (2 Kings 19:7). However, in the summary of this encounter it is Hezekiah who admits fault (2 Kings 18:4). This passage is mostly a criticism specifically of the Assyrian king and not more broadly Assyrian hegemony, which continued to dominate Judah. The prayer of Hezekiah states that the kings of Assyria “devastated the nations and their lands, and given up their gods to fire” (2 Kings 19:16b-17a), which acknowledges the violent militaristic expansion of the Assyrian Empire.

Chronicles records later impressions of Assyria and judges Assyrian hegemony more harshly. In the case of Ahaz, the Chronicler writes that he sent to Assyria for aid “but Tiglath-pileser, the king of Assyria came against him and afflicted him instead of strengthening him” (2 Chronicles 28:20). Jeremiah depicts Assyria as a predator, who devoured Israel, and was punished for its violence (Jeremiah 50:17-18), and Micah prophecies of a future where Judah will rise up against the Assyrians who “invade our land and trample our fortresses” and will deliver Judah from Assyrian rule (Micah 5:4-5:5). The book of Nahum is a long prophecy against Nineveh and Assyria, looking forward to its downfall. The book ends with the proclamation “There is no relief for your destruction, your affliction is incurable. All who hear about you will clap their hands over you, for over whom has your continual wickedness not

crossed?” (Nahum 3:19). Zephaniah also prophesies that Assyria will be destroyed and Nineveh will be made a desolation (2:13).

Ezekiel 23 presents a slightly different picture. In this chapter, Israel and Judah are compared to harlots, lusting after the Assyrians, their noblemen and officials and horsemen with their luxury goods. In this case the people of Assyria (and later Babylonia and Egypt) are presented as providing a desirable, seductive alternative, is appealing to both Israel and Judah. Ezekiel portrays this as temporary, and when the two sides tire of each other destruction follows. Still the parable presented by Ezekiel does not show Israel and Judah as entirely unwillingly enslaved to a brutal captor, but rather seduced by the riches of their imperial overlords. In Hosea’s judgment of Israel he chastises them for turning to Assyria for aid (5:13; 7:11).

Overall, the biblical depiction of Assyria is associated with violent conquest, albeit divinely mandated violent conquest. They are viewed as oppressors (Isaiah 52:4, 2 Chronicles 28:20), and their reign is depicted as a time of violence and death, not of peace and economic prosperity. According to Frahm “the Bible presented Assyria as a nation that having suppressed the entire world as an agent of divine wrath, finally fell to wrath itself” (2006, 76-77), a statement which certainly summarizes the overwhelming perception one receives from the biblical text. At the same time, it is clear that there were a variety of perceptions present regarding Assyria. According to the biblical accounts, Ahaz became infatuated with emulating some of their religious paraphernalia, and according to Ezekiel 23 Assyrian styles represented the new fashion, especially among the elite.

Aramaic and Phoenician Documents

Mentions of Assyria occur in a few Aramaic documents from territories under Assyrian hegemony. Younger (forthcoming) highlights in particular the case of Bir-Rakib and his father

Panamuwa as examples of kings and regions that benefitted from Assyrian control. In a monument to memorialize his father Panumuwa, Bir-Rakib wrote about how his father “brought a gift to the king of Assyria, and he made him king over the house of his father.” As a result Bir-Rakib recorded that Panumuwa “seized the palace of his father and made it better than before. And it abounded in wheat and barley and ewe and cows in his days...the price was cheap” and that due to Panumuwa’s loyalty “his lord the King of Assyria positioned him over powerful kings” (*COS* 2.37; Tropper 1993). In a subsequent inscription, Bir-Rakib wrote regarding his own reign that like his father he “ran at the wheel of my lord the king of Assyria” and that “the house of my father profited more than all others...I made it better than the house of any powerful king. And my brothers were desirous for all that is good of my house” (*COS* 2.38). As Younger points out, these depictions of Assyrian hegemony from a loyal vassal hardly match images of destruction and oppression, but rather of prosperity and excess.¹⁴⁹ This leads Younger to conclude that the economy and administration of the Assyrian Empire was not simplistic, and that while the Assyrians may not have been interested in “raising the standard of living” of those under their political control, that this does not mean they were not concerned with the economic success and prosperity of these regions (at least to the point where it was beneficial to them). A similar situation is attested in a Phoenician inscription found at Incirli, in which the king of the Danunites records having received land from Tiglath-pileser III for his loyalty (Kaufman 2007, 15). Based on these inscriptions, Younger (forthcoming) concludes that the Assyrian Empire could be both excessively violent and also interested in developing the economies of captured regions. This combination of elements is certainly a better reflection of the reality presented in

¹⁴⁹ For another possible example a bilingual inscription in Neo-Hittite and Phoenician found at Cinekoý suggests the peaceful incorporation of Que into the Assyrian Empire. Determining the dating of this text, and the events surrounding the incorporation of Que, however, make the use of the interpretation of this text quite difficult. Cf. Lanfranchi 2005 and Tekoglu and Lemaire 2000.

the varied documentary evidence available describing Assyrian rule. There were both costs and benefits to being part of the Assyrian Empire, but at the end of the day it also must be emphasized that Assyria was only interested in itself. In many cases, solutions could be mutually beneficial to both a client and Assyria, and often in terms of cost-benefit, these types of solutions required less imperial investment. However, the Assyrians had no qualms about resorting to brutality and intimidation whenever necessary to accomplish their ends.

Discussion

Having conducted a review of Assyrian policy according to the Assyrian texts, we will now return to our theoretical framework to reexamine some of the issues raised at the beginning of this chapter: “How can we characterize the new social context created in vassal territories by the Assyrian Empire?” and “to what degree did Assyria insert itself into, and change, existing social contexts such as the market or the palace.”

To assume that Assyrian foreign policy impacted the entire population of vassal territories equally would be to ignore the complex political and social dynamics of conquered territories. Within conquered territories there was room for multiple co-existing and competing factions, some of which would have favored and benefited from Assyrian involvement.¹⁵⁰ One road to success certainly lay in accepting Assyrian patronage. For these factions, the period of Assyrian occupation could have proved quite lucrative, provided that they did not end up on the wrong end of a rebellious coup. Thus, the foreign perspective of Assyria must be seen as mixed and biased.

Within the Assyrian vassal territories there were always two co-existing elements: a faction of pro-Assyrian sympathizers who benefitted from, and worked to maintain, Assyrian

¹⁵⁰ This type of relationship between certain factions which benefit from imperial rule was not unique to the Assyrian Empire, but is a common feature of imperial practice (cf. Hicks 1994, 111).

rule. Against these operated a second faction of anti-Assyrian residents, who worked to overthrow the Assyrian government and re-establish independence. These groups likely consisted of political opponents, each benefitting economically, politically, and socially from shifts in power and the demise of the other. At the same point it was then also true that no matter who was in political authority, one of the groups was benefitting at the expense of the other (cf. discussion in Lanfranchi 1997, Herrmann 2011, 150-2; Lumsden 2001, 40-42).

This can clearly be seen in a number of circumstances. In the case of Ekron, Padi is clearly part of a pro-Assyrian ruling contingent. This group is displaced and imprisoned as part of the revolt instigated by Hezekiah, where Padi was imprisoned and anti-Assyrian officials gained control of the city. Such behavior was short-lived, as Padi and the Assyrian loyalists were replaced upon Sennacherib's campaign to the region. In addition, due to Padi's loyalty, parts of the Shephelah that had previously belonged to Judah were awarded to him and to his supporters. Clearly, in this case the city of Ekron, and especially the Assyrian loyalists, benefitted. This situation was by no means unique to Ekron. The Assyrian administrative documents suggest that such competing factions existed across the empire.

Letters from Sealand dating to the reign of Esarhaddon discuss the impending invasion of Elam. In these letters, the authors reveal that there were clearly two parties within the city. The authors were part of a pro-Assyrian coalition, asking for help from the king, and supporting the Assyrian appointed governor Na'id-Marduk, while the anti-Assyrian elements backed a certain Nabu-Ušallim, a descendent of Merodach-Baladan, the Babylonian traditional ruling family (*SAA 18*, 86-87). These anti-Assyrian elements were already known from *SAA 18*, 85, where Na'id-Marduk wrote to the king regarding certain individuals who had been writing letters to the king of Elam.

SAA 18, 77 reveals a similar situation in Larak. In this letter the elders of the city wrote to Esarhaddon to assure him of their loyalty. They recount an incident where a city overseer conspired with the enemy to hand over the city, but he was arrested and sent to the king, as a sign of the city's continued loyalty. Thus, again this letter clearly represents the conflict of two factions within the city, one pro-Assyrian and another anti-Assyrian. *SAA 18, 95* deals with the petition of an Assyrian loyalist in Babylon, who was apparently being discriminated against in Babylon by anti-Assyrian parties because the official's father sided with Assyria and sent him to Aššur. Another letter from Lahiru (*SAA 15, 136*) tells of two families "one of them inclined towards the king, my lord, the other one not." The pro-Assyrian family suggested the resolution of killing the other family and coming before the king, likely in exchange for having the king sponsor a position of power for them. Such petitions are also attested in the case of royal succession, where loyalty (or bribe money) was rewarded, as was the case with Bir-Rakib (*COS 2.36*), Hoshea (2 Kings 15:30, 17:3), and Menahem (2 Kings 15:19-20) respectively.

There were many ways in which allying with the Assyrians could prove economically and socially beneficial for a petty king. Examples of this are highlighted by Lanfranchi (1997, 83) in his discussion of the foreign policy of Sargon II, noting that "The images of Sargon as protector of repentant enemies, rewarder of faithful vassals, defender of legitimate kings, promoter of good allies, were exhibited in order to show the benign attitude of Assyrian rule and the advantages which derived from accepting supremacy." All of these examples demonstrate the various ways in which local rulers acted under the umbrella of the Assyrian Empire in order to secure Assyrian patronage. This behavior follows a certain economic logic of empire. It involved the timely payment of bribes, taxes, and tribute, as well as cooperation with the whims of the imperial overlords, but could lead to political advancement or rich rewards. This social context

was mostly available for kings and social elites, but served as a powerful tool, especially in opposition to the social context of a local anti-Assyrian palace institution.

We have also examined some of the ways in which the Assyrian imperial administration tried to insert itself into other social contexts of vassal areas. In particular, the Assyrians were interested in establishing a foothold in the context of the market, collecting various tolls and duties. This type of change, from a theoretical standpoint, should reduce the incentive to participate in the market by raising the cost of market transactions. Assyria's demands for tribute also effected the context of the palace. In a pre-imperial setting, all taxes could go to the treasuries of the palace and support its redistributive system. By siphoning off some of that income in the form of tribute payments, Assyria negatively modified the operation of the institution of the palace. In both these cases, further evidence is needed and we will return to these issues later in the chapter. While policies reflect Assyria's intended involvement, they do not always reflect the actual situation. There were many mechanisms through which local actors could resist Assyrian policy and work against imperial meddling in local participation in economic social contexts.

Resistance to Assyrian Policy

In circumstances where one entity is dominant over another, there is a multiplicity of ways that the non-dominant party can resist. The form of this resistance highlights certain key areas of conflict between the ruler and the ruled. As such, one element for understanding the effect of Assyrian imperialism from the perspective of its vassals and provinces is by examining the effectual implementation of policy on the ground and common forms of resistance to those policies. Local resistance mechanisms reveal how the inhabitants of vassal and provincial territories viewed and dealt with unwanted aspects of Assyrian imperialism.

The most obvious and commonly cited expression of resistance against the Assyrian Empire was rebellion or revolt, often taking the form of a cessation of tax payments, the disposal of a pro-Assyrian ruler or administrator, or the spreading rebellious ideas to neighboring areas. There is ample evidence for this type of behavior within the Assyrian royal inscriptions, often resulting in an Assyrian campaign and the reassertion of Assyrian dominance over the wayward vassal, frequently accompanied by additional sanctions, tribute, or a new ruler, as we have discussed previously in this chapter.

An examination of letters from the Neo-Assyrian period, however, reveals more subtle forms of resistance. Our examples primarily come from Phoenicia and North Syria, but reflect the reality of local attempts to manipulate imperial rule and to avoid imperial interference in local economic affairs. The letters often come from provincial administrators, complaining about the various activities taking place in areas under their jurisdiction that were not within their interpretation of the proper implementation of Assyrian policy. *SAA 16*, 127-128 are good examples of this type of behavior. In *SAA 16*, 127 the author, a certain Itti-Šamaš-balaṭu wrote to the king regarding a certain Ikkilû of Arwad, who “does not let the boats come up to the port of the king, my lord, but has turned the whole trade for himself. He provides for anyone who comes to him, but kills anyone who docks at the Assyrian harbor, and steals his boat.” Furthermore, this certain Ikkilû claimed that he had backing for such activity from the palace, of which Itti-Šamaš-balaṭu was highly skeptical. Itti-Šamaš-balaṭu also refused to arrest Ikkilû due to the fact that Ikkilû apparently had wealthy patrons from the Assyrian heartland, high level administrators who had invested with his business ventures. So here we see a situation where merchants were encouraged to avoid the Assyrian approved harbor (likely a *kāru* or *bit-kāru*) through a bit of thuggery, in favor of a locally run alternative in what amounts to tax evasion with the occasional

instance of theft and vandalism. In this case, the leader of the local muscle-- Ikkilû, had bought himself protection from high officials in the Assyrian court by taking on their money in investments, which he could obviously turn for a better profit without the worries of proper taxation and customs fees.¹⁵¹ Thus, we immediately see that in Arwad, the Assyrian policy on customs and taxation was, at least for a time, successfully bypassed by organized crime specializing in intimidation, tax evasion, and theft, all under the protection of high profile sponsors.

Another letter from Itti-Šamaš-balaṭu, *SAA 16*, 128, suggests that this problem did not get dealt with. Here he reiterated that there was a strong alliance between many “in the entourage of the king” who have invested silver with local merchants. These merchants, he claimed, were “systematically scaring” him, providing more evidence of intimidation of the local officials set to oversee the implementation of Assyrian policy. Evidence in the administrative documents of threats against the lives of officials further attests that such acts of intimidation were not uncommon (cf. *SAA 5*, 106-107; *SAA 17*, 156). Other examples are attested of officials stationed at a *kāru*, this time in Calah, allowing certain materials to pass by improperly, perhaps in exchange for bribe money (*SAA 18*, 103).

A second smaller-scale operation is attested in the northern territories. A letter from a certain Aššur-Reṣuwa to the king (*SAA 5*, 100) detailed the activities of a smuggling ring, which involved six men from Kumme. These men smuggled luxury items from Nineveh and Calah bought by inhabitants of the town of Bususu over the Urartian border, and returned with Urartian merchandise. The letter encourages the king to arrest these men and to interrogate them in order to discover their contacts on both sides of the border, as well as their accomplices who let them

¹⁵¹ This type of private group financed ventures is well attested in the Neo-Assyrian records, in particular cf. the EN KASKAL texts, Galil 2006.

cross. This letter demonstrates that the Assyrians were interested in controlling and taxing import and export of luxury items, but despite this interest there were multiple ways around the Assyrian restrictions through activities such as smuggling. Beyond intimidation, bribery of officials is also attested (cf. *SAA 16*, 63 and the case of Kuti and Tuti in Guzana, *SAA 16*, 44; *SAA 18*, 103, cf. also *SAA 18*, 131).

In remote areas, resistance was even easier. *SAA 1*, 240 records the case of an official sent to the mountain villages to request that the inhabitants serve their labor dues. The result was an assault on the official, and when the Assyrians returned in force the inhabitants fled and hid in the mountains, refusing to supply the manpower required. Refusal to provide labor seems to have been a common form of local resistance, perhaps best summed up by the complaint of Gabbu-ana-Aššur who wrote: “the people of the country totally refuse to go forth to my work...they do not listen to me...these people unanimously and categorically disobey me in every possible way” (*SAA 5*, 118, cf. also *SAA 5*, 268). That officials themselves were not above misappropriation and the misuse of resources to their own economic advantage is also attested in the administrative records (*SAA 16*, 41-43, 97). These administrators were at times more concerned for their own well-being and economic success than enforcing the official royal policy. Such activities are suggested in *SAA 18*, 17, where Nergal-Našir wrote of the officials in his area: “They all further their own interests but leave aside the king’s.”

Another example of this type of activity is attested in the already discussed letters from Qurdi-Aššur-lamur, regarding the activities in Sidon and Tyre. In *SAA 19*, 22 he recorded that he set up tax-collectors to tax people bringing down timber from the mountains, but that these tax-collectors had been chased away. Unfortunately for the Sidonians, they do not appear to have had important patrons and Qurdi-Aššur-lamur was not so easily intimidated. He responded by

sending a force to frighten them, leading to the reinstatement of the tax collector. Qurdi-Aššur-lamur instructed that they should not sell timbers to the Philistines or Egyptians (which one must assume they were doing), or he would not allow them to go up the mountain to collect the timbers. Thus, the example of Sidon is one where attempts at intimidation and evasion of trade restrictions at least partially failed, but strengthen the impression that in the areas further away from imperial control that these were common elements of resistance. These resistance methods show attempts by local groups to prevent Assyria from changing the function of local institutions. They also show that Assyrian policy was not always perfectly implemented on the ground. In the face of these difficulties, we now turn to the archaeological evidence. The material remains supplement the textual data and emphasize the extent of the physical presence of Assyria in the southern Levant.

Assyrian and Assyrianizing Archaeological Remains in the Southern Levant

Having examined the textual data available for the study of Assyrian policy in the southern Levant, it is now important to complement these data with an examination of the archaeological remains. What effect did Assyrian hegemony have on the material culture of the region? How does the distribution and density of Assyrian material culture and architecture reflect Assyrian policy and interests in the region? An exhaustive catalog of all of the Assyrian material remains in the southern Levant is beyond the scope of this dissertation, and would be a monumental work in its own right. Such a compilation was gathered by Joanne Bloom in the late 1980s. Although this work was quite extensive, it is in need of re-evaluation in light of a further 25 years of excavation. More recent works have focused on certain aspects of Assyrian material culture including architecture (Reich 1992), pottery (Anastasio 2010; Na'aman and Thareani 2006; Ben-Shlomo 2014a), Seals (Ornan 1997), burials (Mazar and Ahituv 2011; Zorn 1993),

and texts (Horowitz and Oshima 2006), but none of them are exhaustive compilations. For the purpose of this study, we are primarily interested in material culture that reflects Assyrian presence, more so than Assyrianizing elements. The density and distribution of these objects can shed light on the areas of Assyrian administrative interest. We will look in particular at Assyrian or Assyrian-style architecture as a reflection of Assyrian administrative presence in the region, the distribution of Assyrian pottery --because it is the most common artifact associated with Assyrian presence-- and a brief discussion of some of the other artifacts, including texts that clearly show Assyrian connections.

Assyrian-Style Architecture

The archaeological evidence for an Assyrian presence in the southern Levant is surprisingly sparse (Reich 1992, 215). There are a number of sites, predominantly located in the western Negev and in the north, that have been cited as showing a clear Assyrian presence (cf. Stern 2001, 24-31; Reich 1992, Bloom 1988, 83ff). The primary identifying feature of ‘Assyrian-Style’ buildings is a large open court construction, a feature foreign to the Iron Age architectural traditions of the southern Levant as recognized and linked to Assyrian construction practices already by Amiran and Dunayevsky (1958).¹⁵² Amiran and Dunayevsky identified seven main features of these open-court buildings: a rectangular building plan, inner and outer walls are all of essentially the same build and thickness, a characteristic central open-courtyard, a small side-entrance, interior entrances placed in the middle of walls, drainage systems, and a double row of rooms on one side of the courtyard (1958, 29). This list has served as the basis for much of the identification of Assyrian-style buildings in the Southern Levant. However, more recent studies of Assyrian architecture from Mesopotamia have added to our understanding of these building

¹⁵² That these open-court buildings are different from, should not be linked with, courtyard buildings native to the southern Levant from the Middle and Late Bronze Age has been amply demonstrated by Amiran and Dunayevsky (1958, 25-26).

types. Additionally, the fact that certain local building types, mainly fortresses, also feature open-court plans, has led to some confusion and the misidentification of many fortress buildings as Assyrian.

There are two types of Assyrian buildings in the southern Levant. The first were constructed according to a strict Assyrian formula, likely employing architects from Mesopotamia proper. The second type exhibits certain Assyrian characteristics and features, but are not exact replicas of Assyrian buildings (Reich 1992, 214-15; Stern 2001, 23-4). Following his excavations at Khorsabad, Loud (1936, 153) noted a great deal of continuity in the architectural layout of the Assyrian buildings, leading him to conclude that the Assyrian architects, at least during the reign of Sargon II, followed a set pattern or formula for the construction of major buildings. In particular, he noted three main types of buildings, palaces, temples, and residencies (cf. also Turner 1970, 177). These observations have formed the basis for the identification of Assyrian or Assyrian-style buildings, including those located outside of Assyria proper (Manuelli 2009). While Loud's discussion of Assyrian architecture was specifically based on the buildings of Khorsabad, a more general discussion of features characteristic of Assyrian architecture was provided by Geoffrey Turner (1970). Turner noted two types of palace-buildings, which he termed a civil/residential palace and an arsenal. The former category included both royal palaces and larger residences, such as one might expect of a governor or provincial administrator. In all Late Assyrian palaces Turner identifies two distinct sectors, each arranged around one of two main courtyards belonging to the building. The first was a public sector, arranged around the larger courtyard, and including administrative offices, service quarters, storerooms, and stables. The second sector, often arranged around the smaller, inner, and more secluded courtyard, was a private sector, including residential courtyards. These

two sectors were separated by a set of chambers, which due to their size and location, Turner regards as the throneroom suite, or in the case of residences, the primary reception suite (1970, 177-179).

In the case of the arsenal, the only major plan recovered is from Nimrud. These buildings functioned as military headquarters, and as such are described by Turner as more functional and less grandiose than the royal and residential palatial structures. Still, Turner identifies these structures as divided into two main parts, consisting of an outer courtyard surrounded by workshops, barracks, storerooms, etc., and then instead of a second inner courtyard the building led to a terrace between the palace and the rampart, and sided by a set of state apartments and residential suites. As was the case in the residences, these two sectors were separated by a suite similar in construction to the throneroom or reception suites of the residences (*ibid.* 180). Thus, the basic model was developed around two courts, which differed in use and function, and could be modified by additional modules (Manuelli 2009, 113). The arsenal, as opposed to the residence, is recognizable by the terrace or building platform in place of the second courtyard. In the following section, we will examine buildings from the southern Levant that have been identified as Assyrian or ‘Assyrian-Style’ in light of these characteristic features. Beyond aspects of building plan and layout, they show evidence of Assyrian style and design, there are also building techniques characteristic of Mesopotamia that are found in the construction of certain structures that are not clearly Assyrian in their design or layout. These include mudbrick vaulting (Van Beek 2008, 324-5; Ben-Shlomo 2014b, 519; Reich 1992, 221), brick flooring (Ben-Shlomo 2014b, 524; Reich 1992, 222), and the use of large brick building platforms or podiums (Reich 1992, 218). The last of these has been a key feature in the identification of multiple buildings as Assyrian. The brick podium or platform, has been identified by Reich (1984, 35; 1992, 218) as

the Assyrian feature of the *tamlû*, or the constructional platform for palaces or temples (cf. also Stern 2001, 28). This feature is known from Neo-Assyrian texts describing the construction of palaces or temples, including examples from the reigns of Esarhaddon and Ashurbanipal (cf. *CAD T*, 143-144; Bloom 1988, 124-5).

For our study, we are primarily concerned with Assyrian style buildings in areas of Judah and Philistia. Many of the Assyrian-Style buildings in the southern Levant are located in northern Israel, at places such as Megiddo, Hazor (Reich 1992), and Ayyelet-Ha-Sahar (Kletter and Zwickel 2006), as well as possibly Kinneret (Fritz 1990, 99-102), areas within the Assyrian provincial system, where we would expect greater infrastructural investment. Our examination will focus on the remains indicative of Assyrian activity outside of the boundaries of their provincial system.

Ashdod

In recent years, salvage excavations carried out in Ashdod have uncovered the remains of what has been identified as an Assyrian palace. Excavations taking place in 2003-2004 revealed a large building that was identified as Assyrian due to its construction on a monumental mudbrick platform (Kogan-Zehavi 2005, 87; 2008, 1573). On top of this platform the building was surrounded by a large wall, also constructed on square mudbricks, following attested dimensions of mudbricks used in constructions in Assyria proper (10x38x38). During excavation at the site three bathtubs were discovered, two made of ceramic and one of stone, located in a plastered room (2005, 87-89; 2008, 1573). This room was identified as a bathing room typical of Neo-Assyrian palaces. A neighboring room contained the other bathtubs, but they were not *in situ*, and may have fallen from a second story. This second room was lined with a pavement of square mudbricks, also typical of Neo-Assyrian construction patterns (2008, 1573). The bathroom

is another feature typical to Assyrian palace construction from the 8th-7th c. BCE. They tend to be included as part of the principal reception suite, accessed from the throne room at the opposite end from the stair-well (Turner 1970, 190; Manuelli 2009, 121). The brick paving in such rooms is typical (Turner 1970, 192, Manuelli 2009, 121). The presence of the bathtubs, however, is very atypical. Any type of furniture is rarely attested in the bathrooms, which in general were used only as a toilet (Manuelli 2009, 121).

The Ashdod palace also featured a large open courtyard. The building was renovated, but continued in use into the 7th c. with slight alterations, including a possible vaulted hallway (Kogan-Zehavi 2008, 1574).

Tell Jemmeh

In phases 5-6 of field IV at Tell Jemmeh a number of buildings were partially excavated, at least two of which (building I and building II) feature characteristics that have been identified with Assyrian building techniques. This in turn, led to the identification of the site as an Assyrian administrative center (Ben-Shlomo 2014b, 443-7).

Building I was only partially excavated, but fortunately a large portion of the building has been exposed. The building is preserved up to two stories, the lower story featuring vaulted mudbrick ceilings. Only the floor plan of the lower set of rooms is clearly delineated, and these have been identified as part of a basement. Six rooms were excavated, three smaller rooms with vaulted ceilings that were fully excavated, opening into longer hallways. These rooms contained much Assyrian-Style pottery (Ben-Shlomo 2014b, 470-498). Unless the main floor plan differs radically from the basement, this building is not consistent with the open-style courtyard residences we have examined so far. Ben-Shlomo (2014b, 507), however, notes that the elongated building units are similar to auxiliary buildings, likely storage spaces, attached to Neo-

Assyrian palaces and residences, citing examples from Nimrud, Khorsabad, Arslan Tash, and Zincirli. At the same time, the plan of the building could also fit known local structures (*ibid.* 513). In addition to the architecture, the Assyrian-Style pottery found at Tell Jemmeh (the most of any site in the southern Levant), was heavily concentrated in this building (2014a, 741).

Building II in phase 5 seems to be part of a large open-court style building, surrounded by elongated rooms (only some of which were excavated, and some of which may have been excavated as parts of other buildings, cf. Ben-Shlomo 2014b, 465), all of which was cut by a later granary, which is hypothesized to occupy the open space that would have been the courtyard for this building. If this reconstruction is accurate, it would be a typical open-court Assyrian style building as we have described above. However, as Ben-Shlomo (2014b, 463) notes, due to the small area of the building that was actually excavated, and the problems caused by the later intrusions, such conclusions are necessarily speculative.

Thus, from the perspective of building plan and design there is little that is definitively Assyrian in the remains from Tell Jemmeh. However, certain construction techniques also demonstrate Mesopotamian connections. In the case of Jemmeh building I the vaulting is of particular importance. Parallels for the type of vaulting attested at Jemmeh are limited to locations in Mesopotamia, Iran and central Asia, with the best parallels coming from the Median fortress of Nush-I Jan in Iran (Ben-Shlomo 2014b, 519; Van Beek 2008, 324-5). These vaults are also popular in Assyrian tomb construction (Ben-Shlomo 2014b, 524). The brick flooring found in the building is also reminiscent of Assyrian building techniques used in palaces at Nimrud, Til-Barsip, Khorsabad, and Tell Halaf (*ibid.* 524; Reich 1992, 222).

Tel Haror

Located in the western Negev on the northern bank of the Nahal Gerar, Tel Haror presides over the main route connecting Gaza to the Beersheba Valley (Oren 1993c, 580; Oren et al. 1986, 59). In the late Iron Age, Tel Haror was a well-fortified site with an elaborate defense system, as well as an administrative center featuring large public buildings (Oren 1993c, 583). The fortifications included a wall (preserved to at least 4m wide and 2m high) sitting on top of a rampart with an earthen glacis, and featured numerous large mudbrick watchtowers (cf. Oren et al. 1986, fig.5). The earliest buildings and floors associated with these fortifications contained pottery dating to the 8th c. BCE, and was destroyed sometime during the mid-7th century BCE (Oren 1993c, 583; Oren et al. 1986, 64). Oren (1993c, 584) suggests that the construction of this fortified structure in the 8th c. could have been built as an administrative center overseeing southern Philistia and Egypt during the reign of Sargon II. The construction of the corner fortress on an elevated platform in particular is identified with Assyrian construction platform or *tamlû* (Oren 1993a, 104). There are possible similarities between this fortress and the arsenal style palaces described by Turner, also dating to the reign of Sargon II. Further similarities between the buildings, however, must await the publication of a plan of the building excavated at Tel Haror. Stern (2001, 21,24-31) suggests that Haror served as one of a series of Assyrian forts along the coastal highway, along with Tell Jemmeh, Tel Sera', Abu Salima, Tell el-Hesi, however he does not note any specific Assyrian characteristics or features. The identification of the fortress at Haror as Assyrian lacks widespread support, and it is not mentioned alongside other potential Assyrian structures in compilations of Assyrian architecture in the southern Levant, such as Bloom (1988) and Reich (1992), but this may also be due to the lack of published information regarding this particular building.

Tel Sera':

Tel Sera' is located in the western Negev, in close proximity to Tel Haror, also overlooking the road connecting Gaza to the Beersheba Valley, and is identified with the biblical city of Ziklag¹⁵³ (Oren and Netzer 1993, 1329). At the site, in Str.VI a large citadel was constructed, characterized by long narrow magazine halls and small rooms, surrounded by a large defensive wall reaching thicknesses up to 5m (ibid. 1333). A massive brick platform adjoining the citadel to the south, as well as brick pavement in long hallways, suggest Assyrian influence (Bloom 1988, 116). However, despite the claims of scholars such as Reich (1992) and Stern (2001), that architectural features are the primary way to identify Assyrian structures, in the case of the citadels at Tel Sera' these constructional techniques and the artifacts take precedence. Oren (1982, 159ff.) notes the presence of Assyrian palace ware in abundance, but also a few specialty artifacts, namely a bronze standard in the form of a crescent, the symbol of the Mesopotamian moon god Sin, and an Assyrian style bronze socketed spearhead (cf. also Oren and Netzer 1993, 1333). These artifacts are referenced by both Stern (2001, 26) and Reich (1992, 221) in their support of Oren and Netzer's identification (1993, 1334) of the citadel at Sera' as "occupied by an Assyrian military administration." The presence of East Greek pottery, Egyptian figurines, and Hebrew and Aramaic inscriptions reveal the mixed population of the site, and suggest that while Oren's reconstruction is certainly plausible (especially given the finds at neighboring Tell Jemmeh), using a few foreign artifacts alone to reconstruct the function of the ancient city should be viewed with caution. Like Tel Haror, the fortress at Tel Sera' was destroyed in the later part of the 7th c., Oren (1982, 161) suggests perhaps by the Egyptians following the Assyrian withdrawal from the region.

¹⁵³ Following Oren and others. The site has also been identified with Homah, Gerar, and Philistine Gath (cf. Oren and Netzer 1993, 1329 for literature).

Abu Salima (Tell Sheik Zuweid)

This site, located in the northern Sinai, approximately 2.5 miles from the coast, was excavated in the 1930's by Sir Flinders Petrie. For our purposes the most informative find at the site was the north-eastern wing of a fortress of mudbrick construction. The fortress was constructed on an elevated platform surrounded by a brick retaining wall, or stepped glacis (Reich 1993, 15). The building was identified by Petrie as a temple, who dated it to the Babylonian period, although Reich (1993, 15; 1984, 32-3) suggested that the building is better identified as a fortress of the Neo-Assyrian period (8th c. BCE), which Reich (1984, 36; 1992, 221-2) identifies as the Assyrian *kāru* established on the Egyptian border during the reign of Sargon II. Petrie noted the similarities between the plan of this building and the temple of Nabu excavated at Khorsabad, including a preserved *cella* paved with burnt bricks. Reich (1984, 36) notes in particular rooms GT-GX, which are linked to form what he categorizes as a typical residential unit found in Assyrian architecture of the first millennium, in particular governors residences and fortresses, which were used by officials or officers. Reich(1984, 38) argues that the *langraum* plan of the building, with the *cella* next to the short wall, and the raised platform construction, the burnt brick paving, and the wide staircases with side pedestals, are all Mesopotamian features better associated with the Assyrians than the Babylonians. He goes to suggest that brick size is better associated with Assyrian buildings than the smaller bricks of the Neo-Babylonian period (cf. Van Beek 2008, 263).¹⁵⁴

Ekron Temple

Gitin (2012, 231; 2003a, 284) has recently suggested that the Temple Complex 650 excavated in Ekron is an example of Assyrian-style architecture, modeled after the tripartite

¹⁵⁴ Neo-Assyrian bricks conform to the Sargonic cubit, ca. 40x40x10 cm (Ben-Shlomo 2014, 513) and weigh 28.09 kg (Van Beek 2008, 263).

division of Neo-Assyrian palaces, residences and temples. The building features two courtyards, both surrounded by smaller rooms, divided by a “reception suite.” Thus the basic outline is quite similar to the palace designs as described by Loud and Turner. In the case of the Ekron temple, however, the throneroom suite serves as the sanctuary (Gitin et al. 1997, 4). At the same time, the temple also resembles Phoenician parallels, such as the Astarte Temple on Kition, which Gitin acknowledges. Despite these similarities, there are also certain problems with the construction of Ekron temple complex 650 which do not fit with standard Assyrian architecture. These have been discussed in depth by Kamlah (2003). While the alternative sources for the building plan presented by Kamlah are dubious (cf. Gitin 2012, 241-243), Kamlah’s overall critique that the building may be Assyrian inspired, but is certainly not designed by Assyrian architects holds. This leads Gitin (2012, 233, 241) to re-affirm his suggestion that the temple is a hybrid of many different non-local architectural features, partially inspired by Assyrian examples. The temple contained artifacts of mixed styles, including Phoenician and Egyptian (Gitin et al. 1997, 7-8). Therefore, despite some architectural similarities to Assyrian styles, this building should not be considered Assyrian.

Gezer

The discovery of two cuneiform texts dating to the mid-7th c. at Gezer led to the belief that the site may have been home to an Assyrian administrative center (Reich and Brandl 1985, 40-41). The architectural support for this claim, however, is very limited. While no building has been securely identified, Reich and Brandl (1985, 44) have highlighted the discovery of a threshold, containing two horseshoe shaped stones, commonly used to cover pits containing door sockets in Neo-Assyrian monumental architecture, with parallels at sites such as Khorsabad, Tell Halaf, and the Assyrian palace at Megiddo (cf. also Bloom 1988, 118). Reich (1992, 219) claims

that this threshold is definitive evidence for the existence of an Assyrian administrative building. While we agree that there is strong evidence for some Assyrian presence at the site, without the plan of the building conclusions on the role of the site within regional Assyrian administration would be pure speculation.

Ruqeish

Ruqeish is located on the coast of the Mediterranean ca. 18 km south of Gaza. The site features a large fortified town founded in the 8th c. BCE, and occupied continuously into the 6th century, with a final settlement phase in the Persian period (Oren 1993b, 1293-4). The site is clearly oriented towards the sea and evidences strong Phoenician influence, including much Phoenician pottery, in particular transport amphorae, as well as Phoenician style burials. Material from Greece, Cyprus, and Egypt indicate that the site was a trading center. All of this has led Oren (ibid. 1294) to suggest that Ruqeish served as the ‘sealed *kāru* of Egypt,’ established by Sargon II in the 8th c. BCE, instead of Reich’s proposal (1984) to locate the *kāru* at Abu Salima. Oren’s identification of the site as Assyrian is based primarily on the date of its founding, the evidence for extensive commercial connections at the site, and its convenient strategic location along the southern coast of the Mediterranean. No features, either architectural or from the artifact assemblage have been brought forward to further support this identification.

Blakhiyah

Excavations at Blakhiyah, near Gaza, uncovered a large mudbrick fortification. Unfortunately, however, very little of the building plan is preserved, with most of the remains belonging to a large earthen rampart surrounding the Iron Age site (Humbert and Abu Hassuneh 1999, 53; Humbert and Sadeq 2000, 106). Although of uncertain date, pottery at the site suggests that it is best attributed to the late 8th/7th c. BCE (Burdajewicz 2000, 35). Burdajewicz (2000, 36-

7) suggests that Blakhiyah is yet another potential location to be considered as the “sealed *kāru*” of Sargon II on the border of Egypt, because of the sites prime location to both survey and protect the overland route to Gaza. Assyrian style pottery is attested, but not dominant at the site. While Humbert and Abu Hassuneh (1999, 53) originally suggested that the site the ramparts around the site were originally constructed as defenses against the campaign of Sargon II, and that the site was most likely destroyed by Neco at the end of the 7th c. BCE, this was revised by Humbert and Sadeq (2000, 112), who attribute the construction of the Iron Age fortified site to the reign of Sennacherib, Esarhaddon, or Ashurbanipal, as part of an attempt to further control the gateway into Eg, this was revised by Humbert and Sadeq, who attribute the construction of the Iron Age fortified site to the reign of Sennacherib, Esarhaddon, or Ashurbanipal, as part of an attempt to further control the gateway into Egypt. There are, however, no clear architectural elements that suggest the site was constructed by Assyrians or in an Assyrian style. The designation of the site as Assyrian is based on the excavators’ historical reconstructions.

Tell Qudadi

Tell Qudadi is an Iron Age fortress site located in the vicinity of Tel Aviv, on the north bank of the Yarkon stream estuary (Fantalkin and Tal 2009, 188). The site was initially dated to the 10th/9th century, with an 8th century destruction attributed to Tiglath-pileser III (ibid. 190). In their re-analysis of the site Fantalkin and Tal (2009, 197-9) suggest that the two phases of the site better represent the 8th and 7th c. BCE respectively. The authors conclude that “accordingly, it may be assumed that the fortress at Tell Qudadi was an integral part of the system of administrative centres, trade stations and fortresses established on the coastal plain and inland in response to the needs of the Neo-Assyrian Empire” as part of “a new architectural landscape that radiated political power of the Neo-Assyrian sovereign to the western margins of the empire,

creating a new imperial landscape” (2009, 199). As a fortress, Tell Qudadi features an open court plan, surrounded by smaller rooms, somewhat similar to what we have previously discussed as Neo-Assyrian features. However, these features are also common in local fortresses, such as we see in Negev sites which we will examine more closely in chapter 4. While Fantalkin and Tal (2009, 200) note some of these features (and additionally the construction of the site on a large podium, 2009, n.19), they do not suggest that the site is of Assyrian construction, and rather that it was built by local vassals in their own style on Assyrian orders, obviating the need for clear Assyrian style architecture or artifacts, both of which are lacking. As such, Tell Qudadi shows no characteristics of an “Assyrian Fortress,” and Fantalkin and Tal suggest that it is to be identified as a fortress whose construction and operation were commissioned by the Assyrian king, but carried out locally with local labor. Thus the reasons for understanding this site as an Assyrian imposition are purely interpretive based on its location and date, along with the authors understanding of Assyrian involvement in the region, a topic that we will address later in this chapter. The archaeological evidence linking this site to Assyria is non-existent.

Rishon Lezion

Salvage excavations in Rishon Lezion uncovered the remains of a late Iron Age fortress. The building itself consists of a single open courtyard, surrounded by smaller cells, but these cells seem too small to be true rooms and could have been used for storage or as a constructional element (Wolff 1996, 744). The brick sizes at the site do not conform to Neo-Assyrian standards, or to measurements attested at potentially Neo-Assyrian sites (Levy et al. 2004, 92). Despite this, since no clear floor of the building was uncovered, Levy and Peilstocker (2008, 2022) suggest it is possible that this represents the foundations or basement of the fortress, or possibly that the fortress was constructed on a mudbrick podium, perhaps a *tamlû* (cf. also Levy et al. 2004, 93).

Without secure floors the dating of the fortress could belong to either the Late Iron Age or the Persian period, but amounts of Iron IIC pottery, including Assyrian-style pottery are attested at the site (ibid. 94). While it was tentatively suggested that the most likely use of this fortress was as a garrison for Assyrian troops during the reign of Sargon II (Wolff 1996, 744), these conclusions are quite speculative, and there is little in the architecture or pottery that suggest anything notably Assyrian about the site, making it just one of many fortresses in the region in the late Iron Age (Levy and Peilstocker 2008, 2022). The Assyrian characterization of this site at the moment must remain at best questionable.

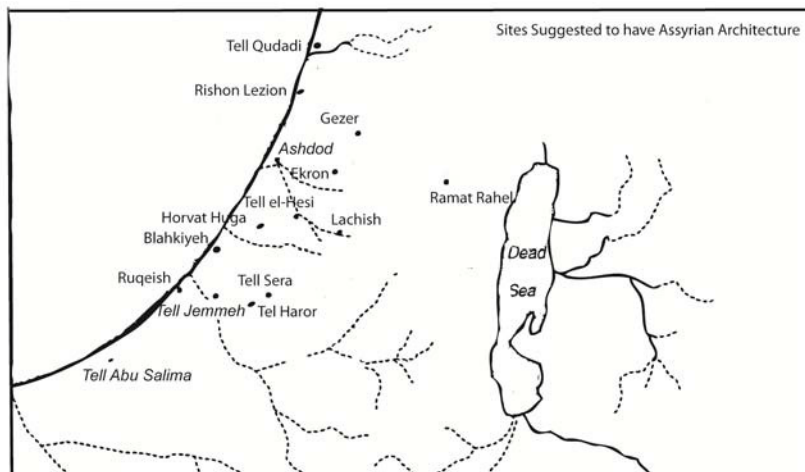
Ramat-Rahel

In a similar argument to that which we discussed for Tell Qudadi, Na'aman has proposed that Ramat Rahel served as the seat of an Assyrian official. Like Fantalkin and Tal argued for Tell Qudadi, Na'aman (2001, 273) maintains that Ramat Rahel was built by local Judahite architects in their own (Phoenician inspired) style, at the behest of the Assyrian king, as a seat for an Assyrian official, stationed close by to Jerusalem in order to keep an eye on the Assyrian vassals. Na'aman (ibid. 274) suggests that as an official living abroad there is no reason to expect Assyrian style pottery or artifacts in large numbers, and that the close parallels between this palace and the palace in Jerusalem are explicable by the use of Judahite architects by the Assyrians in its construction. Even more so than we saw in the case of Tell Qudadi, the construction here is clearly local (despite attempts by Reich to suggest that part of the building could be interpreted as an Assyrian double temple, paralleling structures at sites such as Arslan Tash and Tell Halaf (Reich 2003, 127)), and the only reason for identifying it with Assyria is the interpretive framework of the author, who is proposing that Assyrian administrative centers should be sought after in close proximity to the local capitals or major economic centers.

Lachish

Bloom (1988, 102-3) has argued that the post-stratum III residency at Lachish, dated by Starkey to stratum I based on the Persian period ceramics associated with it, is in actuality an Assyrian-style residency better dated to stratum II. She argues that the plan of the building is a hybrid between a traditional open-court style residency and a *bit-hilani* styled building (ibid. 105), while Stern (1982, 57-60) suggests that it is a typical Persian period hybrid of Mesopotamian and Syrian styles. Reich (1992, 218-9) convincingly argues that although the building bears superficial similarities to Assyrian layouts, in fact, it is part of a later Babylonian/Persian tradition, where the entrance and use of the reception hall are laid out in the broad-room style. Therefore, this residency is correctly dated to the Persian period and should not be considered Assyrian-Style architecture.

Figure 2: Sites with Proposed Assyrian Architecture



Assyrian-Style Pottery

Assyrian style pottery is the most commonly found, and widely distributed artifact associated with Assyrian presence in the southern Levant. Assyrian pottery was first identified by the excavations of Flinders Petrie at Tell Jemmeh, where he discovered a number of vessels in

a grain silo that he dated to 700 BCE, which he classified as Assyrian. Petrie's identification of these vessels as Assyrian was based on the thinness of the bowls and plates, which Petrie noted as reminiscent of Assyrian dishes. Additionally he suggested that some of the forms, specifically a deep carinated bowl flaring rim and a rounded base (Petrie 1928, pl. LXV, 1-3), paralleled a silver bowl from Assyria that Petrie has seen in the British Museum (Petrie 1928, 23-4; cf. also Ben-Shlomo 2014a, 734). The identification of these types of thin walled carinated bowls was maintained by Ruth Amiran (1969, 291, 296), in what remains the basic handbook on pottery forms from ancient Israel. In addition to the bowl forms identified by Petrie, she also identified the handleless bottle (in certain publications referred to as a goblet or beaker) as Assyrian, despite noting its similarities to northern Transjordanian (Ammonite) forms. Amiran's identification of these forms as Assyrian influenced the subsequent publication of this pottery, where it was commonly accepted as coming from Assyria. In general, the assemblage of Assyrian-Style pottery found in excavations in the southern Levant is limited to these forms, which only represent a fraction of the larger Neo-Assyrian assemblage (cf. Stern 2001, 36-37; Ben-Shlomo 2014a, 734).¹⁵⁵ Thus the label of "Assyrian" or "Assyrian-Style" for ceramic forms came to include a number of different genres of pottery, with differing levels of connection to real Assyrian pottery originating in Assyria. The further differentiation of the "Assyrian" corpus in the southern Levant has been aided by more recent work analysis and publication of Assyrian material. On the one hand, new studies have compiled a more complete collection of Assyrian pottery, both within the Assyrian homeland and in the Assyrian provinces (Anastasio 2010; Hausleiter 2010; Hausleiter and Reiche 1999). On the other hand, there have been multiple petrographic studies that have modified our understanding of the production of the so-called Assyrian pottery (Stager et al. 2011; Ben-Shlomo 2014a, c; Engstrom 2004). Finally, we have

¹⁵⁵ The full Neo-Assyrian Assemblage has been published by Anastasio 2010, 34ff.

the complete publication of the largest assemblage of Assyrian-style pottery excavated in Israel, the Tell Jemmeh assemblage (Ben-Shlomo 2014a).

Increased attention to the pottery of Assyria has also shown that the so-called Assyrian pottery of Israel and Transjordan is always, at least morphologically, slightly different from the forms of Assyria proper. Thus, true Assyrian pottery production is never found in the southern Levant (Anastasio 2010, 25). In the realm of petrographic studies, Amiran had identified the Assyrian forms under the heading “Imported Assyrian Ware.” However, recent studies have shown that all of the so-called imported Assyrian wares are in fact locally produced (Engstrom 2004; Na’aman and Thareani 2006, 63; Ben-Shlomo 2014a, 793-794; Anastasio 2010, 24-25; Stager et al. 2011, 67). In terms of their production, the vessels made in Assyria are produced using more finely levigated clay and a higher firing technique than the imitations found in the southern Levant. The true Assyrian vessels also demonstrate more standardization, both in form and capacity (Ben-Shlomo 2014a, 734). This has led Ben-Shlomo (2014c, 73) to term all imitation ware found in the southern Levant “Assyrian-Style” pottery, rather than “Assyrian pottery.”

Na’aman and Thareani (2006) have gone even further, calling into question whether or not this pottery is even intended to mimic Assyrian forms, as opposed to Transjordanian (primarily Edomite forms), which may have been based on Mesopotamian styles. They suggest that the Assyrian-style pottery appears too early in the chronology of Judah, mainly at 8th c. sites in the Negev (Beersheba II), predating Sennacherib’s campaign. According to Na’aman and Thareani (2006, 62-4), this would suggest that Assyrian ceramic styles caught on far too quickly in comparison to Assyrian conquest of the region. They also argue that the distribution of these forms does not match what one would expect of an Assyrian influenced style. This type of

pottery is commonly distributed across the Transjordan, but is rare in the Cisjordan outside of the Negev, where it is common, and other elements point to a shared connection between the Negev region and Edom (cultic objects at Qitmit and Hazeva, Edomite script at Negev sites such as Horvat 'Uza, etc.). Thus, they argue that the influence displayed in these pottery forms originates in Transjordan and not Assyria. Bennett (1978, 169-70) had already made the suggestion that this type of pottery showed Mesopotamian influence based on her excavations in Jordan. Na'aman and Thareani (2006, 65) suggest the alternative that the presence of similar forms decorated in Edomite styles indicates that it is part of a local Edomite tradition. Singer-Avitz (2004a, 81) disagrees, suggesting that instead some of the Assyrian forms were assimilated into the Edomite assemblage. Based on the pottery assemblage at 'Aroer, where Na'aman and Thareani (2006, 71) find only two types that they conclude show secure Mesopotamian origins- both dating to the 7th c., they assert it is only in the 7th c. that any Assyrian influence is found in the ceramic tradition of Judah and the Negev.

Central to Na'aman and Thareani's argument (2006, 67-8) is that only some of the vessels characterized as Assyrian have clear parallels from Assyria itself. This has been confirmed by Anastasio's survey of Assyrian pottery, where he concludes in regards to the southern Levant that Assyrian pottery "remains fundamentally extraneous to local production and is limited, at most, to inspiration of particular shapes, mainly of drinking vessels and prestige productions (in this case, imitations of palace ware)" (2010, 25). Similar conclusions were reached regarding the assemblage at Ashkelon, in particular a carinated bowl featuring red slip and a flaring rim (Bowl 4), which although broadly characterized as Assyrian, lacks parallels in Assyria proper. This led the excavators to conclude that the vessels are part of a provincial style, with parallels in Anatolia (Stager et al. 2011, 76-77).

The most important site for discussing the Assyrian-Style pottery of the southern Levant is Tell Jemmeh, the site where the pottery was first identified by Petrie, and the find spot of the largest assemblage of Assyrian Palace Ware in the Levant. The assemblage at Tell Jemmeh has been recently published by David Ben-Shlomo, and although the site contains a more diverse assemblage than other sites at the Levant, it still contains parallels for only a small portion of the full Neo-Assyrian assemblage, primarily variations on a globular carinated or shallow bowl, or goblets/bottles. The same types generally attested throughout the assemblages at other sites in the southern Levant (Ben-Shlomo 2014a, 734).

While certain forms that are typically identified as Assyrian are certainly locally made, and arguably inspired by Transjordanian forms, there are still a few forms that are clearly reminiscent of Assyrian palace ware, and even when manufactured locally demonstrate a connection with Assyria proper. Thus, the problem in identification within the Assyrian assemblage of the southern Levant is the conflation of multiple types into one, overly broad category. Ben-Shlomo (2014a, 747) has rightly noted this problem and has suggested that Assyrian pottery is better separated into four classes, based on the relationship of the pottery to the pottery of Assyria proper. The first class is Assyrian-inspired pottery. This type of pottery is produced by local Levantine potters, but is morphologically influenced by Assyrian forms. This category includes various hybrid forms that combine Assyrian and local styles (cf. also Stern 2001, 36), and includes mostly sharply carinated, or globular carinated bowls, and some of the bottle or beaker forms. The fabric of this pottery is local, and not necessarily finely levigated like the higher level palace-ware forms (Ben-Shlomo 2014a, 747). The “Assyrian-Edomite” forms identified by Na’aman and Thareani (2006) certainly fit into this group, as do certain forms from

as early as the 8th c. found at sites such as Arad and Beer Sheba (Singer Avitz 1999, 30-38; 2002, 160-163; 2007).¹⁵⁶

A second type is Assyrian-style pottery. According to the classification of Ben-Shlomo, this group includes palace ware imitation. While still produced by local potters it bears a strong resemblance in both morphology and manufacture (thin-walled, highly levigated clays) to the Assyrian forms. This pottery is much less common in the southern Levant, and limited mainly to sites where a stronger Assyrian presence has been suggested. Even fewer forms are found in this type, mainly consisting of the ridged globular sharply carinated bowls, open bowls with grooved flat bases, and beakers. Categories three and four are not clearly attested within the assemblage of the southern Levant. The third class includes pottery produced locally, but by Assyrian potters. This pottery in form and manufacture is indistinguishable from type two, and with lack of evidence for Assyrian potters working abroad we must assume that this type is unattested. The fourth category includes vessels imported from either Assyria proper or Assyrian provincial centers. Until an example is positively tested that originates abroad we must continue to assume all of the examples found were produced locally, and that this category is as of yet unattested (Ben-Shlomo 2014a, 747).

Given these difficulties, it is very difficult to use Assyrian pottery to determine Assyrian presence, especially in the case of the Assyrian-inspired forms. Large amounts of the Assyrian-Style imitation palace-ware are better evidence for Assyrian presence, or a place with increased Assyrian influence. In addition to Tell Jemmeh, clusters of Assyrian-style pottery have been uncovered in excavations at Tell el-Hesi (Engstrom 2004), Arad (Singer-Avitz 2002), Beersheba

¹⁵⁶ Na'aman and Thareani argue against attributing Assyrian imitation pottery to any time prior to the 7th c. BCE, asserting that there was not enough time or exposure in the 8th c. for Assyrian potting traditions to be mimicked (2006, 61-3). This is less of a problem for the category of Assyrian-Inspired pottery, which can also be the result of down-the-line transmission, perhaps even via the Transjordan. Certainly this style is attested in the Levant in the last third of the 8th c. (cf. Ben-Shlomo 2014, 747, Singer-Avitz 2007).

(Singer-Avitz 2009), Tel Sera' (Oren 1993), Tell el-Kheleifeh (Pratico 1993, 41-43), and 'Aroer (Thareani 2011). A few fragments are attested at sites such as Ashkelon (Stager et al. 2011) and Ekron (Gitin 1998). Assyrian-Style pottery is also attested at sites in the north (cf. survey in Ben-Shlomo 2014a, 741-747). However, Assyrian-Style pottery is not well attested at sites such as the Assyrian Residence in Ashdod, where one would expect to find it, if it truly was a marker of Assyrian presence (Ben-Shlomo 2014a, 746). Thus, although pottery is the most frequently attested artifact with links to Assyria, it is not particularly helpful in clarifying Assyrian presence or interests in the southern Levant.

Epigraphic Finds

A small number of epigraphic finds written in cuneiform have been excavated at sites in the southern Levant. Recently these finds have been compiled by Horowitz and Oshima (2006) along with all of the earlier cuneiform texts excavated in Israel. Overall they identified 18 Neo-Assyrian texts (2006, table 1). In this section we will briefly review the implications of these finds for understanding Assyrian presence in the southern Levant.

Assyrian texts from contexts in the southern Levant are rare. One set of texts belongs to fragments of royal inscriptions or stele that have been found at certain sites. These texts are less helpful. The Assyrian kings are known to have erected commemorative stele upon reaching remote locations, or conquering certain regions. These texts would have been carved by Assyrian artisans and scribes, who need not have been attached to any lasting administrative presence in the area. As such, the stele only represent areas reached by the Assyrian army, and we already are informed about their presence in the southern Levant from the annals and other royal inscriptions. Stele fragments from the reign of Sargon II have been found at Ashdod (cf. Kapera 1976), with additional fragments from stele dating to his reign excavated further north at Ben-

Shemen and Samaria.¹⁵⁷ A single stele fragment from the reign of Esarhaddon was excavated north of Samaria at the site of Qaqun (Horowitz and Oshima 2006, 19). Cogan (2008) has suggested that both the Ben Shemen and the Qaqun fragments belong to the reign of Esarhaddon, and are in fact two fragments from the same stele.

In addition to the royal inscription fragments, eight administrative documents have been recovered: two from Gezer, two from the site of Tel Hadid, two from Samaria, and single examples from Tel Keisan and Khirbet Kusiya. The two examples from Gezer and one of the examples from Hadid date to the reign of Ashurbanipal, whereas the second example from Hadid dates to the reign of Sennacherib. The other examples cannot be dated (*ibid.* 20). Assyrian administrative texts from the northern kingdom (especially at Samaria), are to be expected, given that the area was transformed into an Assyrian province following its conquest by Sargon II. The fragments from the north are not particularly informative. The tablet from Keisan is a list of bread rations, the tablet from Khirbet Kusiya is heavily damaged, and mentions fields and a city. Horowitz and Oshima tentatively suggest that it may be a transaction of some kind (2006, 100). The texts from Samaria include a judicial document calling for payment from someone to the “great men of the cities” and an inscribed bullae with an Assyrian name (*ibid.* 112-113). Two administrative texts were found in the course of salvage excavations at Tel Hadid, a site in the Shephelah located just north-east of Lod (Beit-Arieh 2008a, 1757). The first tablet details the sale of a field from four men to a certain Marduk-bēla-Ušur for 1 mina of silver (Na’aman and Zadok 2000, 161). All of the names (sellers, buyer, and witnesses) mentioned in the tablet are Mesopotamian in origin, leading Na’aman and Zadok to conclude that the persons involved were deportees from Babylonia, brought in perhaps by Sargon II following the fall of Samaria (*ibid.*

¹⁵⁷ The fragmentary nature of the Samaria text in particular makes dating difficult, but we concur with the attributions suggested by Horowitz and Oshima 2006.

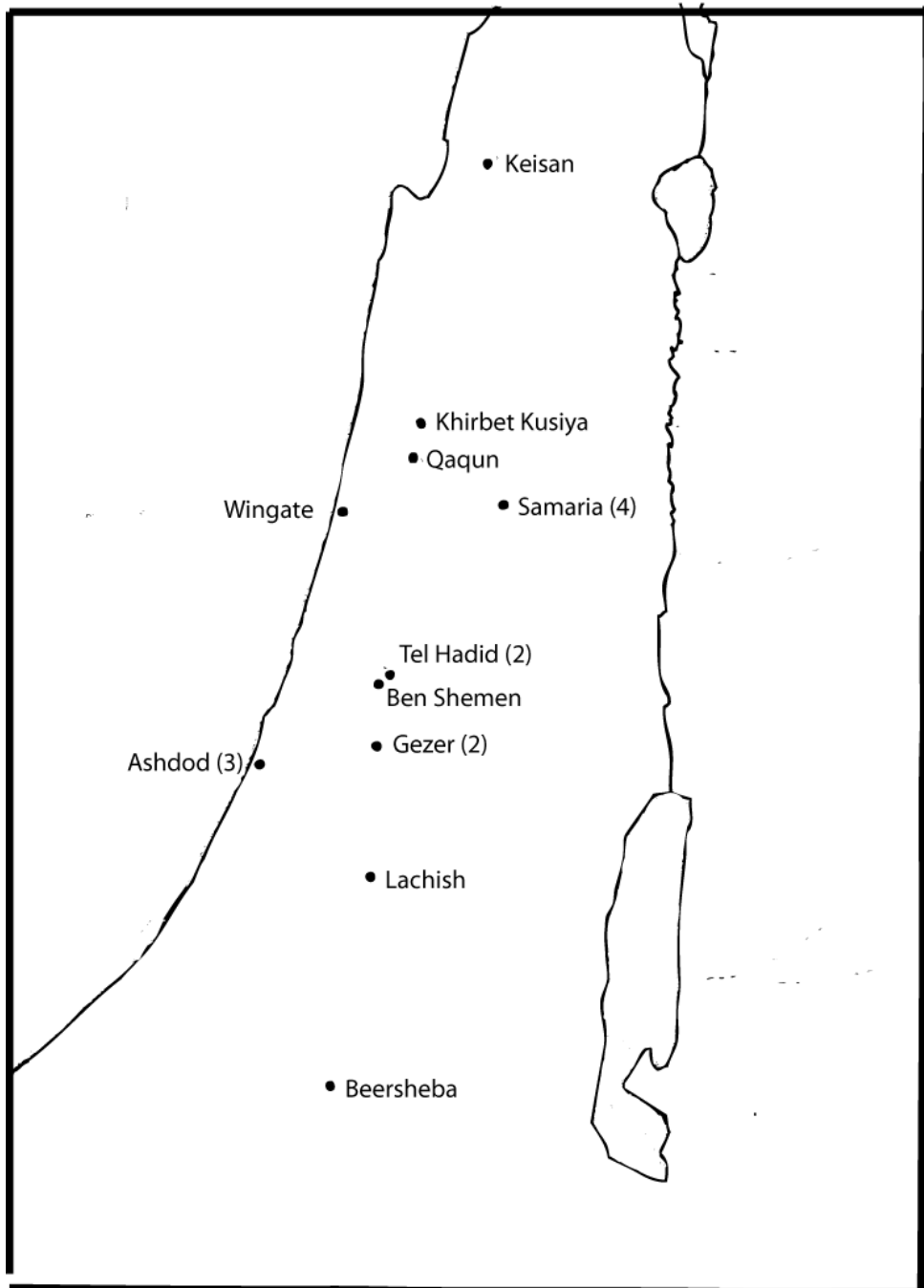
169; Beit-Arieh 2008a, 1758). Horowitz and Oshima (2006, 20-22) rightly point out that the Babylonian origin of the names does not necessarily indicate that they were deportees, suggesting an alternative possibility where these individuals could have voluntarily relocated as part of the local provincial administration (noting also the appearance of a Babylonian name in administrative correspondence from Samaria, *SAA I*, 220). They further cite the Babylonian script found on the previously discussed fragment from Tell Keisan as further support for the voluntary migration of Babylonians to serve in the Assyrian administration. The second tablet records a loan, and its repayment, with the wife and sister of the collector pledged as collateral (Na'aman and Zadok 2000, 174). In this text, the debtor and his family have west semitic names, however the first two witnesses bear Mesopotamian names, leading Na'aman and Zadok (2000, 176-7) to suggest that the creditor was originally from Mesopotamia (although another witness is mentioned specifically as an Egyptian) and not indigenous to the region. Despite this, the scribal conventions used in its creation match those of similar texts found in Assyria proper.

Na'aman and Zadok (2000) claim that the Tel Hadid tablets were written by Babylonians deported to the province of Samerina by Sargon II. This conclusion, however, brings up important questions, namely concerning the political status of Tel Hadid. According to the reconstruction of Na'aman and Zadok, Tel Hadid should be considered part of the Assyrian province of Samerina, a location for Babylonian deportees. However, they also note the presence of Assyrian tablets and Mesopotamian/Babylonian names at Gezer, which is located in the Shephelah of Judah (or possibly Philistia after Sennacherib's 701 BCE campaign, although Becking suggests that it was part of Assyrian territory as early as the reign of Tiglath-pileser III, based on a relief fragment showing the siege of the city, 1981/1982, 78). In Faust's analysis (2011, 70) of olive oil production in the southern Levant during the Iron Age he notes the many

oil presses found at Tel Hadid. Faust's thesis is that in the 7th c., the period of the Hadid presses, the areas that prospered in olive oil production were areas outside of Assyrian control and the provincial system, thus locating Tel Hadid outside of the province of Samerina, likely in northern Philistia. The site is mentioned in Ezra and Nehemiah as a place occupied by returning deportees, placing it within the Yehud province in the Persian period. Rainey and Notley (2006, 178) located Hadid within the tribal territory of Dan, but assert that these towns were resettled by Judah after the departure of Dan, and that the region remained part of Judah following the split of the monarchy. Rainey and Notley also note, however, that these lists of town names there are also towns with Assyrian styled-names that could reflect Assyrian activity in this particular area (ibid. 178). In addition to the settlement of deportees in the province of Samerina, Sargon II also brought deportees into the newly established province of Ashdod in 712 BCE, although Tel Hadid likely lies too far north and east to be included in the territory of Ashdod. Despite this, the western Shephelah and coastal plain up to Jaffa was attested as Philistine territory into the reign of Sennacherib, with cities in the vicinity of Jaffa belonging to Šidqa of Ashkelon.

Gezer is home to a further two administrative tablets dating to the beginning of the 7th c. BCE. Both tablets document the sale of land, and contain a mixture of local Judahite and Mesopotamian personal names as well as an Egyptian name (Horowitz and Oshima 2006, 55-59; Stern 2001, 45; Becking 1981/1982, 88-89).

Figure 3: Assyrian Epigraphic Finds in the Southern Levant



Other Assyrian Artifacts

Seals and Sealings

There are two types of seals and sealings that are relevant to our investigation. The first are seals that clearly originated in Assyria or belonged to Assyrian (or at least Mesopotamian) individuals, and arrived in Palestine with these persons. These seals are the most useful for trying to define an Assyrian administrative presence. The second type of seals belonged to local officials, but these seals were designed in styles that mimic Mesopotamian styles or artistic patterns. These can simply be attributed to elite emulation, although the bearers would have had to be familiar with Neo-Assyrian motifs and designs in order to mimic them, which suggests a certain degree of familiarity with Assyrian seals; however borrowed imagery and designs from Phoenicia, Syria, or Egypt are also attested (cf. Ornan 2001; discussion in Bloom 1988, 201-217).

A small number of seals found in the southern Levant bear short Akkadian inscriptions, indicative of their Mesopotamian origins. Votive cylinder seals dating to the Neo-Assyrian period have been excavated at Beersheba, Samaria, and along the coast near Wingate (Horowitz and Oshima 2006, 20). In the case of these votive seals, the inscription is written in the positive rather than the negative. This suggests that such seals were not intended for the use of their impression (although cf. Tadmor 1995, 352 for evidence to the contrary). The example from Beersheba likely originated in the Middle Euphrates region, but was found in the *favissa* of a Hellenistic temple dating to the 2nd century BCE, and its identification as Neo-Assyrian is based on the craftsmanship (Ornan 2003, 72; Singer-Avitz 1999, 40-41; Beck 1973, 56-60). The seal found in the vicinity of Wingate belonged to an individual by the name of Bel-Ašaredu a *rab ekalli*. The seal was found alongside a fibula, to which it was likely attached, as an amulet

(Tadmor 1995, 345). Tadmor (1995, 348-9) suggests that the seal itself is Neo-Assyrian, of a style dating to the late 9th c. to the mid-8th c.¹⁵⁸ BCE, and often belonging to courtiers. Tadmor suggests, however, that the seal reached its resting place near Wingate over the course of the campaigns of Tiglath-pileser III. Tadmor finds it unlikely that the seal was brought there by the original owner, but was at that time already in secondary use as an amulet and that a similar chain of events is likely responsible for the deposition of the Beersheba seal, which perhaps did not even reaching the southern Levant until the Neo-Babylonian period and the campaigns of Nebuchadnezzar (ibid. 353-54). A blessing from the example at Samaria indicates a possible votive function (Horowitz and Oshima 2006, 114).

Other seals and sealings include a partially inscribed bulla bearing a broken Assyrian name (based on Aššur as the theophoric element), from Samaria (Horowitz and Oshima 2006, 112). The bulla has been identified as possibly belonging to a royal seal, depicting the king subduing a lion (Bloom 1988, 197; Stern 2001, 35). Geva (1980, 48) records a Neo-Assyrian cylinder seal from an unprovenanced context, in early Neo-Assyrian style, supposedly from the area around Beth Shean. If this is the case, it would not be the only example from the site, with a 2nd example uncovered in excavations from the Neo-Assyrian destruction layer, dated to the 8th c. BCE (James 1966; Bloom 1988, 218). Another three examples were excavated at Shechem, two cylinder seals and a stamp seal, all bearing standard Neo-Assyrian iconography. The two cylinder seals came from an unstratified context, while the stamp seal was found in an 8th c. destruction layer (Bloom 1988, 220-22). A further four cylinder seals of Neo-Assyrian origin and date were unsurprisingly found in excavations at the northern provincial center of Megiddo (Bloom 1988, 235ff), and multiple examples from Tel Dor (cf. Ornan 2001; Ornan and Sass

¹⁵⁸ Regarding the style of seal manufacture and their respective datings cf. discussion in Porada 1948 and Bloom 1988, 190-195.

1992). Additional imported Assyrian seals are found at sites such as Bethsaida and Gibeon (Ornan et al. 2013, 12). The presence of Neo-Assyrian seals or stylistic imitations at sites around the north is unsurprising, especially considering that northern Israel by the late 8th century had already been converted into Assyrian provinces. As such, Assyrian and Assyrianizing administrative material is to be expected. More important for our present discussion is the material from Judah and Philistia.

From Judah, a number of seals have been found at Gezer. The early excavations of Macalister uncovered four cylinder seals and two stamp seals, all of which have been re-dated by Reich and Brandl (1985, 45-8) to the period between the 9th-7th c. BCE according to stylistic considerations (cf. also Ornan et al. 2013, 14-20). None of the seals has an inscription. Bloom (1988, 217) suggests that one of the seals may not be Assyrian, but instead represents a Syrian provincial rendering of a Neo-Assyrian scene. An additional seal was discovered by the renewed excavations in the 2007 season in the backfill covering an 8th c. destruction layer (Ornan et al. 2013, 6-7). The seal is of unusual manufacture, but contains standard Neo-Assyrian iconography. This combination leads Ornan et al. (2013, 8-10) to suggest that the seal is a provincial product, reproducing Assyrian imagery. Singer-Avitz (2002, 161) notes a cylinder seal from Arad that imitates Assyrian style, but which is locally made.

Burials

A final category that warrants brief discussion is the case of Assyrian burials. Cases of Assyrian burials, or Assyrian burial customs, are occasionally attested in southern Levantine contexts. The best example is the tomb of Adoni-Nur in Transjordan, but examples are also known from northern Israel. Assyrian burials are characterized by the use of clay coffins/ossuaries, often called bathtub coffins due to their similarity in shape to a modern bathtub

(Stern 2001, 33; Bloch-Smith 1992, 36). Bathtub coffins are found at sites including Tell en-Nasbeh, Dor, Tell Qitaf (in the Jordan Valley near Beth Shean), Megiddo, Jezreel, Dothan, Tell el-Farah (N), Hazor, and possibly Jerusalem (Stern 2001, 33; Bloom 1988, 260-269; Zorn 1993, 218, Bloch-Smith 1992, 36).¹⁵⁹ The burials themselves, however, often contain a mix of both Assyrian and local artifacts (Stern 2001, 33). In the absence of secure dating it is also possible that such artifacts date to a later period, and examples are known from the Neo-Babylonian and Persian period (Zorn 1993, 221-22; Stern 2001, 33). Additionally, excavations at Tel Rehov uncovered five burials that the excavators have identified as “soldiers or officials in the Assyrian administration and their family members” (Mazar and Ahituv 2011, 274). Four of these burials contain Assyrian pottery (but also local, Phoenician, and Cypriot material and a west semitic seal). Burial 8200 in particular seems to have belonged to a soldier of the Assyrian army (which does not necessarily make him “Assyrian”), and included a west semitic seal, an Assyrian bottle, a Judahite decanter, some bronze and iron jewelry, an iron dagger, and a long iron sword (ibid. 269).

Errata

A lion weight found at Tel Arad is parallel to the form of the royal standard Assyrian weights (Singer-Avitz 2002, 161; Stern 2001, 41; Zaccagnini 1999). A silver pendant from Ekron bears a depiction of Ishtar, however the manufacture and workmanship are indicative of a locally made imitation, rather than an artifact originating in Syria or Mesopotamia (Ornan 2001, 246-9). At Tel Sera’ a group of Assyrian bronzes were discovered, including crescent shaped-standard, representing the god Sin (Oren 1993, 104; 1982, 159-161). An Assyrian Lamaštu amulet plaque was discovered as a surface find in the Shephelah, near Tel Bornat. The find is

¹⁵⁹ For other possible bathtub coffins cf. references in Zorn 1993, 218.

without clear context, and may have travelled with the Assyrian army, possibly on the third campaign of Sennacherib (Cogan 1995).

Discussion

This brief survey of the Assyrian architecture and artifacts discovered in archaeological excavations underscores a few key difficulties. First, in many cases the artifacts (especially seals and pottery) are of local production, and merely imitations of the Assyrian forms. These artifacts show an interest in Assyrian style and culture, but do little to establish Assyrian presence in the region. The same is true of some of the architectural designs. An example of how such transmission may have occurred is reflected in the biblical account of Ahaz, who upon his trip to visit the Assyrian king in Damascus, became enamored with their cultic paraphernalia, and demanded that a replica be constructed in Jerusalem (2 Kings 16:10-18). Secondly, it is not always clear whether an artifact represents sustained Assyrian presence in a region, or is marker of the many Assyrian campaigns through the region. Tadmor (1995) and Cogan (1995) have demonstrated how certain artifacts are likely lost material from Assyrian campaigns. Similarly, the burials at places such as Tel Rehov need not demonstrate a sustained presence. Beyond this there is the issue of deportees. Na'aman and Zadok (2000) have attributed certain documents to the hand of deportees, who could also be responsible for introducing ceramic traditions, or architectural techniques (as has been suggested for the vaulting at Tell Jemmeh). In this case, the Assyrian policy of deportation and repopulation of conquered areas may be responsible for the spread of Mesopotamian material culture, but these artifacts may not relate to specific Assyrian policies of administrative centers.

Despite these difficulties, we can say with confidence that Assyrian or Assyrianizing artifacts and architecture are more heavily concentrated in certain regions. One such region is in

the north, specifically around the provincial centers such as Dor, Megiddo, and Samaria. This is not surprising, given that these areas were incorporated into the Assyrian provincial system in the 8th c. BCE. The second area of concentration is in the western Negev and southern Philistia, in the area around Gaza down to the border of the Sinai desert, including sites such as Tell Jemmeh, Tel Sera', Tel Haror, Ruqesh, Abu Salima, and Blakhiyeh. While the Assyrian attribution of many of these sites is limited or dubious, there is a concentration of Assyrian influence here that exceeds what we find in other areas of the southern Levant. This too, however, is unsurprising.

Over the course of Assyria's campaigns to the southern Levant, the importance of Gaza, the Egyptian border, and later Egypt itself is stressed repeatedly. Assyria's interests in the southern Levant to some degree must be understood through the lens of Assyria's interest vis-à-vis Egypt. Connections with Egypt were certainly the goal of the early campaigns to the southern Levant, explaining the focus of Tiglath-pileser III and Sargon II on the coastal plain and the region around Gaza south to the Brook of Egypt. This relationship at first appears intended to be commercial, which is made clear through the opening of a sealed *kāru* by Sargon II, with the explicit purpose of promoting and controlling trade with Egypt. This clearly changes by the time of Esarhaddon, who mounts a full-on invasion of Egypt, which does not appear to be part of Sennacherib's plan, although his reign is cut short by his premature demise at the hands of his sons. This change in focus regarding the Egyptian policy may have been stimulated by a more active Egypt that was becoming increasingly problematic in the late 8th century, threatening the loyalty of Assyrian vassals and dependents in the southern Levant, but also the more important northern centers such as Tyre, who shared a close commercial relationship with Egypt, and often joined in their instigated rebellions (Elat 1977, 33-34). The role of Egypt in the rebellions

preceding Sennacherib's third campaign could have been integral in this shift, just as under the reign of Sargon II the encroachment of Urartu into the northern buffer zones of Assyria led to a full scale invasion of Urartu. Still, once the Assyrian goal shifted to a full scale invasion of Egypt their interests in the southern Levant changed accordingly. Rather than a buffer zone with border fortresses providing vital information, the territories of the southern Levant became a staging ground for the assault of Egypt, providing provisions, troops, and transportation for the Assyrian armies. The ability to recruit local troops, and make use of local provisions would have been invaluable to the speed at which Assyria could mobilize an army to invade Egypt, and limit the logistical problems of lengthy supply lines stretching across hostile territory. Thus, in the early stages of imperial expansion interest in the Levant was restricted to the richer coastal areas, with a primary view towards Egypt. Assyrian activity in the region was limited to ensuring its interests in cases of rebellion and maintaining a steady stream of information regarding Egypt. The Negev in particular became an important buffer zone, maintained by Assyria's Arab allies, much in the same way that Parker describes the northern frontier development in the 8th century against a rising Urartian threat. Once Assyria decided to mount full scale hostilities against Egypt the southern Levant became important logistically, for supplies, troops, and as a staging ground for the Egyptian campaigns of Esarhaddon and Ashurbanipal. The use of the local kings and their provisions and troops are recorded in both instances in the royal inscriptions. Furthermore, Esarhaddon's inquiries to the gods (*SAA 4*, 81-82) show the importance of Ashkelon as a provisioning and staging ground for the Egyptian campaign.

With this in mind, the concentration of Assyrian interest in the region is logical, especially entering the 7th century, when hostilities with Egypt were on the rise. The presence of a series of fortresses along the Egyptian border, even in areas controlled by Assyrian vassals,

parallels the 8th c. situation along the Uartian and Elamite borders. These forts served a number of important functions, the first and foremost of which was gathering information about activities and troop movements across the border. Fortresses also functioned as an important staging ground for supplying campaigns into enemy lands, and as a first-line of defense in the case of an enemy offensive (Malbran-Labat 1982, 18-20; Parker 1997, 77; 2001, 265). The border of Egypt, like the border of Elam or Urartu, is exactly where we would expect a concentration of Assyrian forts. At the same time, the Assyrian interests in the region were more likely centered on spying than on micromanaging trade. Thus, suggestions that the Assyrians maintained a string of fortresses all along the coastal highway (including Rishon Lezion, Tell Qudadi, Horvat Huga in addition to Tell Jemmeh, Tel Sera', Ruqeish, Tell el-Hesi, Tel Haror, and Abu Salima, cf. Stern 2001, 21) are unnecessary.¹⁶⁰ The Assyrians were interested in taxing trade, but they had *kāru* established for this purpose at important crossroads. The Assyrians would get their cut without setting up (expensive to construct and maintain) fortresses at every strategic juncture. Thus, especially for the fortress sites further north that show little to no evidence of Assyrian style construction or artifacts, the attribution of Assyrian is doubtful. Whereas the contention that local builders might be acting under Assyrian orders is certainly possible, it is unnecessary. As vassal kingdoms, the polities of the southern Levant were still largely responsible for their own security and defense in addition to the responsibility for levying additional taxes on top of those imposed by the Assyrians. As such, the construction and maintenance of forts, especially in border

¹⁶⁰ A similar suggestion had been put forward regarding a series of “Moabite fortresses” in Transjordan to protect the eastern border by Glueck (1939, 74-5), Oded (1970, 184-6), and Yassine (1988) but this identification has rightfully been called into question by Bienkowski, from both an archaeological and textual perspective, who suggests that the dating of these structures is diverse and difficult, and that their identification as forts is at best questionable (2000, 50-51). Fortresses seem to be a common feature of the desert fringes in the southern Levant as a whole in this period (cf. Ben-Yosef et al. 2014 for examples from Edom), and will be discussed further in chapter 4.

regions, was still of local significance (for example the construction of fortresses across the Negev by Judah, which we discuss in chapter 4).

The Assyrian artifacts found in the southern Levant present an interesting and complicated picture. Overall, there is a dearth of artifacts that show direct Assyrian presence in the region, especially any kind of permanent presence. Assyrian material culture does not permeate the artifact assemblages, even in sites that show stronger ties to Assyria. Much of the material is in Assyrian-style, and is not imported from Assyria. This suggests that at certain sites there was familiarity with Assyrian styles, and that these were considered worthy of emulation. This reinforces ideas that Assyria's involvement was focused more on overseeing their interests, rather than reshaping and infiltrating local structures in a heavy-handed top-down manner.

Assyrian influence seems to cluster in certain areas, such as the southern Negev near the border to Egypt. This suggests that the Assyrian interest and involvement in the southern Levant shared many similarities with their interests in other marginal regions that shared a border with the larger, better organized polities that posed the greatest threats to Assyrian expansion (such as Urartu or Elam).

Models for Assyrian Involvement in the Southern Levant

For the first part of this chapter we have examined the textual and archaeological evidence relating broadly to Assyrian policy and administration in its provinces and vassal states, in order to provide a clearer picture of Assyria's larger aims and interests in acquired territories. In the next section, we will turn our attention to the specifics of the southern Levant, specifically Judah and Philistia. In order to do this we will first critique three main opinions regarding the nature of the relationship between Assyria and the southern Levant.

The first of these suggests a maximalist viewpoint for Assyrian involvement. Assyria was a puppet-master, controlling every aspect of life in the provinces. Agency resided with the Assyrian kings and officials, and all activity within the southern Levant was the result of (or occasionally in direct rebellion to) a planned Assyrian initiative. A second perspective credits the Assyrians with indirect positive economic stimulation in the region. According to this perspective, the growth of the Assyrian Empire created a situation of unprecedented peace and mobility, the *pax Assyriaca* stimulated local economies by opening new possibilities previously inaccessible due to petty warfare and raiding between neighboring polities. At the same time, production increases were motivated in light of Assyria's taxation demands, forcing the polities of the southern Levant to seek out new ways to achieve economic growth. A third viewpoint suggests that the Assyrians had little to no impact on the economy of the southern Levant. Assyria played the role of the bully, extracting tribute by means of one-way transfers to the center, and that any economic growth in the region happened in spite of, not due to the Assyrian presence. The only impact of Assyria was negative and in the form of destruction. In certain cases, the destruction of a neighbor or competitor could lead to a period of growth for a certain region or city, but this was an unintentional side-effect of Assyrian policy.

Maximalist View on Assyrian Involvement

The maximalist view of Assyrian involvement attributes all economic activity and growth within the southern Levant in the Neo-Assyrian period to the direct result of Assyria's exploitative policies. Examples of a maximalist perspective of Assyrian involvement can be seen in the publications by scholars such Gitin (1995; 1997) and Eitam (1996). In recent years, Gitin has provided the most detailed reconstruction of a top-down Assyrian controlled economy in the southern Levant, based primarily on his excavations at Ekron. Gitin (1995, 61) suggests that in

the latter half of the 8th and 7th centuries BCE the entire Mediterranean basin underwent a radical transformation, with the creation of new urban centers, unparalleled economic growth and development, specialization in manufacturing, the widespread use of silver as currency, and the transformation of cottage industries into large-scale production. This transformation, according to Gitin, was based on “an ideology of empire based on the mercantile interests of the Assyrian kings” (ibid. 61), and “the imposition of an imperial ideology implemented through military and economic intervention” (1997, 77). According to this model, Assyrian policy was directed at stimulating worldwide trade and commerce. Within this system, Ekron was specifically chosen by the Assyrians for development due to its proximity to the olive groves, inland routes, and the seaports (1995, 62). Economic development in the provinces served the Assyria’s goals for economic exploitation (1997, 78), which was facilitated by exploiting regional goods (in particular olive oil and wine) and converting them into easily transferable silver (1995, 69). Gitin credits Assyrian policy with transformation of the Phoenician ports into international commercial centers, the transformation of Ekron into a commercial center, and developing overland trade routes through Edom and the Transjordan (1997, 80-81). Thus, according to Gitin’s model, Assyria took an active role in shaping all aspects of the trajectory of the economy of the southern Levant in the late 8th/early 7th c. BCE. Agency in economic decision-making lay primarily with Assyria, and Assyrian interests guided the developments in each region.

Eitam has followed the trajectory established by Gitin in his own work. In regards to the emergence of the olive oil industry at Ekron, Eitam (1996, 184) writes that: “Great political power is essential to establish and operate an agricultural industry and commercial enterprise on such a scale. It is doubtful that the local rulers of Ekron had such power. The historical documents, the style of some of the pottery vessels, the fact that the city was extensive, and the

peaceful nature of the unfortified city, allude to the Assyrians having been the power behind the industry.” Eitam assumes that the size and planning of the olive oil production were beyond the planning capabilities and agency of local producers and local rulers, and thus is forced to attribute the growth to the dictates of a higher power, namely the Assyrian Empire.

As we briefly discussed earlier, in their re-analysis of Tell Qudadi Fantalkin and Tal (2009, 200) follow a similar reconstruction. According to their understanding, the Assyrian kings imposed a new imperial landscape on the region, demanding local vassals to construct for them a series of forts and trading stations along the coast to maintain control of the seaports. According to Fantalkin and Tal (*ibid.* 199), this is all part of an “unprecedented involvement of the Neo-Assyrian administration in local affairs” that characterized the end of the 8th and most of the 7th centuries BCE.

The maximalist perspective of Assyrian involvement is problematic. In particular, Faust (2011) has argued against this level of involvement, specifically regarding the growth and development of Ekron. Faust (2011, 72-4), whose arguments we will examine in more detail later in this chapter, argues that the Assyrians had no interest in the economic development of the periphery, and that their primary interest was the acquisition of booty and tribute. He argues that were the Assyrians interested in agricultural development, in particular the olive industry, then why did they abandon previously flourishing olive producing regions in the north? Master and Stager (2011, 739-40) also argue against a model of top-down economic imposition, in particular regarding the wine producing areas of Ashkelon. They suggest that although the actions of Assyria must have had an indirect effect on the economy of the region, the lack of Assyrian material culture argues against an intensive imposition model. While we discussed how certain commodities attracted heavy Assyrian interest, such as timber and horses, there is no evidence

from the Assyrian documents that either wine or olive oil were among these special-interest commodities.

A maximalist perspective is also difficult to justify because of the cost associated with this interaction model. This type of top-down model assumes complete administrative control and micro-management on the part of the Assyrians, which would require an immense investment of labor and infrastructure. Neither the texts nor the archaeological remains suggest that infrastructure of this magnitude was present in the provinces, much less the vassal kingdoms. ‘ (2010, 36ff) and Parker (2001, 249) have emphasized how Assyrian policy consisted of cost-benefit analysis, and that high-level investments of time, labor, or funds were avoided whenever possible. Assyria lacked the local agricultural knowledge to maximize production of olive oil and wine, as well as the knowledge of where to sell it, and for how much. While they may have known that these commodities were profitable in the Mediterranean world, gathering enough knowledge to impose a specific, profitable system would have incurred additional costs. Finally, extensive reorientation of the local economy takes time. New olive groves do not grow overnight, and by the time Assyria developed the administrative infrastructure to enforce large-scale changes in the agricultural structure, and profit from them, their hegemony over the region would be waning. While Eph‘al and Parker use these costs to explain why vassals were preferred to provinces, the same is true for explaining why micromanagement on the part of the Assyrian central administration was avoided: namely the benefits of such investment are not worth the costs.

Assyria: An Indirect Positive Influence

A second perspective argues that the Assyrians (either intentionally or unintentionally) stimulated the growth of local economies by creating an environment of unprecedented peace

and opportunity for trade and expansion. According to this perspective, the *pax Assyriaca* put a stop to all of the petty warring of neighboring polities, allowing trade and industry to flourish at never before seen levels. Economic growth was further incentivized by attempts of vassal kingdoms to meet the taxation demands of the central Assyrian administration (tax-and-trade model). At the moment this perspective is perhaps the most widely accepted model for Assyrian involvement in the region, with almost any development in the region attributed to the benefits of the *pax Assyriaca* by one scholar or another. The main difference between this perspective and one of Assyrian imposition is in the agency behind economic development. Na'aman (2003, 7) summarizes this difference in stating that “the prosperity of certain vassals arose from the stability produced by the *pax Assyriaca* and from the new economic opportunities created by the empire rather than the result of a deliberate imperial policy of economic development of these states.”

According to varying manifestations of this perspective, the *pax Assyriaca* is responsible for the opening up of previously closed borders for trade (Fantalkin 2004, 255-56; Scheepers 2010, 364), the formation of state level societies and demographic expansion in marginal areas such as Edom (Knauf-Belleri 1995, 98; Na'aman 1995, 114), the demographic expansion of Judah into the Negev and the rise of the south Arabian caravan trade (Na'aman 1995, 113; Thareani 2007, 74-5), the demographic shifts in the Shephelah (Finkelstein and Na'aman 2004, 71; Bunimovitz and Lederman 2003, 4), Phoenician expansion (Gitin 1995, 61) and the growth of industry in areas of Philistia (Na'aman 2003, 81).

Thus, central to the idea of a positive, yet indirect Assyrian influence on the economy is the concept of *pax Assyriaca*. This concept requires further examination. While the concept of *pax Assyriaca* has received widespread support, certain scholars, mainly Faust (2011, 75),

suggest that the main benefit Assyria provided vassal states was in not destroying them and “ruthlessly pacifying the other polities in the region” and thereby creating a period of relative stability and opportunity for the survivors. While not a glowing endorsement of an Assyrian induced prosperity, Faust still grudgingly attributes some degree of stability to the period of Assyrian rule, although all economic growth he attributes to expanding Mediterranean trade. This is a totally different perspective of Assyrian involvement than that presented by Na’aman. As such, the concept of *pax Assyriaca* is worthy of a more in-depth examination, in particular whether it can be properly associated with the situation in the southern Levant, or anywhere within the broader Assyrian Empire.

Pax Assyriaca: Fact or Fiction

The concept of the *pax Assyriaca* has become widespread across scholarship of the economic development of the southern Levant in the Iron IIC. The general proposal dates back to at least the 1960’s where Hallo (1960, 57) used the term to describe the period between 705 and 648 BCE, during which the relations between Assyria and her western vassals were to some extent stabilized. Na’aman (1987, 8-11) applied this concept more directly to Judah and the southern Levant. His ideas have been largely summarized by Bunimovitz and Lederman (2003, 21) who write “throughout most of the 7th century BCE, the Neo-Assyrian Empire maintained a policy of *pax Assyriaca* throughout the Fertile Crescent under its control. Assyria ruled the periphery under its control with the aim of promoting the economic interests of the empire.” In relation to local economies, Thareani (2007, 75) summarizes the consensus as follows: “The reduction in conflicts between Judah and its neighbors, all subordinate to Assyria, allowed for the creation of long-term economic relations and the growth.” She attributes this primarily to the

growth of large Negev sites, but as we discussed above, the *pax Assyriaca* has been presented as the critical factor behind any type of growth or expansion in the 7th century.

Despite the widespread invocation of the term *pax Assyriaca*, the concept has rarely been defined beyond the general characterizations presented in the previous paragraph. The most significant discussion of the utility of a concept of *pax Assyriaca* comes from Fales (2008, 2010). Fales' argument begins with the intention to counter widespread characterizations of the Assyrians and the Assyrian rule as inherently violent and warlike, dependent on an ideology of death and terror used to conquer the ancient Near East (2008, 17; 2010, 27-30, 44-46). Fales' primary argument (2008, 18; 2010, 50-1) is that the characterization of the Neo-Assyrian Empire as one of only warriors, and dedicated solely to warfare and violence is inaccurate, and that there were many avenues through which the Assyrians pursued their expansive policies. Diplomatic settlement and peaceful submission into the fold of the empire were both commonplace and encouraged (cf. also Lanfranchi 1997). In this sentiment we agree with Fales. The Assyrian texts reveal the diversity of Assyrian foreign policy, and support the argument that warfare was not the only solution used by the Assyrians to expand or solve problems within their empire. In the administrative documents, for example, there are many examples where the writers call for preventative measures (often the deportation of troublesome parties) in order to avoid conflict (*SAA 18*, 102, 185; *SAA 15*, 40; *SAA 17*, 142). Having argued against this characterization, Fales (2008, 18) goes on to describe *pax Assyriaca* by providing a number of definitions for the term. From an Assyrian perspective he argues for a desired state of law and order, or security in territories subject to Assyrian hegemony, allowing the inhabitants to pursue their daily activities without danger or interference. Fales links the concept of *pax* to the Assyrian terms *tūbu* and *sulummû*, dealing with good relations and a state of well-being/intactness respectively. He then

argues for the extension that it represents “an enforced policy of juridical and administrative character, that aimed at a state of political and socioeconomic stability in the lands that had fallen under Assyrian hegemony” (ibid. 19). The ideas of *tūbu* and *sulummū* piggyback on Oded’s work in *War, Peace and Empire*, where one of the prime duties of the king is to enforce peace and order. According to Oded (1992, 101), “The ideal king is he who brings prosperity to his subjects and in whose time justice, order, peace, and abundance prevail, in contrast to... disorder, troubles, revolts and chaos.” Oded stresses the role of the king in sustaining peace and security, paralleling the imperial mission described by Fales.

In comparison, Liverani (1979, 305-9) sees the agenda of Assyria more as one of cosmic order than of peace. Assyria represented order, and the areas outside chaos. By bringing order to the chaos of the surrounding regions cosmic order was maintained (cf. also Machinist 1993, 85-7). This formulation is different from the agenda of the *pax*. Order does not necessarily include peace. Machinist formulates the imperial mission as taming disorder by turning it into order (with Assyria representing order), not as Oded claims, bring peace through conquest (Machinist 1993, 86-7).

Another defense of the *pax Assyriaca* is provided by Hallo and Simpson (1998) who suggest that the “new *pax Assyriaca* stabilized the relations of Assyria and her western vassals to some extent. Whereas we have outlined no less than six major Assyrian campaigns to the west in the preceding 40 years prior to Sennacherib’s accession, there were only three of comparable magnitude in the nearly sixty years that followed” (cf. also Younger 2003, 246; both following Hallo 1960, 57). This definition focuses not on an ideology of peace, but on an historical analysis of the amount of warfare in the region during the late Iron Age.

Thus, according to these formulations, the *pax Assyriaca* includes two different models. The first presents the *pax Assyriaca* as a period of peace and prosperity across the empire, during which trade flourished. This model is favored in scholarship of the southern Levant in order to explain the economic growth in the 7th century BCE. A second model formulation comes from an Assyrian perspective and focuses on the concept of hegemonic peace, that is, peace through pacification. Hegemonic peace is represented by a lack of revolts in the provinces, security and well-being in the center, and the maintenance of order.

The former definition seems to be heavily modeled after early perceptions of the later *pax Romana*, and runs the risk of anachronistic application of the ideals and assumptions of the later *pax Romana* back onto the Assyrian Empire. To understand how this is problematic we must first examine the history of the concept of *pax Romana*, and what it meant in its original context, as well as why it is an inappropriate analog for understanding the situation in the 8th-7th centuries BCE in Mesopotamia. The ideal of the *pax Romana* was described by Edward Gibbon (1776, 88) as “the period in the history of the world, during which the condition of the human race was most happy and prosperous.” In general, the period refers to the condition of the Roman Empire in the two and a half centuries that followed the fall of the Republic. Broadly, it is viewed as a period of socio-political tranquility, economic prosperity, administrative efficiency, and cultural renown, and the unification of the diverse peoples of the Mediterranean within a single dominion (Parchami 2009, 15).

More recent scholarship, however, presents a different understanding of the *pax Romana*, more closely aligned with concepts of ‘peace through pacification.’ *Pax* is associated with victory, pacification, conquest and empire. It has distinct militaristic and hegemonic overtones and served as a central piece of Augustan propaganda (ibid. 15-6). *Pax* was part of the rhetoric of

imperial legitimacy. This rhetoric included three elements: peace at home, military supremacy abroad, and the revival of ancient traditions and rites. *Pax* was about pacification, not peace (ibid. 20-1). Thus, the *pax Romana* was concerned with the situation of the center, not the periphery. Woolf (1993, 185-6) notes the *pax Romana* did not mean that the provinces were free of violence, instead it focused on the end of civil war and provincial revolts, describing the situation as an economy of violence, rather than an absence of it (ibid. 191). The *pax Romana* is a hegemonic peace: peace through pacification. It was not intended to create a period of peace and prosperity throughout the empire. It was intended to bring about the security of the core through the pacification of the periphery, to limit rebellion, and maintain the imperial, hegemonic order.

When the term *pax Assyriaca* is used to describe this goal of ‘peace through pacification,’ with a meaning of the maintenance of order by limiting revolt and pacifying foreign lands from threatening the core, it is an accurate description of Neo-Assyrian imperial aims. However, when applied to the southern Levant, a peripheral region, the *pax Assyriaca* is based on the romanticized version of the *pax Romana* advocating economic prosperity and unification of all peoples within the empire. Thus Gitin’s understanding of the “period during which there was, for the most part, political stability and economic growth and prosperity” (1997, 77). Gitin’s claim that the effect of Assyrian conquest was “the formation of a new super-national system of political control in the eastern Mediterranean basin which produced the *pax Assyriaca*, 70 years of unparalleled growth and development, and an international trading network that spanned the Mediterranean...A watershed of economic and fiscal innovation” (1995, 61) sounds like a slightly toned down version of Gibbon, rather than the reality of hegemonic peace.

More appropriately, however, the use of *pax* as part of the rhetoric of imperial legitimacy mirrors the use of *tūbu* and *sulummū* in the Neo-Assyrian texts. Certainly the tenants of *pax*: victory, pacification, conquest, and empire alongside elements of peace at home, military supremacy abroad, and the revival of ancient traditions and rites, are fitting for the broad intentions of the Assyrians in their expansion. Thus, like the *pax Romana*, Assyrian expansion might be better described as relating to the pacification of the empire, and not to peace within the provinces. Unfortunately, the reality of the *pax Romana*, which the Assyrian Empire resembles in many ways, had no intention for the economic prosperity of the provinces. It was based on the conditions in the center and an ideology of pacification, not of free-trade and open borders.

There is evidence that the same is true of the Neo-Assyrian Empire. Galil (1992, 55-60) suggests that the *pax Assyriaca* was more rhetoric of legitimacy than an actual policy. He notes multiple cases of conflicts between Assyrian vassal states, which maintained their pre-existing conflicts. These conflicts were only at best temporarily suppressed by Assyrian rule. Galil identifies three cases of such conflict, one in which the Assyrians favored the side of their loyalist vassal, one where they favored the rebellious territory, and another in which the conflict was ignored entirely. He further suggests that these instances only record the events that made mention in the royal inscriptions, and that conflict was likely more frequent, but it was not in the interest of the scribes to mention this unrest. Galil (ibid. 63) notes that although protracted conflicts violated any ideology of peace and order that was part of the Assyrian rhetoric of legitimacy, at the same time these conflicts limited the ability of vassals forming larger anti-Assyrian coalitions, which was in Assyria's best interest. In each case of conflict Assyrian policy was flexible, based on their best interest at the time, and not part of an overarching agenda of peace in the provinces. Even the idea of open borders (at least more open than previously) is

questionable. The governor of Nippur writes to the king that “all the lands hate us because of Assyria. We do not get safe passage in any of the lands. Wherever we go we get killed with words” (*SAA 18*, 70). *SAA 18*, 148-149 also record of attacks on caravans and people who come to do business. In the case of a revolt, there was always a choice to stay loyal to Assyria and face the wrath of the neighbors involved in the revolt, or to join and face the potential wrath of Assyria. This is reflected in the predicament of Ekron during Hezekiah’s revolt, where Padi was deposed in favor of anti-Assyrian supporters, and Ekron was forced into participation in the rebellion (cf. Na’aman 1991a for other examples). Additionally, according to 2 Kings 18:8 Hezekiah warred against the Philistines as far as Gaza. The *pax Assyriaca*, however, is credited to the reigns of Esarhaddon and Ashurbanipal and the end of Sennacherib’s reign, after this event, when the situation in the southern Levant was relatively stable. However, this timeframe lasted for perhaps a generation, until the fall of the Assyrian Empire, and similar periods of stability exist throughout history. Thus, while the first half of the 7th c. was marked by regional stability, this stability can hardly be the sole cause for all of the developments in the region. Even the stability of the region is in part an argument from silence. Esarhaddon’s inquiries regarding a potential campaign through the southern Levant show concern regarding safety around the area of Ashkelon (*SAA 4*, 81-82). 2 Chronicles 33:11, similarly suggests that relations with Assyria and in the area may not have been as peaceful as they appear.

The Assyrians strove to maintain peace in the sense of limiting revolt of vassal states, but in general had no larger goal of opening borders between previously hostile vassals to promote a new age of prosperity. The closest evidence of this type of behavior could be attributed to Sargon II and his opening of the sealed border at Egypt. Sargon II claims to open the sealed border of Egypt and “mingled together the people of Assyria and Egypt. I made them trade (with each

other)” (Younger 2003, 296). This is a poor parallel. Sargon II does not mean to open up previously unexploited trade routes between distant areas of the empire, through the imposition of peace, rather he intends to capitalize on access to trade goods from Egypt for the benefit of Assyria. Philistia seems to already have been involved in trade relations with Egypt (cf. Elat 1977), and thus this “opening” of the border is from a purely Assyrian perspective. Similarly the focus is on mingling Assyrians and Egyptians, not Philistines and Egyptians. This cannot be seen as an Assyrian agenda of peaceful trade and open borders along the lines of an idyllic Roman *pax*.

Whatever increase of prosperity occurred in trade relations in the southern Levant under Assyrian rule was not the product of a specific Assyrian policy promoting new-found cooperation between formerly hostile parties. Trade in the southern Levant has existed from earlier periods, and continued to exist after the collapse of Assyria. Many of these connections, bringing together different agricultural zones and sources of raw materials are part of the *longue durée* dynamics in the region, and not the product of some new-found policy initiated at the hands of a foreign empire.

An examination of the concept of *pax Assyriaca* has revealed that in the scholarship of the southern Levant, an idealistic view of the *pax Romana* is being anachronistically applied to a peripheral area. There is no doubt that the opening part of the 7th c. was a period of relative stability in the region, which did nothing to hinder a burgeoning economy. However, trade relations between the polities of the southern Levant, even during times of conflict, had existed previously, in oscillating phases of stability and instability. The introduction of a relatively brief period of stability certainly helped with economic growth, but cannot be seen as the primary cause of that growth, which was the product of a multiplicity of factors. We have pointed out

earlier in this chapter how the administrative documents indeed reflect an Assyrian interest in trade, and that order and peace certainly assist in this regard. However, Galil has equally demonstrated that Assyria was happy to allow a degree of peripheral conflict, as long as the victors remained loyal vassals. Overall, the impression gathered from the available data is that the *pax Assyriaca*, as commonly portrayed in the scholarship of the southern Levant, does not reflect the reality of the situation. This is not to say that Assyria was uninvolved or uninterested in local economies, only that peace and prosperity took a secondary seat to pacification within the Assyrian agenda.

Uninvolved Assyria

A third perspective suggests that Assyria had little to no positive impact on the economy of the southern Levant. Assyria was either a bully or a parasite. They demanded taxes and tribute, occasionally coming through and destroying a disloyal entity, deporting the population, and devastating the environment. Assyria was a looming threat, overshadowing all activity, but rarely interfering, and then only to cause havoc and destruction. This position has been defended most rigorously by Faust (2011) and Faust and Weiss (2005, 2011). Variations on this perspective have also been presented by Master (2009) and Master and Stager (2011). We have already touched upon Faust's interpretations earlier in this chapter and in chapter 1, but we will reiterate the main points again briefly here. Faust and Weiss (2005, 2011) suggest the system of trade that developed in the late Iron Age did so outside the boundaries of Assyria, and that prosperity always existed beyond the advance of Assyria proper (that is, the provincial system). They relegate the role of Assyria to its "persistent demands for more tribute." As such, Assyria did not function economically like a core. Assyria intruded into this system demanding some protection money, which in turn spurred the areas to work harder to prosper, but in reality had no

effect on the economic decision-making processes in the region (2011, 195-198). This reaffirms the ideas presented in Faust 2011, where he claims that the bullies should not gain credit for the economic development of the bullied, nor seen as providing sufficient incentive (2011, 76).

Master and Stager (2011, 740) follow the same broad line of thought, in that they minimize the effect of Assyria on the development of the local economy. Regarding the case of Ashkelon they note that “The Assyrians did not directly determine these outcomes but they changed their economic behavior to take advantage of the new situation that had been created.” While Faust minimizes the role of Assyria in favor of the Mediterranean world, Stager minimizes Assyrian influence in favor of rising Egyptian power (2011, 7). Master (2009, 313-4) suggests that the economy of Judah and Philistia was “shocked and diminished” by Assyrian campaigns such as Sennacherib’s, but that “it was not radically altered” and that after a short period of time it “returned to its normal Iron Age patterns” and “continued as it had for centuries,” and concluding that “the seventh century economy was merely a continuation of what had gone before.” Although all of these views have different perspectives on the driving forces behind the economy of the 7th century BCE, they all agree that Assyria plays the role of the exterior aggressor, and as such is both very present and at the same time very absent. None of the scholars mentioned above suggest that living under the hegemony of the Assyrian Empire had no effect on the polities of the southern Levant, merely that Assyria was distant and uninvolved. Master and Stager (2011, 740) note that “The Assyrians transformed the southern Levant at the end of the eighth century and everything that happened afterward was affected by their actions,” while Faust and Weiss (2011, 193) claim that “The dominant political power in the region during most of the seventh century was Assyria, and it clearly had economic interests in the Levant.” Still, what all of these perspectives share is the impression that the agency of Assyria in

economic decision-making, changes, and growth was at best minimal and likely non-existent. Local considerations took precedence, perhaps influenced by the demands of the Mediterranean market, or long-term trade partners such as Egypt.

This perspective has received criticism for ignoring the evidence within the Assyrian texts (which we discussed earlier in this chapter) that suggest a stronger level of Assyrian interest and involvement. Younger (forthcoming) in particular, has countered Faust's claims that Assyria had no interest in the economic development in the territories they governed, and that economic growth was limited to the areas outside of Assyria. Much of Faust's argument against Assyrian involvement is based on the situation in the former northern kingdom of Israel, after it became part of the Assyrian provincial system. In the north, Faust notes a lack of development, and in fact regression. Based on this situation, Faust argues that if the Assyrians were interested in agricultural development and economic growth, why are such advances only attested in Judah and Philistia, and not in the Assyrian provinces to the north (Faust 2011, 73)? Younger (forthcoming), however, notes that the provinces centered at Samaria and Megiddo were not representative of the empire as a whole, nor the economic conditions of the other provinces. Younger cites the previously discussed Bir-Rakib inscription as evidence of a province prospering under Assyrian rule, and the Incirli inscription is another example (Kaufman 2007). Lanfranchi (1997, 81-3) also highlights the potential benefits for loyal vassals for submitting to Assyrian rule. The administrative texts discussed previously in this chapter further this impression. Assyria was very much concerned with economic issues in the provinces, including agricultural development. Letters dealing with issues surrounding the harvest and growing conditions in various areas are well attested (*SAA 1*, 103-104, 176; *SAA 5*, 3, 127; *SAA 15*, 4, 69, 100) including Samaria (*SAA 1*, 255). These letters, however, only show that the king and

Assyria are interested in agricultural issues. In no place is there any evidence that the Assyrians are micromanaging local farming, dictating what crops to grow, or reorganizing traditional subsistence patterns. Assyria seems interested in making sure that certain farmland is occupied (especially in acquired territories that have suffered deportation, *SAA 1*, 177; *SAA 5*, 210), and collecting amounts from the harvest to supply the granaries and Assyrian dependents, although the later duty would not apply to the vassal kingdoms. Maeir (2012, 115) has also criticized perspectives that minimize the role of Assyria, in particular he calls into question the strength of Egyptian connections as an alternative influence.

Discussion

In light of the available data, both archaeological and textual, we support a model that allows for maximal local agency, acting according to traditional, long-standing subsistence methods, only marginally influenced by the changing political dynamics. Assyria is clearly interested in a number of issues, both economic and political, including trade, agricultural, and international relations. We similarly reject suggestions that claim for no Assyrian involvement. Assyria clearly inserted itself to limited degree into local social contexts. The presence of the *kāru* in Phoenicia and Philistia clearly show these attempts. However, Assyrian involvement did not have to take the form of heavily imposed top-down commands on every aspect of life in far-off vassal kingdoms. Assyria played the role of the overseer, the not so distant watcher, but not the role of the puppet-master dictating every move to their exact specifications. The extent to which they penetrated local economic systems was only on the surface level by demanding an extra toll or fee, and even this could be bypassed.

Assyria required its tribute and taxes, and certainly benefited from economic growth, but they did not enter new areas and impose new economic realities, forcing specialization and large-

scale production (although cf. argument given by Parker 2003, 541; Wilkinson et al. 2005; and Barbanes 2003 suggesting this type of policy in the Upper Tigris and areas of northern Mesopotamia). In the case of the southern Levant, changes in land use were the decisions of local persons responding to their environment (an environment created in a large part by Assyrian policy). Assyria's interest on this front should thus be seen as passive rather than active. This *laissez-faire* attitude was part of the cost-benefit ratio that Parker suggests governed Assyrian foreign policy. The costs of intensive involvement would have been extreme, especially at such a distance from the center, with the benefits marginal at best. The main beneficiaries of economic growth in the southern Levant were the local inhabitants, which was motivation enough to incentivize economic growth, without additional investment on the part of the empire.

The Impact of Assyrian Policy on Vassal States

In this chapter we have already examined the textual and archaeological evidence relating to Assyrian involvement in the southern Levant, as well as models for understanding the nature of Assyria's interaction with the polities of the southern Levant. Whereas we have argued that Assyria's involvement in the southern Levant is limited, we have also argued that there are certain areas where Assyria's presence was more strongly felt. In this next section, we will examine the major elements of Assyrian policy that had a more direct impact on the polities of the southern Levant. In particular, we will examine taxes and tribute, and the major Assyrian institutions for governing abroad, the *kāru*, or trading stations, and the *qēpu* officials. These three elements combined can be seen as representative of the type of impact Assyrian hegemony had on the polities of the southern Levant, and represent the ways in which Assyrian institutions interacted with the social contexts of economic activity that we described in chapter 2.

Taxes and Tribute

In order to discuss taxes and tribute we must first attempt to define and distinguish between these two terms. Claessen (1989) suggests that taxation takes place when the contributing group falls within the territory of the redistribution system. Tribute includes formal requisitions made of a defeated party, what Claessen refers to as essentially indirect robbery. Booty or plunder, as opposed to tribute, are things taken from a defeated enemy by a victorious army. According to Claessen (1989, 50-1) then, tribute is a more formal and institutionalized type of plundering. To this we might add a concept of fees, tolls, and duties-- types of taxes that might be collected even from areas outside of the redistribution area (eg. at ports or other trade hubs).

The collection of tribute was the most important element of the vassal-client relationship with Assyria. The acquisition of tribute was a major motivation for expansion, and the payment of tribute the primary sign of loyalty. Failure to deliver tribute was equal to rebellion. Before addressing the specifics of Assyrian taxation policy, it is important to briefly discuss the different types of taxes and tributes required by the Assyrian Empire. This material has been studied in-depth by Bär (1996), Postgate (1974) and Martin (1936), but warrants brief review here.

Terminology of Taxation

Maddattu

Maddattu is the most common general term for tribute in the Neo-Assyrian texts (*CAD* M, 13; Bär 1996, 7). The term is a nominal form based on the root *nadanu*, “to give” (Bär 1996, 7). According to Postgate, the *maddattu* differs from *namurtu/tamartu* in that it is strictly used to describe compulsory payments, and cannot be used to describe gifts of any kind. It is the regular term used for ‘tribute,’ that is, payment imposed by the imperial overlord on his vassals. Postgate

(1974, 119) is careful to distinguish the *maddattu* from taxation, although he recognizes that the two bear many similarities. Lanfranchi (2003, 111-2) also maintains this separation of *maddattu* and taxation, stating that the *maddattu* represents payments from areas outside of Assyria proper, that were not subject to standard Assyrian taxation mechanisms (such as the *ilku*)(cf. also Postgate 1974, 120). Elat (1982b, 245) emphasizes the tributary aspect of *maddattu*, stating that the term “always referred to a legal obligation of a vassal and was an expression of his submission and loyalty to the king to whom this tribute was destined.” Still, the *maddattu* represented a regular payment, and is frequently referred to as the *maddattu* MU-*šamma*, or annual tribute (Tadmor 1975, 37; cf. also Eph‘al 1979, 286). *Maddattu*, however, is not used exclusively to refer to the annual tribute, thus confusing matters. In instances when the Assyrian army was on campaign, the successful defeat of an enemy could come in two forms: conquest or capitulation. In the case of conquest the goods and valuables of the city, its palace and treasuries were carried away as booty (*šallatu*). Alternatively, it was possible for the king to surrender, in which case he paid a goodly sum to be left intact, became (or sometimes reverted back to being) an Assyrian vassal, and became subject to the annual payment of tribute. In this case, the payment of tribute is in the form of ‘tribute of surrender,’ and is comparable in amount to the booty that would have been taken had the city been conquered. This type of payment, however, is also described with the term *maddattu* (cf. for example the tribute of Hezekiah to Sennacherib). Thus it is easy to confuse the one time large sum payments of *maddattu* paid to the victorious king upon the surrender of a city with the annual payments required of that king/city thereafter. Elat (1982b, 249) has argued that *maddattu* breaks down into two forms: “tribute of surrender,” which was similar to booty; and “annual tribute,” which was a smaller fixed amount. Yamada (2000, 236) makes the same distinction, separating “spot tribute” or tribute received by

the king at a particular stopping place in the course of a campaign from annual tribute, which was imposed on local rulers to be delivered annually to the capital (cf. also Bär 1996, 7).

Biltu

The root meaning of *biltu* is something along the lines of “load” or “burden,” but in economic terms came to mean tax, or in certain contexts tribute (*CAD B*, 229-236). *Biltu* is the earliest term for tribute (Martin 1936, 13). In the Neo-Assyrian royal inscriptions *biltu* is often used in hendiadys with *maddattu* (and occasionally *tamartu*) (*CAD B*, 235-36; Martin 1936, 16; Radner 2007a, 219),¹⁶¹ and thus the two cannot be easily distinguished (Bär 1996, 9). In his analysis of the royal inscriptions of Ashurnasirpal from the 9th c. Liverani (1992, 156) argues that this pairing is generally found in the case of fixed, or annual tribute, however Yamada (2000, 237) suggests that *biltu*, *maddattu*, and the hendiadys of the terms are nothing more than literary variants that have no technical distinction regarding the type of tribute that they reference.

Namurtu/Tamartu

Namurtu/tamartu derives from the Akkadian verb *amāru*, meaning “see.” As such, the *Chicago Assyrian Dictionary* defines *tamartu* as a “spectacle,” but also as a form of tribute. This correlation has led to the definition of *namurtu/tamartu* as “audience gift.” (*CAD T*, 111; *CAD NI*, 255; cf. Radner 2007a, 216). The *namurtu* (in the Neo-Assyrian period often written with the Babylonian form *tamartu*)¹⁶² represents a gift sent to the Assyrian king on certain occasions. Tadmor (1975, 37) defines the *tamartu* as “an early Assyrian term for occasional tribute, literally ‘a spectacular gift for display’ that was “impressive and lavish (cf. also Bär 1996, 9). Postgate (1974, 154) suggests that during the Middle Assyrian period that the term *namurtu* referred to an audience gift, although the function of the *namurtu* was greatly expanded by the Neo-Assyrian

¹⁶¹ Cf. Martin 1936, 16-17 for occurrences and pairings.

¹⁶² In this section we will use both terms interchangeably, following the version used in the referenced texts or secondary literature.

period. During the Neo-Assyrian period, the *namurtu* included a broad range of gifts and irregular payments directed to the Neo-Assyrian king, including subsidiary gifts accompanying the payment of tribute, a bribe, or any other unscheduled form of payment to (or occasionally from) the king. Thus Eph'al (1979, 286) suggests that the *tamartu* consisted of occasional additional special taxes levied on special occasions.

It seems that in general the *namurtu* was a “voluntary” gift, but texts such as *SAA 15*, 61, in which the writer discusses the *namurtu* of the month, for which he received notice from the king listing the items that should be sent (cf. also ND 10017), suggest otherwise. While this letter from the king may have been a “suggestion” for the material to be delivered, the payment was in essence compulsory. Additionally, the occasion of this payment seems to be upon the arrival of the king to Babylon, at which point the author intends to bring his gifts in order to “pay his respects to the king” (line 16'-19'). Such suggestions are the exception, however, and although there are certain instances in which a *namurtu* payment is expected, the payment is perhaps best understood as unscheduled, or outside of the regular taxation and tribute structure. In this sense a *namurtu* gift could come either from the provinces within the empire and their provincial governors or administrators, or from the various vassal states, and neighboring lands. During the reign of Tiglath-pileser III he sends his chief administrators around to various vassals and provinces collecting *tamartu* payments (eg. From Metenna of Tyre, cf. Tadmor and Yamada 2011, 133, line 26'). In other cases, it is brought with a defeated king to the capital upon their surrender (eg. Hazael of the Arabs during the reign of Esarhaddon, cf. Leichty 2011, 19, line iv: 6). In the case of Maniye of Ukku, upon the arrival of Sennacherib to his city he flees leaving Sennacherib to carry off his “heavy *tamartu*” consisting of “every kind of possession and

property which were without number” (Grayson and Novotny 2012, 163, line ii: 7’-11’). In this case the *tamartu* is neither voluntary, nor given, but rather taken like booty.

Specifically, bribes are seen as a form of *namurtu*, in particular those sent as “gifts” from a usurper king in the provinces hoping to solidify his power through the backing of the Assyrian king (and his army). This is seen in the case of Hulli of the land of Tabal, a “son of a nobody” who is placed on the throne of Tabal by Tiglath-pileser III in exchange for a hefty *tamartu* payment (Tadmor and Yamada 2011, 123, lines 14’-15’). According to the biblical text, Menahem, the king of Israel, “gave Pul (Tiglath-pileser III), 1,000 talents of silver for his hand to be with him and strengthen his possession of the kingdom” (2 Kings 15:19). In the course of Sennacherib’s third campaign, he receives a visit from kings of Samsimuruna, Arwad, Sidon, Byblos, Ashdod, Ammon, Moab, Edom, and “all the kings of the land of Amurru” bearing four times the normal *tamartu* (cf. Grayson and Novotny 2012, 64, lines 36-38). This payment presumably served as a bribe to spare their (formerly rebellious) cities from the wrath of the Assyrian army (cf. Gallagher 1999, 106-108). It also suggests that there was an understood “normal” amount for the *tamartu*.

SAA 5, 136 records a *namurtu* gift including at least 56 horses, oxen, and 2,000 sheep. The text is unfortunately broken and the entirety of the *namurtu* is not preserved, but it appears to be given on the occasion of a certain Urzana’s visit to Assyria. In another letter (*SAA 5*, 171) it appears that a *namurtu* is supposed to accompany a Mannean emissary, so in both of these circumstances it appears that the *namurtu* could take the form of a sort of audience gift. Urzana, in *SAA 5*, 146 notes that he “cannot go empty-handed to the presence of the king,” which suggests such gifts were both customary and necessary.

Tribute and Booty

The nature of the relationship between Assyria and its vassal states was largely centered on the collection of tribute, and in the case of war, booty (cf. Bär 1996, 3-5). As we discussed above, under the broad umbrella of tribute there are different categories, including regular yearly payments and special gifts. The tribute can be seen as the yearly and regular payment required by the king from his vassals, whereas other forms of tribute came in the form of gifts paid to the king upon his arrival at a certain city (usually due to transgressions of that city, and as a payment to avoid the destruction of the city or save the life of the king). Gifts could include a variety of bribes and one-time payments given more or less voluntarily by Assyrian dependents. Finally, booty was the payment taken by the Assyrian king and his army following the conquest of a city or territory. When examining the obligations of Assyrian vassals it is essential to differentiate the yearly tribute from the gifts given to the king when he arrived at a city with his army or the booty taken from a conquered region. Booty payments were much larger, and were meant as a one-time transaction, not representative of the yearly burden of a given city or state (Pecirkova 1987, 167). Unfortunately, while the booty or special tribute is often recorded in great detail, the yearly obligations of the vassals are not. Still, a few instances shed light onto the real economic burden imposed by the Assyria on her vassals. The best information in this regard predates the period of our study, and comes from the annals of Shalmaneser III as recorded on the Kurkh Monolith, dating to the 9th century BCE. Still, these texts likely give a realistic baseline for the relationship between the one-time tribute, and the yearly taxation, which can be seen in Table 3.

Table 3: Assyrian Special Tribute vs. Annual Tribute

Opponent	Tribute	Annual Tribute (<i>maddattu</i>)	Citation
Qalparunda the Patinean	3 talents gold, 100 talents silver, 300 talents bronze, 300 talents iron, 1,000 bronze casseroles, 1,000 linen garments, his daughter and her dowry, 20 talents red-purple wool, 500 oxen, 5000 sheep	1 talent silver, 2 talents red-purple wool, 100 cedar beams	Grayson 1996, 18; lines ii:21b-24a
Haiianu of Bit-Gabbari	(x) talents silver, 90 talents bronze, 90 talents iron, 300 linen garments, 300 oxen, 3,000 sheep, 200 cedar beams (X) + 2 homers of cedar resin, his daughter and her dowry	10 mina silver, 100 cedar beams, 1 homer cedar resin	Grayson 1996, 18; lines ii:24b-27a
Sangara of Carchemish	2 talents gold, 70 talents silver, 30 talents bronze, 100 talents iron, 20 talents red-purple wool, 500 garments, his daughter and her dowry, 100 of his nobles' daughters, 500 oxen, 5000 sheep	1 mina gold, 1 talent silver, 2 talents red-purple wool	Grayson 1996, 18; lines ii:27b-29a
Qatazilu the Kummuhite	Not listed	20 mina silver, 300 cedar beams	Grayson 1996, 19; ii:29b-30a

While the sample size is small, what we see in the places where Shalmaneser III mentioned the tribute taken as booty from a conquered country alongside the imposed annual tribute, is that the latter was not only much less oppressive in quantity, but also more limited in the scope of commodities included. In general, the annual tax was limited to three or four commodities, often silver and/or gold and then the most desirable of locally obtainable goods (in this case cedars and dyed wool).

A second possible reference to annual tribute is found in the inscriptions of Sennacherib, who records the imposition of a first-fruits offering to the gods of Assyria on the city of Hirimmu, consisting of one ox, ten sheep, ten homers of wine, and twenty homers of dates. While it is unclear if this offering was in addition to a larger tax, the amounts listed are quite

small, and manageable for a yearly payment (Grayson and Novotny 2012, 62). Sargon II also imposed a “yearly gift” during his campaign against Marduk-apla-iddina and Babylonia of 1 talent 30 mina of silver, 2000 emer of grain, one out of every twenty oxen, and one out of every sheep.

More data on this issue can be gleaned from later texts, in which the taxes of vassal parties were increased due to rebellion and specific numbers and/or commodities were mentioned. While this was rare, it is attested in the inscriptions of Esarhaddon regarding the Arabs. He first mentioned increasing the tribute of Hazael by 65 camels and 10 donkeys, and then following his death placed Iata’ on the throne and further increased the tribute by 10 mina of gold, 1,000 choice stones, 50 camels, and 100 bags of aromatics (Leichty 2011, 19; lines iv:17-24). Unfortunately, we do not know the amounts of the tribute owed to the Assyrian kings from the Arabs to begin with, but these numbers do give us certain baselines. These numbers are certainly higher than the numbers attested in the annals of Shalmaneser III, but the items listed are specifically those with which the Arab tribes were primarily associated, and far less than the numbers required as booty or tribute (recall for example the 30,000 camels and 5,000 pouches of aromatics claimed from Samsi by Tiglath-pileser III).

Thus, the overall impression of Assyria’s imposition of annual tribute is that it focused on certain goods such as gold and silver supplemented by materials readily available locally to the city/state being taxed. The amount of this tax does not seem overwhelmingly onerous, at least not at first, although repeated infractions leading to harsher impositions could easily make it more so. Thus, we agree with Tadmor’s statement (1975, 37) that the *maddattu* should be considered moderate if not entirely insignificant. Yamada (2000) also highlights the difference in moderation between the ‘spot tribute’ and the ‘annual tribute’ noting that in the cases of silver

from the examples found in the royal inscriptions of Shalmaneser III it totals less than 1% of the value of the 'spot tribute.' It is also important to note that this tribute was imposed upon the king or ruler, not the general population. Although that king may have passed along the bill to the people through increased taxation (for example Menahem's tax of 50 shekels of silver levied upon Israel in 2 Kings 15:20), ultimately the taxed goods were derived from the stores of the palace and the elites, giving them further incentive to revolt and preserve this wealth and luxury goods for themselves. The annual taxation of Assyria seems to have little effect on the daily life and activities of the average peasant farmer or laborer, who neither owns nor produces the luxury goods desired by kings and nobles.

Other sources on tribute come from partial letters, detailing the delivery of payments from the provinces to Assyria. *SAA I* 110 records the delivery of 45 horses as tribute from the emissaries of Egypt, Gaza, Judah, Moab and Ammon, with Gaza responsible for 24 of the horses (after which the text is unfortunately broken) (lines 4'-13'). *SAA II*, 30 likewise records the receipt of annual tribute from the kings of Tabal. Unfortunately the text is badly preserved, no numbers are legible, but it is clear that horses and mules were among the tribute payments. Two other commodities are not preserved, either the amount, or the product, but were measured in talents, and could easily be reconstructed as silver and gold. *SAA I5* 84 records the receipt of 40 horses as the tribute from the land of Zakrutu, however it also notes that the "rest of the tribute" is coming. *SAA I7*, 4 records the tribute of a Sabaean that includes 2 camels, alongside other goods that are not preserved. *SAA II*, 50 records the receipt of a shipment of one talent of silver received from Padi of Ekron, and *SAA I9* 178 records another payment of 7 talents, 34 minas of silver from Ekron. Neither of these texts mentions specifically that the money is delivered as a tribute payment, but this is certainly implied in the texts. *SAA II*, 34 is another potential tribute

list. Like many of these texts, the tablet is poorly preserved. The tablet records the delivery of (x) + 100 silver bowls and (x) talents 20 mina of silver from Que, as well as unlisted deliveries from Moab and Ekron. *SAA I 33* records a tribute of 7 teams of mules and 7 talents of red wool received from Commagene. Finally, ND 2762 records a list of tribute payments. The text is badly damaged, but includes the yearly tribute of Ashkelon, including silver totaling 3 talents 40 mina, 20 linen garments, 50 robes, 8 horses, 3 jars of garum, 1,000 fish and 20 measures of roasted emmer. The text then lists 3 stallions, 15 mares, and a young foal as the *namurtu* payment (Parker 1961, 42). Although none of these letters give complete information, they reinforce the idea that the majority of tribute was delivered as small, manageable amounts, in the form of specific goods desired by Assyria but readily available to locals. Horses, timber, and silver seem to have been especially popular.

What these texts also demonstrate is the relatively small value the tribute payments of a poor country could have on the overall income of Assyria. To be sure, the wealthy cities of Phoenicia and North Syria, with major production centers in textiles, ivories, cedar, and metals were of great interest to Assyria. The northern territories were valuable for their access to horses which were essential to the Assyrian military machine, and the trading centers along the coast were desired for their access to goods from the Mediterranean and Egypt. The special tribute and booty recorded from these regions led Postgate (1974, 217) to claim that “Tribute of the subject lands was for the Assyrian kings their most glorious source of revenue” going on to state that “there is no doubt that tribute was a most important element in the empire’s economy, and it was certainly one of the major sources of precious metals and other luxury goods in which the empire itself was poor.” We agree with Postgate that tribute did serve as an excellent source for obtaining a diversity of goods to which Assyria would have otherwise had limited access. It is

also true that the wealth acquired from tribute as a whole was not insubstantial. Especially in the early days of expansion this was true, thus for the reign of Ashurnasirpal Liverani (1992, 155) can claim that “Ashurnasirpal’s campaigns have the – not secondary – aim to obtain goods from surrounding countries” (cf. also Oded 1992, 3; Yamada 2000, 225). The fact that these missions did not involve any type of annexation process certainly supports the conclusion that these early campaigns were more akin to raiding and looting than imperial expansion. However, we must also look at tribute over time, and on two scales, the scale of ‘tribute as a whole’ and ‘tribute from any given territory/state/city/tribe.’ Whereas many of the territories encountered by Assyria were quite wealthy, many others were relatively poor, and while they could produce substantial stores of treasure when conquered, their ability to contribute yearly to the upkeep of the empire was minimal. The motivation for Assyrian conquest of these marginal regions must be explained by factors outside of their potential yearly tribute payments. The revenues gained by Assyria from yearly tribute must be considered in light of numbers a fraction of the size of those presented in the booty lists, which represent one time transactions, only repeatable on rare occasions, and rarely within the reign of a single ruler. Thus, the main interest of Assyria in conquering poorer regions, such as the southern Levant and Transjordan, but also territories on the northern mountainous edge of the empire, could not have been merely the annual tribute that these regions could provide. Postgate (1974, 217) recognized this problem in noting that by the time of Esarhaddon it is unlikely that the wealth of tribute paying lands was comparable to the wealth of the lands already incorporated into the empire. It is also interesting that at this time Assyria began to turn its attentions towards Egypt.

Taxes, Fees and Duties

The standard set of Assyrian taxes (such as *ilku*, *bitqu*, *iskaru*, corn tax, etc., cf. Postgate 1974; Radner 2007a) did not apply to vassal states; however there were other types of payments that did apply (cf. Pecirkova 1987, 167-170; Postgate 1974, 120; Elat 1982b, 245; Lanfranchi 2003, 111-12). A survey of the administrative documents reveals some of the types of fees and duties that Assyria imposed. Returning to Claessen's claim that taxes are paid by groups within the zone of redistribution, these payments would not technically fit into the category of taxes, and are perhaps better understood as duties, tolls or fees. In *SAA 13*, 33 a priest and the mayor of Assur write to the king regarding the behavior of certain officials who "sit outside the inner-city, in front of the gate, eating together, drinking wine, and squandering the exit-dues of the inner city" (lines 13-4'). Although this claim must be taken with some caution, given that it applies to a large city within Assyria proper, it does suggest that there were exit (and perhaps also entrance) dues for passing through the city. These dues (*āṣītu*) were a type of export duty that were also attested in the Old Assyrian trade texts (*CAD A2*, 355) and were also common in later periods. A detailed version of one the import and export tax documents of the caravan city of Palmyra has been discovered from the 2nd century CE, and will be discussed in the following chapter (Matthews 1984). It would not be surprising if such taxes were imposed at other major urban centers and trade hubs. A letter from Bel-liqbi to the king deals with an interesting issue. The author responds to claims that he has turned the town of Huzaza into a "merchant town," and details the types and amount of goods he was selling and to whom. Associated with this change, toll collectors were established at the gates of the cities of Šupat and Huzaza (*SAA 1*, 179). This situation seems to be another example of an import/export tax, a situation which has apparently caused the Arabs who used to frequent the town to be 'scared off' and seek business elsewhere.

Regarding Phoenicia, an area that at the time was a vassal state and not a province, Qurdi-Aššur-lamur wrote that he collected a toll (*miksu*)¹⁶³ from anyone who brought lumber down from the mountains, and that he had tax-collectors assigned to all of the *kāru* which were located throughout the region (*SAA 19, 22*). This text shows that certain goods of value were taxed at places of export (*kāru*). It is not clear if this toll consisted of a percentage of goods in-kind to be shipped to Assyria, or some form of silver payment. *SAA 1, 242* is a very fragmentary text, but records the payment of tolls (*miksu*) with silver. We have previously discussed the treaty of Esarhaddon with Ba'al of Tyre, but one of the stipulations in it states that ships entering his towns and *kāru* must pay their tolls “as in the past,” suggesting a long-standing policy of import toll at the ports on all ships. Again, such a toll was to be expected (and would not have been anything particularly new or necessarily excessive). A 5th c. papyrus from Elephantine records the taxes on Phoenician and Ionian ships arriving in Egypt. These duties amounted to up to 1/5 of the cargo, in addition to a harbor tax levied per man on the ship and special taxes on certain imported trade goods, particularly oil (Yardeni 1994, 70-72). This text demonstrates that such duties were commonplace, and part of the expenses of traveling. Previously they would have been levied by a local king, but now at least a portion of those revenues were diverted to Assyria. These texts show that there were a number of common tolls, commonly levied on merchants at central hubs of trade for the import and export of goods. These could also be expected at major hubs in vassal territories, in particular through the institution of the *kāru*, which we will discuss shortly. These tolls were likely reasonable in comparison with similar to other tolls of the same period, and while serving as an annoyance to the local rulers, whose revenues were cut into by such policies, they would not have been a serious barrier to trade. Thus these texts all reveal small ways in which Assyria was able to penetrate and integrate with the

¹⁶³ For a discussion of *miksu* cf. Dejong-Ellis 1974

market in order to gain some profit. In some cases, such as *SAA I*, 179 this encouraged individuals to seek other markets, or to choose to participate in another economic context. In other cases it incentivized attempts to bypass these intrusions through a host of resistance strategies that we discussed above. In most cases, however, it seems that these fees and tolls were merely added to the costs of participating in the market, but only rarely raised the cost of transacting to a degree that incentivized participation in other economic spheres.

Institutions of Assyrian Hegemony

Assyrian administration in the periphery included a number of important institutions that served as centers for the Assyrian bureaucracy and transmission centers for Assyrian policy. In particular, we will review the importance of the Assyrian *kāru*, or trading posts, and the Assyrian officials assigned to posts in vassal kingdoms, most notably the role of the *qēpu*. The political institutions of the *qēpu* and *kāru* draw attention to the interests of Assyria abroad. By tracking the duties and functions of these two institutions we are presented with a concrete manifestation of the implementation of Assyrian foreign policy.

Qēpu

The role of the *qēpu* was tied to one of Assyria's main foreign policy goals: information. The word *qēpu* derives from the verb *qiāpu*, meaning "to trust/entrust," and was used broadly to designate a trusted individual. The use of this term in administrative contexts varied both geographically and chronologically. From the Middle Assyrian period onward, however, the term was used specifically to refer to officials or administrators, but often as a collective generic term (*CAD Q*, 263-4). In the later Neo-Assyrian period, the *qēpu* functioned specifically as the

representative of the Assyrian king abroad (ibid. 265).¹⁶⁴ By the late Neo-Assyrian period, *qēpu* were active across every region controlled by the Neo-Assyrian Empire (Dubovsky 2012, 450).

In the Neo-Assyrian period the first mention of the *qēpu* is by Tiglath-pileser III, who appointed a *qēpu* over (*ina muhhiša*) Samsi, the Queen of the Arabs. Although nothing is mentioned about the specific roles of this official, it is clear that the *qēpu* was attached to Samsi's court, and acting as the king's representative there. Sargon II continued this practice, appointing *qēpu* officials in areas of Babylonia as well as along the Elamite and Urartian borders. Sargon II also appointed *qēpu* officials over Babylonian temples (Dubovsky 2012, 455-56, table 1). Sennacherib appoints a *qēpu* to Tyre, but also continues their appointment in Babylonia and especially Babylonian temples. The appointment of *qēpu* officials in Babylon was continued by Esarhaddon and Ashurbanipal, who also appoint *qēpu* officials in the newly conquered Egypt. A complete list of *qēpu* appointments from the cuneiform documents has been collected by Dubovsky (2012, table 1). Dubovsky (ibid. 458-60) suggests that the role of the *qēpu* was highly variable, and that the *qēpu* officials varied in rank, but were officials entrusted for a specific task or mission, directly by the king. Their role within the administrative hierarchy depended on the specific mission of the *qēpu*.

This conclusion, however, does not help much in regard to the specific duties and role of the *qēpu* in the provinces. For this we will direct our attention to specific texts that mention various functions of the *qēpu*. The *qēpu* official was a position selected via divine query (*SAA 4* 310), and thus a position of some importance and influence. The most valuable text specifically discussing the role of the *qēpu* in the provinces comes from the vassal treaty between

¹⁶⁴ Brown notes that in the Middle Assyrian period the *qēpu ša šarre* functioned as an on-site proxy for the king, serving functions such as delivering orders, accepting gifts, and supervising harvests and redistribution, however they may have only been present in any given district once or twice a year, likely around harvest time (2013, 10,13). By the Neo-Babylonian period the term was frequently used to designate the secular administrator of a temple (*CAD* Q, 266).

Esarhaddon and Baal of Tyre. The treaty clearly stipulated that the *qēpu* must be present at all council meetings with the elders of the country (*SAA* 2, 25, III: 6'-7') and he must be present for the opening and reading of all letters and international correspondence (ibid. III: 11'-14'). The broken text also implies that the *qēpu* was involved in economic matters of the arrival and departure of ships, but this was not entirely clear.

A letter dating to the reign of Sargon II, from a certain Ša-Aššur-dubbu of Tušan (*SAA* 5, 38), recorded that a *qēpu* official passed through the region, made a report and was returning to the palace. This indicated that the *qēpu* was not always permanently tied to a specific city, but traveled about checking up on things and that the *qēpu* also had direct correspondence with the king. A second letter from the reign of Esarhaddon records a message to the king from a certain Mar-Issar, regarding the temples at Uruk. Mar-Issar reported on the repair and decoration of divine statues at the temple of Uruk. He included in the message a statement that 40 minas of gold were available for continued work, but that the *qēpu*, along with two other officials, were off visiting the king, and that Mar-Issar did not have the authority to check the gold without them. He informed the king that upon their return he would travel to Uruk and check if more gold had come in (*SAA* 10 349, lines 27-10'). This letter, like the letter we discussed previously, clearly shows that the *qēpu* could be a traveling position, which included regular visits to the palace (this is also hinted at in Esarhaddon's treaty with Baal of Tyre, where he included the provision that if the *qēpu* was not present, the king must await his return to open and read letters). More importantly, it shows that the *qēpu* had an economic function, making sure that gold designated for the temple was being used appropriately (cf. also *SAA* 6, 150). It further supports the idea that the presence of the *qēpu* was required to oversee certain important actions.

In this case the checking of the temple treasury; and in the case of Tyre the opening of diplomatic correspondence.

A second letter from the reign of Sargon II records a request from a *qēpu* at Der for an additional 2,000 troops (*SAA 15*, 142). The purpose of these troops is not detailed in the letter, but it shows that as part of their position overseeing a territory it was possible that the *qēpu* officials had the authority to requisition troops from neighboring areas, a fact that the author of this letter is distressed about, claiming he barely has enough to man his fortress as it is. It is also possible that a *qēpu* in a particular hostile environment might have access to a fairly substantial garrison.¹⁶⁵ The need for a military force to support the *qēpu* is evidenced by their apparent unpopularity in certain locations. The city of Kummu, for instance, “can’t stand the *qēpu*” (*SAA 5*, 106), so much so that they speak of killing him (*SAA 5*, 107). This is clearly not an altogether unknown phenomenon, demonstrated by the actions of the Egyptians against the *qēpu* officials appointed by Esarhaddon. In other instances, they are merely intimidated (*SAA 17*, 22) or chased away (*SAA 19*, 39). The role of the *qēpu* as the watchdog and proxy for the Assyrian king meant that in the case of rebellion or insurrection these officials were often the first to go (Berlejung 2012, 24).

According to *SAA 13 179*, the *qēpu* official had the capability to halt various building projects, and even temple offerings (lines 10-19), while *SAA 13 181* suggests that the *qēpu* took part in royal appointments (lines 13-14). The *qēpu* was responsible for the collection of tribute from Tyre and Sidon (*SAA 19*, 24), and a *qēpu* official is also listed as responsible for the collection of taxes in *SAA 19 39*. *SAA 19*, 140 records a message from the *qēpu* of Elam, asking the writer for news on the movement of rebellious troops. This suggests that part of the *qēpu*

¹⁶⁵ Bagg suggests that the *qēpu* assigned to Samsi had access to 10,000 troops (2010, 204).

official's role was maintaining the information networks across the periphery and relaying that information back to the king.

What then does the *qēpu* reveal about Assyrian interests and involvement in the provinces? The role of the *qēpu* was to serve as the eyes and ears of the king abroad, serving as both a royal proxy and watchdog. In this role the *qēpu* served as a witness to the meetings and councils of provincial kings and governors, as a hub of local information networks, further highlighting the Assyrian interest in taking preventative measures by keeping tabs on rebellion and insurrection before it broke out. Assyrian policy highlights the loyalty of vassals and put a premium on early identification of potential rebellion, so that it could be cut off quickly, with the least amount of effort. If necessary, this could be accomplished through a requisition of troops from a nearby province by the *qēpu*. The centrality of communication and information in the vassal relationships within the Assyrian Empire is also clearly represented in the surviving Neo-Assyrian treaties, which put most of their emphasis on issues of alerting the king with information regarding potential rebellion, ignoring requests to participate in said rebellions, and not inciting rebellion in their own correspondence. Secondly, the *qēpu* was the financial representative of the palace in the provinces, and at least able to, if not responsible for, collecting taxes and tribute. As part of this role the *qēpu* was occasionally required to travel back and forth to the palace. While the presence of the *qēpu* was required for basic proceedings, such as the appointment of certain officials, official meetings, and certain economic transactions, the *qēpu* does not appear to be a particularly invasive administrator. The role of the *qēpu* was to watch, not govern. While in certain circumstances the *qēpu* could function as the voice of the king (*SAA* 13 179), they are more commonly presented as the eyes and ears of the palace, watching and

reporting, as a preventative measure against rebellion, theft, or dishonesty on the part of governors, foreign rulers, or temples.

Kāru

The second institution central to Assyrian foreign policy was the *kāru*. The term *kāru* is usually translated as quay, harbor, trading station, or something similar, and can occur in the forms *kār-X* as part of a place name (eg. *Kār-Esarhaddon*, the new city that Esarhaddon creates following the destruction of Sidon), or as the *bit-kāri* (Yamada 2005, 55-56). That the term commonly refers to an administrative center, customs house, and/or trading post, has been amply demonstrated by studies of *Kārum Kaneš*, the famous Old Assyrian trading center in Anatolia (Lewy 1956, 37-54; Veenhof 1995, 866-67; *RLA*, 374-5). The *kāru* itself must be viewed as more than just a city, or a specific building (*bit-kāri*), functioning as an important administrative institution, both politically and economically. The *bit-kāri* served as an administrative office for channeling and storing goods and collecting taxes in areas outside of Assyria¹⁶⁶ (Berlejung 2012, 41; cf. also *SAA 16*, 83). The *kāru* thus represented the physical manifestation of Assyria's long-term economic interests abroad. A survey of the *kārus* mentioned in Assyrian texts has been carried out by Yamada (2005, table 1), but for the purpose of this study we will focus on examples from the southern Levant.

Kārus in the Southern Levant

While the textual sources specifically mention the foundation of a number of *kāru* in the southern Levant, there is no reason to assume that there were not more than the number mentioned. In a letter from Phoenicia, Qurdi-Aššur-lamur suggests that there were many *kāru* in the region, even though only a few of these are specifically attested (*SAA 19*, 22). One *kāru* was

¹⁶⁶ That is outside of the Assyrian core, there were *kārus* established in areas that became Assyrian provinces during the Neo-Assyrian period.

established in the southern Levant by Tiglath-pileser III in the course of his 12th campaign in year 734 BCE. As part of this campaign, Tiglath-pileser III led his army against Hanuna, the king of Gaza, who fled to Egypt. The city was conquered and looted, but Hanuna was returned to the throne and the city was reckoned as *bit kāri ša mat Aššur* (cf. Tadmor and Yamada 2011, 127, line 18'). Following this event, Tiglath-pileser III erected a stela at the 'Brook of Egypt' and appointed a certain Idibi'ilu, a leader of desert nomadic tribes, as the gatekeeper opposite Egypt (ibid. 107, line 34'-35'). The focus of this campaign is clearly on establishing a connection with Egypt. After the completion of this campaign, Tiglath-pileser III describes the extent of his kingdom as "from the bitter sea of Bit-Yakin, as far as the Mount Bikni in the east, up to the Sea of the Setting Sun as far as Egypt" (ibid. 118, lines 3b-4a). The erection of a stela also confirms the importance of reaching the Egyptian border. Thus, in the case of this campaign establishing a border adjacent to Egypt, and opening up a customs house there, was clearly the central Assyrian interest.

The campaigns of Sargon II further reinforce this impression. Like his predecessor Tiglath-pileser III, Sargon II also campaigned through Philistia up to the Brook of Egypt in the years 720 and 716 BCE. In his first trip, he defeated a coalition between the Egyptian ruler Re'u and Hanuna of Gaza at Raphia (Tadmor 1966, 91). Later, he returned in 716 in a second campaign up to 'the city of the brook of Egypt' (Tadmor 1958, 35; 1966, 92; Weidner 1941). In this text Sargon II notes that he settled cities on the border of the City of the Brook of Egypt, near the western sea (Tadmor 1966, 92). This goes along with Sargon II's statement in the annals that he "opened the sealed *kāru* of Egypt and mingled together the people of Assyria and Egypt" and "made them trade with each other" (Fuchs 1994, 88, lines 17-18). This reaffirms the importance of Egypt and the Egyptian border to Assyria, and also emphasizes the economic

nature of the *kāru*. In this text, the opening of the border clearly has an economic purpose, and Sargon II's goal in Philistia appears to be re-establishing trade connections with Egypt, governed of course, by the Assyrian customs house. The location of this 'sealed *kāru*' is unclear, but is likely in the vicinity of Gaza. Oren (1993b, 1293-4) has suggested that the 8th c. site of Ruqeish, located approximately 18 km south of Gaza, is the best option, whereas Reich (1993, 15; 1984, 32-33) has suggested the site of Abu Salima, located in North Sinai as a more likely location. The best identification depends on the interpretation of the 'Brook of Egypt.' The 'Brook of Egypt' has traditionally been associated with the Wadi el-Arish in northern Sinai (Tadmor 1966, 88; Oren 1993, 102-3; Rainey and Notley 2006, 35, 283). However, Na'aman (1979b, 72) has suggested that the Brook of Egypt is better identified with Wadi Besor. Na'aman claims that the town of Arza, mentioned in the campaigns of Esarhaddon as being located along the Brook of Egypt, is best identified with Tell Jemmeh, which lies on the Wadi Besor. Na'aman (ibid. 74) furthermore argues that the associations of the 'Brook of Egypt' with Wadi el-Arish are anachronistic, and based upon Greek and Rabbinical sources identifying נהל מצרים with Wadi el-Arish. Oren (1993a 103), however, maintains the identification of the 'Brook of Egypt' with Wadi el-Arish, citing that the material culture consistent with Assyrian occupation is found extending south all the way to Wadi el-Arish. Both Ruqeish and Abu Salima are located south of the Nahal Besor, but both are also considerably further north of Wadi el-Arish. Thus neither is located on what could be considered the 'Brook of Egypt,' but both are located near the coast, and at places appropriate of the southern extent of the southern Levant. Reich's argument centers around the Assyrian-style architecture found at Abu-Salima, whereas Oren's argument (1993b, 1294) centers around the date of the site's founding (8th c., destroyed 6th c.), and evidence that the site was a trade center based off of extensive amounts of Mediterranean ceramics found

there. An exact identification of the location of the sealed *kāru* is relatively unimportant for our current discussion, and both of these sites attest to the importance of the region in the late Iron Age.

In the 7th century, Esarhaddon made use of labor from the southern Levant for the construction of Kār-Esarhaddon, a newly founded city in Phoenicia to replace the destroyed Sidon. This city was repopulated using deportees from the east (cf. Leichty 2011, 16-17). This new city presumably functioned as a *kāru*, with new inhabitants and an Assyrian governor to ensure that Assyrian interests were preserved (a feat that had proved problematic in the past, cf. *SAA 19*, 22, 16, 127).

The *kāru* could serve as a depot for goods, including tribute or tolls (*SAA 2*, 5; *SAA 19*, 22; *SAA 16*, 83; probably *SAA 19*, 44), a center for operations and maintenance of Assyrian garrisons, including tasks such as feeding the horses (*SAA 1*, 107; *SAA 4*, 65; *SAA 19*, 91). They were positioned at important locations such as harbors to oversee import and export taxes (*SAA 16*, 127), and could serve as a sort of market or center for transactions (*SAA 5*, 150). The *kāru* then, was probably the most invasive element of Assyrian policy on vassal kingdoms. Even in this capacity they were restricted to certain areas and functions. The *kāru* only affected individuals engaging with the market, and only those engaging with certain larger markets. Small scale market transactions in smaller urban centers were not the target of Assyria. *Kāru* were associated with major hubs, dealing in large bulk traffic. The individuals operating in this type of market context were more capable to handle the types of tolls and fees charged by the Assyrians, which may not have differed considerably from previous payments collected on the part of the local ruling structures.

Assyria's Interests in the Southern Levant

In the preceding sections, we have emphasized certain aspects of Assyrian policy in the provinces and vassal states, according to the documentary and archaeological evidence. These texts certainly demonstrate some economic considerations, including the procurement of tribute and tolls, which have been discussed above. These data led Berlejung (2012, 30) to conclude that for Assyria the “goal was that the optimized result of trade and economy in the provinces and vassal states flowed as direct tax/tribute back into Assyrian pockets.” Bagg (2013, 131) similarly writes that “The logic of Assyrian world domination was based on the principle of maximum profit with minimum infrastructural investments. The principal goal was to draw raw materials, livestock, luxury objects, and manpower from all regions of the empire into Assyria.” These conclusions ignore a whole host of other motivations behind Assyria's expansion strategy. The Assyrians expanded into many regions with minimal access to profitable resources and maintained a presence there. We do not want to minimize the Assyrian desire for luxury goods, but it was only one of many factors in Assyria's expansion strategy.

We will now turn our attention to consider the ‘non-economic’ or ‘socio-political’ interests of Assyria. The recent work by Parker (2001; 2003) has shown that Assyria had many interests in various regions, and not all of those interests were based purely on the economic potential of that region (cf. also Lanfranchi 2003; Radner 2012; Chamaza 2005). Parker (2001) stresses the geographical element, and the importance of certain regions as part of the process of empire building and maintenance, either as staging points for future campaigns, centers for the consolidation of previous campaigns, or buffer zones used to protect against, or perhaps spy upon enemy troop movements. In the following section, we will highlight the importance of the southern Levant to Assyria, beyond its economic potential.

Geographical Considerations

Geographical considerations were an important part of Assyrian interest in specific areas. This was particularly true of borderland regions, which could serve as staging grounds for future campaigns, or as buffer zones against aggression on the part of Assyria's neighbors.

Geographical considerations were particularly relevant in areas bordering other large, potentially expansive political entities, namely Urartu in the 8th century, Egypt in the 7th century, and Elam throughout the duration of the Assyrian Empire. The letters from the northern and eastern fringes of the kingdom, mostly dating from the reign of Sargon II, attest to the importance of these frontier areas (cf. Parker 2001; Radner 2012; Lanfranchi 2003). With the expansion of the empire to the south, and an emerging Egyptian presence, particularly at the end of the 8th into the 7th c. BCE (cf. Taylor 2004, 358; Kitchen 1986), it is logical to examine the importance of the southern Levant to Assyria from this perspective.

Buffer States

Secure borders are an important part of empire construction and maintenance, and the security of the imperial core is paramount. Sinopoli (1994, 162) lists security as a major motive for initial expansion, whether political or economic (cf. also Stanish 1997, 196; Oded 1992, 2). As an empire expands, protecting the territorial holdings becomes more difficult and requires more flexible policies, especially on the frontiers. Buffer zones allow for increased security within the empire, however, economy of effort in maintaining these often resource-poor areas is in the best interest of the empire. Thus, in the case of Assyria, this involved avoiding direct rule and leaving the administration and maintenance of these areas in the hands of vassals as an economizing measure (Melville 2010, 86-8). Buffer zones were of particular importance in the regions separating Assyria from other powerful kingdoms, namely Urartu (in the 8th century) to

the north, Egypt to the south, and Elam to the east. Parker (2003, 552) suggests that the creation and maintenance of buffer zones was an integral part of Assyrian policy.

Otzen (1979, 256) has suggested that Philistia and Judah were maintained primarily as buffer states against Egypt, while the Transjordanian polities served as buffers against the threat of nomadic incursions from the east (cf. also Finkelstein 1992, 164, 180; Gane 1997, 24; Tadmor 1966, 97; Singer-Avitz 1999, 8; Chamaza 2005, 127). Oren (1993a, 102) suggests the same for the role of the Negev within the Assyrian Empire (cf. also Tebes 2006, 46; Tadmor 1966, 92; Eph'al 1982, 102-3; Mattingly 1980, 35). This situation would parallel Assyrian policy in other borderland areas. Radner (2012, 243) notes the importance of the regions such as Kumme, Šubria, Musasir, and Ukku as a northern buffer against the threat of Urartu in the 9th century BCE (cf. also Parker 2003, 552).

Parker (2001, 101) further differentiates between buffer states and buffer zones. Parker suggests that “when the state in question lay adjacent to a highly volatile zone, and especially when the geopolitical or geographical situation made military logistics in that region difficult or impractical, existing states were left intact as buffers between Assyria and hostile forces in its deep periphery.” In contrast, a buffer zone exists in areas with sub-state political formations, which are largely empty and hostile, acting as a no-man’s land (ibid. 155). In the case of the southern Levant, the Sinai desert, and perhaps parts of the central Negev could fit into the category of buffer zones. Identifying buffer states archaeologically is difficult. Parker identifies buffer zones as “the most archaeologically elusive component of imperial systems, since they are, by definition, areas where there is little or no intervention by the imperial authorities” (ibid. 152). If the polities of the southern Levant were acting as buffer states, then the relative paucity of Assyrian material found in these sites would fit the pattern described by Parker. Identifying

these polities as buffer states would also explain the concentration of Assyrian presence along the coastal highway, in particular the area surrounding and to the south of Gaza, at the gateway to Egypt. Controlling this area gave the Assyrians a valuable staging point in their later campaigns against Egypt, but could also serve as a first line of defense against the inevitable Egyptian invasions. A host of local tribal informants patrolling the deserts would have provided valuable information on any important Egyptian activities in the region.

Campaign Management

A second important consideration for Assyrian interest in certain regions was a concept of campaign management: the considerations of the logistical issues behind mounting long-term military campaigns in distant locations. The major Assyrian campaigns were massive logistical undertakings, including problems such as providing food and water for the army and pack animals, maintaining supply lines and communication lines with the center, and mobilizing massive amounts of troops and pack animals, all the while having to potentially worry about raids on supply lines or the army in transit that could prove disastrous. In order to mitigate these potential problems the Assyrians enlisted aid from provincial governors and vassal kings to help with issues of mustering, supply, transport, and security (Pecirkova 1987, 170; Parker 2001, 215; Postgate 1979, 203; Gane 1997, 26). This process of delegation allowed the Assyrian army to be mobilized more quickly to the far corners of the empire and shared much of the burden of provisioning across Assyria's dependent territories. The value of the southern Levant for Assyrian campaign management is particularly well-attested from the reigns of Esarhaddon and Ashurbanipal. During Esarhaddon's Egyptian campaign he described his route: crossing over the Tigris and Euphrates, and then the mountains to lay siege to Tyre. Following this event he travelled south to Aphek, in the land of Samaria (where he resupplied), and then proceeded to

Raphia, on the Levantine side of the Sinai desert. From Raphia, Esarhaddon summoned all of the Arab kings of the region to provide camels and water to supply his invasion of Egypt. This text demonstrates the importance of the southern Levant as a staging grounds for Esarhaddon's assault, and the value of the local people, in particular the desert tribes, to his campaign (Leichty 2012, 87-88; cf. also discussion in Radner 2008 and Verreth 1999). The importance of the Arabs and their camels to this campaign has been adequately discussed by Eph'al (1982, 137-141; 2005), who stresses the importance of controlling the means of retreat back across the desert, for which fortresses in the Gaza region would have been essential (2005, 101). In addition to this text, two of Esarhaddon's queries to Šamaš mention Philistia, in particular Ashkelon. In the first text, Esarhaddon inquired if he should take his army and travel to Ashkelon (*SAA 4*, 81), and a second asked whether the Egyptians will come to the district of Ashkelon to wage war with Esarhaddon and the Assyrians (*SAA 4*, 82). This confirms that Ashkelon in particular, but in general the southern coastal plain, served as an essential staging ground for any potential Egyptian campaign. The importance of the region is reiterated in the course of Ashurbanipal's Egyptian campaign, during which he called upon the "22 kings of the coast," who supplied building labor for the palace of Esarhaddon, to accompany him on campaign. These kings are responsible for providing troops, boats, and supplies (lines 72-73) and to accompany Ashurbanipal on his campaign. The addition of a naval contingent may have mitigated the difficulties of crossing the Sinai. Additionally, the troops from these 22 kingdoms would have greatly increased the size of the army and eliminated the need to muster and march a large army all the way from Assyria. It seems that in the case of Ashurbanipal, he likely left with the professional army and then added to its numbers along the march towards Egypt from the armies

of his client kings and governors (cf. Dalley 2000, 82-88 on the potential use of provincial armies in this fashion).

This function of vassal kings and provincial governors is well-attested in the administrative corpus. The provisioning of troops from stores in local granaries is attested in *SAA 1*, 181; *SAA 5*, 126 and especially *SAA 5*, 250, *SAA 19*, 17 and *SAA 15*, 129. In another query to Šamaš, this time regarding a campaign to an unknown location, Esarhaddon inquired as to whether or not provisions will be provided for him and the army, and whether a guide will properly lead them (*SAA 4*, 87). These texts further demonstrate the expectation that provisions would be organized along the way by the various vassal kings and provincial governors.

Finally, vassal states still maintained their own armies, which could be used for the defense of their territory and overall maintenance of the security of the empire. This allowed the empire to cope with small scale local problems without calling in the professional army, and helped to preserve the mobility of the army to respond quickly to problems in the various corners of the empire (bolstered by local recruits along the way) (Eph'al 1983, 99-106; Malbran-Labat 1982, 31). On one hand, this could go seriously wrong if the vassal king decided to join in a revolt or switch sides to support a potential threat. This happened with Judahite and Philistine support of Egypt at the beginning of Sennacherib's reign, and was also a common problem with the territories around Babylon and Elam. On the other hand, the success of the Moabites against Arab invasions during the reign of Ashurbanipal attests to a success of this policy (Eph'al 1982, 143-149; Gerardi 1992, 72).

Manpower

Manpower is an often overlooked, yet was a necessary and finite resource. The need for manpower to fill the royal armies, task forces, and fulfill the royal construction projects was

enormous. Over the course of the 8th-7th centuries, repeated campaigning caught up to the Assyrians to the point where their population could no longer support the needs of both the military and the countryside (Kaplan 2008, 136; Allen 1997, 139). Thus, whether or not it was a “goal” of Assyrian expansion, certainly by the middle of the 8th century it was a necessary to replenish and expand the losses of the Assyrian army by incorporating the specialists from conquered regions, and by importing labor in the form of deportees to the Assyrian heartland (Gallagher 1999, 264-65; Oded 1979, 48-54; Parker 2001, 250).

There is strong evidence for a substantial foreign element to the Assyrian army (Malbran-Labat 1982, 89-101; Radner 2011, 39; Kaplan 2008, 136; Oded 1979, 50-51; Dezső 2012, 152-164). In her examination of the horse lists, Dalley (2004, 35) identifies a number of equestrian and chariotry specialists from Samaria as part of the Assyrian army, a position supported by the royal inscriptions of Sargon II, where he claims to have formed a unit of 50 chariots from the deportees of Israel (cf. also Dezső 2012, 81ff.). These lists also mention groups associated with Chaldeans, Aramaeans, and generic ‘exiles’ (Kaplan 2008, 138). Chariot and horse units formed from deportees from places such as Hamath and Kummur are also mentioned in the records of Sargon II (ibid. 39). The evidence from Neo-Assyrian letters further attest the presence of a significant number of foreigners in the Assyrian military. *SAA 5 277* requests that the recipient be ready with his army, including groups of foreigners such as the Gurreans and the Itu’eans. ND 2619 records a list of conscripts, mainly cavalry and chariot drivers, called up from the Aramaean tribes and provinces (Parker 1961, 38). *SAA 1*, 153 and 155 mention Sidonians and Philistines respectively. Sennacherib recorded the conscription of 10,000 archers and 10,000 shield bearers into the royal army (*kišir šarrutiya*) from among the deportees of Judah (Grayson and Novotny 2012, 66; cf. also Grayson and Novotny 2012, 136; 2014, 177). According to

Manitius, by the late 8th-7th centuries the majority of the Assyrian military was composed of conscripts from the provinces and vassal states, and were of non-Assyrian origins (1910).

Lanfranchi suggests that a corollary obligation of the *adê* treaty between Assyria and her vassals was to supply troops for the Assyrian army, either on campaign, or to serve in the standing army (2003, 114, cf. also Watanabe 1987). His conclusion is certainly supported by the treaty between Aššur-Nirari V and Mati'ilu of Arpad, dating to the 8th c. BCE. In this treaty, one of the stipulations states that should Aššur-Nirari go to war with the Assyrian army, that it was the duty of Mati'ilu and the army of Arpad to accompany him on campaign (Parpola and Watanabe 1998, 11, iv: 1'-3'). This duty is also clearly seen in Ashurbanipal's campaign to Egypt, where he summoned the "22 Kings of the coast" to come to his aid in his invasion of Egypt. This list is by no means exhaustive, but shows a representative sample of the prevalence of foreign troops within the Assyrian army (for additional references cf. Oded 1979 48-54).

Beyond the need for military manpower, the Assyrian Empire also required a large amount of slave, or corvée labor to complete its many building projects at home. This need was met by the use of deportees in the capital, as well as the use of corvée labor from the provinces. Sennacherib, for example, made use of deportees for the construction of his 'Palace-Without-Rival' writing that "I forcibly removed the people of Chaldea, Aramaean (tribes), and the land of the Mannaeans, and the lands of Que and Hilakku, who had not submitted to my yoke, then I made them carry baskets and they made bricks. I cut down canebrakes in Chaldea and I had their splendid reeds hauled (to Nineveh) for its construction by enemy soldiers whom I had defeated." (Grayson and Novotny 2012, 45, lines 41b-43). This was by no means unique to Sennacherib. Sargon II also used foreign labor for the construction of his capital at Dur-Šarrukin (Fuchs 1994, 181-82, lines 424-26). Esarhaddon made use of corvée labor from the provinces to construct Kār-

Esarhaddon, as well as to make materials for the construction of his palace, including cedar beams, bull-colossi, *lamassu* statues, zebus, precious stones (Leichty 2011, 23-4). Beyond their role in major construction projects, deportees also helped to repopulate and exploit agricultural land in conquered provinces (cf. Oded 1979, 67-74). We have only summarized some of the main uses of deportees and foreign manpower as an essential part of the Assyrian Empire. Oded (1979, 41-74) has discussed this issue in depth, in particular in regards to the deportees; however he does not focus on the use of manpower within vassal states, to bolster and supply the Assyrian army, provide specialized labor for building projects, and to serve as a military buffer against powerful neighbors.

Conclusions: Assyria and the Southern Levant

In order to discuss Assyria's interests in the southern Levant, we will first highlight a few frequently cited elements that were not the primary topic of Assyrian interest: olive oil, wine, and caravans. Finkelstein (1994, 180) suggests that it is the Assyrians behind the industrialized production of olives at Ekron and that the olives produced at Ekron are grown in Judah and sent down as part of a Judahite tax to the Assyrian distribution center. Along the same lines, Eitam (1996, 184) argues that only Assyria had sufficient power to promote industrialization on this scale. Gitin (2012, 255) argues that rather than the olive oil itself, Assyria was interested in controlling the trade and sale of olive oil across the Mediterranean and was interested in Mediterranean luxuries, but most of all revenues in silver. Finkelstein and Eitam's arguments, however, miss out on a key point of information. For all of the supposed Assyrian interest in the Ekron industry, there is absolutely no evidence that Assyria had any interest in Levantine olive oil. A prime example of this can be seen by an examination of Assyrian tribute and booty lists over time. In these lists, there are no mentions of olive oil or wine, two of the main products of

the region, despite an extensive citing of Judahite tribute paid to Sennacherib by Hezekiah. It is also not a situation where the Assyrians had no use for these items. Olive oil was extensively used in ceremony and ritual, and there was demand for olive trees for royal gardens (Malul 1996, 93ff). It is also not an issue that goods such as olive oil were never listed in Assyrian tribute or booty lists. Rare citations are attested of goods such as ‘fine oil,’ which can possibly be identified as olive oil (Grayson 1991, 199; i: 87). Faust (2011, 72-3) has recently made the argument in-depth that the Assyrians had no interest in olive oil, even of developing its production in order to tax its export across the Mediterranean (following the suggestion of Gitin cited above). Faust argues that Assyria was interested in luxury goods and not agricultural products, due to the limitations of long-distance transport (although cf. *SAA 11*, 40 for a payment of agricultural goods from Damascus, and the tribute payment from Ashkelon discussed previously (ND 2762), which included fish and grain). Furthermore, Faust (ibid. 73-4) suggests that the economic situation in Samaria sheds light on Assyrian interests in olive oil. He notes that following the exile of the northern kingdom in the middle of the 8th c. BCE, and its conversion into an Assyrian province, that the olive oil industry present there in the 9th c. BCE (eg. areas around Galilee and Samaria), was destroyed and no effort was made to rehabilitate them. Thus, Faust argues that if the Assyrians had been interested in the revenues available from the mass production and export of olive oil, that they would have put more resources into rehabilitating the industry in the north, when in fact the opposite is the case. From this, Faust concludes that the Assyrians had no interest in economic development in the provinces, or their vassal states (cf. also Faust and Weiss 2011). We agree with the broader claims of Faust, that olive oil was not of primary interest to the Assyrians, certainly not to the point that they would invest significant infrastructure to develop the industry in Philistia. However, Faust goes too far in his claim that

the Assyrians had no interest in agricultural issues, or economic development in the provinces and that their sole interest was looting and pillaging. This conclusion ignores a wealth of evidence from the northern provinces in Syria-Anatolia, where the local economies did not die, but in fact benefited from Assyrian rule (Younger, forthcoming).

A similar situation is seen with wine. Wine was a much desired commodity in Assyria, a fact reflected extensively in early Assyrian tribute lists and reliefs (cf. McGovern 2003, 188-201). The issue with both commodities, however, is one of transport costs. Wine and oil are high bulk commodities, better suited for bulk water rather than overland transport. The prospect of long-distance, inefficient, overland transport decreased their value in remote regions far removed from the center, and thus also their desirability to the Assyrian Empire. An examination of the materials exacted from Hezekiah reflects this preference for high value, low weight goods (precious metals, ivories, fine textiles), rather than bulk agricultural goods. An examination of tribute texts show that agricultural goods, in particular wine, were exacted from the closer provinces of the upper Tigris and Neo-Hittite states, as well as Armenia and Iran, regions closer to the Assyrian center with a climate and geography conducive to olive and grape harvest (Malul 1996, 95-6, Powell 1995, 121-2). Wine appeared commonly in the tribute lists of Ashurnasirpal II, who campaigned in this region. During the reigns of later kings, when these polities were incorporated into the empire and Assyrian kings no longer campaigned in the region, fewer mentions of wine are recorded in the tribute lists. Other sources, however, such as wine ration texts from Nimrud indicate that it was still consumed in quantity during this period (Powell 1995, 120; Kinnier-Wilson 1972). Thus, while the Assyrians had a great deal of interest in olive oil and wine they had very little interest in southern Levantine olive oil and wine. Were they to

build industrial complexes of either goods, it would have been in locales closer to the Assyrian core.

The Assyrians were interested in caravans and the goods of the South Arabian caravan trade. This will be discussed in greater detail in the next chapter, but the Assyrian royal inscriptions and booty lists clearly attest an interest in the goods of the caravans: primarily spices, gold, and precious stones. However, the Assyrians showed no interest in micromanaging the caravan trade. For maximal profitability the caravans must eventually travel to a major commercial hub: be it Gaza on the Mediterranean following a route across the Negev, or Damascus or Phoenicia in the north following the transjordanian highway, or the central Euphrates region, which is attested in the inscriptions from the governor of Suhu, or Babylonia. At these hubs they could easily be taxed at the local *kāru*. The Assyrians had no need to heavily invest in infrastructure to micromanage these routes by setting up multiple forts and way-stations because they controlled every major exit hub. The local kings, with limited means for acquiring the precious prestige items and luxury goods of the caravan had suitable incentive to maintain the infrastructure along these routes. So, although the Assyrians were interested in caravans and taxing the caravan trade, they had no incentive to micromanage the trade (cf. discussion in Chamaza 2005, 122-7).

Faust (2011, 76) limits the role of the Assyrian to the bully, using its strength to extract concessions from weaker neighbors (cf. also Faust and Weiss 2011, 198). As we have examined earlier, this is a highly simplistic view of Assyria's involvement in its vassal territories, which was highly varied and used multiple different mechanisms. This diversity has been amply demonstrated by recent examinations of Assyrian mechanisms for control, which included both peaceful and aggressive strategies (cf. Fales 2010; 2008; Younger forthcoming; Lanfranchi

1997). Whereas the latter strategies receive more attention in the literature, they are often accompanied by diplomatic solutions.

The Assyrians were interested in tribute and taxation, especially tolls on shipping and overland routes. Their interest in these things, however, only minimally affected their involvement in the southern Levant, and mostly took the form of the construction of a few trading posts (*kāru*) at key locations—this was the main interest of Assyria according to the royal inscriptions. This interest did not require that the Assyrians erect fortresses and toll stations all along major trade routes, merely at the most significant hubs and outlets, mostly the ports. These stations would catch a majority of trade, and though they could be avoided, it is unlikely that the taxation levels were extreme enough to warrant the danger, inconvenience, and restricted markets of alternative routes (although the alternative port erected at Arwad demonstrates that attempts to bypass this system existed). These interests also did not call for a top-down overhaul of the local economy with a newly improved focus on large-scale production and craft specialization.

Especially by the 7th c. BCE, with Assyrian focus increasingly directed towards Egypt, the primary interest in the southern Levant was geopolitical. It served as the major highway to mobilize a large army to Egypt, and thus was essential for security and provisioning over the course of a campaign, elements that are also clearly cited in the Assyrian texts. Part of this interest included the maintenance of the border zone separating Egypt from the Assyrian periphery. This explains the comparative wealth of Assyrian material in this region (although even this is slightly exaggerated, because, as we discussed, many sites with little to no Assyrian material culture are cited as Assyrian). All of these interests fit well within the established practices of Assyrian administrative policy as it is attested in the administrative corpus. It

appears that within the cost-benefit analysis of the Assyrian Empire, that heavy infrastructural investment in the far periphery would not yield significantly greater benefits than a policy of minimal investment. In part, this could be a result of changing policy as later kings dealt with different problems, particularly rebellion in Babylonia, and the challenges of campaigning further and further afield, or against more powerful opponents (such as Elam, Egypt, or Urartu), and it could also be inspired by a system of trial and error, in which provinces centered at Samaria and Megiddo did not prove to be worth the investment (or proved too difficult an investment, which was never completed), which might help explain the archaeological situation that led Faust (2011) to conclude that Assyria was uninterested in economic investment in the provinces.

Assyrian rule could be, and in many cases was, one of brutality and terror. Rebellion was dealt with harshly and brutally, as a warning to others. At the same time, for loyal vassals there was opportunity to thrive and advance under Assyrian rule. It was a dangerous balancing act of loyalty and rebellion, but also led to opportunities. By the 7th century, a period of relatively brief stability did nothing to dissuade the local inhabitants from their efforts to gain wealth. Assyria took its tribute and set up its customs houses for the collection of tolls and duties, but the former mostly affected the palace and the latter do not seem to have been more oppressive than previous local taxes. In short, the economic pressures imposed by Assyria were directed at a small portion of the population. Assyrian policy could be beneficial to pro-Assyrian factions either through direct patronage, land grants, or the elimination of rivals, and could be devastating to anti-Assyrian factions, who could face loss of landholdings, increased tribute demands, or even destruction. We cannot conclude that Assyria had no interests in the southern Levant. We have clearly shown a range of interests, especially non-economic interests that fueled expansion into

these areas. We can also see that Assyria did impose its desires on these vassals in specific circumstances, be it a campaign to Egypt or the provision of materials and labor for construction projects. At the same time there is no evidence that Assyrian interest took the form of a top-down imposition of new economic structures. These changes are better understood as coming from local agents, reacting to new situations caused in part by Assyrian imperial strategies (such as the re-distribution of land). This is supported by the archaeological evidence, which shows concentration of Assyrian and Assyrian-style material culture concentrated in borderland areas, the types of places we know from administrative documents from elsewhere in the empire that were the foci of Assyrian administrative investment.

How then, do we understand the role of Assyria within the larger economic system of the southern Levant? First, the Assyrian Empire provided an additional social context for advancement. This context was mostly available to local elites and officials, but this context relied on the economic logic of patronage, whereby pro-Assyrian factions were provided for in return for loyal service. Secondly, the Assyrians found ways to insert their presence into the contexts of the market and the palace. The Assyrians were particularly disruptive in the way that they changed the dynamics of the palace. Master (2014, 83-5) has demonstrated that the social context of the palace was driven by an economic logic of taxation and redistribution. However, the Assyrians limited this ability by taking away resources through tribute demands, but by returning nothing through a redistributive system. Similarly, other potential revenue sources for the monarchy, such as tolls and taxes on the institution of the market, may also have been cut into by Assyria's establishment of *kāru*. We have argued that in many cases the tribute demands of Assyria were not particularly onerous, and that neither were their taxation rates. Still, these small amounts were particularly directed at the palace. Individuals within this system could

either attempt to free themselves from the Assyrian impositions (through rebellion or other resistance strategies), or find a way to profit from Assyrian presence by engaging with the empire and accepting Assyrian patronage. Both strategies are attested, however the latter appears to have been more successful. In the case of the market, the Assyrians attempted to integrate themselves into this system. They did so by establishing tolls, duties, and fees, although it is not clear that these represented new expenses, or if they merely replaced (or supplemented) similar local systems. According to Temin's model for understanding institutional change, this activity should have raised the cost of transacting in marketplaces run by the Assyrians, and incentivized either a move towards different marketplaces, or a reduction in the exploitation of the market. This was sometimes the case (cf. *SAA I*, 179), but in the southern Levant the opposite was true and we see a rise in activities associated with the economic logic of the market, such as movements towards specialization and mass production. This reaction was the result of the complexity of the economic situation.

The Assyrian taxes may have raised the cost of transacting, but at the same time other factors were operating to lower the cost of market transactions, mostly on the part of the Phoenicians. We will discuss these changes further in chapter 5. Additionally, the Assyrian policy of deportation and redistribution of land also introduced a Malthusian shock to the economic system of the southern Levant. Sennacherib's deportations left Judah and the Shephelah depopulated, allowing for potential economic growth in the highland areas, a region that was less oriented towards the logic of the market and more focused on the social context of subsistence production by the family or clan. The extent to which these areas did participate in the market was their interaction with smaller urban centers, which would have existed outside the areas of Assyrian control and interest. At the same time, the Philistine city-states saw their

landholdings expanded with the highly productive regions of the Shephelah, perfect for the mass production of valuable export crops such as olives and grapes. This territorial expansion led to expanded production and increased incentive to participate in larger Mediterranean markets, despite any Assyrian taxes.

The overland trade routes may also have been negatively affected by Assyrian taxes. Temin (2013, 11), however, has argued that these types of transactions are not part of a price-fixing market, because the dividends are so high that small changes in transaction costs would not have affected price fluctuations in these commodities. Throughout all of this, the social context of the household or clan unit remained largely untouched by the policies of Assyria, with the exception of individuals who were killed or deported during an Assyrian invasion. Assyrian administration in vassal territories was not directed at this social context, and they were able to continue their lives in a similar manner to before. Assyrian deportations, although tragic, may have even stimulated economic growth in these contexts much in the same way as a plague, by readjusting the ratio of people to land.

Chapter 4: A View to the South-East

Introduction

In this chapter, we turn our attention to the south and southeast, examining the impact of the South Arabian caravan trade and the pastoral nomads of the desert fringe on the development of the economy in the 8th and 7th centuries BCE. Master (2014, 89) identified the caravan trade route as a specific social context. This context was driven by an economic logic of exploiting the movement of goods between production centers and market over long distances. This context included activities such as providing supplies, protection, infrastructure, and taxation. In return, the participants of this context were able to extract goods from these caravans. In order to understand the relevance of the overland trade route to the economy of the southern Levant we will first examine the evidence pertaining to the emergence and impact of the South Arabian caravan trade; afterwards we will consider the archaeological record of the southern edges of the southern Levant, mainly the Negev desert, and how changes occurring in this region fit into the larger economic context of the southern Levant in the 8th-7th centuries BCE.

The South Arabian caravan trade (also sometimes known as the spice trade, or incense trade) is one of the more enigmatic components of the Iron Age economy. Caravan trade is especially difficult to study archaeologically. The goods primarily associated with the caravans in ancient texts: gold, precious stones, and spices, are uncommon in the archaeological record. Whereas some archaeological sites have been identified as stopping points along the caravan route (notably Tel Masos in the Iron I, Kuntillet 'Ajrud in the 8th century BCE, and 'Aroer in the 7th c. BCE), there are no permanent settlements belonging to these traders, nor is there extensive evidence for local infrastructure. The textual records are all written by outsiders to the trade, such as the Neo-Assyrian kings, who were largely unconcerned with the daily workings of the

caravans. Thus, questions regarding the origin of the caravan trade, as well as its extent in various periods remain topics of scholarly discussion. The pastoral nomadic groups offer similar problems. These tribal groups leave little trace archaeologically and therefore much of our information about these groups rests on either modern ethnographic data or ancient texts. The former is an insufficient analog that assumes modern and ancient behaviors are similar,¹⁶⁷ while the latter are written by outsiders, often sedentary peoples with an antagonistic and hostile view of the pastoral nomads (Rosen and Avni 1993, 189; Finkelstein 1995, 24). Both the caravans and the nomads play a developing role in the economy of the region, but elucidating the exact nature of their role from the archaeological evidence is difficult.

We will begin our discussion by examining briefly the history of scholarship on the issue of caravans and the major hypotheses regarding its influence on the economies of the southern Levant, including Assyrian interest in this trade. We will then look at the evidence –both archaeological and textual-- such as it is preserved, regarding the origins of the caravan trade. After this, we will turn our attention to the local inhabitants of the Negev, the area transversed by these routes, in order to examine the way in which the caravans intersect with developments in this region during the late Iron Age.

South Arabian Caravan Trade

History of Scholarship

In recent years, a group of scholars have emphasized the potential value of the South Arabian caravan trade and attributed the growth of Judah's economy in the Iron II to the exploitation of this trade. One of the main advocates for this position has been John Holladay (2009, 214), who suggests that by “doing everything necessary to ensure the safety and integrity

¹⁶⁷ In some cases behaviors may be similar across time, but not all cases, and discerning which behaviors belong to the *longue durée* of nomadic behavior is difficult.

of the South Arabian camel caravans...and allowing the caravans to pass through the land...would have provided sufficient income –probably 20-25 percent of the value of the total cargo, each way—for the country to feed itself and care for its own territorial integrity without much taxation of its own citizens.” Na’aman (1995, 113) also links the prosperity of Judah to the caravan trade, which he sees as a result of Assyrian activity in the region stating: “the prosperity of the southern frontier of the kingdom of Judah is the direct result of the *pax Assyriaca* and the growth of the Arabian caravan trade that stemmed from the economic activity of the Assyrian Empire” (cf. also Bagg 2010, 208-210). Finkelstein (1992, 159) sees the Arabian trade as the central element in Assyrian interest in the region, asserting: “controlling the gateways of the Arabian trade must have been one of the Assyrians’ main goals, if not the most important one.” Tebes (2007, 619) also suggests that “A major factor in the growth of the Negev and southern Jordan was the development of the trade in southern Arabian incense,” going on to note that this trade served as “the underlying motive behind the Assyrian interests in the small states of the Levant like Israel.”

There is no consensus on this issue, due in part to the lack of archaeological evidence in support of an extensive caravan trade (Tebes 2006, 48). This leads Faust and Weiss (2005, 74) to suggest that “there is very little evidence for this (Arabian) trade at the Negev sites, and the ‘real’ evidence for trade directs us mainly towards the north and the west. Furthermore, the Arabian trade, despite its great commercial importance, involved only small-scale (though expensive) loads, and it is unlikely that it alone would cause such settlement growth.” Hopkins (1996, 137-8) follows a similar trajectory, suggesting that while the products of the South Arabian trade were valuable “the exchange of these commodities did not enhance the life of the rural zone: they were destined for the court and military and circulated only within the circumscribed range

of royal administration. They served to reinforce the legitimacy of royal rule, but had a negligible economic impact outside the palace sector.” From this very brief overview, it is apparent that scholars differ in their characterization of this trade on a number of issues, from how it functioned, to who benefited, as well as to questions of the scale, value, and impact of the caravan trade on the local economy.

The Spice Trade: An Overview

Spices were the primary goods associated with the Arabian caravans and this trade in later periods became known as the spice trade or spice route for good reason. As a prelude to further discussion, a brief description and characterization of the spice trade in ancient Near East is necessary, including its origins and the goods traded. The spices in which the South Arabian caravan trade specialized were frankincense and myrrh. Both frankincense and myrrh are produced from the resins of plants within the family *Burseraceae*, or Balsam family (Groom 1981, 100). The trees that produce true frankincense and myrrh, however, were only grown naturally in South Arabia, Somalia, and parts of Ethiopia (ibid. 9; Van Beek 1958, 142-3).¹⁶⁸ Due to the variety of incenses available and lack of specificity in the ancient terminology, it is not always easy to be sure of the exact origin and identification of goods labeled generally as “spices” or “incenses.” However, in the Assyrian royal inscriptions these general designations are primarily associated with Arabs, Sabaeans, and other groups affiliated with the caravan trade. Thus, the spice trade in the Iron Age is best associated with the trade of frankincense and myrrh produced in South Arabia and distributed across the ancient Near East and Mediterranean world.

¹⁶⁸ The *boswellia* genus that produces true or commercial frankincense, also produces other incenses that are less pure and were less desired, including varieties grown natively in India and Africa, cf. Groom 1981, 12; Van Beek 1958, 143. For a more detailed discussion of frankincense trees, their distribution, cultivation, and harvesting techniques cf. Hepper 1969.

One of the main issues surrounding the early development of the spice trade remains pinpointing the period in which the caravans began running the spices from the Arabian Peninsula to the regions to the north. Retso (1991, 198) and Crone (1987, 14-5) have both argued that the use of true frankincense in the southern Levant and the Mediterranean world is unattested prior to the 7th century BCE, and thus suggest that an extensive caravan trade could not have existed prior to this date.¹⁶⁹ A second key component in this discussion, which is also a point of contention, is the dating and location of the domestication of the dromedary and identifying how quickly the use of the camel spread and developed to the point where they became reliable beasts of burden for long distance trade.

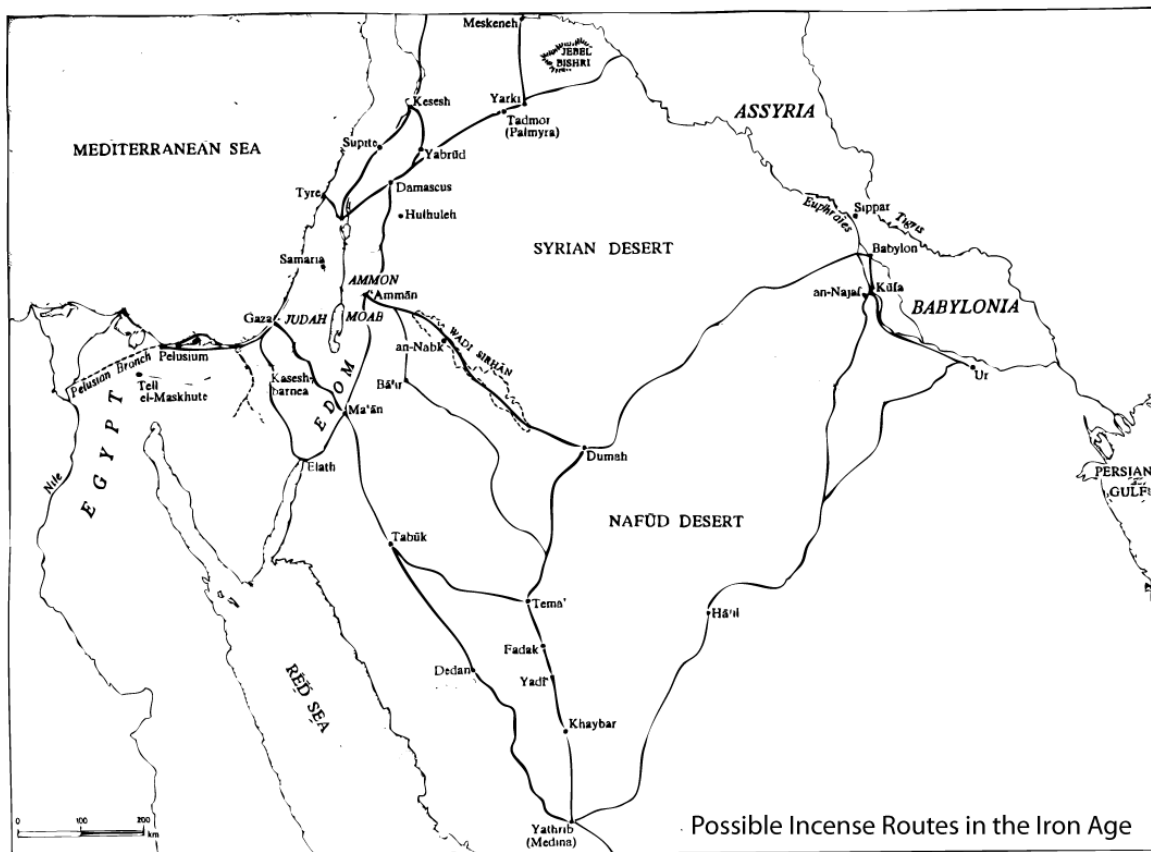
Caravan Routes

Before we begin any discussion on the goods, nature, and role of the South Arabian caravan trade, we must first establish the most common trade routes exploited by these caravans (figure 4). Unfortunately, evidence for the routes used in the Iron Age is limited and most of the data originates in later periods and is projected back onto the situation during the 8th-7th centuries BCE (cf. for example Eph'al 1982, 12-17; Beeston 2005, Byrne 2003). Whereas the final destination of these goods are clear, the exact routes may have shifted frequently over time (Bienkowski and van der Steen 2001, 24) and changed depending on the fluctuations of the political and military conditions at any given time (Singer-Avitz 1999, 5). Still, there are common routes that can give us broad guidelines for the ways in which the caravans traveled and most of these routes were centered on major arteries/oases, that served as natural hubs within a shifting network of connecting routes. These guidelines led Grant (2003, 34) to suggest that the caravan trade routes functioned as part of the regional *longue durée*, lasting from the

¹⁶⁹ Crone in particular highlights North Arabian and African spices as the aromatics mentioned in earlier texts, as opposed to true frankincense or myrrh.

domestication of the camel until the rise of modern transportation. Grant noted that because the physical characteristics of the desert, the geography and the ecology, have remained largely unchanged that “the highways of the Syrian Desert have accordingly changed but little, and the principal trade routes of the first century B.C. practically coincide with those of the nineteenth century A.D. Only political cataclysms, drastic enough to shift the centres of economic power and diver the main channels of trade, have been able to displace one group of routes by another.” Thus, according to Grant (ibid. 34-5), the ancient routes can be located by identifying the routes that are the most direct, safest, and best suited for supplying caravans with the fewest interruptions (cf. also Heiss 2012, 131).

Figure 4: Caravan Routes¹⁷⁰



¹⁷⁰ Adapted from Eph'al 1982.

Israel Eph'al (1982) describes the main outline for such routes in his study on the *Ancient Arabs*. Eph'al (1982, 14) highlights Yathrib (Medina), as the central hub for the roads from southern Arabia, and uses it as a starting point to describe the routes running north out of the Arabian Peninsula.¹⁷¹ These routes pass through major oases at either Dedan, Tema', or Ma'an. From there goods could travel west to the Mediterranean Coast and the southern Levant or Egypt, or North to Amman and on to Damascus and the western edge of the fertile crescent on the east or to the northern Levantine coast and the Phoenicians to the west. Eph'al (1982, 15) identifies Gaza, Tyre, and Damascus as the main trade hubs fed by these arteries, distributing the goods further to the Mediterranean and Mesopotamian worlds. Another set of routes diverged east from Tema' arriving at Babylon and southern Mesopotamia. This basic outline for the ancient routes is supported by Byrne (2003, 11-12), Edens and Bawden (1989, 87-8), Van Beek (1958, 145), as well as Seland (2008, 91ff) in his discussion of the routes to the Parthian and Sassanian empires, and Deblauwe (1991, 143ff).

Of the routes proposed by Eph'al, the most controversial is the eastern route reaching Babylon, southern Mesopotamia, and the Persian Gulf. Byrne (2003, 22) suggests that the route to Babylon and southern Mesopotamia did not begin until after the Neo-Babylonian period and that before this period the only way for the spice caravans to reach Mesopotamia was via the Levant. Grant (2003, 37) is similarly skeptical regarding any connection between the trade of the Arabian Peninsula and lower Mesopotamia before Mohammed, citing a lack of direct inscriptional evidence. Eph'al (1974) suggests that names and proto-Arabic script found in Babylonia dating to the 7th century support the early use of this route and that booty of gold and spices collected by Sennacherib and Esarhaddon in the region of Dumah further support the

¹⁷¹ For a description of some of the routes running within the Arabian Peninsula, based on later data, cf. Groom 1981, 165ff and Deblauwe 1991, 136ff; Heiss 2012, 131ff; and Bowen 1958.

existence of a Babylonian route in 7th century BCE. Byrne (2003, 15) disagrees, suggesting that the Arabs identified by Eph'al in southern Mesopotamia could have just as easily arrived from the north, via the Levant, and then down the Euphrates. This is certainly a possibility, but the prevalence of Arabian connections in and around Babylonia suggests a stronger connection, one that we know existed and was certainly in use by the classical period. Thus, projecting the eastern route back into the 7th century should not be seen as highly problematic. Byrne (2003) does not support this route because it undermines his assertion that the primary interest of Assyria in the southern Levant was control of the spice trade and the South Arabian caravans. A route directly from northern Arabia to Mesopotamia undermines his conclusions, which rely on limiting the access to the goods of the Arabian Peninsula to the southern Levant, an unlikely scenario.

Evidence of the Spice Trade

One of the difficulties in evaluating the role of the spice trade is the lack of direct evidence for it in the ancient records. Spices, often burned as incense and transported in sacks,¹⁷² leave little to no trace in the archaeological record. When available, textual sources are more helpful, but direct reference to the spice trade in the Iron Age texts is rare and we must often rely on information gleaned from more general discussions of interactions with Arabs and Arabia rather than specific accounts of the caravan traffic.

Archaeological Evidence

Although there is very little direct evidence for the caravan trade in the archaeological record, there are certain remains that demonstrate contact between the southern Levant and the Arabian Peninsula, in addition to some infrastructure that is best associated with caravan traffic.

¹⁷² parallels for this type of transport are well known from ethnographic data, cf. for example salt transport in recent Saudi Arabia, cf. Bowen 1958, 35

In this section, we will highlight three such finds: Inscriptions in Old South Arabian, shells from the Red Sea, and the evidence for infrastructure associated with the caravans, such ancient caravanserai or fortresses along the major routes.

Epigraphic Evidence

The first set of finds that indicate connections between South Arabia and the southern Levant are epigraphic in nature. These include ostraca, seals, and seal impressions that were inscribed either with Arabian signs or were written in local scripts but contain Arabian or Arabizing names. Despite the fact that there is no assurance these texts arrived via caravans and represent trade connections, they do represent contact between the southern Levant and the Arabian Peninsula. Given what we know of the spice trade from later periods, they serve as strong evidence for increasing connectivity between these two distant areas.

Old South Arabian inscriptions have been attested at multiple sites in the southern Levant including ‘Aroer, Jerusalem, and Beersheba. At ‘Aroer two sherds featuring South Arabian signs were excavated from late 7th-early 6th century strata. Both sherds contain a single character incised after firing on local Judahite vessels (Thareani 2011, 228). From the City of David excavations in Jerusalem, Höfner (2000, 26-7) has identified four sherds incised with South Arabian letters.¹⁷³ All the incisions were made post-firing on local vessels, using what Höfner describes as a “characteristically Judean chiseling technique.”¹⁷⁴ Of the four inscriptions, three appear to have monograms or personal names and the fourth is not clearly Arabian and may be merely a potter’s mark. Three of the sherds are dated to stratum 10 (late 7th-early 6th c. BCE), while a fourth is a surface find (ibid. 26-8; cf. also Shiloh 1987). Graffiti on a limestone object, most likely a seal (given that the letters are mirror-inverted), from the 8th c. stratum at Beersheba

¹⁷³ Sass has argued that these sherds may not all be South Arabian, and some could just as easily be north Arabian or even Greek (1990).

¹⁷⁴ On chiseling technique cf. Avigad 1972, 3; Nadelman 1990, 31.

has been identified as Old South Arabian script, but the stone itself is of local origin (Singer-Avitz 1999, 50-52; Van der Veen and Bron 2014, 205). A further find comes from Tell el-Kheleifeh in the form of a jar with two South Arabian monograms, but the dating of the piece is unfortunately uncertain (Bron 1995, 84). Glueck dated these inscriptions to his level IV, which represent the late 7th/early 6th centuries BCE (Divito 1993, 62).¹⁷⁵ A seal impression stamped into a jar handle from the 6th/7th century stratum at the Edomite site of Gharreh contains what has been identified as possible Hejazi-Thamudic script from western Arabia and likely records a personal name.¹⁷⁶ Other seals are written in local scripts, but may contain Arabian names and have been identified by Van der Veen and Bron (2014, 209-17) at Horvat 'Uza, Buseirah, 'En Hazeva, and possibly En-Gedi.

Shells from the Red Sea

A second set of finds that show links between the Arabian Peninsula and the southern Levant are shells from the Red Sea. While these shells are not direct evidence for the caravan trade, they do support the movement of goods from at the very least North Arabia, in the vicinity of modern day Elat, and thus they are worth mentioning here. In Jerusalem, the earliest example of a shell fragment originating from the Red Sea appeared during the Iron I (str. XV), with a single example of a *cyprae annulus*, a cowrie shell with the dorsum removed in a manner typical of shell beads from East Africa (Mienis, 1992, 123). Three Red Sea shell fragments are attested from stratum XIV, with a further three appearing in stratum XII, one in stratum XI, and three in stratum X. Due to the variances in samples sizes it is not possible to say that these then increased in frequency in the later Iron Age, but there is a consistent presence of Red Sea shells in Jerusalem throughout the Iron Age. Shells from the Nile River are also present and show

¹⁷⁵ For discussion on proposed identifications of the script cf. Divito 1993.

¹⁷⁶ For other suggestions of the identification of the script cf. Van der Veen and Bron 2014, 208.

evidence of Egyptian connections. As such, it is possible that some of the Red Sea shells are more indicative of Egyptian connections, especially in the Iron I and early Iron II, than of connections with the Red Sea via the South Arabian caravan trade. Another option is that these materials came from Judahite holdings in the south. The site of Tell el-Kheleifeh, located on the Gulf of Aqaba on the Red Sea, has been identified with the biblical town of Ezion-Geber or Elath and was constructed and occupied during the Iron Age, with architecture typical of the Negev fortresses of Judah (Pratico 1993, 28-34). If we understand Tell el-Kheleifeh as a Judahite town, it follows that Judah had holdings as far south as the Red Sea. Such holdings are also suggested by the biblical text.¹⁷⁷ In this case, it is possible that goods from the Red Sea were acquired and transported from Judah's southern frontier and have no link to the caravan trade.

Further examples of engraved Red Sea clam shells were found at Arad and Ekron and were decorated in a Phoenician style (Brandl 1984b, 2001). Such shells have a wide distribution across the entirety of the ancient Near East and Mediterranean (cf. Brandl 1984a, fig.20; 2001; Reese and Sease 1993, 2004) and the decorative patterns suggest that even if the raw material was obtained from the Red Sea, they were decorated in workshops elsewhere, likely Phoenicia or North Syria, and thus these too are poor indicators for the extent of the caravan trade.

Another set of Red Sea shells have been identified from the excavations at Kadesh-Barnea, from strata spanning the Iron II and into the Persian period. Already in stratum IV, dated to the Iron IIA, there are 17 *cyprae annulus* shells, and two complete *tridacna* shells, both of which continue to be well attested in stratum III (Iron IIB) and II (Iron IIC), where many of the former type are in the form of cowrie beads (Bar-Yosef Mayer 2007, 274-77). Fourteen shells originating from the Red Sea were found in the excavations at 'Aroer (Bar-Yosef Mayer 2011, 298-9), six from the late 8th century strata at Tel Halif (Ktalav and Borowski 2010, 127), and

¹⁷⁷ For a survey of the biblical references to Ezion-Geber/Elath cf. Pratico 1993, 17-18.

three at Kuntillet 'Ajrud (Mienis 2012, 332). Bar-Yosef Mayer (2007, fig.18.3) also notes that *cypraea annulus* are well-attested across the ancient Near East in Iron II assemblages including Tell el-Kheleifeh, Buseirah, Qitmit, Tel Masos, 'Aroer, Lachish, Ekron, Timnah, Megiddo, Beth She'an, and as far north as Tell Sheikh Hamad. Bar-Yosef Mayer (2007, 281; 2011, 299) suggests that the prevalence of this type of shell is interesting because they are quite rare in the Red Sea and around the Gulf of Aqaba, which is the closest source from which they can be acquired. She further notes that these shells could have been used as currency or shell money due to their rarity, however she notes that other uses as decoration or jewelry were also possible. The rarity of these shells in the Red Sea may be a result of over exploitation in the past and may not reflect the situation at the end of the Iron Age (2007, 280-1). Similar to the case we discussed above, the shell assemblages here show connections with both the Red Sea area and the Nile River area (cf. also Bar-Yosef-Mayer 2007, 283) and it is possible that some of the shells common in both the Red Sea and the Erythrean Sea come from the eastern coast of Africa via Egypt.

Infrastructure of Trade

Having examined a few sets of artifacts that demonstrate possible links between the southern Levant and the Arabian Peninsula, we will now turn our attention to architectural features that may be indicative of trade caravans crossing southern Judah. The development of regular long-distance trade is expected to leave some kind of imprint on the regions it crosses in the form of various types of infrastructure. The best recorded evidence we have for ancient trade patterns comes from the Old Assyrian caravan trade. A recent study by Barjamovic (2011, 19-26) describes the type of infrastructure associated with the Old Assyrian trade, features that we might also expect for the South Arabian trade. These features include roads, bridges, ferries,

guardposts, inns, and waystations. For a variety of reasons such infrastructure is not easy to identify in the case of the South Arabian trade. In part, this is due to differences in the nature of the trade. Without a use for wagons or other wheeled vehicles the need for well-maintained roads is diminished. Furthermore, the route from the Arabian Peninsula is lacking in major river crossings. The one area where we would expect to find more evidence is in the form of caravanserais, which served as inns or waystations to feed and water animals and traders. Even these, however, are less crucial in the case of the South Arabian trade given the camels' more limited need for water in comparison to the donkeys of the Old Assyrian caravans. Finally, it must be noted that Barjamovic's study is dealing with a trade route that, at the time period of his investigation, was fully developed. Barjamovic (2011, 1) observes that the trade originated much earlier, but that direct evidence is lacking and that it took time for the physical infrastructure to evolve. This may also be the case in our present study. The period of our examination coincides with the early stages of development. By the time of Pliny, for example, we know that there were designated roads with stations located at intervals of one day's travel stretching all the way from the Arabian Peninsula to Gaza. This period reflects more accurately the fully developed infrastructure that is in its nascent stages during the late Iron Age.

Thus, in this section we will examine the potential archaeological evidence for infrastructure associated with the South Arabian caravan trade, including caravanserais and guardposts or fortresses. Important sites in this regard are Kuntillet 'Ajrud, 'Aroer, and Kadesh-Barnea. A string of fortresses that are built in the Negev in the 7th century may also be significant. Thareani-Sussely (2007, 124-8) has already laid out in sufficient detail the groundwork for studying ancient caravanserais, identifying the general characteristics and architectural layout of these types of sites. She identifies four main features for identifying a

caravanserai: 1) proximity to trade route, 2) separation from local population, 3) existence of sleeping accommodations, and 4) food preparation and consumption areas. Additionally, she identifies four additional supplementary features that may be present: animal holding pens, security post or fortress, trade centers, and water supply systems (2007, 128). According to Thareani, every building identified as a caravanserai should contain the four primary features whereas the secondary features are circumstantial. We will use these criteria as a baseline for examining potential caravanserai in the southern Levant.

The first site for discussion as a possible caravanserai is Kuntillet 'Ajrud. Ze'ev Meshel (2012, 68-9), the original excavator, identifies Kuntillet 'Ajrud as a Levitical commune established by the Northern Kingdom of Israel, serving as a religious center that lacked an active cultic element and as a waystation for desert travelers or caravans. The site was dated by Carmi and Segal (2012, 61) to the end of the 9th/beginning of the 8th c. BCE using carbon-14 dates taken from tamarisk beams found at the site (cf. also Segal 1995, 212; Meshel et al. 1995, 211). Finkelstein and Piasezky (2008, 176-7) have called into question the accuracy of these dates. They suggest that part of the reason behind Carmi and Segal's dates may be old wood, that is to say, the long life-span of the timbers used in construction. They suggest that the 9th/8th c. BCE dates provided by Carmi and Segal can only provide a *terminus post quem* for the foundation of the site. In their reanalysis of the carbon-14 dates, they suggest that the samples group in two date clusters: one around the 9th/8th c. transition, representing the founding of the site; and the second group clustering around 745 BCE, representing the last period of use prior to the abandonment of the site (ibid. 179, 184). Carmi and Segal (2012, 61-2) counter this re-analysis by suggesting that these results are due to the dendrochronology calibration curve for the Iron II, which plateaus from ca. 750 BCE onwards, the period from which Finkelstein and Piasezky's

second grouping is taken. The relative dating of the site according to the pottery has also been the subject of debate. In the initial publication, Ayalon (1995, 198) suggested that the assemblage dated to the end of the 9th/beginning of the 8th c. BCE. This dating has been called into question by Singer-Avitz (2006, 209), who countered that the assemblage at Kuntillet 'Ajrud best parallels the assemblages of Lachish III and Beersheba II, 8th century sites destroyed by Sennacherib in 701 BCE. Freud (2008, 172) argues that although Singer-Avitz's parallels from Lachish III and Beersheba II are accurate, the same forms have parallels in the Iron IIA, and thus maintains that Ayalon's original dating should not be discounted. Finkelstein and Piasezky (2008, 176) have suggested that the difference in dating is essential for determining the function of the site, in particular for identifying the site's role in relation to Judah, Israel, and Assyria, as well as its place in broader discussions of relative chronology dealing with both pottery and epigraphy. However, for our purposes the difference is minimal.

Judith Hadley (1993, 123) has led arguments that the site is better understood as a desert waystation. She suggests that nothing about the site other than the inscriptions supports the identification of the site as religious and in terms of its location, construction, and lack of distinct cultic items, that the identification as a caravanserai is more logical. She further notes that the diversity of material culture present at the site, including strong northern and Phoenician elements, suggest that the site was used by a diverse group of people, such as one would expect from overland traders (cf. also Lipinski 2006, 375). Rainey and Notley (2006, 224) prefer Hadley's identification of the site as a desert waystation, emphasizing the lack of cultic or sacrificial artifacts. Kuntillet 'Ajrud was well positioned to take advantage of traffic on important North-South and East-west trade routes. The site lies along the main route connecting Elath and the Red Sea in the South with Gaza and the Mediterranean in the north, about 50 km south of

Kadesh-Barnea. The site also lies along the East-West route crossing the southern Sinai via wadi Qurayya and is located on one of the few water sources in this arid region, containing a number of wells (Meshel 2012, 3). Thus, Kuntillet 'Ajrud fit the first primary feature set forth by Thareani: proximity to trade routes. The isolated nature of the site fulfills the second criteria of separation from local population, and qualifies the site as what Thareani describes as a "road caravanserai" (2007, 124). Building A at Kuntillet 'Ajrud was built according to a plan very similar to the standard rectangular plan described by Thareani (2007, fig.2.2) as common to these caravanserai, although Meshel (2012, 12) rightly notes that the layout of the building is similar to that of a fortress with its four towers. However, Thareani (2007, 127) notes that caravanserai were often fortified and that the difference between a fortress and caravanserai architecturally is minimal. The lack of casemate wall noted by Meshel (2012, 12) could be an indication that this was a fortified caravanserai rather than a desert fortress, thus fulfilling one of the secondary criteria for identification--fortification. Ceiling fragments and tamarisk branches indicate the building was roofed, and staircases indicate that it had a second story (Meshel, 2012, 15, 19). Thareani suggests that in cases where one or more staircases are found it is likely indicative of second storey, and possibly a flat roof that could be used for further accommodations. If this is the case at Kuntillet 'Ajrud, the second floor could fulfill the third feature: need for sleeping accommodations. No animal pens were identified, but there is evidence for an animal feeding trough which Meshel suggests stood in an area meant for the tethering of pack animals (2012, 21), thus fulfilling a similar function. Although no cisterns were identified, the wells located at the base of the hill near the site can be considered a water supply system (Thareani 2007, 127). The final primary criterion for identifying a caravanserai was a food preparation and consumption area. In Building A at Kuntillet 'Ajrud, Meshel (2012, 36-40, 67) identified a

cluster of tabuns in what he termed the eastern kitchen, which was added in a later phase to replace or supplement a similar installation on the west side of the building. Meshel suggests that these, along with a general paucity of cooking vessels are an indication of communal cooking at the site. Thus, building A at Kuntillet 'Ajrud fits all of the primary criteria and most of the secondary criteria laid out by Thareani for the identification of a caravanserai. These features are also many of the same ones presented by Hadley (1993, 123) in her original critique of Kuntillet 'Ajrud as a religious site, where she noted that: "The architecture of the western building at Kuntillet 'Ajrud seems to be better suited for a caravanserai, with a large inner courtyard for cooking and to house the animals, rooms off the courtyard to store grain and provisions for travelers, and steps probably leading to a first floor, where the travelers themselves could spend the night." Meshel (2012, 67), however, makes the important observation that there is much more to this site than the criteria mentioned above. He emphasizes the unique nature of the finds, such as the drawings and inscriptions, which do not have known parallels. However, as Meshel himself notes, it is hard to find parallels for an 8th century desert waystation because no other examples are known (2012, 67). The best we can provide in such circumstances are broad criteria from cumulative data about caravanserais in general, and the weight of these data supports a structure that is similar to the occupation at Kuntillet 'Ajrud. The existence of a significant religious or cultic element at the site remains possible but this does not preclude a potential function as an early caravanserai at a major junction between a north-south route that connected Gaza and the Mediterranean, and an east-west route across the Sinai.

The excavations from the late Iron Age strata at 'Aroer served as the type-site for Thareani's description of ancient caravanserais (Thareani 2007, 137-38; 2011, 169-70). Thareani concludes that the Area A building functions as a caravanserai of the rectangular layout, and a

corner fortress or tower (2011, 169). Small rooms surrounding the courtyard, as well as a possible second storey and roof, could have been used as accommodation for guests. The courtyard could have served as a pen for animals and the location of the building outside of the fortifications near an extramural neighborhood provided separation from the local population. The location of the site on the southern edge of the Beersheba Valley gave it access and proximity to major trade routes passing through this valley including a western branch of the South Arabian trade route towards Gaza. Finally, tabun ovens found in the central courtyard point to food preparation and consumption in the area (Thareani 2011, 169-10, 2007, 136-8). Many of the features identified in the Area A building are quite similar to those of the Kuntillet 'Ajrud building A, further strengthening the idea that the former served as a caravanserai.

A final site important to this discussion is Kadesh-Barnea, the main site located along the route connecting Elath and the Red Sea in the south with Gaza and the Mediterranean in the north-west. The excavators identified Kadesh-Barnea as a fortress based on architecture typical of such buildings, which are commonly found in the Negev in the Iron II (Cohen and Bernick-Greenberg 2007, 7-16). As we noted above, the difference in architectural layout between a fortress and a caravanserai may be minimal and the excavators list the rectangular plan of Kuntillet 'Ajrud as the closest architectural parallel to their building (ibid. 2007, 12). The settlement at Kadesh-Barnea, however, includes some important differences. The fortifications are better built and more extensive than those attested at Kuntillet 'Ajrud, including eight towers and a casemate wall. The interior space is also more compacted than at Kuntillet 'Ajrud, featuring less courtyard space for the potential keeping of pack animals and as a food preparation and consumption area. Instead, the interior contains features such as a large cistern (water supply system), granary, and public building (ibid. 15). All of these features point to an identification of

the site as a fortified administrative center, following the suggestion of the excavators (ibid. 16). Finally, some extramural settlements were associated with the fortress, but it is clear that the fortress itself was the dominant feature of settlement in the area. Thus, although Kadesh-Barnea was located in proximity to a major trade route, there is little evidence of any separation from the local administration for a caravanserai. Similarly, the areas for accommodations and food preparation and consumption are suspect. The site was fortified and maintained a good water supply system, but lacked clear holding pens for animals or trading centers. While some of these areas could presumably be located outside of the walls, the site better resembles a desert fortress and administrative center than a caravanserai.

Having distinguished between a desert fortress and potential caravanserai, it is worth looking at other examples of desert fortresses that were constructed around the Negev in the 7th century BCE. These fortresses can also be examples of infrastructure for long distance trade, tasked with protecting the caravans and securing important junctures. Examples of such buildings include Horvat Radum, Horvat Tov, and Horvat 'Uza. The fortress at Horvat 'Uza was constructed according to a thick-walled rectangular plan and featured a number of towers (Beit-Arieh and Cresson 2007a, 15). The interior of the fortress contained a number of complexes, fulfilling a variety of functions (ibid. 29-47). Horvat Radum was a smaller, rectangular fortress with a single gate and a large open courtyard. The building was considerably smaller and less complex than the fortress at Horvat 'Uza (Beit-Arieh and Cresson 2007b, 306-315). Thus, we can see that there are some structural similarities between the fortresses and the caravanserai and it is possible to suggest multiple functions for some of these buildings.

Incense Altars

Although not a product from South Arabia, incense altars have also been cited as a signifier of Arabian trade as indicators for an increased use of incense (Retso 1991, 198). Small cuboid limestone altars begin to appear in greater numbers around the Levant specifically, but also the ancient Near East as a whole, beginning in the late Iron Age including finds at sites in Mesopotamia and Arabia (Singer-Avitz 1999, 44; Stern 1982, 182; cf. also Zwickel 1990). Albright (1945, 28) originally suggested that such altars were of South Arabian origin,¹⁷⁸ although Stern (1982, 194) has more recently convincingly suggested an Assyrian origin. Singer-Avitz (1999, 44) generally follows Stern, suggesting a possible Middle-Euphrates origin, based on examples excavated there from the 2nd-3rd millennium BCE. Gitin (2002, 108; 1989; 2009) has likewise noted an increase in a different type of altar in the Iron II. These altars were locally styled four-horned incense altars, which became particularly prominent in the 7th century layers at Ekron and Ashkelon. Haran (1993) has argued that these four-horned altars should not necessarily be associated with incense, but these arguments are adequately refuted by Gitin (2002, 107). The prevalence of this form in the Late Iron Age and Persian period may be related to an increased availability and use of Arabian incense, no matter the origin of the altar's form. This conclusion is supported by an inscribed example from Lachish dating to the Persian period that bears the word for incense, *lbnt* (Lemaire 1974, 67).

Textual Evidence

The biblical texts are a very important source for discussions of the origins of the spice trade. However, this discussion is complicated by the difficulties of dating certain texts and pinpointing the introduction of incense into the Israelite cult. Before reviewing the relevant texts,

¹⁷⁸ Later study showed that the South Arabian examples had been misdated too early, and do not belong to the late Iron Age, cf. Stern 1982, 183; Bowen and Albright 1958.

we will thus briefly introduce these critical issues, followed by an examination of the specific terminology relevant to the use of spices and incense.

Incense in Biblical Scholarship

In the history of biblical criticism, from as early as Wellhausen (1885), incense has been viewed as a late addition to the Israelite cult. Wellhausen (1885, 64-5) suggested that the biblical authors down until the time of Jeremiah knew nothing of incense or an incense offering, citing the lack of references to incense in texts associated with an early Iron Age context, such as Amos, Micah, first Isaiah, Samuel, and Kings. Wellhausen further suggested that when used in texts dating to this earlier period the Hebrew verb קטר referred to the burning of fat or meal, not incense, and that the קטר is a generic term meaning “anything burnt on the altar” (ibid. 64). Wellhausen went on to suggest that the absence of the altar of incense in Exodus 25-29, only appearing in chapter 30, was another indication that the sacrifice of incense was linked to the priestly code and was a later introduction into Israelite cult. Wellhausen concluded that the offering of incense was a natural result of increased luxury during the late Iron Age and suggested that incense infiltrated Judahite worship practices through the influence of more luxurious foreign cultic practices (ibid. 65). The presuppositions of Wellhausen in this regard are found throughout later scholarship on this issue. A brief look at the lexical entry for קטר־קטר in *HALOT* reveals two entries, following the distinction made by Wellhausen (2001, 1095). Jan Retso follows Wellhausen’s division of קטר־קטר, but then turns specifically to deal with the issue of frankincense (לבנה), suggesting that all references to frankincense sacrifice date to ca. 600 BCE or later. Based on this interpretation Retso (1991, 198) claims that: “there are thus good reasons to assume that frankincense was introduced into the Israelite cult at the end of the 7th century BCE.” He further suggests that this dating corresponds with the appearance of

frankincense in Syria and across the Mediterranean, noting in particular the absence of any mention to frankincense in the Homeric epics, with the earliest known reference in Greek coming from the works of Sappho in the 7th century BCE (ibid. 198; cf. also d'Agata 1997). Retso then makes the circular conclusion that all references to frankincense in the Bible must be seen as post-dating the 7th century BCE. By characterizing incense as a “late” or “priestly” development, Wellhausen and Retso do not necessarily demand a post-exilic date for the introduction of incense (although both would date P to this period). Both view the reference to frankincense in Jeremiah as the earliest attestation of the import of these spices, and thus suggest the 7th century as the *terminus post quem* for the origin of the spice trade and its use in the Israelite cult.

Nielsen (1986) has shown skepticism towards Wellhausen’s conclusions regarding the introduction of incense. Nielsen notes that קטרת seldom occurs outside of books generally attested as “late” or the P source. Nielsen argues that in these other occurrences the meaning of קטרת is unclear and it could refer to either incense or sacrifice in general (Wellhausen’s argument, Nielsen 1986, 53-4). In particular, Nielsen examines the duties of the priest in 1 Samuel 2:28. This passage lists the duties of the priest as “ לעלות על מזבחי להקטיר קטרת לשאת אפוד לפני” This can be translated: “to mount the altar in order to burn sacrifices and to carry the ephod before me,” but alternatively it could be translated “to mount the altar, to burn incense, and to carry the Ephod before me.” Nielsen (ibid. 53-4) suggests that this second option provides for two types of the sacrifice. The first duty involves mounting the altar to burn sacrifices (citing this idiom in 1 Kings 12:32-3), and the second duty involves a separate offering practice of burning incense. Thus, Nielsen (ibid. 102-3) argues that 1 Samuel 28 lists three priestly duties, one of which is burning incense, and uses this passage as proof that incense burning existed in the

Israelite cult prior to the end of the monarchic period. Nielsen (1986, 103) similarly questions Wellhausen's suggestion that the introduction of incense into the temple cult came from contact with luxurious foreign cults at that time, suggesting that the main external contacts of this period were Assyria and Babylonia, both of whom were known to Israel from earlier periods. He goes on to suggest that the religion at that time reacted against the foreign cults of Mesopotamia, rather than adopting their practices. He supports this by referring to the reforms of Hezekiah; however he ignores other evidence for religious synchronism with foreign cults, commonly condemned by the prophets.¹⁷⁹ Instead, Nielsen (ibid. 103) suggests that the burning of incense was a common practice within the Canaanite cult and that the practice of incense burning, as well as the cultic utensils, were adopted from the Late Bronze Age Canaanites. Nielsen does not cite any evidence in support of this claim, but incense was known to be very popular from an early period in the religious ceremonies of Egypt.¹⁸⁰ Incense is mentioned frequently in ancient Egyptian texts and incense burners are well attested archaeologically. Incense was particularly important in the funerary rituals, as evidenced by depictions of the offering of incense in the Book of the Dead (Lucas 1962, 90).

Having surveyed the difficulties of pinpointing the emergence of incense in the Israelite cult, we will now turn our attention to an examination of the texts that make reference to spices--specifically frankincense and myrrh. As a prelude to our discussion of the textual references to the spice trade, a few words regarding the terminology of the spice trade are in order.

¹⁷⁹ Cf. for example 2 Kings 16:10ff, 2 Kings 17:16, 2 Kings 21, etc.

¹⁸⁰ Earliest references date to the 5th/6th dynasties, and the earliest artifacts come from the fifth dynasty (Lucas 1962, 90).

Terminology

לבונה - frankincense

Regarding frankincense, the word used in all semitic languages to describe this resin was derived from the root *lbn*, meaning white, likely referring to the milky color of the resin itself (Kellerman 1995, 442; Retso 1991, 190). This matches the description of Pliny, who states that “the frankincense from the summer crop is collected in autumn; this is the purest kind, bright white in color” (*Nat.Histories*XII:32). Similarly, the “white incense” mentioned in Papyrus Harris, likely also referred to frankincense (Lucas 1962, 91). Both the Hebrew לבונה as well as the Akkadian *labanātum* were derived from this root.¹⁸¹ The South Arabian origins are also reflected in the Greek (*libanos*), leading Retso (1991, 191) to suggest that all derivations of the term were based on the original name for the resin in South Arabian-- *libān*. Kellerman (1995, 441) likewise suggests that the term in Hebrew was a loanword from Old South Arabian. A form of the same word, *lbnt*, is attested in Punic alongside *qtrt* in a text discussing various festival offerings (Donner and Röllig 1962-1964, NR.76B 6) and a similar form was found inscribed on an incense altar at Lachish (Lemaire 1974). The term occurs 21 times in the Hebrew Bible (cf. table 4). Koehler and Baumgartner suggest that the earliest of these occurrences is attested in Jeremiah (*HALOT*, 518). Nine occurrences are in the Pentateuch, in contexts dealing with the making and offering of incense, all of which are traditionally considered part of the Priestly source (Kellerman 1995, 443; Houtman 2000, 310; Prop 2006, 496; Levine 1993, 200; Milgrom 1991, 61; Dozeman 2009, 41), which is traditionally dated to the post-exilic period, sometime after Ezekiel (Houtman 2000, 332).¹⁸² Of these occurrences, seven are in Leviticus with lone

¹⁸¹ Cf. Retso 1991, 190 for the lexicography of other Semitic languages.

¹⁸² We acknowledge that there is still discussion involving the appropriate dating of the P source. While an important issue, this discussion is less relevant to the argument at hand. Retso bases his argument on the assumption that the incense trade does not begin on a large scale until the late 7th/early 6th century, and all references to

references in Exodus and Numbers.¹⁸³ Three references come from clearly late contexts, one in Chronicles and two in Nehemiah. Of the final nine occurrences, three are found in Song of Solomon, three in Isaiah, and three in Jeremiah. All of the occurrences in Isaiah are in chapters 40-66 and thus belong to either Deutero or Trito-Isaiah (Kellerman 1995, 443).¹⁸⁴ While the dating of Song of Solomon is under debate, with advocates for both early and late authorship, the majority of scholars seem to favor a later, post-exilic date (Murphy 1990, 3-6; Pope 1977, 22-33). Without getting bogged down in the details of dating these texts, it is fair to say that the critical consensus would date these passages to later periods, with the earliest dating sometime in the late 7th or early 6th century BCE (cf. discussion in Retso 1991, 194ff). Most of the references from the Pentateuch belong to the priestly code, which has a similarly late date. Thus, based on the distribution of the term within the Old Testament, Wellhausen (1885, 64-6) could claim that frankincense entered into Israelite cultic practice only late in the Iron Age.

The Akkadian cognate *labanātum*, like its Hebrew equivalent, was likely a loanword from the Old South Arabian *libān*, rather than the West Semitic cognates that are indicated in *The Chicago Assyrian Dictionary*. This technical term was used mainly in medicinal texts¹⁸⁵ and does not occur in any royal inscriptions or descriptions of the spice trade. Another form from the

frankincense must be later than the occurrences in Jeremiah. Retso's argument could still hold in light of a pre-exilic dating of P, as long as it did not pre-date Jeremiah. For discussions on the dating of P cf. Houtman 1994, 432ff.

¹⁸³ Exodus 30:34, for discussion on the arguments surrounding the source criticism of this text cf. Utzschneider 1988, and Houtman 2000, 325-35; Numbers 5:15 cf. Levine 1993, 200; for passages in Leviticus cf. Milgrom 1991, 61-3.

¹⁸⁴ The dating of these texts depends on one's interpretation of the unity and number of Isaiah's. Most scholars support at least two, and sometimes 3 Isaiah's (1-39, 40-55, 56-66). Deutero- and or Trito-Isaiah are generally dated to the latter half of the 6th century. Cf. discussion in Paul 2012, 1-12, dealing with the questions of a Trito-Isaiah and the dating of the three possible authors.

¹⁸⁵ Cf. Labat 1959 37:8, for a reference in a text dated broadly to the Neo-Assyrian Period, cf. also list of occurrences in Ebeling 1948, 137.

same stem, *lubbunu*, may also refer to frankincense¹⁸⁶ but occurs rarely and only in the Neo-Babylonian period (cf. *CAD L*, 231).

Table 4: Occurrences of Frankincense and Myrrh in the Hebrew Bible

	P	Prophets	Late Contexts	Wisdom
Frankincense	Exod. 30:34 Lev. 2:1-2, 15-16; 5:11; 6:15; 24:5 Num. 5:15	Is. 43:23; 60:6; 66:3 Jer. 6:20; 17:26; 41:5	1 Chr. 9:29 Neh. 13:5,9	SS 3:6; 4:6,14
Myrrh	Exod. 30:23		Est. 2:12	Ps 45:8 Pr. 7:17 SS 1:13; 3:6; 4:6,14; 5:1,5,13

קטרת – incense

קטרת is a general term that refers broadly to incense, or more specifically to the pleasant odor of the smoke offering or the action of burning incense. The term is derived from the semitic root *qtr*, meaning smoke (Clements 2004, 11). קטרת can thus refer to either the materials being burned or the ritual of offering. In its basic meaning קטרת can refer to any item that goes up in smoke and thus can indicate any type of offering; it is only in later contexts that the term evolves to denote specifically incense or an incense offering (Wellhausen 1885, 64; Nielsen 1986, 52). The term is used 61 times in the Hebrew Bible and over half of those occurrences in Exodus (18) and Numbers (21). The contexts where this term is used are generally strongly associated with the action of burning incense. The term is also found at times in parallel with the term for frankincense, לבנה. קטרת is also attested in a Punic inscription dealing with perfumes or incense offerings for a festival, where the term is mentioned alongside frankincense (Hoftijzer and Jongeling 1995, 1007, cf. also Donner and Röllig 1962-1964, 93-4). A cognate stem is also attested in Akkadian, where the nominal form *qatāru* is rare, but the verbal form is well attested.

¹⁸⁶ *CAD* translates “incense?” (231)

Ebeling (1950, 278) suggests that the form *qatranu* should have a meaning of frankincense, however the *Chicago Assyrian Dictionary* (CAD Q, 175) suggests that this is a cedar resin or tar (based on an Arabic cognate). The verbal form in the D-Stem, *qutturu*, parallels the usage in Hebrew meaning “to make something smoke,” or “to make an incense offering” (ibid. 166-7). The more common nominal form *qutrīnu* is derived from this stem, with a meaning of “censer,” “incense,” or “incense offering” (ibid. 323-4).

בשם – spice, perfume, balm

בשם is a general term for aromatics, including various kinds of spices, perfumes, balms, or fragrances (similar to the Akkadian *riqqu*). As such, this term is more of a category of items and does not refer to a specific plant or product (Nielsen 1986, 67). In Exodus 30:23 myrrh (מר), cinnamon (קנמן), sweet cane (קנה), and cassia (קדה) are all listed as בשמים. Furthermore, the term was used as an adjective in the same passage to describe the type of cinnamon, sweet cane, and cassia (eg. קמנן-בשם). Thus, Ezekiel can claim that the people of Sheba and Raamah dealt in the “choicest of aromatics,”¹⁸⁷ without indicating any specific product. בשם is also the term used to describe the gifts brought by the queen of Sheba to Solomon.

The term occurs 30 times in the Hebrew Bible and is mentioned specifically in contexts of trade and luxury goods, such as the aforementioned passage in Ezekiel describing the trade of Tyre, the Queen of Sheba narrative, and the contents of Hezekiah’s treasury. Thus, while this term appears in early contexts, it is quite unhelpful because it is not useful for distinguishing one type of spice from another, nor has it any inherent indication of the origin of the spice.

מר- Myrrh

The Hebrew מר comes from the root *mrr*, meaning bitter, and is a cognate to the Akkadian term *murru* (Hausmann 1997, 557). Like frankincense, true myrrh was only found in parts of South

¹⁸⁷ Ezekiel 27:22

Arabia and east Africa (Groom 1981, Farber 1993, 536). The term is infrequent in the Hebrew Bible, occurring only 11 times, mostly in later contexts such as Song of Solomon and Esther.¹⁸⁸

It is possible that this term, like its Akkadian cognate, did not necessarily refer to the specific resin that originates in South Arabia. *The Chicago Assyrian Dictionary* notes that “the references to the seeds of the *murru*-plant show clearly that the designation *murru* does not always only refer to the costly imported resin but rather to a native ‘bitter’ plant” (*CAD M2*, 222, cf. also discussion in Farber 1993, 536-7).

In the royal inscriptions and contexts of tribute and booty, the term used to describe the spices related to the caravan trade and South Arabia is *riqqu*. The term *riqqu* is a general term used to describe any aromatic plant from the Old Babylonian period onwards (*CAD R*, 368). The sign is used as a determinative to indicate items within the broader class of spices or aromatics. This term can refer to incense, perfume, or medicine (ibid. 368-9). Even in tribute lists *riqqu* is not necessarily a product of South Arabia. There are examples of *riqqu* referring to the resins from cedars and other plants of the Lebanon and Amanus areas (cf. *CAD R*, 370). Thus, this is an umbrella term that certainly includes not only the spices of South Arabia, but also many other aromatics and mixtures used primarily for incense, perfume, and medicine. In this manner, the term is similar functionally to the Hebrew בשם , and is not particularly helpful for identifying specifics of the spice trade.

Incense in Egypt

The earliest reference to frankincense specifically within a Near Eastern context comes from Egypt, but may refer to material of an African rather than a South Arabian origin. Incense in general played an important role in the Egyptian funerary cult and as such, aromata were well

¹⁸⁸ For the occurrence in Exodus 30 cf. discussion above regarding frankincense and the dating of that passage to the Priestly Source.

attested in Ancient Egypt. Resins of various types are attested as early as the pre-dynastic period in funerary contexts (Nielsen 1986, 3), with real frankincense appearing archaeologically as early as the 18th dynasty. In Egypt, incenses were loosely associated with the land of Punt which is located somewhere south of Egypt (Kitchen 2002). Thus, it is possible that Egypt had access to frankincense from east Africa and Somaliland long before the domestication of the camel and the development of the South Arabian caravan routes. The best known venture in search of these aromatics was Hatshepsut's venture to Punt in the 15th c. BCE. In Egyptian there were two common words for incense-- *sntr* and '*ntyw*' (Nielsen 1986, 5). The former was a general term for incense and could refer to the products of many different trees and resins, including those native to the Levant, such as the cedar or other terebinth resins (Lucas 1962, 91, Nielsen 1986, 13-14).¹⁸⁹ '*ntyw*', on the other hand, is specifically native to Punt. Nielsen (1986, 14) suggests that the term, rather than referring specifically to frankincense or myrrh, was a collective term for the chief resins of the *Boswellia* species and thus could refer to either of the main products of South Arabia and Somaliland. Even as a general term for Punt-incense, as Nielsen suggests, this term would pre-date any of the specific terminology found in Semitic languages of the Levant and fertile crescent by hundreds of years.

Discussion

The fact that direct references to frankincense and myrrh were rare, and invariably late, led Retso (1991) to suggest that frankincense was incredibly rare or unknown prior to the late 7th-early 6th century BCE. If this were the case, the spice trade could not be viewed as a major contributor to Judah's economy until the Neo-Babylonian period. This dating would also eliminate the spice trade as a motive for Assyrian interest in the region. Retso's conclusions,

¹⁸⁹ Steuer's proposition that *sntr* refers to frankincense during specific periods, most notably the 18th dynasty (Hatshepsut), is unlikely (1937).

however, may be somewhat premature. There are plenty of data supporting the spice trade as early as the 8th century, including Assyrian involvement and interest in it, from the Suhu Governor's inscription to the tribute lists of the Assyrian kings. The earliest Akkadian attestation of *labanātum* occurs in technical medicinal texts and not in any of the tribute lists. In some cases, despite non-specific terminology, the context suggests that the general aromatics in question were the goods of the South Arabian caravan trade. Thus, even though it appears that the South Arabian loanwords that become the technical terms for frankincense and myrrh are late editions to the lexicon, their adoption may reflect the pace of linguistic adaptation and not a lack of relevant trade prior to the late 7th-early 6th centuries BCE. The Egyptian evidence attests that such spices were available, if on an exceedingly limited basis, from much earlier periods.

South Arabian Inscriptions

What is potentially the most important text describing the Iron Age incense trade is unfortunately also the most problematic. Published in 2009 by Bron and Lemaire (2009, 11), the text is a Sabaean bronze dedicatory inscription made using the lost wax technique. It is unfortunate that the text is unprovenanced and was purchased on the antiquities market. The piece itself comes from the problematic Mousaieff collection, which is known to have contained certain forgeries. Nothing questioning the authenticity of this piece has yet been published, but that may be due to the fairly recent nature of this text's appearance. Forgeries in this collection, such as the Jehoash inscription and the James Ossuary have distinct biblical connections. The fact that this text discusses connections between South Arabia and Israel naturally raises questions regarding its authenticity. To compound matters, the publication was conducted by Lemaire, an excellent epigrapher, although one not always known to be a skeptical reader of dubiously provenanced texts. The formulaic nature of dedicatory inscriptions and the repetition

this text shares with other inscriptions may have made it easier to forge. Unfortunately, we are unaware of the prevalence of Sabaean forgeries, or of the difficulty to forge this type of bronze inscription, which could lend support to its authenticity. If authentic, this would prove the most important textual reference to the ancient spice trade and thus it warrants discussion here, although the reader is urged caution due to the unprovenanced nature of the text.

The 26-line text opens with a dedicatory formula introducing the dedicator (Sabahhumu) and his lineage (lines 1-5a). It goes on to discuss his military accomplishments, including a campaign with Saba' against Ma'in and a second campaign against Hadramawt (5b-12). In a third section, he records his commercial ventures (13-16), and finally, he recounts a diplomatic mission to collect tribute by order of the king (16b-26). For the purposes of this study the commercial venture of Sabahhumu is the most significant portion. The key portion of the text reads as follows: "...when he carried on international trade and led a caravan to Dedan, Gaza, and the towns of Judah, and when he was safe and sound was sent from Gaza to Kition during the war of Chaldea and Ionia" (Lemaire 2012, 94).

This text is dated paleographically to sometime between the 7th-5th centuries BCE (Bron and Lemaire 2009, 19), however Bron and Lemaire (2009, 21-3) suggest that the text can be more precisely dated to ca. 600 BCE, using the "war between Chaldea and Ionia" as a lynchpin. Although a war between the Neo-Babylonian Empire and Ionia is not clearly attested in the Neo-Babylonian records (while such conflict is well-attest about a century later with the Persian campaigns to Greece), Bron and Lemaire suggest that this refers to campaigns in Cilicia conducted in 605 BCE by Nebuchadnezzar, a region known to have been inhabited by Ionians (cf. also Lemaire 2012, 95-7). Lemaire (2012, 101) further suggests that this date conforms to the dating of the reign of the Sabaean king, Yada'il Bayin son of Yitha'amar (ca, 590 BCE), who is

mentioned in the text.¹⁹⁰ Thus historically, although Lemaire attempts to fit the text into a late 7th-early 6th century context, this dating is not certain, although the paleography would help support his earlier dating. Even with a late 7th-early 6th century date this text postdates slightly our period of focus, but it would still present the best available representation of late Iron Age caravan trade. The route proposed in this text fits with what we know from later periods, proceeding from South Arabia, through Dedan, and on through Judah on the way to Gaza. Perhaps the most interesting development hinted at in this text was the continuation voyage from Gaza to Kition in Cyprus, a connection unattested elsewhere. This text further suggests that the caravan trade was not a down-the-line affair, with goods moving from one Bedouin group to another to travel long distances, but that instead it was undertaken by South Arabians who stayed with their cargo, even potentially into the Mediterranean.

Biblical Texts

The South Arabian trade is mentioned several times in the Bible, often in passing, and in texts of questionable or later dating. Still, we will summarize the references here. Overall, the texts share a common theme, associating the South Arabian trade with specific goods such as camels, spices, gold, and precious stones.

The most informative biblical text that discusses the South Arabian caravan trade comes from Ezekiel's description of the long-distance trade of Tyre in chapter 27. This passage will be discussed in greater detail in chapter 5, but a short summary of the implications of this text for the caravan trade are worthy of discussion here. The significant portion of the text reads: "Dedan was your (Tyre's) merchant in saddlecloths for riding. Arabia and all the princes of Qedar they were your dealers on your behalf, in lambs, rams, and goats; in these they were your dealers. The

¹⁹⁰ It must be noted that the Sabaean chronology is difficult, and 590 is not the only proposed date for Yada'il Bayin's reign, with two proposed dates in the 4th century BCE (cf. Lemaire 2012, 95-6).

merchants of Sheba and Raamah, they were your merchants in the choicest of spices and every type of precious stone and gold they sold as your exports.”¹⁹¹ This text presents three useful aspects of the caravan trade: 1) caravans were traveling from varying origins within the Arabian Peninsula and arriving at Tyre. 2) The products of South Arabia (Sheba and Raamah) were spices, gold, and precious stones, exactly the types of goods we traditionally associate with the caravan trade and the same goods frequently mentioned in Assyrian texts in association with the Arabs. 3) The Arab tribes of Northern Arabia and the Transjordan/Syrian desert were associated with herd livestock and saddle blankets, not exotic wares. This last point argues against the suggestion that all early mention of Arabs and caravan trade refer only to North Arabia. This text makes a distinction between the goods from the South and the goods from the North of the Arabian Peninsula. Despite this, Arabs and other northern tribes still have strong associations with spices, gold, and camels in the Assyrian texts. Similarly, caravans are also occasionally associated with some of these northern locations. Isaiah’s oracle against Arabia, for example, calls out to the “caravans of the Dedanites,”¹⁹² an area more closely associated with Edom and the Transjordan, not the distant South Arabia.

Another frequently cited textual attestation of the caravan trade comes from the Queen of Sheba¹⁹³ narrative set during the reign of Solomon. The text, from 1 Kings 10:1-3 reads as

¹⁹¹ Ezekiel 27:20-22, see tables 7 and 8 in chapter 5 for further discussion and commentary on this text and translation.

¹⁹² Isaiah 21:13; Dedan is frequently associated with sites in Northern or central Arabia, cf. table 7 in chapter 5.

¹⁹³ Linking the Queen of Sheba to the South Arabian caravan trade is based on the link between Sheba and the South Arabian kingdom of Saba’, which is generally followed. However, it must be noted that not all scholars agree on a South Arabian origin for the Queen of Sheba. Groom argues for a North Arabian origin (1981, 52-3, cf. also review of scholarship on this question in Mulder 1998, 509-10. For a counter argument cf. Eph’al 1982, 63-4; Beeston 2005), suggesting that the spices are not the traditional frankincense and myrrh, but other types of Aromatics. Groom also notes that Arab queens from northern Arabia are well attested in the Neo-Assyrian literature, whereas Saba’ was ruled by kings (1981, 52-3). Groom further suggests the possibility of an African origin for the Queen of Sheba, following Josephus (Ant. VIII: 165-175), which label her as ‘Queen of Egypt and Ethiopia.’ Certainly the Ethiopian connection with the Queen of Sheba has been preserved in local traditions (cf. discussion in Mulder 1998, 508ff. on the various proposed locations of Sheba). Further Bibliography on proposed locations of Sheba is provided by Nam 2012, 86-7 n.65.

follows: “and when the Queen of Sheba heard of the news of Solomon regarding the name of the Yahweh, then she came to test him with hard questions. She came to Jerusalem accompanied by a very large caravan including camels carrying spices, much gold, and precious stones. She came to Solomon and to him regarding all that she wanted to know.” This passage has rightly been interpreted as more than a mere ‘peep show’ for the wisdom of Solomon, but rather a trade mission, in which the Queen of Sheba brought a bribe to ensure her interests in the Red Sea region. Thus, this passage is seen to link directly to the end of 1 Kings 9, which recounts Solomon’s construction of a fleet at Ezion-Geber in order to send ships to Ophir for gold (cf. Wiseman 1993, 129; Mulder 1998, 507).¹⁹⁴

This passage is frequently cited as evidence of advanced caravan traffic as early as the 10th century BCE,¹⁹⁵ but the dating of this text to that period is questionable. Nam (2012, 86), for example, describes this passage as a legendary tale from the Persian period, noting elements such as a foreign queen, exotic riches, and the intellectual contest with Solomon.¹⁹⁶ Nam’s interpretation follows earlier arguments which tried to separate the historical aspects of Solomon’s reign from the later legendary accretions. Scott (1995, 267), for example, notes that regarding this passage “the bliss of his subjects, the far extent of his dominions, the power of his chariot force, the superlativeness and fame of his intellect, the incomparable splendor of his court, the vast size of his harem...it is surely significant that such extravagant descriptions of royal magnificence are found elsewhere only in the Bible in Esther, Daniel 1-4, and Chronicles.” Scott goes on to recognize the wise king in the splendid court as part of a stock subject within Midrashic tales of post-exilic books (namely Esther and Daniel). That this story was interesting

¹⁹⁴ For a counter argument cf. Cogan 2001, 315-16, who argues that such attempts at historical reconstruction ignore the main point of the story, which is centrally a text about wisdom.

¹⁹⁵ Cf. Aharoni 1967, 2; Elat 1979, 532; Liverani 1992, 113;

¹⁹⁶ Wiseman characterizes the exchange less as an intellectual competition, but more as an attempt by the Queen of Sheba to discern whether or not Solomon is an acceptable business partner (1993, 129).

to the later readers and interpreters is clear from the expansions and tales associated with this story in later sources.¹⁹⁷ Cogan (2001, 315) suggests a date around the end of the 8th or beginning of the 7th century BCE, coinciding with what he views as the period when trade flourished between Judah and South Arabia. Cogan, however, has no data other than his impressions of appropriate historical setting to support this decision.

Early commentators tended to view the tale as a legend, based on the distance traveled, and the unlikelihood of an Arabian Queen traveling as far north as Israel,¹⁹⁸ but this bias has been overturned by more recent evidence showing extensive connections in later periods between the Arabian Peninsula and the larger ancient Near Eastern world. Despite claims for later authorship, there is nothing in the language of the text that demands a later date, and as research into the archaeology of the Arabian Peninsula progresses, the presence of an early kingdom with extensive trade connections in the early Iron Age becomes increasingly plausible. As such, this text cannot and should not be dismissed as a definitively later addition to Solomon's legendary character; however, doubts regarding a 10th century origin of the story, suggest that basing our understanding of the origins of the caravan trade purely on this text would be equally ill-founded. Thus, although the dating of this passage has been questioned, it is a clear reference to the South Arabian caravan trade. The author, like Ezekiel, associates this trade with camels, spices, gold and precious stones. Whether or not this text represents an early or later Iron Age, or even Persian account, the description of the trade and its goods is consistent with other written sources.

¹⁹⁷ For a survey of these occurrences cf. Silberman 1974.

¹⁹⁸ Citations, cf. Montgomery and Gehmann 1951, who cite Meyer and Olmstead in the legendary category, although many scholars of Ancient Arabia from the late 20th century held a similar view, cf. Retso 1991, Groom 1981, 52-4; Crone 1987, 14-15.

Other biblical passages make passing reference to the caravan trade. Isaiah's oracle concerning Egypt (Is: 30), states that "they carry their riches on the backs of donkeys and their treasures on camels' humps to a people who cannot profit them."¹⁹⁹ Later, when prophesying of a glorious future for Israel and an inpouring of wealth from the nations the author writes "A multitude of camels will cover you...all those from Sheba will come; they will bring gold and frankincense."²⁰⁰ While this passage is likely of post-exilic origin, it follows the pattern of earlier texts, describing the goods of the caravan trade as spices, gold, and camels. Notable in this text is the particular mention of frankincense (לבנה), as opposed to the more common general terms 'spices' (בשם) or 'incense' (קטרת). The use of this term may be further indication of the post-exilic date of the text. Jeremiah, written in the context of the late 7th-early 6th century BCE, also makes passing reference to the caravan trade and the riches of South Arabia. While prophesying against Judah, Jeremiah declares: "Thus says the Lord...for what purpose does frankincense come to me from Sheba, and the sweet cane from a distant land? Your burnt offerings are not acceptable and your sacrifices are not pleasing to me."²⁰¹ Once again we see a connection between frankincense and the land of Sheba. Here we also a description of one potential use: as an offering of incense. Job makes passing reference to the "caravans of Tema" and the "travelers of Sheba,"²⁰² but the text offers no new insights, and the dating of this text is difficult.

Assyrian Texts

The best attestation of the caravan trade from the Assyrian world comes from Suhu, a Mesopotamian district located in the Mid-Euphrates region (cf. Na'aman 2008, 220-2). A subset of texts, dating to the mid-8th century BCE, belonging to the governor of this region-- Ninurta-

¹⁹⁹ Isaiah 30:6b.

²⁰⁰ Isaiah 60:6

²⁰¹ Jeremiah 6:20

²⁰² Job 6:19

kidurri-uşur, commemorate (among other things) the raid of a merchant caravan belongs to Temanites and Sabaeans. Ninurta-kidurri-uşur recorded the capture of a caravan, including 200 camels and 100 people (cf. *COS* 2.115B). This text confirms that by the mid-8th century camel caravans were being conducted overland by people from the Arabian Peninsula (Temanites and Sabaeans). Almost a century earlier, Tukulti-Ninurta II received camels, spices, gold, and antimony, among other goods from an Amme-Alaba of Hidanu, also located in the Middle Euphrates region. The traditional association of some of these goods with the South Arabian caravan trade may be a good indication that the trade was already flowing through this region at that time (cf. Grayson 1991, 175).

The commodities in the possession of the Suhu caravan included camels, dyed wool, iron, and precious stones, along with “every kind of merchandise.” The text is unfortunately broken, so some items are missing. Interesting here is the lack of spices; however, it appears that the main items of the caravan may have already been traded for other goods, mainly those of Phoenician and Mediterranean origin such as the purple wool and iron. This text could then be used as a marker for the trade interests of the caravans.

The Temanites and Sabaeans are also mentioned in some of the Neo-Assyrian royal inscriptions. Tiglath-pileser III records that “The people of the cities of Mas’a and Tema, and the tribe Saba, the people of the cities Hayappa, Badanu, and Hatte, and the tribes Idiba’ilu, who are on the border of the western lands, whom none of my predecessors had known about, and whose country is remote, heard about the fame of my majesty and my heroic deeds, and thus they beseeched my lordship. As one they brought before me gold, silver, camels, she-camels, and all types of aromatics as their payment and they kissed my feet.”²⁰³ This indicates the first clear interaction between the Assyrian Empire and the Sabaeans (or at least a group of them). Not all

²⁰³ Tadmor and Yamada 107, 111

the tribes mentioned are clearly South Arabian and the fact that Tiglath-pileser III appoints Idiba'ilu as the "gatekeeper to Egypt" suggests that some of these groups are better situated in the area between North Arabia and North Sinai. Because of the northern affiliations of some of these tribes Eph'al (1982, 88) has suggested that these Sabaeans are nomadic tribesmen, who operated further north and did not represent the kingdom of Saba' in South Arabia. It is more likely that this text reflects a combination of North and South Arabian tribesmen, all of whom may have had some level of involvement in the trade.

From the Assyrian texts it is clear that the goods associated with the tribute of these tribes is consistent with the portrayal in the Bible of the goods of the South Arabian caravans, namely camels, gold, and aromatics. Silver was a common addition, but it was a common part of most Assyrian tribute lists and represented a form of transferable wealth, not a trade good.

The first clear contact with the kingdom of Saba' occurred during the reign of the next major Neo-Assyrian ruler, Sargon II. Sargon II recorded an early campaign to the southern Levant that included the conquest of Samaria and continued down to Gaza. Following the capture of Gaza, Sargon II recorded the tribute of Samsi Queen of the Arabs and It'amar the Sabaeans in the form of gold dust, horses, and camels. Whereas the interactions of Tiglath-pileser III had been with the "people of Saba'," Sargon II received tribute from It'amar the Sabaeans, who has been linked to one of the Sabaeans rulers, or *mukarribs*,²⁰⁴ from the late Iron Age in South Arabia, likely Yitha'amar Bayyin I (Eph'al 1982, 228-9; Galter 1993, 36). A stone inscription from the reign of Sennacherib describing the building of the *Akitu* house of Assur, recorded a foundation deposit of goods received from Karib-II, king of Saba', including precious stones and aromatics (Grayson and Novotny 2014, 16, 248; Frahm 1997, 145-46). A set of small

²⁰⁴ *Mukarrib* is the pre-kingship title for the Sabaeans ruler, which lasted until around the 1st c. CE. Among the Yitha'amar is listed among the common names for these rulers (Robin 2002, 52).

stone beads are similarly inscribed as part of an audience gift received by Sennacherib from this same Karib-II (Grayson and Novotny 2014, 146-150). These are similar to set of inscribed beads that are recorded as part of the booty from Dumetu, likely the Arabian city of Adummatu (ibid. 151-55). The Karib-II mentioned in these texts most likely refers to Karib'il Watar, or Karib'II the Great, another one of the *mukarribs* of Saba' who reigned during the late 8th-early 7th century BCE and was responsible for the expansion of Sabaean territory in the Arabian Peninsula (Robin 2002, 51, 58; Galter 1993, 34-6).

At this point, it is worthwhile to highlight cases of tribute received from Arabs and other desert tribes, including tribes from the Syrian Desert and Northern Transjordan, Sinai, the deserts south of the fertile crescent, and Northern Arabia, in addition to the South Arabian connections. Most of the tribes mentioned in these texts have been identified and preliminarily located geographically by Eph'al (1982). The tribute of these tribes includes common elements such as gold (sometimes specifically gold dust), spices (*riqqu*), precious stones, and camels (cf. table 5). These items fit with descriptions of the spice trade both from the Bible and from later classical accounts. Thus it seems that the desert tribes, even those far to the north played some role in the distribution of Arabian goods.

Table 5: Arabian Tribute from the Neo-Assyrian Royal Inscriptions

Assyrian King	Submissive/Conquered Person/Tribe	Tribute Paid/Booty Taken ²⁰⁵
Tiglath-pileser III	Zabibe Queen of the Arabs	Unclear, certainly camels, likely gold and silver as well ²⁰⁶

²⁰⁵ Note that rather than an exhaustive list, this column is meant to highlight certain goods and patterns. Thus persons taken as tribute/booty are not listed. Nor are certain specialty items such as captured deities, royal relatives, or vague statements along the lines of “all X’s property” or “the contents of his/her treasury” etc.

²⁰⁶ The text list gold, silver, tin, iron, elephant hides, multi-colored garments, linen, blue and purple dyed wool, ebony, boxwood, and camels. This list is deceptive, however, because Zabibe Queen of the Arabs is listed as part of a group of tribute payers, which includes many powerful kingdoms of North Syria. Many of these goods are better associated with a place such as Tyre or Carchemish than the Arab Queen.

Table 5 (cont.)

Tiglath-pileser III	Samsi Queen of the Arabs	30,000 camels, 20,000 oxen, 5,000 pouches of aromatics
Tiglath-pileser III	Cities of Mas'a, Tema, Tribe of Saba', cities of Hayappa, Badanu, and Hatte, tribe of Idiba'ilu	Gold, silver, camels, all types of aromatics
Sargon II	Samsi Queen of the Arabs, Itamar the Sabaeen	Unclear, certainly camels and spices, likely also gold dust and precious stones. ²⁰⁷
Sennacherib	Tel'hunu, city of Kapanu (also Adummatu and Hazael)	Precious stones (<i>pappardilu</i> , <i>papparminu</i>), wood (<i>hasuru</i>), spices (onyx and agate beads from reign of Sennacherib marked as booty from Dumetu)
Sennacherib	Karib-II	<i>Pappardilu</i> stones, choice stones, aromatics
Esarhaddon	Hazael King of the Arabs	+65 Camels (+10 donkeys), gold and silver
Esarhaddon	Iata' (Ia'lu)	+10 mina gold, +1000 choice stones, +50 camels, +1,000 bags of aromatics
Ashurbanipal	Iauta'	Cattle, Sheep, Donkeys, Camels without number
Ashurbanipal	Abijate'	Gold, precious stones, antimony, donkeys, camels, (yearly)

Origins of the South Arabian Caravan Trade

A central issue for discussing the impact of the South Arabian caravan trade is correctly identifying when the rise to prominence of the Arabian caravans took place. In our previous discussion of the textual attestations of the South Arabian caravans, we have already established certain parameters for a *terminus ante quem* in the early Iron II. A key factor, however, in the

²⁰⁷ List includes tribute from “The kings of the coast and the west: Pir'u King of Musuri, Samsi Queen of the Arabs, and It'amar the Sabaeen, and includes, gold dust, precious stones, ivory ebony seed, spices, horses, and camels

emergence of the caravan as a viable means of transporting goods across large expanses of arid land was the domestication of the dromedary as a useful pack animal. In this next section, we will examine the earliest evidences for the domestication of the camel.

*Domestication of the Camel*²⁰⁸

The main limitation to desert travel is the scarcity of water. Water scarcity made these desert regions impassable to large merchant caravans or military groups prior to the widespread domestication of the camel (Eph'al 1982, 11). There are two species of camel, the two-humped or bactrian camel, which is found throughout parts of Asia and is better adapted for life in cold arid environments, and the one humped camel or dromedary, which is native to many hot and arid to semi-arid regions of the middle east (Bornstein 1990, 231-2). Both types of camel were known in the ancient Near East and appear in Akkadian textual and visual sources, however, for the purpose of the Arabian caravan trade our concern lies specifically with the dromedary or Arabian camel. The dromedary is specifically adapted to life in desert regions, due primarily to their ability to conserve water. During the rainy season, camels may receive enough moisture from food and not need to drink at all, while during the dry season they require water approximately every 6-10 days, depending on the temperature (ibid, 233-4). Camels will also eat almost anything and tend to eat sparingly while on the move. Thus, are less likely than other herd animals to overgraze an area and they graze on a wide variety of plants, including almost any available leaves or herbage, making their diet practically unlimited (Varisco 2012, 153-4). Therefore, although the camel consumes a large amount of food (est. 25-35kg of plant matter a day with a minimum of 5kg), their ability to forage and browse as they travel limits the need to

²⁰⁸ Unless specifically marked as Bactrian all mentions of camels in this section refer to the dromedary.

pack fodder for them (ibid. 154-5).²⁰⁹ For these reasons, the introduction of the domesticated camel was essential to the exploitation of the spice route. The camel opened up desert routes previously inaccessible due to the limitations of other beasts of burden (in particular donkeys). Camels are also much stronger than donkeys or horses, and are able to take heavier loads. Based on data from the Roman period, Colin Adams (2007, 80) estimated that the average camel could carry about twice the load of a donkey, equaling approximately 400lbs,²¹⁰ which corresponds to the recommendations of the British army veterinary service from the 19th century CE for prolonged journeys (Seland 2011, 402). According to ethnographic data, the pace of a loaded camel is approximately 2.5 mph over flat terrain, and thus an average day's travel will cover 20-25 miles.

Much of the early research on the domestication of the camel was conducted by Bulliet (1975), who suggested a three part domestication process. In the first step, the camel was domesticated by pastoral nomads as a herd animal for the use of its milk and hair. During the second stage, the camel was converted into a beast of burden and used as a pack animal. During the final stage, the camel was developed for riding and was used for raiding and warfare as well as transportation (1975, 49ff). Uerpmann and Uerpmann (2002, 249-50) disagree with this progression, arguing that the domestication process for large animals is too expensive, given the restrictions and time of captive breeding. Thus, they conclude that like the horse, the camel was domesticated with transport, rather than herding in mind and that desert transport in response to the rise of the domesticated horse, rather than the milk produced by the camel, was the main impetus behind its domestication (2002, 249-50). Recently, Magee (2014) has returned to the

²⁰⁹ Although as we will discuss further in the logistics of caravan travel this can slow down movement as camels go searching for feed.

²¹⁰ Adams notes that over short distances strong camels were able to carry up to 800 lbs, however given the likely size and distance covered by the ancient caravans such numbers were unlikely employed and the average load seems a better number (2007, 80).

idea that the impetus for camel domestication was not for transport, but rather for meat and milk. Magee points to the evidence of the camel as a hunted species that was overexploited for meat during the Bronze Age and suggests that with dwindling populations the animals began to be kept and bred. According to Magee's reconstruction, the use of the camel as a pack animal was inspired by encounters with bactrian camels, which had been domesticated and used for transport since the 3rd millennium, that possibly took place in the Arabian Peninsula, Levant, or middle Euphrates.

Textual Evidence

To make matters more confusing, when dealing with the Akkadian texts three different terms for camel are preserved: *udru*, *ibilu*, and *gammalu*, which are sometimes written with the Sumerian logograms AM.SI.HAR.RA.AN/AM.SI.KUR.RA, ANŠE.A.AB.BA, or even ANŠE.GAM.MAL respectively. This last term gains prominence in the late Neo-Assyrian period (the reign of Sennacherib and following) and is clearly a late writing based on the phonetics of *gammalu*. Generally, *udru* refers to bactrian Camels, whereas *ibilu* = ANŠE.A.AB.BA refers to the dromedary, with *gammalu* serving as the more common term for the dromedary, especially in the Neo-Assyrian period (cf. *CAD U/W* 22; *CAD I/J*, 2; *CAD G* 35-6). Unfortunately, this distinction is not always carried out in the Assyrian texts. Shalmaneser III mentions ANŠE.A.AB.BA, with two humps (Grayson 1996, 149-150). Similarly, the practical vocabulary of Assur lists ANŠE.A.AB.BA = *gammalu*. Thus, these terms are not always clearly distinguished. *Ibilu* is the early (pre Neo-Assyrian) term for dromedary. The term occurs as early as the lexical lists from Ras Shamra, which go back to Old Babylonian forerunners (cf. *CAD I*, 2; Lambert 1960, 42-3). *CAD* suggests that the lexical texts show that scribes as early as the Old Babylonian period differentiated between dromedary and bactrian camels, however this is not

clear from the early lexical texts, which only mention the *ibilu*. This leads de Maaijer and Jagersma to suggest that the term refers in fact to bactrian camels and not dromedaries (contra CAD, 2003/4, 355). Certainly by the advent of the use of *gammalu* both types of camelid were well-known, and in the later texts the division between bactrian (generally written ANŠE.*uduri/udrate*) and dromedaries (generally written ANŠE.GAM.MAL.MEŠ) was more consistent. Through the reign of Sargon II ANŠE.A.AB.BA is the preferred writing when referring to camels. The 30000 ANŠE.A.AB.BA.MEŠ, taken by Tiglath-pileser III from Samsi are certainly dromedaries. Both types are mentioned together as part of the booty seized by Sennacherib during the defeat of Merodach-Baladan (Grayson and Novotny 2012, 51).

Udru is likely a loanword into Akkadian from an Indo-Iranian branch of an Indo-European language. Bulliet (1975, 153-4) notes the use of the term *ushtara* in the Rig Veda and Avesta and more importantly the appearance of the same form in a 6th c. BCE Old Persian inscription. While this occurrence still post-dates the appearance of *udru* in Akkadian by centuries, it hints that the term used in Akkadian originated somewhere in the Iranian plateau, closer to where the domestication of this animal took place and that same term is preserved into Old Persian, possibly deriving from the Indo-European root meaning ‘to carry’ or ‘to haul’ (ibid. 154-6). *Ibilu* is likely a loanword from Arabian, preserved in Arabic, where the generic term for camel is *ibil* (cf. Bulliet 1975, 144). The fact that this is a generic term in Arabic, and is linked to ANŠE.A.AB.BA in the lexical texts, may explain why in some cases animals under this designation are described as having two humps. Finally, *gammalu* is certainly a loanword from west semitic, possibly originating with the root expressed *jamal* in Arabic, or the Old South Arabian *gml*, although the word may have entered Akkadian through any number of semitic sources, particularly Aramaic.

The earliest textual reference to camels (*gammalu*) as part of the South Arabian caravan trade comes from the records of the governor of the district of Suhu, discussed in the previous section. Camels themselves are mentioned earlier in texts dating to the reign of Ashur-bel-kala, in the 11th c. BCE. In the middle of a text recounting the wild animals Ashur-bel-kala has hunted or obtained, he mentions that he sent out merchants to acquire *burhiš*²¹¹, *tešenu*,²¹² and camels. The camels the king claims to have formed into a herd, bred, and displayed to the people (Grayson 1991, 103-4). It is not certain, however, that this text refers to dromedaries (despite this translation by Grayson). If *burhiš* refers to yak, an origin for these animals somewhere in the steppes rather than Arabia would be preferable, which is more fitting for a bactrian camel. The Akkadian word used here is *udrate*, from *udru*, which is better associated with the bactrian camel (as opposed to *gammalu*, which is more frequently associated with dromedaries or *ibilu* which is the proper term for dromedary). Tukulti-Ninurta II (890-884 BCE), records the receipt of tribute including gold, silver, antimony, spices,²¹³ tin, bronze, camels (once again *udrate*), oxen, donkeys, sheep, etc. from a certain Amme-Alaba from the city of Hidanu on the middle Euphrates (Grayson 1991, 175). *Udrate* are similarly mentioned as tribute from Hidanu once again during the reign of Ashurnasirpal II (ibid. 200; Liverani 1992, 159). As the Neo-Assyrian kings came in increasing contact with Arab tribes camels became an increasingly frequent part of booty or tribute. In the 9th century, Gindibu the Arab brings 1000 camels (*gammalu*) to the battle of Qarqar (as recorded on the Kurkh Monolith) and in the 8th century Tiglath-pileser III claims to have received at one point 30,000 camels as booty taken from Samsi, the Queen of the Arabs (Tadmor and Yamada 2011, 146; line 20'). By the reign of Ashurbanipal, the Assyrian king

²¹¹ Unknown animal, CAD suggests some form of wild foreign ox, possibly a yak (*CAD B*, 329).

²¹² Unknown animal of foreign origin.

²¹³ Translated by Grayson as Myrrh, written ŠIM.SES (SES = Akkadian *marru*, to be better, hence the association with Myrrh or *murru*).

claims his raids against the Arabs have been so successful that camels were bought at the market gate for a shekel, or even half a shekel of silver (cf. Fales 1996, 24). While this statement is more one of abundance and prosperity than an accurate sale guide,²¹⁴ it reflects increasing access to camels throughout the Neo-Assyrian Empire, which accompanied increased interactions with Arab tribes, culminating in the Arab campaigns of Ashurbanipal. Camels were frequently cited as tribute from the time of Tiglath-pileser III onwards, and appear to have become quite common across the ancient Near East by the 7th century BCE at the latest.

The Bible cites camel use as early as Genesis, in the patriarchal narratives of Abraham (Genesis 12:16), Isaac (Genesis 24), and Jacob (Genesis 31:17). However, most scholars accept that these references are anachronistic, stemming from later Iron Age or Post-exilic redactions and reflecting a time when the dromedary was already domesticated, a position argued already in the 1940's by Albright.²¹⁵ The camel, however, is referenced in Judges 6, a passage of archaic Hebrew poetry generally thought to be among the more archaic of the biblical texts. Its citation there, as well as in Judges 7-8 and various times in 1 Samuel,²¹⁶ argues for the presence of the domesticated dromedary as a mount in the early Iron I. These texts primarily associate the camel with nomadic groups living on the desert fringes, such as the Midianites and Amalekites, groups who would have inhabited areas where early camel bones have been identified in Iron I contexts.

Finkelstein (1988, 247) uses this textual data to conclude that the use of the domesticated camel as part of the South Arabian camel trade developed during the late 2nd millennium BCE. Liverani (1992, 13), also basing his analysis on the textual records from Mesopotamia and the Bible, claims a late 10th century date for the beginning of South-Arabian caravan trade. Scholars of ancient Arabia tend to date the beginning of the spice trade to a few centuries later, with Retso

²¹⁴ Cf. Hawkins 1986 on ideal prices and the rhetoric portrayed by these texts.

²¹⁵ 1942, 96; cf. also 1960, 206-7.

²¹⁶ 15:3; 27:9; 30:17.

(1991, 198) and Crone (1987, 14-15) suggesting that frankincense was unknown or very rare in ancient Israel prior to the 7th century BCE.

Archaeological Evidence

Apart from the faunal evidence for dromedaries, which we will discuss in the following section, there are also depictions of dromedaries found in artistic representations, such as reliefs and cave drawings, as well as figural representations. The earliest appearances in the Assyrian reliefs include a scene at the Balawat Gates (Bulliet 1975, 74-75), but others are attested from the reign of Sargon II in corridor 10 at Khorsabad (Bär 1996, 238). Later depictions are also found from the reign of Sennacherib in the reliefs depicting the siege at Lachish and in depictions of Ashurbanipal's campaign against the Arabs (Bulliet 1975). An orthostat from Tell Halaf was dated by Oppenheim to ca. 3000 BCE, however more recent studies have shown the piece to be much later (cf. Bulliet 1975, 80; Sapir-hen and Ben-Yosef 2013, 278). Camel figurines are also attested, especially in Egypt. These examples, however, especially the ones from early contexts, need not represent domesticated individuals. The same can be said for the appearance of camels in rock drawings at sites such as Wadi Hammamat, Ethbai, Wadi Halfa, and Aswan (cf. list of early references to camels in Egypt in Forbes 1965, 197-8). These types of finds, along with faunal remains (which were assumed to be domestic, but must be re-evaluated given the more recent findings of Uerpmann and Uerpmann), led to the assumption that the camel was known in Egypt, at least in a limited manner, as early as the first dynasty. These data (for full list cf. Forbes 1965, 197-9) have been repeated more recently in defense of the early domestication of the camel (specifically cf. Kitchen 2003, 338-39),²¹⁷ however in most cases both the identification and dating of these objects is under question. Similarly, in most cases these

²¹⁷ Forbes also notes that despite these earlier possible attestations that the dromedary is a “fleeting bird of passage” only introduced as a beast of burden during the Neo-Assyrian period and later (1965, 199).

representations can just as easily represent interactions with wild dromedaries, rather than serve as proof of early domestication (cf. Sapir-hen and Ben-Yosef 2013, 278). Similar claims regarding early finds from Mesopotamia and the Levant can be found in Bulliet (1975, 57-64) and Free (1944), but these are similarly problematic.

Faunal Remains

In addition to the textual data for the origins of the domesticated camel and the South Arabian caravan trade, we also have access to the faunal material from archaeological excavations, which can help elucidate the dating of the domestication of the camel. Of particular difficulty in this regard is discerning between domesticated and non-domesticated dromedaries from their faunal remains. This difficulty is due part to the fact that by the time of modern zoological study the wild relatives of the domestic dromedary had long since disappeared, and the fossil record for the wild ancestors was insufficient (Uerpmann and Uerpmann 2002, 235-6; Burger 2012, 17). This problem has been mitigated by recent finds of dromedary remains from excavations such as the Neolithic site of Al-Buhais-18 in the UAE, dating to the 5th-early 6th millennium BCE. This find, from a context long before any proposed domestication of the camel, is good evidence for a wild, hunted species of Dromedary in the Arabian Peninsula from the Late Stone Age (Uerpmann and Uerpmann 2002, 236).²¹⁸ These Stone Age examples are supplemented by a plethora of Bronze Age examples of dromedary remains in south-east Arabia, including finds at Saar, Qala'at al Bahrain, Bahrain, and the Oman Peninsula (ibid. 238). In particular, the sites of Umm an-Nar and Tell Abraq show evidence of dromedary remains from the 3rd millennium strata (ibid 238). While the amount of camel bones at sites such as Umm an-

²¹⁸ Uerpmann and Uerpmann acknowledge the possibility that dromedaries were kept as herd animals for the village, but discard it, asserting that the paucity of camel bones speaks against their day-to-day availability for the local population. Similarly they suggest that were the dromedary domesticated this early its absence in later midden contexts of herd animals would be highly problematic (2002, 236-7).

Nar have been used as evidence for the domestication of the camel in the Arabian Peninsula as early as the early Bronze Age (cf. for example Wapnish 1981, 205), Uerpmann and Uerpmann (2002, 238) suggest that these belong instead to wild dromedaries hunted by the inhabitants of the village. Uerpmann and Uerpmann (ibid. 251-5) further suggest that the camel was not domesticated until the end of the 2nd millennium BCE²¹⁹ and that the impetus for the domestication of this animal (contra Bulliet 1975), was not its milk or hair (like a goat, cow, or other herd animals), but rather its transport capacity (like a donkey or horse). The main difference that they identify separating a domesticated from a wild dromedary is size because otherwise the two types are very similar. Early tests measuring camel bones from Tell Abraq have revealed that in southeast Arabia it was only in the 1st millennium BCE, with the onset of the Iron Age,²²⁰ that faunal remains of domesticated dromedaries have been excavated. The exact location of the center for dromedary domestication is a mystery due to a lack of early remains and DNA, however it is possible that there were multiple domestication scenarios (Burger 2012, 26). Uerpmann and Uerpmann (2012, 119) suggest that the period from 1400-900 BCE in southeast Arabia represent the period of change from hunting to herding, although whether or not this shift happened locally remains unclear.

The use of size as an indicator is difficult, due to regional and temporal variation between populations, as well as variation among individuals. For example, excavations from the Iron I at Timna revealed that the camels were between the sizes of wild and domesticate examples measured at Tell Abraq (Grigson 2012, 86-7). Similarly, Iron II camels from Tell Muweilah

²¹⁹ In this case it is important to note that domestication is a process, not an event, and that the domestication of a species involves the long-term breeding of a captive population, that can take a considerable amount of time (Uerpmann and Uerpmann 2002, 249-51; 2012, 113; Burger 2012, 20).

²²⁰ At Tell Abraq they appear abruptly in the Iron II, which the excavators consider to represent that the animal is not domesticated locally, rather wild varieties become less and less common over the course of the bronze age, and there is an Iron I gap, where domesticates are attested elsewhere, and then domesticates suddenly appear in the Iron II (Uerpmann and Uerpmann 2002, 298).

were larger than the domesticates at Tell Abraq, while still considerably smaller than what Uerpmann and Uerpmann classified as wild ancestors (cf. Grigson 2012, 87). The availability of more samples, however, has better shown the size ranges of wild and domesticate dromedaries, which do share some degree of overlap (cf. Uerpmann and Uerpmann 2012, Graph 19).

In the southern Levant, two main sites for the study of early camel remains are located at Timna, a copper-smelting site in the southern Arabah, and at Tell Jemmeh, a site south of Gaza close to the Mediterranean coast. At Timna 83 camel bones, representing up to 79 individuals were excavated from Iron Age strata (Grigson 2012, 85) and at Tell Jemmeh 472 camel bones were excavated (Wapnish 1981, 102). To the north, faunal evidence for the Mesopotamian world is attested from the excavations at Tell Sheikh Hamad (Dur-Katlimmu), where remains of both dromedaries and bactrian camels were found together in the Neo-Assyrian strata. In her analysis of the camel remains from Timna, Grigson (2012, 86-7) identified the bones as belonging to domesticated dromedaries and date to an Iron I, 11th century BCE strata. Almost all of the animals found at Timna were adults, with some sub-adult examples, but no young animals. This age distribution indicates that the camels at Timna were not used for herding, because the full range of age groups was not represented (ibid. 87). Grigson concludes that the profile of the individuals present best represents animals used for long-distance trading and transport. Thus, the Timna examples, dating to the Iron I, represent some of the earliest evidence for the domesticated dromedary serving as a pack animal for caravans in the southern Levant. Additional Iron I remains were identified at Izbet Sartah, a site located in the foothills of modern Israel along the western edge of the central mountain range. At this site, 102 camel bones were identified. One example was dated to the 12th century BCE (str.III) and a further 101 from the 11th c. (str.II). In this case, however, it should be noted that the bones were all found in a pair of

silos and although these silos belong architecturally to stratum II, some of the fill may have been from stratum I (early 10th c.) (Hellwing and Adjeman 1986, 107).

A second source for camel bones from the southern Levant is Tell Jemmeh, where Paula Wapnish (1981, 102) identified camel remains in strata from the Late Bronze Age through the Hellenistic period. Remains were rare in the Late Bronze Age (5 examples) and Iron I (two examples), however in the Neo-Assyrian period camel remains were more common, with 8 examples from the 8th century and 40 from the 7th century BCE, representing about 25% of the overall faunal sample. As at Timna, the camel remains at Tell Jemmeh did not include examples of young or very old camels, suggesting that the remains are not from local camel herders. Wapnish (ibid. 109) takes the number of prime adults represented in the faunal remains and the fact that these remains become more frequent in later periods, to be evidence that the camels were coming from trade with caravans, rather than local pastoral groups. Unfortunately, at the time of Wapnish's study the size ranges suggested by Uerpmann and Uerpmann were not available and thus it is not possible to judge whether the examples from the Late Bronze and Iron I strata fit into the range of domesticate or wild dromedaries. However, we agree with Wapnish that by the Assyrian period and later there was enough caravan traffic in the region of Tell Jemmeh to account for the increasing frequency of camel remains at the site. Wapnish further suggests that the camels found there may have been a result of Esarhaddon and Ashurbanipal's military campaigns to Egypt and that Jemmeh was a staging ground for these invasions and the camels may be booty or tribute collected by the Assyrian kings (1981, 117). While the events that Wapnish describes are well-attested in the Assyrian record and plausible, this may over-

emphasize the role of Tell Jemmeh in the region, and the camel remains are not necessarily related to this large venture.²²¹

Whereas Jemmeh and Timna show early signs of the use of the domesticated dromedary, likely for transportation, the same cannot be said of other sites in the region, which fail to match the finds at Jemmeh and Timna. In fact, the opposite is true. Wapnish (1981, 121) notes that “Faunal collections from sites located on trade routes and at the boundary of the desert zones do not contain camel bones in significant numbers...Camels were not a major means of transport before 600 BCE, and after that date only appear in the Tell Jemmeh region.” She notes Beersheba as the single exception, where remains are attested, but quite rare in the strata predating 701 BCE (ibid. 121). Since Wapnish’s original study, more camel remains have come to light from earlier periods (including the Timna examples) and especially in the Iron II. This includes ten examples from the Iron IIB-c strata at ‘Aroer (Motro 2011, 267), single examples from the Iron Age strata at Tel ‘Ira (Dayan 1999, 482; Horwitz 1999, 489), a few fragments (5) from the quarry fill for 7th c. Ashkelon (Hesse et al. 2011, 628), and three fragments from the Iron IIB-c strata at Lachish (Croft 2004, 2290). Camel bones were found in every stratum at Kadesh-Barnea, from the early Iron IIA until the Persian period (Hakker-Orion 2007, 289). Eighteen fragments were found in stratum 4 (10th c.), 42 in stratum 3 (late 8th c.), and 30 in stratum 2 (late 7th/early 6th) (ibid. table 19.1). The examples at Kadesh-Barnea mostly belonged to adult animals, although a few examples of young animals were found in stratum 3 and stratum 2 (Hakker-Orion 2007, 289). Iron II camel remains have also been cited from Beersheba, Ekron, Tel Michal, Tell Deir’Alla, Tell Hesban, Tel Dan, and Kinneret (Horwitz and Rosen 2005, 127-128 Table 2). Yet at other sites, where one might expect to find remains, reveal no evidence of

²²¹ For example camel remains continue to be common in the Persian and Hellenistic period, long after the Assyrian influence and its Egyptian campaigns had passed away, I prefer to see camel remains at Jemmeh as part of a longer cycle of increasing caravan traffic along the desert fringes.

camel in the faunal remains (Kuntillet 'Ajrud, Qitmit, Horvat 'Uza, Arad). Camel remains pre-dating the Iron I are rare, and in many cases possibly wild, or intrusive (Horwitz and Rosen 2005, 126).

In North Syria an important site for camel remains is Tell Sheikh Hamad, located in the Habur region, the ancient site of Dur-Katlimmu. Excavations at Tell Sheikh Hamad uncovered 260 camel bones, 251 from the Neo-Assyrian layers and only 9 from Middle-Assyrian strata (Becker 2008, 83-4). These finds demonstrate the spread of the domesticated dromedary to areas beyond the natural range of its wild predecessor during the Iron Age (Uerpmann and Uerpmann 2012, 120). The nine examples from the Middle-Assyrian strata are problematic, in that they precede the earliest date for known domesticated dromedaries in the Near East. This problem was solved by Becker, who identified these particular bones as belonging to bactrian camels, which were domesticated earlier, and are known from the region as early as the 9th century where they appear on the reliefs on the Black Obelisk of Shalmaneser III (Becker 2008, 84-5; Uerpmann and Uerpmann 2012, 120).

In conclusion, we agree with the findings of Uerpmann and Uerpmann, suggesting that the domestication of the camel took place around the Iron I, between 1400-900 BCE. This suggestion is supported by the archaeological remains, the earliest domestic examples of which date to sometime around the LB-Iron I. By the Iron I (11th century), the domestic dromedary was available in areas of the southern Levant, as attested by the remains from Timna and Jemmeh. Certainly the domesticated camel was common by the Iron II period, a fact reflected in the Neo-Assyrian texts and reliefs, as well as in the archaeology remains.

Caravan Travel: Logistics and Limitations

Having examined the evidence for the origin of the South Arabian caravan trade and the primary goods associated with it, we will now turn our attention to the logistics of caravan travel in order to understand how these caravans worked. In order to understand the potential impact of the caravan trade on the surrounding regions, it is important to first develop a picture of the potential size, scale, and load capacity of these caravans. Unfortunately in this regard, ancient data are quite sparse. There are, however, multiple descriptions from more modern periods that may serve as appropriate analogs for the maximal capabilities of ancient camel caravans. We cannot assume that the ancient caravans operated in the same way as more recent ones, but we can assume that some of the numbers available from more recent ventures can inform on the capabilities of merchant caravans.

Caravan Size

The most important text regarding the logistics is once again the Suhu governor's account of his caravan raiding exploits. The governor, Ninurta-kidurri-uşur, describes a raid on a caravan of Temanites and Sabaeans, whose merchant caravan had avoided his city (and presumably the accompanying taxes). In response Ninurta-kidurri-uşur hid in a city along the expected passage of the caravan, and upon their approach attacked them. This raid netted him 100 prisoners, 200 camels, and the goods from the camels, including dyed wool, iron, and precious stones. Assuming that this text is close to accurate, it provides baseline numbers for a large caravan of at least 200 camels and 100 persons. It is to be assumed that if Ninurta-kidurri-uşur took 100 persons alive, some at least were killed and thus not included in this count. Similarly, it is possible that some of the persons and camels escaped the trap.²²² Still, 200 camels has been taken

²²² Holladay for example has suggested that as a security measure a set of "running camels" would be left out further in the desert, holding the majority of the caravans "money," in Holladay's interpretation, silver bullion (2006, 321).

as a base number to use for the size of ancient caravans by scholars such as Holladay (2006, 320) and Liverani (2003, 135-136). Liverani (2003, 135) has rightly noted that the size of camel caravan would necessarily be greater than a donkey caravan. The former would have to stop every night in an inhabited place to feed and water, while the camel caravans had the potential to stop as infrequently as once per week. It is possible that camel caravans were even larger than 200 animals. A set of recent analogs comes from Portuguese and other western travelers on the Aleppo-Basra Caravan route in the 16th century CE whose records have been collected by Douglas Carruthers (1918). Starting in 1581 the itineraries of these travelers began to be recorded in detail. Carruthers cites the journey of Caesar Frederick, who made the journey from Babylon to Aleppo in 40 days, 36 of them through the desert without stopping in any populated areas (1918, 161). More detailed accounts of the caravans themselves are available from 18th century travelers, many Englishmen with the East India Company. These travelers speak of very large caravans, including 2,000-5,000 camels and upwards of 1,000 men (ibid. 166). It is notable, however, that on average the travelers record that only about 400-600 of these camels were laden. Thus William Beawes (1745) accompanied a caravan of 2,000 camels, with only 400 laden, and Plaisted (1758) was joined by a caravan of 3,000 camels, also with 400 laden. Carmichael's caravan (1751) included 50 horses, 30 mules, and 1200 camels, 600 of which were laden (ibid. 166). Even at this percentage, however, the merchandise was estimated to value at 300,000 pounds. Whereas these represent the very large caravans belonging to the company, Carruthers (1918, 166) also records individual merchants taking the route with 80-200 camels and 40-100 men. These second numbers seem closer to the size we would expect of the early caravans and if this is the case, the Suhu caravan might represent the upper limit in caravan size

Holladay, however, provides little evidence for this, citing Old Assyrian Caravan practices of staying away from towns to avoid tolls and taxes (2006, 321 n.33). This, however, would not apply to cities with which the caravan intended to do business, such as appears to be the case in the Suhu inscription.

at the time. Larger caravans also traveled slower. Carruthers records travel times from Aleppo to Baghdad at 18-20 days, with larger caravans at 28-36 days, and particularly large and heavy laden caravans at 40 days (ibid. 167). Thus, the larger heavily laden caravans were also unwieldy. These caravans traveled quite infrequently, maybe twice a year (Carruthers 1918, 166). What we see then is a pattern where only 10-20% of the camels that made up a caravan were laden. These modern caravans required riding camels in addition to the baggage camels, and some of the latter would have needed to carry water, food, and tents. In her analysis of Moroccan caravans, Willard (1993, 91) notes that “the process of trade along the route was just as important as the goods which arrived at either terminus” and thus the travel from Mogador to Timbuktu began with only about 1/5 of the camels loaded with trade goods. The loads taken from the Suhu camels indicate that they too were trading and picking up goods for resale along the way (such as the dyed cloths, likely of Phoenician origin). Thus, we must assume that in any caravan only a portion of the camels were actually laden, with some reserved for riding, baggage, or as spares in the case of a sick, injured, or dead animal.

Caravan Provisioning

We have already noted that the camel is an expert forager, thus eliminating the need to pack fodder, however, the accounts of 19th-20th century travelers indicate that this can drastically slow down the pace of travel when the camels continually go after all available foliage along the way (Varisco 2012, 155). In contrast to the camel’s ability to forage, the people accompanying the caravan are not so fortunate, and require both food and water along the way, which would need to be packed on baggage camels. There is ethnographic evidence that it is possible to survive desert treks subsisting solely on camel’s milk (Varisco 2012, 157), but a large caravan traveling long-distances over a long period of time would likely require more sustenance. Let us

then examine briefly some of the logistics of a caravan approximately the size of the one raided by Ninurta-kidurri-ušur. Any attempt to come up with exact numbers is inherently flawed and any number of alternative scenarios to the one we present below could be defensibly argued. The numbers used are taken as approximates based on ethnographic sources and others could also be used. Still, we hold that the following description brings up some of the difficulties and complications of caravan travel that were just as important in the late Iron Age as they have been in more recent times.

Let us assume a daily water ration of 5-6 liters per person, and a food ration of 500-1000 grams,²²³ with no extra fodder or water for the camels.²²⁴ As we discussed previously, the average camel loaded for long distance travel can carry approximately 180kg, or about 400 lbs (Adams 2007, 80; Seland 2011, 402). If we assume a travel time of 7 days in between stops to resupply both food and water, this would require 500-600 liters of water and 500-1000 kg of food per day for 100 persons. Thus to provide food and water 100 people for a week would take 3500-4200 liters of water and 3500-7000kg of food. Water weighs approximately 1kg per liter. At these amounts, it would require 39-62 camels to carry the food and water for 100 caravaneers.²²⁵ This could naturally be decreased by more frequent stops. It must also be noted that with 100 people, there may have been up to 100 riding camels, unless some of the people were walking. Given the harsh conditions we must also account for a number of spares, animals that could be used to rotate loads of sick camels, or take the place of one that was injured or died

²²³ Based on the Turkish campaign to the Suez canal, Eph'al found the daily rations of a soldier to be 600gms black bread, plus a handful of olives, dates, and raisins and 6 liters of water (1982, 140 n.491).

²²⁴ Heiss argues that some camels at least would be necessary to carry the caravan's fodder (2012, 131), but exact numbers and amounts are not easily quantifiable.

²²⁵ It is possible that in addition to the rider a riding camel could have carried some additional supplies, which would have decreased the number of supply camels in the baggage train.

in transit.²²⁶ Thus, a caravan of 100 people could require as many as 150 camels for riding and provisions alone, much less merchandise.

Caravan Pace and Load Capacity

The average pace of a laden camel is 2.5mph over good terrain, often for a 7-10 hour day of travel (Groom 1981, 173). A person on foot in the desert could travel even slower, or require a riding camel. The art of camel riding was certainly known by the Neo-Assyrian period, where camels with saddles and camel riders are depicted in reliefs.²²⁷ With this in mind, a caravan of 200 camels and 100 men might logically have only 40 laden camels, or about 20%, a ratio similar to the percentage of laden camels described by the later medieval travelers. One could assume that not every person had a riding camel, or that stops for water, at least enough for the people, came more frequently, however it is also possible that tents or some form of shelter would need to be carried and that a certain amount of feed or water for the camels may have been taken along. If we assume that out of a caravan of 200 camels 40-50 maximally would be laden, then each caravan of this size would have space for approximately 7200-9,000 kg of goods. This is still a considerable load, although in certain cases the logistics of loading up a camel with certain commodities might preclude it from taking its full weight burden. As we stated before, the exact numbers matter little, the broader conclusion that must be taken into account is that in an average caravan only a certain number of the animals can be loaded with trade goods. While there are many ways to increase this number and limit the weight taken up by

²²⁶ While we do not have specific data on this issue, the Old Assyrian letters regarding the caravan trade make frequent mention to donkeys dying along the road (Barjamovic 2011, 16). While this may prove a bad analogy due to differences in comparative value of the two different animals to the respective trading groups, some provision must have been taken to protect against accidents that left an animal injured, dead, or otherwise unable to carry its load.

²²⁷ Examples include the balawat gates, an orthostat from Tell halaf, and a wall relief from the palace of Ashurbanipal.

items not for sale, it seems that a number around 20-25% is reasonable for the expected percentage of a caravan's camels that are loaded with trade goods.

Let us then re-examine Holladay's statements regarding the potential of a trade caravan using these data. Holladay (2006, 320) assumes a "modest loading factor" of 195kg per camel. This exceeds the standard Roman loads of 180kg described by Seland, and vastly over-estimates the recommendations of the 19th century British Army veterinary service, which recommends 135-180 kg over long distances (Seland 2011, 402). In her research on camel use in the Sahara, Willard (1993, 93) found that camels tended to carry ca. 300lbs over long distances, although they were capable of carrying 500-600lbs for shorter periods. The 300lbs described by Willard fits the lower end of the recommendations of the British Army Veterinary Service, at approximately 135kg. In describing the salt mines of Saudi Arabia, Bowen (1958, 35) notes that a "camel load" of salt consists of two large goatskin bags, weighing 150-200lbs each. This fits nicely with what one might expect a reasonable load of spices in antiquity, using similar technology.

Holladay (2006, 320) further estimates that given one rest day in four a caravan could move 76.8 km in a four day cycle. This is a reasonable, even low estimate. However, Holladay also suggests the capability of moving up to 230 km in 4 days. Holladay bases these numbers on an average speed of 3.2km/h, doubled to 6.4 km/h for the "pressured pace." Groom's estimate of 2.5mph (4km/h) lies between these two speeds, however most scholars agree that 20 miles (ca. 32km) a day was a comfortable traveling pace for a camel caravan (Groom 1981, 173), a fact reflected in Pliny's account of the incense trade (Millar 1998, 124), ethnographic research in Africa (Willard 1993, 93), and the writings of al-Hamdani from 9-10th century CE Arabia (Heiss 2012, 134). However, it is noteworthy that at the pressured pace riding camels would almost

certainly have been necessary. Similarly, the faster you push the camels the less time they have to forage and the more they perspire, increasing their need for food and water. Thus, at a faster pace one would need to either stop more frequently or pack fodder and water to supplement the camels' foraging. Holladay (2006, 320 n.30) is also assuming 8-12 hour travel days depending on the pace. According to the 18-19th century western travelers an average day for a large caravan was 7 hours of travel (Carruthers 1918, 167). For smaller caravans 8-10 would be possible, but 12 is unlikely for a group the size of 200, for which making and breaking camp could be a considerable endeavor. Assuming a 3 day food supply, following Holladay's 1-in-4 rest cycle, assuming 750g of food and 6 liters of water a day per person, 100 persons would still require 10 camels operating at Holladay's increased load bearing measurements to carry their provisions. Thus, the likely amount of goods that a camel caravan would carry at any given time is likely at best half, and more likely closer to one quarter, of the 40 metric tons claimed by Holladay. Similarly, over a four day stretch a caravan would be unlikely to surpass 150km of travel, much less the 230km that Holladay claims possible.

Caravans according to Pliny's Natural History

A second source of information on travel by camel caravan comes from the classical period, with perhaps the best source being Pliny the Elder's description of the incense trade in *Natural History*. Pliny describes his journey from Thoma (Timna') in South Arabia to Gaza, which he divides into 65 stages, each with camel halts. Given a distance of ca. 1300 miles between Thoma and Gaza, this would mean stages about every 20 miles, or one day's journey apart (Millar 1998, 124). While this would seem a poor analog for the early caravans, which did not likely stop at set caravanserais along a planned route every night, it does follow our estimates for the average speed of travel for ancient camel caravans. Obviously, traveling with more

frequent stopovers at inhabited places would limit the need for carrying food and water supplies, however it also would increase travel costs, a point Pliny stresses and to which we will return shortly. As we discussed previously, all numbers can be questioned and argued, however in many cases Holladay's characterization of the potential of the caravan trade is highly optimistic, and ignores some major logistical limitations of this type of trade.²²⁸

Caravan Frequency

The frequency with which these caravans operated has yet to be determined, and has a great effect on their economic impact. Carruthers (1918) cites Linschoten and Barker, two later travelers, who record that the large caravans between Aleppo and Bosra ran only twice a year. Granting that these were exceedingly large caravans, it still emphasizes that the caravans did not necessarily run year round or with great frequency. This makes more sense in the ancient world given the distance a caravan might cover. The trip from the Arabian Peninsula and back takes time, especially with destinations such as Gaza, the middle-Euphrates, Damascus, or the Phoenician coast. Making the round trip each caravan party would not have time to make more than 1-2 runs per year at best, and might be on the road for more than a year to complete a single trip. It must also be noted that the ships of the desert, like ships in the Mediterranean, have preferable seasonal travel patterns. In the winter, temperatures are cooler and plants are more abundant and better watered, making for easier forage for camels (Bornstein 1990, 233). Similarly, one must also examine the harvest patterns for the goods of the Arabian trade, primary among which were aromatics. The main aromatics, frankincense and myrrh, are harvested in summer, after which they must be left dormant for a time before they could be sent off (Groom

²²⁸ Forbes has suggested that a dromedary can carry loads up to 1,000 lbs, with an average load of 500-1000 lbs it can cover 25 miles a day, with a maximum of 60 miles, with an average speed of 5-7 mph and 3 waterless days (1965, 194), however Forbes does not give the data behind these numbers, and more recent scholarship suggests that especially in regards to load capacity these maximums.

1981, 144-5; Van Beek 1960, 72).²²⁹ During the classical period, these resins were harvested twice a year due to the great demand for them, once in summer and a second harvest in spring (ibid. 144), but it is not clear that there were two harvests in the late Iron Age. It seems that the summer is preferable for harvesting, with the winter as a dormant period and the time of trading. With this in mind, it is not unlikely that, given the plethora of potential destinations, a place like Judah might only see a limited number of caravans each year, concentrated during a certain season.

Taxation of Caravans

Taxes and tolls on caravans, while potentially lucrative, were a limited source of income, and although they served to supplement other revenues, they were not on their own a viable income for a large polity. Holladay (2006; 2009) in particular, has argued for the lucrative taxation of Arabian caravans as a source of wealth for late Iron Age Judah. Holladay (2009, 208-9) writes “Thus, these large, vulnerable caravans, had to pass through at least one of the states of Israel (later Judah and Israel) or Aram-Damascus. Returning caravans, laden with the goods of the Phoenician and Philistine coast, had to go back the same way. Naturally, as with the Old Assyrian trade, and all other known parallels, tolls, palace gifts, and service fees applied... These fees probably were in the range of 20-25% of the cargo’s net worth each way.” Holladay is right in maintaining that fees and tolls always have been, and in the late Iron Age continued to be, part of the existence of long-distance trade. He is also correct that positioning oneself conveniently along a trade route could lead to financial enrichment.

The extent of the benefit, however, is overestimated. Holladay (2006, 327) estimates that of the net-worth of the cargo in each direction, 20-25% is a reasonable, or even low estimate for the percentage that would be charged as tolls, taxes, bribes, etc. In his 2001 article, Holladay

²²⁹ The time varies from 6 months to 2 years.

elaborates on this number, which he derives from the Old Assyrian Caravan texts, primarily Veenhoff's *Aspects of Old Assyrian Trade and its Terminology*. Holladay (2001, 186-7) examines the many types of expenses a caravan might expect including road taxes, travelling expenses, municipal and palace taxes, import taxes, and a head-tax. Holladay then totals this amount to equal 20-25% of the worth of the cargo. These numbers, even if taken from the Old Assyrian texts, are logical. Graf (2012, 1) suggests similar numbers for the classical period in the east, with numbers of 25% across frontiers and 5% across provinces. This 25%, however, must be properly broken up. Not all of these payments can be assumed to have gone right into the coffers of the palace. Travelling expenses for example, included lodging, fodder, water, food, etc., and were not payable to the local owners of the inn or caravanserai and not to the palace (unless staying at a palace run station). Fees such as an import or unloading tax would apply only at the final destination or certain major hubs. The varying municipal and palace taxes, were relatively small and as Holladay noted, avoidable by taking smuggler roads. These roads would likely become more common in the face of stringent taxes. The most important point, however, is that 20-25% of a caravan's total net worth might go to taxes and tolls, not 20-25% of the net-worth to each stop along their route. A caravan from South Arabia to Gaza would need to pay protection and tolls to numerous pastoral nomad-tribes, Edom, Judah, Assyria, Gaza, etc. for their load. All told this could easily equal 25% of their net-worth, but the Judahite palace would be lucky to see 5%. Holladay's numbers overestimate 4-5 times the proportion of Judah's cut from each caravan. It must also be considered that with outlets available through Aram-Damascus and east to Mesopotamia, should Israel increase tolls to extreme amounts, other markets existed for Arabian goods. By providing valuable and fairly priced services to encourage

caravan traffic, the caravans could be a financial benefit to Judah, but not the sole source of income for the kingdom.

Once again, a good example of the role of taxation may be taken from the account of Pliny the Elder. Pliny writes that the incense route “is divided into 65 stages with halts for camels. Fixed portions of the frankincense are also given to the priests and the king’s secretaries, but besides these the guards and their attendants and the gate-keepers and servants also have their pickings: indeed all along the route they keep on paying, at one place for water, at another for fodder, or the charges for lodging at the halts, and the various tolls; so that expenses mount up to 688 *denarii* per camel before the Mediterranean coast is reached, and then again payment is made to the customs officers of our empire.”²³⁰ Unfortunately, Pliny does not record the worth of a camel load or caravan prior to departure, so we do not know what percentage of the total worth of the caravan was paid in taxes. It is also worth noting that although Pliny records the amount in value of *denarii*, he also records the payments as bags of frankincense, which are worth considerably more in the Mediterranean than they were in South Arabia. Pliny examines the tolls according to his notion cost, not in terms of relative value. It must be noted, however, that the total of 688 *denarii* per camel load is not necessarily exorbitant, given the 65 stops, the cost would then be 10-11 *denarii* per camel per stop. To better understand this tax we can turn to the northern caravan center of Palmyra, for which we have preserved tax law from the 2nd century CE. This tax code deals primarily with the issues of imports and exports. For imports a camel load of unguent in alabaster was taxed 25 *denarii*, whereas unguent in goatskins 13 *denarii*, with export about half of that cost. Other goods demanded different tolls, but most camel loads required a payment of 7-13 *denarii* for import (cf. Matthews 1984, 172-4). One can easily see how such tolls could add up over many stops to a price of 688 *denarii* per camel. It is also

²³⁰ *NH* XII.32, 63-5. Loeb classical library translation

important to note that the taxes recorded in the Palmyra tax law are generally considered to be relatively modest rates designed for local commerce, rather than a heavy import tax (Seland 2008, 92). These examples from the Roman period, which consist of many toll costs added up over long distance travel, likely reflect more accurately the situation in the Iron Age. Profit could be made on caravans, especially at particular cities; however, the amounts paid by the caravans were also spread out across many stops and were not paid in large lump sums to every kingdom along the way. It is also likely that the caravans of the Iron Age stopped less frequently than those of the classical period, thus avoiding some of the accruing taxation costs such as the ones described by Pliny. Finally, while the Palmyra tariff document lists costs in *denarii*, as did Pliny for his total cost per camel along the incense route, Pliny also indicated that payment was made in the form of bags of frankincense. In this manner the cost is not one in money, but rather in-kind, and thus less expensive to the Arab caravans who could acquire the goods cheaply. This same type of practice is evidenced in the Old Assyrian caravans. Veenhof (1972, 257-8) describes the practice of loose tin. Loose tin was not included as part of the sealed package, but rather was designated for expenses, including taxes and other costs along the way. This type of collection practice would mean that the taxes resulted in an influx of exotic luxury goods, which although they could be sold, are not the same as money and thus it is not reasonable to view the income from these caravans purely in terms of converted money. If we look at the potential profit margin for these caravans we can once again turn to Pliny for help. In *Natural Histories*, Pliny records that “the price of best frankincense is 6, of the second best 5, and of the third best 3 denarii a pound” (XII.xxxiii.65). If we assume that a camel is capable of bearing 300-400lbs of merchandise, its load would produce a sale price of 1800-2400 *denarii* for the best frankincense, or 900-1200 *denarii* for the third best. Thus, based on a tax price list of 688 *denarii* per camel,

this makes up anywhere from 25%-50% of the value of the load. According to Pliny, however, much of this money goes to lodging and fodder along the way, with the caravan stopping at a resting point each night of the journey. This would eliminate the need for many of the baggage camels bearing of water and food, and thus it is possible that each camel was profitable, at a total cost of 25-50% of its value going to taxes and expenses.

Conclusions: The Role of Caravans

How then would this understanding of the caravan trade impact our understanding of the relationship between the caravans and the polities of the southern Levant? A few points are abundantly clear. First, even after assuming a decreased load value for a caravan, they were still a lucrative target, as evidenced by Ninurta-kidurri-uşur's raid. The caravans should not be viewed as insignificant and tiny a la Faust. Secondly, part of caravan travel included payment of taxes, often in-kind. While these payments would not have been sufficient to run the economy of the kingdom, they would provide a desirable supplement to the local economy. Even more valuable, they provided direct access to certain desired high-status goods, namely incense, that was desirable to the palace, temple, and local elites. Despite this potential value, however, the caravans, especially in their early manifestation, seem to have run too irregularly, and have been too small to have been a source of regular predictable income. There were many options for caravan routes (including avoiding all settlements and keeping to the deserts) and as such excessive taxation, raiding, or economic sanctions could result in the loss of all caravan traffic. In terms of the social context of the trade route described by Master (2014), it is not clear that during the 7th century this context was well developed. Certainly in other circumstances (the later development of the spice trade, the Old Assyrian caravan trade, etc.) profiting from the trade route was a viable sphere of economic activity. Innkeepers, bridge watchers, local security

forces, and tax collectors could all profit from this trade. These profits, however, also required investment in infrastructure in order to provide these services. At a time when the caravan trade was just beginning such investment would have been risky, which may be reflected by the paucity of these types of finds in the archaeological record. This is especially true if the trade route was not yet stabilized and there were multiple alternative routes available. The palace certainly had the resources to invest in infrastructure and to try to profit from this sphere, and their participation may have been incentivized by their desire for the types of luxury goods that this trade made available. Nevertheless, during the late Iron Age the social context of the trade route seems to have been in development and not a major economic sphere. In terms of Temin's model, we can understand the growth of this sphere through the concept of transaction costs. During the early stages of the caravan trade individuals lacked sufficient knowledge to consistently profit and needed to invest resources into acquiring information about the trade routes, the frequency of caravans, and the potential for lost business due to shifts in these patterns. At the same time, individuals needed to invest in the process of evaluating the economic potential of involvement with these traders. These costs would have made early interaction with the caravan risky and encouraged many individuals away from these transactions. We are not claiming that no one was profiting from transit-trade along the trade route, only that this institution was still in its early stages of development during the late Iron Age.

Negev Settlement Patterns

We opened this chapter by examining the origins and development of the South Arabian caravan trade and concluded that the institution of the trade route was not well developed in the late Iron Age. Another factor in this discussion, however, is an analysis of the local changes in

settlement patterns in the Negev during this period. In the late Iron Age the Negev witnessed a period of demographic growth and expansion, as did other marginal areas such as the Judean desert. At the same time, the archaeological record shows an increasing Edomite presence in the region (Lehmann 2012). These developments have been commonly linked to the South Arabian trade. In this next section, we will examine these data and propose that a combination of issues, including security concerns, caravan trade, and the sedentization of certain desert tribes was responsible for these changes.

Demographics

During the 8th-7th c. BCE there was a distinct change in the settlement patterns in Judah. In particular, the more arid and previously marginal fringe regions saw an unprecedented rise in population density, which warrants explanation. The regions affected include the Judean Desert and the Negev.

Judean Desert

The Judean Desert witnessed a shift from very few identified permanent settlements in the 8th c. BCE, to numerous sites in the 7th/6th c. BCE (Finkelstein 1994, 175-6; Faust and Weiss 2005, 74; Stager 1976). Faust and Weiss (2005, 74) cite new settlements at En-Gedi, Rugm el-Bahr, Qumran, Khirbet Mazin/Qusr el-Yahud, Ein el-Guweir, Ein et-Turaba, Vered Yericho, Khirbet Shilhah and Mezaad Michmash. Stager's (1976, 145) research in the Buqe'ah revealed settlement there as well, also founded in the 7th century BCE. These included three outposts at Khirbet Abu Tabaq, Khirbet es-Samrah, and Khirbet el-Maqari, supported by outliers and numerous desert farms. This settlement wave was relatively short lived, lasting only until the arrival of the Babylonians in the 6th century BCE (ibid, 145). Vaughn (1999, 78) has suggested that the 8th c. settlement in the region may not be as sparse as Finkelstein (1994) has suggested.

He calls into question the supposed lack of 8th century material at these sites and suggests that although settlement was certainly expanded in the 7th century BCE it is quite possible that many of the sites were founded as early as the 8th c. BCE.

Finkelstein (1994, 176-7) suggests that following the destruction of the Shephelah at the hands of Sennacherib in 701 BCE, settlement in the hill country was concentrated in Jerusalem and in the rest of Judah settlement expanded into previously unexploited arid zones, such as the Judean Desert and Beersheba Valley. Faust and Weiss (2005, 74) suggest that the impetus for expansion was due “in part to Judah’s attempts to utilize the natural resources of the Dead Sea region (eg., bitumen, salt) and to secure the routes through which these commodities were traded,” although they suggest that Finkelstein’s hypothesis, that the area was used for agricultural purposes, cannot be discounted, citing in this regard the Tabaq farm discussed by Stager (1976, 146ff) as evidence for agricultural activity in the region (Faust and Weiss 2005, 74). Stager (1976, 145) suggests that the incorporation of the Buqe‘ah region in the 7th century was motivated by a desire to access the minerals in and around the Dead Sea, such as salt, sulfur, and bitumen, in addition to control over the date palm plantations of the region. It was necessary to secure the roads used to transport these resources inland, protecting them from robbers and bandits.

Salt can be obtained either through mining or evaporation and both methods have been used to exploit the resources of the Dead Sea. Solid rock salt is available in deposits around the Dead Sea, most notably Mt. Sodom to the southwest, although this is far removed from the late Iron II settlements (Nissenbaum 1993, 129). There is little direct evidence for the exploitation of salt from this region before the Hellenistic period. However, there are several biblical passages that suggest the exploitation of this resource goes back to a much earlier date. In describing the

inheritance of Judah in Joshua 15, a city of salt is mentioned alongside En-Gedi as part of Judah's wilderness holdings. The Dead Sea in general is referred to as the "salt sea," although this does not necessarily mean that salt was being exploited for trade. Ezekiel 47:10-11 records a prophecy of the Dead Sea turning to fresh water, but notes that the marshes shall remain brackish and will be left "for salt," which suggests the exploitation of this resource in the late Iron Age. The exploitation and export of bitumen from the Dead Sea region is attested from as early as the Neolithic, where it was used to decorate objects found in the Nahal Hemar cave (Nissenbaum 1993, 130). Asphalt from the Dead Sea can be found in two types, the first come from veins or seeps, but asphalt can also be found occasionally in large masses floating on the surface of the sea (ibid. 130). Asphalt is particularly accessible on the western coast of the Dead Sea in the vicinity of En-Gedi (cf. Nissenbaum 1993, fig.2). Bitumen had a variety of uses including as mortar or an adhesive, a waterproofing agent, decoration, and as part of the embalming mixture used in mummification (Connan 1999, 34-36, table 1). In a series of tests conducted on the bitumen found on mummies dating from ca. 1000 BCE to 400 BCE, it was found that the bitumen used was most likely imported from the seeps in the Dead Sea region (Harrell and Lewan 2002, 291; Connan 1999, 48), a trade route that had been established since at least the Chalcolithic period (Connan et al. 1992, 2758). The best evidence for the bitumen trade in the Iron Age comes from a few samples from Ekron, ranging in date from the 12th-7th centuries BCE (two samples specifically from the 7th c. strata), all of which were shown to have most likely originated from the Dead Sea (Connan et al. 2006, 1785). The finds at Ekron show that exploitation and export of bitumen was not a new development of the late Iron Age, but that this exploitation continued during the period when the new settlements in the Judean Desert and Buqeah were founded.

A number of excavations and surveys that were carried out in the area of the En-Gedi oasis also shed light on the activities of the settlements in the Judean Desert. The major finds from the area that date to the late Iron Age come from Tel Goren, a natural hill located south of the spring. Stratum V of the excavations at Tel Goren revealed material that Yezerski (2007, 105) describes as “an excellent representation of a domestic Judean assemblage from the last phase of the Iron Age,” that is, the late 7th/early 6th century BCE (cf. also Stern 2007, 362). Within stratum V a number of buildings were excavated (Buildings 207, 211, 216) that contained large courtyards filled with vats set closely together in rows (Mazar 1993, 401; Stern and Matskevich 2007, 80-85). These vats were about one meter high and were sunk into the ground, featuring openings at the bottom, all of which were connected by pottery channels draining towards the southern slope of the mound (Stern 2007, 361). Stratum V is the earliest attested settlement at Tel Goren, built on top of the bedrock and the remains indicate that it was a planned settlement constructed at one time (ibid. 361). The remains excavated show an industrial, rather than residential town, which Stern (2007, 25, 361) and Mazar (1993, 401) both suggest was engaged in the production of perfume from the cultivation of balsam (cf. also Jacobs 2011, 241ff. including a description of the production process). Stern (2007, 361) concludes that the site played an important role in a burgeoning perfume trade in this period passing through Edom and Judah to the west. He further suggests that it was part of a royal endeavor undertaken during the reign of Josiah with the intent to renew commercial ties with the Aegean by exploiting the perfume plants and date palm plantations of the region (ibid 25). In support of this he cites the presence of royal seals (1 *lmlk*, 9 rosettes, 1 incised concentric circles), inscribed shekel weights, and seals of officials found in the stratum V layers, (ibid. 361).

Faust and Weiss (2005, 74) discount caravan trade as the impetus for settlement expansion in the 7th century BCE. One of their claims is that the caravan trade explanation does not account for the expansion in the Buqe‘ah, but only the expansion in the Negev, since the South Arabian caravans only passed through the latter region. Whereas this is true regarding the incense caravans from South Arabia, these were not the only profitable trade routes and caravans that would need protection and support. Stager (1976) suggests that another role of settlement in this area was as a protective element, serving the needs of travelers or traders. Mazar (2007, 1-2) suggests that the Chronicler’s account of an attack on Judah from Edom, reaching Hazezon-Tamar, glossed as En-Gedi, reveals one such caravan route, leading from the eastern side of the Dead Sea through Zoar or the El-Lisan Peninsula to En-Gedi and then up to Tekoa and Jerusalem. A second route is suggested by Connan et al. (1992, 2758), regarding the trade of bitumen from the Early Bronze Age, leading from the Dead Sea region into the Arad valley, from whence it was distributed either north into the hill country, south to Egypt and Sinai, or west to the Mediterranean. Both of these routes are possible and may have motivated settlement expansion in the 7th century BCE. The presence of both Edomite and Phoenician pottery at En-Gedi suggests trade connections with both the west and east (cf. Yezerki 2007, 105; Stern 2007, 362). The so-called Assyrian sherds found in stratum V are imitations of palace ware and may be better understood as a form mediated from Transjordan, where carinated bowls and beakers of the type found at En-Gedi are quite common. These forms should not be used to suggest an Assyrian imperial presence or interest in this region (Stern 2007, 130-131).

Faust and Weiss (2005, 78) suggest that the settlements in the Judean Desert were located in their “third zone,” areas they categorize as dedicated to producing the surplus needed in other areas, mainly grains. They suggest that the grains of the Buqe‘ah were destined for Jerusalem to

help feed the expanding population of the capital (ibid, 80). Stager (1976, 146), however, notes that despite the presence of farms in this region that “The climate of the Buqe‘ah, situated in a zone between 100-150mm. isohyets, is completely arid. Now and then some rain falls as early as October, but most of it comes in November-March, with the heaviest precipitation occurring in January. It is obvious that no farming can be done in this desert zone without increasing the water yield 2 or 3 times that supplied by direct rainfall.” Stager goes on to discuss the various techniques found at the Tabaq farm that were used to survive in such conditions, including terrace dams and sluice gates to control runoff and floodwaters. The presence of seeds from cereals, legumes, olives, and grapes at the site show a diverse diet that may have been part of risk spreading behavior to account for the poor climatic conditions (Stager 1976, 146; Master 2009, 307). Master (2009, 308) has further suggested that beyond the difficulty of subsistence farming in the region, that the subsistence of the farmers inhabiting this region was supplemented by goods sent down from the hill country. In his petrographic study of the pottery from the Buqe‘ah sites, Master discovered that most vessels were made locally; however, a second set, including all of the storage jars, were made from Motza clays that originated in the highlands or contained chalk features typical of the Shephelah. Based on the petrography, Master (2009, 308) suggests that rather than providing a surplus for the urban populations of the highlands, the opposite was true, and that these farmsteads provided some food for the local population, but in such small amounts that it needed to be supplemented by supplies from the more fertile highland regions. These findings further support the use of the important historical trade routes that cut across parts of the Judean Desert and the Buqe‘ah, connecting the resources of the Dead Sea with outlets into the hills and coastal plain.

Beersheba Valley

Settlement expansion is also found in areas of the Negev, in particular the Arad and Beersheba Valleys, where Finkelstein (1994, 176) found that “the number of sites grew in the seventh century far beyond previous periods” (cf. also Faust and Weiss 2005, 74). Whereas the region had some occupation in the 8th century, the density rose in the 7th/6th c, including both continued occupation at sites such as Tel Arad, Tel ‘Ira, ‘Aroer, Tel Masos, Tel Malhata, Tel Shoqet, Horvat Hur, and Horvat Yittan, and the foundation of new sites including Horvat ‘Uza, Horvat Radum, Horvat Tov, Horvat ‘Anim, and many supporting farmsteads (Beit-Arieh 1999, 1; Faust and Weiss 2005, 74).²³¹ The most significant 8th century site, Beersheba, was destroyed by Sennacherib and was not resettled in the 7th century BCE (Vaughn 1999, 47; Finkelstein 1994, 176, Beit-Arieh 1999, 1).

Some scholars, however, downplay the extent of this 7th century expansion, and suggest that while some expansion may occur, some of the settlement activity in the region dates back into the 8th century. Vaughn (1999, 57) has suggested that claims of significant or massive demographic changes from the 8th-7th centuries may be overstated. According to Vaughn, the region was not almost abandoned in the 8th century with the sudden appearance of settlement only in the 7th century; however, there was a clear expansion of occupation during the latter period (cf. also Herzog 2002, 98-99). Thareani (2007, 73) carries this argument further, asserting that already in the 8th c. BCE all of the main sites were occupied to an extent that would continue into the 7th c. (with the exception of Beersheba, which was destroyed and not re-

²³¹ Note that there is some disagreement regarding certain sites as to whether they were founded in the 8th c. and continued to be occupied through the 7th c., or if they were originally founded in the 7th c. BCE. Thus Faust and Weiss suggest that Tel Masos, Tel ‘Ira, ‘Aroer, Horvat ‘Uza and Horvat Radum are all founded in the 7th c. (2005, 74), a list that agrees with Finkelstein’s identification of 5 new sites dating to this period (1994, 176). This list has been called into question by Vaughn who suggests that “some signs of occupation during the late 8th c. at several of these sites are dismissed by their excavators” (1999, 50). Beit-Arieh seems to follow this pattern when he categorizes Masos, ‘Aroer, and ‘Ira as founded in the 8th c., with expanded occupation in the 7th (1999, 1-2). For a more in depth discussion of the argument for dating certain strata to the end of the 8th c. cf. Thareani 2007.

inhabited). Thareani argues that the appearance of fortresses such as Horvat ‘Uza, Radum, and Tov as well as the shrine at Qitmit, all represent small sites that would have had a negligible impact on the overall demographics of the area. Thus, she suggests that although new fortresses appear, the population of the Beersheba valley likely remained largely unchanged from the 8th to the 7th century BCE. Thareani does not challenge the existence of a settlement expansion in the Beersheba Valley, merely the dating of this expansion, which she moves up to the end of the 8th century BCE. Full survey data is still required to back up these various conclusions, specifically differentiating more precisely sites termed broadly as “Iron Age” found in the few existing surveys of the region (Vaughn 1999, 45). According to the current data, however, this build-up of population density in the marginal regions appears to mirror the depopulation of the previously densely occupied Shephelah region which we discussed in detail in chapter 2.

Table 6: Occupation of Negev Sites

Site	10 th	10 th /9 th	9 th	9 th /8 th	8 th	8 th /7 th	7 th	7 th /6 th	Citation
Kadesh-Barnea	4				3			2	Cohen and Bernick-Greenberg 2007, 6
Tel ‘Ira		VIII				VII		VI	Beit-Arieh 1993d, 682; 1999, 170-73
Tell el-Kheleifeh ²³²							X		Pratico 1993, 870
Kuntillet ‘Ajrud ²³³				X					Meshel 1993, 1460
Horvat ‘Uza								III	Beit-Arieh 1993c, 1496; 2007, 4

²³² Glueck identified four periods of occupation at Tell el-Kheleifeh, period 1 dating to the 10th c., period II to the 9th c., period III to 8th c., and period IV from the end of the 8th-6th c. BCE (1993, 868-9). Pratico’s reevaluation of the site revealed two main phases, and earlier phase that could not be securely dated, and a later phase spanning from the end of the 8th-early 6th c. (1993, 870).

²³³ Arguments have been made to push the dating of Kuntillet ‘Ajrud into the middle or late 7th c. (Finkelstein and Piasezky 2008; Singer-Avitz 2006), see discussion in present chapter.

Table 6 (cont.)

Horvat Radum								X	Beit-Arieh 1993b, 1254-55; Beit-Arieh and Cresson 2007b, 314
Beersheba	V	IV			III II				Herzog 1993, 171
Arad			X		VIII/IX		VII	VI	Aharoni 1993, 82
Tel Halif				VIB		VIA			Segev 1993, 554
Tell el-Hesi			VIIc		VIIb			VIIa	Fargo 1993, 633
En-Gedi								V	Mazar 1993, 400
Lachish					III			II	Ussishkin 2004, 44
Qitmit								X	Beit-Arieh 1993a, 1230; 1995, 303
Tel Malhata		V				IV		III	Beit-Arieh 2008b, 1917
‘Aroer					IV III		IIA	IIB	Thareani 2011, 2

Finkelstein (1994, 176-7) hypothesizes that following the destruction of the Shephelah at the hands of Sennacherib in 701 BCE, settlement in the hill country concentrated in Jerusalem and in the rest of Judah settlement expanded into previously unexploited arid zones in the Judean Desert and Beersheba Valley. Finkelstein explains these shifts by suggesting that the expansion into the marginal zones was a result of population pressures. The Shephelah had previously served as the bread basket for Judah; however, that area was destroyed by Sennacherib and given to the Philistines, and was thus lost to Judah. At the same time, a flood of refugees poured into Judah from the Shephelah, many of them congregating in Jerusalem. Finkelstein (ibid. 178-9) suggests that expansion into the Negev was necessary to replace the lost farmland of the

Shephelah and was necessary to feed the population. Furthermore, he suggests that this expansion into the Negev was undertaken with Assyrian approval, for the purpose of exploiting the Arabian trade. Attempts to link the expansion of settlement in the Negev with the Arabian trade have also been supported by scholars such as Na'aman (1987, 10-12; 1995, 112ff; cf. also Finkelstein and Na'aman 2004, 69), Herzog (2002, 102), Thareani (2007, 75; 2014, 240), Lipschits et al. (2011, 25), Master (2009, 310), Holladay (2006) and Tebes (2006, 46). Faust and Weiss (2005, 74-5) call into question the validity of Arabian trade as a stimulus for settlement at this scale claiming that "there is very little evidence for this trade at the Negev sites, and the 'real' evidence for trade directs us mainly towards the north and west. Furthermore the Arabian trade, despite its great commercial importance, involved only small-scale (though expensive) loads, and it is unlikely that it alone would cause such settlement growth." They go on to argue that the expansion in the Beersheba Valley parallels the expansion in the Judean Desert, which they claim does not have strong links to the caravan trade. Faust and Weiss then support the theory of Finkelstein that the valley serves as a bread basket for Judah following the loss of the Shephelah to Sennacherib. The bread-basket theory, however, is not without flaws of its own. Faust and Weiss (2005, 75) follow Finkelstein (1994, 177), who in turn cites Herzog (1994, 126-7), that the production capacity of the Beersheba Valley amounts to over 5,000 tons of grain a year. Master (2009, 309), however, has already noted that the numbers cited by Faust and Weiss and Finkelstein assume Herzog's 'optimal conditions,' which Herzog (194, 126) suggests may never have existed (namely 250mm of annual well distributed precipitation). Modern measurements reveal a much smaller average of only 204mm annually. Master (2009, 309) goes on to assert that "even an average of 250 mm per year would have had to allow for frequent crop failures during below-average years in which the rainfall dipped below 200 mm." During the

period from 1920-1965, for example, the station at Beersheba recorded as average annual rainfall of just 195mm. The maximum rainfall measured at 339mm, well within the capabilities for dry farming, but the minimum year recorded just 82mm, which would have led to widespread crop failures in the region (Evenari et al, 30, table 1). The variation between these numbers highlights the unpredictability of rainfall in the region. During an average year Beersheba might experience 35 days of rain, with only 6 days where the amount surpassed 10mm (Evenari et al., 33 table 4). Thus, Master (2009, 309-10) concludes that dry farming in the region would be a risky proposition for simple subsistence, let alone surplus, and certainly insufficient to replace to productive capacity of an area such as the Shephelah. This conclusion is supported by the Arad ostraca, which show that the region was being supported by supplies from the hill country and not the other way around. The basics of this argument are repeated by Lipschits, Sergi and Koch (2011, 25) who agree that the agricultural activity attested in the region was only aimed at providing subsistence level supplies for local towns and fortresses.

Vaughn (1999, 58) broadly suggests that the expansion of settlement in the Negev in the 7th c. BCE reflected “the necessity of the Judean government to seek economic growth and development in an area that previous regimes would have regarded as too marginal to warrant as great an investment of resources,” although how exactly the Beersheba Valley would contribute to the economic growth of Judah is left unspecified. Thareani (2007, 74) argues that the settlement expansion in the 8th century BCE reflects a time of economic prosperity stimulated by Assyrian occupation beginning at the time of Tiglath-pileser III, who imposed Assyrian interests on the existing trading networks. Thus she claims that the *pax Assyriaca* was responsible for the demographic expansion which occurs at the end of the 8th c. BCE, in the wake of reduced

conflict with Judah's neighbors, all of whom existed under Assyrian hegemony (ibid. 75; 2014, 229).

Beit-Arieh (1999, 2; 1989, 125; 2009) has suggested that the increased settlement in the Negev, especially the founding of the fortresses, reflected security concerns, and that these were meant to guard against attacks by Arab desert tribes, Edomites, or other threats lurking in the desert. He suggests that instances of Edomite pottery at sites across the Negev, Edomite inscriptions, such as the example from Horvat 'Uza, and the Edomite shrines at Qitmit and En Haseva are further evidence of Edomite incursions into the Negev during the late Iron Age (1989, 125-7, cf. counter argument against the characterization of these as "Edomite" in Bienkowski and Sedman 2001, 320). Stern (2001, 268-273), and to a lesser extent Bartlett (1989, 141-142), also support the idea of an Edomite invasion of the southern Negev in the late Iron Age. Arad letter 24 certainly seems to support this claim, suggesting that a group of persons, likely troops, are needed urgently "lest Edom come" (Dobbs-Allsopp, 48-49; cf. also Aharoni 1981, 150). Hostilities between Judah and Edom at the end of the Iron Age are also attested in the Bible (Ezekiel 35:5; 36:5; 25:12; Obadiah 1; cf. discussion in Dicou 1994, 40-1), particularly in regard to the fall of Jerusalem and the events surrounding the exile of Judah (Psalm 137:7; perhaps Lamentations 4, cf. discussion in Bartlett 1989, 151-157 and Dicou 1994, 182-8). Finkelstein (1992), Bienkowski and Van der Steen (2001), and more recently Tebes (2006) have argued against these conclusions and have suggested that the Edomite material culture in the Negev is evidence of shared socio-cultural links between the two regions that follow the Arabian trade route, rather than evidence for a violent incursion.

From a more general perspective, the potential threat to sedentary communities bordering the desert from the pastoral nomadic tribes is amply attested in the Neo-Assyrian records. During

the reign of Ashurbanipal Moab was attacked by a force of Qedarites under Amuladdin, which they were able to defeat (cf. Gerardi 1992, 73), however *SAAI* 9 29, a letter from Qurdi-Aššur stating that “the Qedarites went straightaway to Moab and defeated it,” reveals that this was not the first of such difficulties, and that the Moabites were not always successful. Administrative letters also record the potential threat from the desert. *SAA I* 175 records an attempted raid on a column of tribute traveling from Damascus to Assyria, and *SAA I* 178 and 181 include reports that the official was keeping a close watch over the desert. *SAA I* 82 records that the local pastoral nomads resorted to plundering nearby towns when hungry and *SAA I* 84 records the plundering of Sippar by a group of Arabs. Whereas all of these events occur further north, they adequately show the potential dangers lurking in marginal areas that might require additional fortification.

In the early Iron II, a series of fortresses and settlements were attested in the central Negev highlands (Haiman 1994; Cohen 1979; Aharoni 1967). These earlier settlements in marginal zones have been identified by Haiman as politically motivated constructions for issues of security.²³⁴ Although this region is more arid than the Beersheba valley, many of the same difficulties applied in both periods and Haiman (2003, 77) concluded that in the early Iron II “the settlements in the Negev could not have supported themselves under the prevailing environmental conditions, they could exist as long as they furthered the interests of the state.” Conditions in the 8th century led to the abandonment of these settlements and fortresses, but the line of defense may have been re-established closer to home in the 7th century for similar reasons, marked by new fortresses and settlements in the region of the Beersheba valley. These fortresses along the edge of the desert were not unique to the Negev of Judah. Strings of

²³⁴ The identification of these buildings as fortresses, or royally sponsored is under debate. Alternatively it has been suggested that they were the settlements of sedentarizing nomadic groups, and Faust has claimed that they are settlement of displaced peoples from the Beersheba valley as part of the process of Iron I settlement (2006).

fortresses have also been suggested in Ammon and Moab (Oded 1970, 184), although the dating of these to the Iron Age, as well as their identification as fortresses, has been called into question (Bienkowski 1992, 4; 2000, 50). Recent excavations in Edom have also revealed a number of fortresses dating to the Iron Age (cf. Ben-Yosef et al. 2014).

Around the same time as the demographic expansion in the Negev, a similar expansion was taking place across the Aravah in Edom. The chronology of Edom is notoriously problematic, making any larger demographic claims especially difficult and therefore tentative. However, sometime in the Iron Age Edom experienced a massive expansion of settlement. Suggestions for dating this expansion have varied from the early Iron I to the Iron IIC. Although the ceramic chronology of Edom is still not yet firmly established (Bienkowski 1995a, 102; Singer-Avitz 2004a, 83), the majority of forms suggest that this expansion occurred late in the Iron Age, likely the 7th/6th c. BCE (Hart 1995, 97; Bienkowski 1995b, 45). If this is the case, settlement expansion in Edom would parallel a similar expansion in the Negev, although Busayra painted ware found in Beersheba stratum III/II may move this date back into the 8th c. BCE (cf. Singer-Avitz 2004a, Bienkowski 2002, 350-51; Bienkowski and van der Steen 2001, 23), which would follow the pattern of Negev expansion according to the recent reconstruction of Thareani (2007). The connectivity of the two areas has been highlighted by Bienkowski and Van der Steen (2001, 21), who suggest that the Negev and Edom were complementary and part of the same environmental and socioeconomic system (cf. also Bienkowski 2002, 350). They go on to suggest that this link was the result of pastoral nomadic tribal groups traveling around the larger region of the southern Transjordan, Negev, and north Arabia, involved in trading and herding activities (2001, 41). Bienkowski and Van der Steen (2001, 24) attribute this settlement expansion as a response to the Assyrian Empire, suggesting that the “beneficial political and

economic effects of the *pax Assyriaca* may well have encouraged settlement” and that in particular, the Assyrians were likely interested in the copper of the wadi Faynan. In order to shed light on these different theories regarding the demographic changes in the Negev, we will briefly turn our attention to some of the so-called Edomite indicators in the material culture of the region.

Material Culture

“Edomite” Script

One feature that has been used to argue for an increasing Edomite presence in the Negev during the late Iron Age is the appearance of Edomite ostraca at sites in the Negev. Unlike Edomite-style pottery, evidence of Edomite script cannot fall into the category of a local imitation and thus is more clearly associated with a foreign presence in the Negev. Edomite cursive script was identified by Joseph Naveh (1966) during his examination of two ostraca from Glueck’s excavations at the site of Tell el-Kheleifeh, where he found that some of the inscriptions showed particularly heavy Aramaic influence. Perhaps the most cited example is an ostraca from the fortresses at Horvat ‘Uza, dating to the 7th century BCE and written in Edomite, found in close proximity to other inscriptions written in Hebrew and containing a reference to the Edomite god Qaus (Beit-Arieh 2007, 133-34; Beit-Arieh and Cresson 1985). A number of ostraca have been found at Qitmit that record the divine name *Qaus*, but unfortunately they are highly fragmented and difficult to read (Beit-Arieh 1995, 258-68; Rollston 2014, 966). An ostrakon from ‘Aroer is also identified as Edomite on the basis that some of the letters bear a closer resemblance to Aramaic forms, like the examples from Tell el-Kheleifeh (Naveh 2011, 227). Rollston (2014, 966) mentions an additional possible example from Tel Malhata that has not yet been published.

Due to the similarities between Hebrew and Edomite script, the designation of Edomite has largely been employed on the grounds of the identification of Edomite names, that is, those bearing the theophoric element *Qos/Qaus* (Vanderhooft 1995, 138). There are few texts preserved outside of Edom and these mostly consist of lists of personal names or seals and sealings (ibid. 139; cf. also Rollston 2014). While an interesting example of Edomite presence in the Negev, these inscriptions can hardly be used in defense of an Edomite conquest of the Negev in the late Iron Age that included sites such as Horvat ‘Uza and Tell el-Kheleifeh. Edomite script is also attested on a small corpus of Edomite seals (Herr 2014, 196-97), including finds from ‘Aroer (Avigad and Sass 2011, 227), Kheleifeh (Rollston 2014, 966) and Hazeva (Naveh 2001).

“Edomite” Pottery

Any discussion of the relationship of the Judahite Negev with the south-east requires a discussion of a few distinct types of pottery that appear throughout the region during the Iron II, namely the so-called “Edomite” wares. The term “Edomite” pottery dates back to the early surveys of Transjordan conducted by Nelson Glueck, and was used by Glueck to discuss a certain subset of pottery from the Bronze and Iron ages that featured well levigated clay, buff firing, a grey core, and distinctive painted decorations (Mazar 1985, 253). Later excavations led to the separation of this broader group into an earlier subset, termed “Midianite” pottery, and the later subset of “Edomite” pottery, dating to the Iron II (Dayton 1972, 25; Mazar 1985, 253). Both of these labels have again been replaced, with the painted pottery of the Late Bronze Age and Early Iron Age called more recently Qurayya Ware (Parr 1988, 74; 1989, 42; Singer-Avitz 2004b, 1280-81), whereas the painted pottery of the Iron II has been relabeled as “Busayra painted ware” by Bienkowski (1992, 7; cf. also Bienkowski and Sedman 2001, 319), in an attempt to avoid misleading ethnic connotations.

More recently, the term Edomite has been applied to three types of vessels: the later painted wares originally identified by Glueck and re-termed by Bienkowski as Busayra painted ware, a set of plain wares commonly found throughout southern Transjordan and the Negev which is reminiscent of Assyrian style pottery and termed “Assyrian-Edomite” by Na’aman and Thareani (2006), and finally cooking pots with distinctive stepped rim, often produced using Edomite clays.

Among the more distinctive types of Edomite pottery are the decorated wares. Bienkowski’s label of Busayra painted ware also serves to distinguish between the painted “Edomite” pottery and the unpainted forms that are especially prevalent in the assemblages of the southern Levant, although in the Negev the same material is still often called “Edomite decorated ware” (Thareani 2010). The dating of Busayra painted ware has been an issue of archaeological debate, primarily due to the paucity of well stratified sites within Edom, which has led ambiguity within the ceramic assemblage (Bienkowski 1995a, 102; Singer-Avitz 2004a, 83; although cf. recent typological work with accompanying dates coming from excavations in the vicinity of Wadi Faynan, Smith and Levy 2014). In Edom there are very few links between the relative and absolute chronology, the most important of which is a seal found at Umm al-Biyara belonging to *Qos Gabr*, king of Edom, who is equated with *Qaushgabri*, an Edomite king known from the annals of Esarhaddon and thus dating to the late 7th c. BCE (Hart 1995, 263-64; Van der Veen 2011, 81).²³⁵ Based on the identification of this seal, Hart (1995, 263-4) has suggested that the Busayra painted ware, which is not found in the same levels as this seal, belongs to the late 7th/6th c. BCE, due to its appearance alongside a tablet dated to the Persian period found at Tawilan. He suggests that this is supported by lesser amounts of painted ware at

²³⁵ This seal is not universally accepted as belonging to the 7th c. Edomite king, including an alternative reading by Vanderhooft, 1995. For a discussion of the dating of this piece cf. Singer-Avitz 2014, 268-9.

the earlier levels at Busayra. Due to the problematic stratigraphy of Busayra, however, this categorization is difficult, with Bienkowski dating the Iron II level to anywhere between the 8th century and the 4th/3rd century transition BCE (2002, 351; 1995a, 102). Finds of Busayra painted ware in 8th c. levels at Beersheba (Singer-Avitz 2004a) and ‘Aroer (Thareani 2010, 46) represent the earliest well-stratified attestations, although the ware is certainly more common in the Negev in the 7th/6th c. BCE (Thareani 2010, 49). In the Negev, Busayra painted ware is attested at Beersheba (Singer-Avitz 2004a), ‘Aroer (Thareani 2010, 38-41), Kadesh-Barnea (Bernick-Greenberg 2007, 168-70), Qitmit (Freud and Beit-Arieh 1995, 252-53), Tel ‘Ira (Freud 1999, 194), Tell el-Kheleifeh (Pratico 1993, 47), Tel Masos (Zimhoni 1983, 129), and Tel Malhata (Mazar 1985, 264). Very few sherds are attested in the western Negev out to the coast, although a single sherd has been found at Ashkelon (Stager et al. 2011, fig.5.73) and a limited amount of sherds have also been found at Tel Haror and Tel Sera’ (Mazar 1985, 264). Busayra painted ware is distributed primarily in areas south of the Beersheba valley, with very few examples west of that region (Thareani 2010, 37).

In the Negev, the Busayra painted ware was invariably made with local clays. Gunneweg et al. (1991, 248-9) conducted tests on 40 pieces of decorated Edomite pottery, 5 originating from Transjordan and 35 from the Negev. Of these sherds the five excavated in Jordan were locally made in Edom, whereas the samples from the Negev were similar to examples of pottery from Beersheba (cf. also Gunneweg and Mommsen 1995, 284-86). Similar results were found in petrographic studies on the pottery from ‘Aroer (Iserlis and Thareani 2011.). Bienkowski (1992, 7) emphasizes that the label of “Edomite” for this pottery group can be misleading, since the material is found and manufactured both in the southern Transjordan and also in the Negev. He cautions that there is insufficient evidence linking this pottery to an ethnic group, and that instead

it could be considered the standard painted pottery for an area including, but also extending beyond, Edom (Finkelstein 1992, 157; Tebes 2006, 52; Bienkowski and Sedman 2001, 319).

A second set of “Edomite” pottery in the Negev includes forms that share typological similarities with forms common in Transjordan. The large degree of similarity between these transjordanian forms and the so-called Assyrian pottery has been the cause of some confusion and discussion regarding the proper influences of this style. The pottery in question consists of a few characteristic forms, namely thin-walled bowls, carinated bowls, beakers, and goblets, featuring a light colored buff fabric (Na’aman and Thareani 2006, 61). These types of vessels are common at Edomite sites, where Crystal Bennett (1978, 169-70; 1982, 183) suggested that they showed Assyrian influence in form, although noting that they were produced locally. Central to her identification of the pottery as Assyrian was its presence in the tomb of Adoni-Nur, where this type of pottery was found alongside Assyrian style seals. Na’aman and Thareani (2006, 64), however, argue that this type of pottery is distinctively Edomite and although the Edomite potters may have been influenced by Mesopotamian styles, the presence of this pottery in Judah, especially in the Negev, was more indicative of connections with the Transjordan than Mesopotamia. They point to the distribution of these forms, primarily in Negev sites, in comparison to their comparative rarity in northern sites under direct Assyrian influence from an earlier date. A survey of these plain ware forms has been conducted by Whiting (2007, 110-12), who found that the assemblage of so-called Edomite plain ware found in the Negev was made up of primarily bowls and cooking pots, only a portion of the larger Transjordanian assemblage (cf. also Singer-Avitz 2014, 267-271). Whiting (2007, 123) suggests that the pattern shown in the assemblages in the Negev reveals the selective adoption of certain forms, rather than evidence of any ethnic migration of Edomites into the Negev areas.

The final group of “Edomite” pottery commonly found in Negev assemblages is Edomite cooking pots. Unlike the painted wares and other plain wares, all of which were produced locally with local materials, the cooking pots source petrographically to areas of the Transjordan, and are the only form that could be considered an import (Gunneweg 1991 et al., 248-251; Tebes 2006, 52; Thareani 2007, 233; 2010, 37; Iserlis and Thareani 2011, 185).²³⁶ This form is common at Negev sites such as Horvat ‘Uza and Horvat Radum (Freud 2007a, 81; 2007b, 318), Tel ‘Ira (Freud 1999, 227), Qitmit (Freud 1995, 253-5), ‘Aroer (Thareani 2011, 156-57), Kadesh-Barnea (Bernick-Greenberg 2007, 168-70), Arad, Malhata, and En Hazeva (Whiting 2007, 111-112; Freud 2014).

Discussion

Attempts to explain the historical processes that led to the emergence of the “Edomite” assemblage in the Negev have been varied. Early explanations focused on an ethnic migration or incursion of Edomite peoples into the Negev, a theory developed by Aharoni (1981, 150) in response to Arad letter 24, and defended most extensively by Beit-Arieh (1999, 2; 1989, 125) and Stern (2001, 268-271). Tebes (2006, 52) suggests that the Edomite ceramic assemblage reflects the agricultural, semi-urban environment of northern Negev and Edom in the late Iron Age and that it was part of a larger long-term pastoral nomadic tradition in the broader region of the Negev, southern Jordan, and Hejaz dating back to the Iron I serving as a continuation of the Negebite and Midianite traditions. Most of the Edomite cooking pots found in the Negev were produced in Transjordan. Edomite wares were manufactured by the heterogeneous ethnic groups living in Edom and the Negev during the Late Iron Age, either Edomites or other people. These

²³⁶ Freud has questioned this conclusion based on her analysis of the cooking pots from Tel Malhata and Horvat ‘Uza. She noticed that the Edomite cooking pots were all made of sandstone clay different from the desert loess. While in previous studies this has been associated with areas in Edom and the Arabah, Freud hypothesizes that formations of this clay type may have also existed locally in the Beersheba valley, and that the vessels are not, in fact, imported. At this juncture, however, such clay beds have yet to be located (Freud 2014, 295-97).

groups had a mixed economy of settled agriculture and nomadic pastoralism (ibid. 53). From his publications of the excavations at Busayra, Bienkowski (2002, 350) concludes that the pottery forms that do not find parallels in southern Edom have parallels from the Negev. From this, he suggests that there was a characteristic assemblage of northern Edom and the Negev that was demonstrably different from the assemblage of southern Edom. Bienkowski and Van Steen (2001, 27) also warn that in Negev assemblages the Edomite component is often over-emphasized, interpreting most non-Judahite forms as the result of Edomite influence or presence (cf. also Tebes 2006, 55-57).

Singer-Avitz (2014, 271-2) attributes the appearance of this pottery in 8th century Judah to the growth of the Arabian caravan trade under the aegis of Neo-Assyrian rule. Tebes (2006, 54) suggests that “the distribution of Edomite pottery in the Negev suggests a defined pattern of movement. The nahal Beersheba-nahal Besor line is the most noticeable...Another route maybe less used at the time, connected the gulf of Aqaba to Gaza” and concludes that nomads living in Negev and Edom may have controlled the Arabian trade, rather than direct connections between South Arabia and the Mediterranean coast (2006, 55, Bienkowski and Van der Steen 2001, 21). Thareani (2011, 51) suggests that the Edomite painted wares, alongside Edomite style cooking ware and inscriptions, are indicative of a tribal group residing in the Negev at the end of the Iron Age with a cultural orientation towards Edom, who were motivated to settle down in the region due to their connections with, and influence upon, the South Arabian trade. The decorated pottery served as a means of maintaining and emphasizing this tribal identity in a new context where they were surrounded by other ethnic groups (ibid. 52). Whiting (2007, 123) argues against the pottery having any ethnic significance, noting the variation and diversity between the assemblages both between sites in the Negev, and between the Negev as a whole in comparison

with Transjordan. She suggests that the presence of “Edomite” forms represents the selective appropriation of inhabitants of the Negev of certain Edomite cooking and serving activities, a choice reflected in the pottery used for those activities (2007, 129). This explanation, however, does not account for the sudden appearance and proliferation of these forms specifically in the 8th and especially into the 7th centuries BCE, nor does it account for the demographic growth of the region.

Conclusions: Settlement in the Negev

The problem remains to find an explanation that is fitting to describe both the expansion of settlement in the Negev during the late Iron Age, as well as the appearance of “Edomite” pottery in the late Iron Age assemblages of the region. A sedentization movement among Negev tribes may solve the demographic issue, while maintaining Whiting’s desire to avoid the ethnic explanations for the presence of Edomite pottery. Thus, we return to the explanation of Bienkowski and Van der Steen (2001, 39) and their suggestion that the so-called “Edomite” pottery is part of a local tribal assemblage. This conclusion is fully compatible with the variation and diversity described by Whiting in her statistical analysis. Whiting (2007) emphasized that between various sites the forms of Edomite pottery used were diverse, varied, and inconsistently present on a site-to-site basis. If the assemblages of the Negev and southern Transjordan in the late Iron Age reflect a variety of tribal groups, each overlapping selectively with the territory of another, as Bienkowski and Van der Steen (2001) suggest, then one would expect a large amount of variation and selective appropriation different to each group. Also, as Bienkowski and Van der Steen (2001) note, none of these tribal groups could be considered strictly an ethnic group. The tribes settling in the region of the Negev likely had a home range and territory based in the Negev, but their movements were likely not limited by any “national” boundaries. In this case,

the question becomes ‘what caused these nomadic groups to settle in the late Iron Age?’ A primary cause may have been security. The construction of a string of fortresses across the Negev reflects security concerns in the area in the late Iron Age. Similarly, the Assyrian texts reveal problems with desert groups outside of Transjordan such as the Qedarites. More aggressive nomadic groups infiltrating the area or taking over pasturage may have encouraged a sedentization movement among local tribes, who desired the protection afforded the settled communities. There is no reason, however, to assume that these tribes were necessarily heavily involved in long-distance trade, as concluded by Bienkowski and Van der Steen (2001, 40), rather they could just as easily represent pastoral nomads inhabiting the region, as they had done for centuries previously, a relationship already suggested by Tebes (2006, 52). Bienkowski and Van Steen’s (2001) conclusion that the settlement of these tribal groups was related to the South Arabian trade, however, is problematic. They suggest that the tribes controlled and occasionally raided the caravan trade, but the nature of this ‘control’ is not fully developed. Tebes (2006, 55) suggests that “contrary to the common assumption of a direct relationship between southern Arabia and the Mediterranean coastal area, there is archaeological evidence to argue that the traffic in Arabian incense between southern Jordan and the Mediterranean was controlled by the nomads living in the Negev and Edom.” This type of middle-man down-the-line trading with local control is certainly not the pattern suggested by the limited textual evidence and Tebes’ ‘archaeological evidence’ to the contrary is reliant on his interpretation of the Edomite pottery, for which we have discussed a number of alternative explanations. The Suhu caravan texts suggest that Sabaeans and Temanites were present with their caravan in the middle Euphrates, and that they had not handed off their goods to tribal intermediaries. Similarly, the Sabaean royal inscription that details a trade journey from Saba’ to the Mediterranean suggests that the man of

Saba' accompanied the caravan not only to the Mediterranean coast, but as far as Kition on Cyprus. These texts therefore argue against the extensive participation of local tribesmen as traders. We maintain, however, that they could have participated in the trade in other ways, via either raiding and robbing as suggested by Bienkowski and Van der Steen (cf. for example *SAA 1*, 175), or providing protection against other such tribes. These activities, however, would not explain the sudden appearance of new pottery forms in the region, nor a sedentarization movement. Bienkowski and Van der Steen's (2001, 41) final point is that much of the Edomite pottery was found near settled sites, likely representing areas where tribes mingled with locals, and where they had grazing grounds or small-scale agricultural holdings.

Haiman (2007, 60) has suggested that ethnographic studies of Bedouin economy show that in harsh environments often times the traditional occupations of pastoralism and agriculture are only of secondary importance, and that subsistence for these nomadic groups is tied to their relationship to the permanent settlement, possibly even subsidized by the state. In his review of the settlement in the Negev highlands from the early Iron Age II, Haiman (2007; 2002, 29) finds that the settlements emerged in areas dominated by fortresses, rather than locations ideal for water conservation and runoff agriculture. This preference for proximity to sedentary sites in the settlement pattern of nomads may explain the settlement patterns of the Iron IIC. In this case, the frontier and fortresses were centered in the Beersheba Valley, rather than the Negev highlands, but the motivations could remain analogous. Such sedentarization movements are documented from other time periods in history and form a known pattern where pastoral nomads oscillated between sedentization and nomadization along the marginal desert fringes of the southern Levant throughout its history (cf. for example Labianca 1990; Rosen 2008, 127-130). The late Iron Age could easily be another example of this type of process. Thus, the emergence of the caravan trade

and the settlement dynamics in the Negev should not be seen simply as a cause-and-effect type of relationship, at least not directly. The fortresses may be related to infrastructure erected to protect and profit from the caravan trade, or to incentivize the use of a specific route. At the same time, the construction of these fortresses, possibly alongside subsidies from the central government, could have encouraged a temporary sedentarization movement along the southern frontier of Judah. We have stressed that the caravans were not lucrative enough to fuel the entirety of Judah's economy, but limited taxation of the caravans by the palace still provided the easiest means of obtaining certain amounts of desired prestige goods valued by the higher classes and the palace. This in itself made them a valuable commodity to the palace, but not for the potential of transferable wealth in the sense of money or bullion, such as Holladay (2006, 2009) suggests, but rather as an easy means of acquiring prestige items, meant to increase the status of the elite. The desire for these goods would have provided sufficient motivation for the palace to take steps to incentivize the use of certain routes that benefited them by investing in local infrastructure. At the same time, there is no need to attribute all such developments to the top down impositions of the palatial administration. In his study of the infrastructure of trade, Barjamovic provides examples of the importance of local movements for the development of infrastructure independent of a government mandate due to the potential economic boost of increased connectivity (2011, 20-21).

Thus, the changes in the Negev are best attributed to a combination of elements. On the one hand, there was certainly some interest in the newly developing caravan trade and some of the developments in the region are likely related to attempts to encourage the use of a certain route through investment in local infrastructure (fortresses, caravanserais, etc.), either by the palace or by local individuals looking to capitalize on new developments. On the other hand,

some of the developments are best seen in relation to security concerns and regional instability among some of the pastoral nomads in the area. This unrest is indicated in the Assyrian texts and suggested by certain biblical passages and the Arad letters. This instability could have motivated the construction of forts in the region and may have encouraged certain local groups to settle in or next to these sites for additional security. This sedentization movement would explain both the demographic increase in the region, as well as the presence of Edomite materials, assuming that the range of these groups included territory in both the Negev and Edom as part of their seasonal migration patterns.

How do we fit this into our model of New Institutional Economics? First we must introduce a new institution: pastoral-nomadism. The pastoral nomads formed their own social context, with their own economic logic, based on herding, migration, and connections with local sedentary populations. Yet from time to time, certain events could incentivize tribal groups to switch to the social context of household subsistence farming. These events might be environmental or political, which seems to be the case here. Hostile tribes motivated certain nomad groups to settle and to shift the economic sphere in which they participated. It is also possible that these groups had better relationships with the caravans and as such, their cost for transacting with them was lower. This advantage, along with better knowledge of the trade and the profits associated with it, may have further incentivized sedentization along the trade route so as to share in its profits. The nomads who had more opportunities to encounter the South Arabian traders would make good candidates for the early participants in the developing economic sphere of the trade route.

Chapter 5: A View to the West, Phoenicians, Greeks and the Role of Mediterranean Trade

Introduction

In this chapter, we will turn our attention to the west and the Mediterranean world, examining how Mediterranean trade interacted with the southern Levant in the late Iron Age. A reconstruction of the economics of the southern Levant in the late Iron Age is impossible without discussing the role of the Phoenicians. The Phoenicians were clearly oriented towards the social context of the market. Because of this strong orientation, they were also essential for driving developments within the social context of the market. In particular, Phoenician expansion was focused on reducing transaction costs. Any reduction of transaction costs had a large payoff for the Phoenician traders, but also by extension benefitted other individuals or groups that participated with the Phoenicians in the Mediterranean market.

In this chapter, we will briefly review the history of Phoenician activity in the Mediterranean, examine previous scholarship on their role in the economics of the region, and evaluate the nature of their relationship with the Assyrians, the southern Levant, and their function within the larger trade network. The Phoenicians were not the only player in the world of Mediterranean trade at the end of the Iron Age. Towards the end of 7th century BCE the Greeks began to play an increasing role and therefore we will also examine how the re-emergence of the Greeks as a force in Mediterranean trade affected both Phoenicians and the economy of the southern Levant. Connections to west and the Mediterranean world, as well as participation in the Mediterranean market, were not new phenomena to the Iron Age; these connections stretch back into the Bronze Age. The intensity of use of the Mediterranean shipping routes and the connections between east and west oscillated through time, but are consistently attested. Thus, Mediterranean trade is an important aspect of the *longue durée* of the southern

Levant.²³⁷ However, it is the specifics of the conjunctures of this trade in the late Iron Age that are the focus of this chapter.

Phoenicians in the Mediterranean in the Late Iron Age

Historical Overview

Broadly speaking, “Phoenician” is a generic term for the cultural successors of the Late Bronze Age Canaanites that inhabited the cities along the coast of the northern Levant (Lipinski 1995, 1321, Aubet 1993, 10-11), and Phoenicia is the name given to a stretch of coastal strip between Syria and the Akko plain (Pappa 2013, 1). The Phoenicians are defined archaeologically according to a set of similar material culture, even though the concept of Phoenicians encompasses a number of independent political city-states, much like the Philistines of the south (Aubet 1993, 16; Sherratt 2010, 122; Pappa 2013, 1). The term Phoenician is of Greek origin, and was originally used to describe people of eastern origin, particularly people from the Northern coast of the Levant, stretching from Arwad to the Carmel region (Aubet 1993, 5, Lipinski 1995, 1321, Moscati 1995, 2-3; Culican 1991, 461).²³⁸ The Phoenicians include the people from a number of independent city states located along the coast of Lebanon, the most significant of which include Tyre, Sidon, and Byblos, but also sites such as Akko, Achziv, Sarepta, and Arwad, as well as their colonies spread across the Mediterranean (Aubet 1993,

²³⁷ The discussion of the Mediterranean as a larger geographical entity throughout long-term time was the primary focus of Braudel (1972); however more recent work has also highlighted the history of the region as a whole, taking into account the unifying themes in light of temporal and special differences has more recently resurfaced in the work of Horden and Purcell (2000) and Broodbank (2013), who has also added important observations on the importance of maritime activity back into at least the Neolithic period (2006).

²³⁸ The etymology of this term is a matter of debate, possibly relating to the Greek term for the red-purple dye produced by the region (Moscati 1995, 1; Astour 1965), or perhaps another interpretation of the term red meaning bloody, or a stemming from an eponymous hero *Phoinix* (Aubet 1993, 7). Sherratt suggests that in the early references to Phoenicians in Homer the term specifically applied to Tyrians, noting that Sidonians were referred to as such, and were seen in some cases as separate from the Phoenicians (2010, 125-6), however Winter argues that the terms are interchangeable and synonymous (1995, 247).

15).²³⁹ The Phoenicians self-identified either as *can'ani* --Canaanites, or with their city of origin. Modern scholarship identifies North West Semitic inhabitants of the Syro-Palestine region up until 1200 BCE as Canaanite, and their Iron Age successors as Phoenician (Aubet 1993, 10; Pappa 2013, 2). In this sense, the Phoenicians can be viewed as Iron Age Canaanites and are a product of the geo-political changes in the region between the Bronze and Iron Ages, most notably the arrival of the Sea Peoples and the collapse of traditional Late Bronze Age polities, such as Ugarit (ibid. 11). For the purpose of this study, we classify Phoenicians as the inhabitants of the city-states along the coast of the northern Levant and the colonies established by these city-states, while fully acknowledging that this analysis combines a number of independent and individually motivated polities, the most prominent of which were Tyre and Sidon.

Phoenician Expansion and Settlement in the Mediterranean

As the successors to the Canaanite coastal cities along the Syro-Palestine coast, the history of the Phoenicians and their trade networks must be traced back to their Late Bronze Age predecessors (if not earlier). The location of the Phoenician cities along the coastal plain made them ideally suited geographically to exploit maritime trade. The most prominent Phoenician cities were located along the coast, exploiting bays or inlets that provided natural harbors and protection for ships (Aubet 1993, 15). Although the agricultural hinterland was fertile, it was insufficient to support a large population, thus directing the attention of these coastal cities to the sea (ibid. 16). A discussion of the Late Bronze Age trading networks is beyond the scope of our present study,²⁴⁰ but the significance of this relationship is that the Phoenician trading network did not arise suddenly from a vacuum, but rather was the continuation and expansion of a

²³⁹ In scholarship of later periods the Phoenician colonies that survive on the west, most notably centered around Carthage are termed 'punic' but this change post-dates the focus of this study (Moscati 1995, 1)

²⁴⁰ There are many studies of Bronze Age trade available, for instance Monroe 2009, Sherratt and Sherratt 1991, Sherratt 2003, Cline 1994. For a more specific discussion of the relationship of the Late Bronze Age network to the emergence of the Phoenicians cf. Markoe 2000, 14-22 and Aubet 1993, 18-21.

centuries-long tradition of trade between the Levantine mainland the Mediterranean stretching back into the Bronze Age. The collapse of the Late Bronze Age political system around 1200 BCE is generally regarded as the historical landmark ushering in the rise of a “new” system of Mediterranean trade, in which the Phoenicians were one of the most significant players (Aubet 1993, 10, Moscati 1995, 2).

The early Iron Age has been historically viewed in Mediterranean scholarship as “the Dark Age,” bridging the gap between the collapse of the Late Bronze Age political system and the rise to prominence of Mediterranean trade in the Iron II (Dickinson 2006, 1ff., Niemeyer 2000, 92).²⁴¹ It is certain that the collapse of the Late Bronze Age system led to sweeping changes in the political organization, economy, and trade throughout the Mediterranean (Markoe 2000, 23), but trade in the Mediterranean in this period, while severely altered and disrupted, did not cease (Niemeyer 2000, 92; Aubet 1993, 25). This fact is evidenced most clearly in the 12th century Egyptian tale of Wenamun, an Egyptian official sent to broker the trade of cedars between Egypt and Byblos. The Phoenician cities of Byblos, Sidon, and Arwad also are noted as paying tribute to Tiglath-pileser I in the Assyrian annals. However, overall the activities of the Phoenicians during the 12th-11th centuries BCE are poorly attested both textually and archaeologically (Aubet 1993, 25; Markoe 2000, 26).

The tenth century witnessed what Aubet (1993, 27) terms the beginning of the “golden age” of Phoenicia, beginning with the reign of Hiram I of Tyre. Markoe (2000, 29) suggests that this process began even earlier and that “by the second half of the eleventh century...the Phoenicians had embarked upon a period of active trade and commercial expansion that would lay the groundwork for future developments in the first millennium BC.” In particular, Markoe

²⁴¹ In Greece the Dark Ages represent the period after the collapse of the Mycenaean Palatial system until ca. 700 BCE, however the Phoenician trading routes recover from this much earlier. For a discussion of this cf. Dickinson 2006, 1-9.

cites the spread of characteristic Phoenician bichrome pottery across the Levant during this period. It is during this period that we see the first step in a multi-stage process of Phoenician expansion that spanned the Mediterranean over the course of the first millennium BCE. The first phase consisted of an expansion of trade and the spreading of material culture, merchants, and perhaps artisans across the Mediterranean. The second phase was one of colonization, featuring the establishment of permanent settlements in foreign countries (Niemeyer 2000, 96; 1995, 265; Gonzales de Canales 2009, 1-3).

The first phase of Phoenician expansion is generally known as the pre-colonization phase, and took place in the 11th-9th centuries BCE. This period is marked by the discovery of Phoenician material culture across the Mediterranean, in particular luxury goods. These items do not appear to be accompanied by more permanent settlements and appear in the indigenous material culture assemblages (Van Dommelen 1998, 71-2, Markoe 2000, 32-3, Gonzalez de Canales et al. 2009, 1-2).²⁴² The literary sources for Phoenician colonization suggest the foundation of colonies during this period,²⁴³ however archaeologically these settlements are usually dated to the second half of the 8th century BCE (Van Dommelen 1998, 72, Niemeyer 2000, 97).²⁴⁴ Biblical accounts of trade relations between David and Solomon with Tyre are further evidence of this initial phase of commercial expansion.²⁴⁵ This early period is characterized by repeated contact with regions across the Mediterranean through periodic journeys that eventually led to the establishment of more permanent ties (Pappa 2013, 17).

²⁴² Van Dommelen has argued that the presence of Phoenician material culture, especially isolated forms, does not justify the notion of pre-colonialism, and should be reserved for cases where a direct relationship exists between temporary and permanent settlement, 1998, 73.

²⁴³ Dates as early as the 12th century are cited in classical sources for the founding of Utica, Gadir, and Lixus, Pappa 2013, 3.

²⁴⁴ Many of these sources are from the later classical period, for a survey of these sources cf. Bunnens 1979, 103ff. Archaeologically new data C14 supports the possibility of earlier dates going back into the 9th c. at sites such as Huelva (Van der Plicht et al. 2009).

²⁴⁵ Cf. 2 Samuel 5, 1 Kings 5-9.

The pre-colonization phase was followed by a phase of colonial expansion across the Mediterranean reaching areas as far away as the North African coast and Spain.²⁴⁶ The colonial phase began around the middle of the 8th century BCE and coincides with archaeological remains of Phoenician settlement at places such as Cyprus, Rhodes, North Africa, Sicily, Sardinia, the Central Aegean, and Italy.²⁴⁷ Phoenician settlements abroad were concentrated along the coast, primarily along known shipping lanes, many of which had been in use from earlier periods, as well as places where temporary installations had been set up previously (Niemeyer 2000, 99-100, Bartolini 2003, 197). Niemeyer (2000, 100) suggests that the locations of these settlements were designed to consolidate and protect Phoenician interests along established shipping routes. Bartolini (2003, 197) notes two waves of this colonial expansion, the first in the mid-8th century BCE, and a second in the latter half of the 7th century BCE. These settlements were primarily economic ventures, creating a network of Phoenician controlled nodes across the Mediterranean (Sommer 2007, 98ff).

Phoenician Trade

What was the nature of Phoenician trade? What goods did they deal in? To answer these questions we can turn to three main sources: 1) the archaeological evidence of transported goods across the Mediterranean, particularly those found at Phoenician settlements abroad, 2) shipwrecks, and 3) textual evidence recounting trade. The first two sources highlight non-perishable materials that leave an archaeological signature, predominantly amphora and other

²⁴⁶ It is important to note that the term colonial in this context does not carry overtones of conquest and exploitation associated with more modern imperialist expansions, cf. Van Dommelen 2005, 110; 2002, 121; Niemeyer 1995, 247; Pappa 2013, 9-11. There is recent scholarly discussion of the use of colonial and post-colonial terminology as it relates to the Phoenicians (cf. Van Dommelen 1998, 2002, 2005), however this is beyond the scope of this thesis. The presence of Phoenicians living in foreign areas across the Mediterranean during the 8th-7th centuries BCE is undebatable, and sufficient for our present study. For further discussion on the issue of definition and terminology is overseas settlement cf. Tsetskhladze 2006, xxvff.

²⁴⁷ For a survey of Phoenician presence across the Mediterranean cf. Markoe 2000, 170-188.

types of pottery, but also trinkets and various metalworks²⁴⁸ or other manufactured goods.²⁴⁹ The ceramic evidence shows a far-flung distribution network for the contents of these storage vessels, primarily olive oil and wine, across the Mediterranean. The evidence for the importance of these agricultural goods to Phoenician trade is further supported by the excavations of shipwrecks off the coast of Ashkelon, Spain, and Turkey in which amphorae were the featured cargo (Stager 2003, Greene et al. 2010; Neguerela et al. 1995). We have already discussed these shipwrecks and their content in chapter 2.

Textual Evidence

Greek Sources

Textual evidence comes from ancient sources, most notably the epics of Homer and the Bible. The Homeric epics, the *Iliad* and the *Odyssey* are important early literary sources for describing the Mediterranean world from a Greek perspective. These epics presumably describe the past heroic era of the palatial system of the Late Bronze Age and although the traditions behind the epic are earlier, Homer is generally dated to the middle or late 8th century BCE (Morris 2007, 212, Osborne 2004). Osborne's (2004, 216-8) analysis has shown that the epics include references at home in its supposed Late Bronze Age context, however much of the writing is clearly anachronistic and taken from the 8th century Mediterranean world (Bennet 1997, 513; Powell 2004, 35-40). Although the Phoenicians represent a continuation of the tradition of Canaanite involvement in Mediterranean trade (from sites such as Ugarit and Byblos), references to the Phoenicians, who were not a major presence in the central or western Mediterranean before the Iron Age, clearly fit into the latter category (Osborne 2004, 217; Powell 2004, 40-42). Thus, the references to Phoenicians and their activities in the Homeric

²⁴⁸ For example cf. Markoe 1985's survey of Phoenician bronze and silver vessels across the ancient Near East.

²⁴⁹ Of identified stylistically, ivories serve as a notable example (cf. Winter 1995, 252; for examples cf. Winter 1973).

epics likely reflect the situation at or slightly before the time of their authorship, namely the 8th century BCE.²⁵⁰ While some scholars have called into question the usefulness of these epics as an historical source, due to the heavy mixing of practices from multiple periods and historical sources (cf. Snodgrass 1974, 118-121; Sherratt 1990, 821),²⁵¹ this is less of a problem for our current study, which takes from Homer only his impressions on the nature of the Phoenicians and their cargo. The specific date of these encounters is less important, as long as they broadly fit an Iron Age context. As such, Homer's characterization of Phoenician trade serves as a useful textual supplement to the archaeological record. Winter (1995, 264), however, suggests a more problematic interpretation that "Homer's Phoenicians, then, do not represent the world of the Phoenicians; rather, they present a masterful literary construct." If Winter is correct, it would be problematic to read Homer as history. However, we are less concerned with the historical reality of Homer than a cultural reality. The Phoenicians are more than a mere literary fabrication (unlike the Taphians or Phaeacians), as Winter notes, and they had regular contact with Greeks (1995, 255-6). Winter can be correct in asserting that Homer portrays the Phoenicians as a literary trope, a foil to the hero, and that his descriptions of trade goods are limited and biased (1995, 255-6, 262-4)²⁵² without making these descriptions inaccurate or a complete fabrication. With this in mind, it is worthwhile to briefly examine the references to Phoenician trade and trade goods in the Homeric epics.

²⁵⁰ Aubet suggests that "The situation described by Homer is more akin to casual trade than to a regular commerce with colonies or trading posts throughout the Mediterranean. There is no mention of colonies or permanent settlements, nor, indeed, of the Greek city-state. On the contrary, Phoenician trade frequently appears associated with management by monarchs and with the practice of gifts and hospitality. hence it reflects an atmosphere more appropriate to the ninth century than to the eighth to seventh centuries" (1993, 103).

²⁵¹ Other scholars have maintained the usefulness of Homer for discussions on Greek society, provided the texts are used judiciously and not uncritically (cf. Raaflaub 2006).

²⁵² Peacock disagrees with the interpretation of Homer showing a negative opinion of the Phoenicians as a whole, and suggests that this opinion is more the result of scholarly exaggeration in modern times than it is a true reflection of Homeric perceptions (2011, 26).

The main references to Phoenicians in Homer come from a series of tales recorded in the *Odyssey*. Two of these are presented in tales fabricated by Odysseus to explain his hoard of booty to a disguised Athena (13:256-258) and as an explanation for his arrival in Ithaca, in an encounter with Eumaeus the swineherd while Odysseus is hiding his true identity (14:287-315). A third tale comes from Eumaeus, who tells Odysseus of his childhood abduction at the hands of Phoenician sailors (15:403-484). Homer characterizes the Phoenicians as generally roguish characters who as a whole are untrustworthy, deceitful, crafty, and greedy (Winter 1995, 248-9). One of their primary associations is with the slave trade. In Odysseus' tale to Eumaeus a Phoenician captain is portrayed as intending to sell Odysseus as a slave in Libya and in Eumaeus' tale he is abducted as a child and sold by Phoenicians in Ithaca. The slave trade was an important element of Phoenician economic activity, but one that does not leave behind an archaeological signature. The ability of the Phoenicians to take people to faraway places in their travels, from whence they could not easily make their way home (cf. Veenhof 2015, 15-6), made such activities possible and profitable. The Bible also records Phoenician involvement in the slave trade, with Amos' prophecy against Tyre declaring that "Thus says the Lord: For three sins of Tyre, even four I will not relent, because they gave up as captives an entire people to Edom, and they did not remember the treaty of brotherhood."²⁵³ A similar sentiment is portrayed by the prophet Joel who prophecies against Tyre and Sidon declaring that "the people of Judah and Jerusalem you sold to the Greeks, removing them far from their own borders."²⁵⁴

A second set of references to Phoenicians in Homer focuses on Phoenician goods and craftsmanship rather than the Phoenicians themselves. Beyond slaves, Homer describes the

²⁵³ Amos 1: 9

²⁵⁴ Joel 4:6

Phoenicians as dealers of ‘trinkets’ or ‘baubles’²⁵⁵ which may include Phoenician faience artifacts such as scarabs or amulets (Markoe 2000, 157). Phoenician craftsmanship is also mentioned in the *Iliad*, mainly in the form of metalwork. In particular, an ornate silver krater of Sidonian workmanship offered up as a prize by Achilles at the funeral of Patroclus (23.744ff, cf. also Aubet 1993, 106; Winter 1995, 248). A similar vessel is mentioned as gift from Menelaus to Telemachus. Textiles are also mentioned as a Phoenician trade item, with Paris presenting Helen a gift of multi-colored cloth from Sidon (6.288ff.). These references allude to the craftsmanship of the Phoenicians, but not necessarily trade. The textiles given to Helen by Paris were acquired by him in Sidon itself, not from Phoenician traders. Similarly, the krater gifted by Menelaus to Telemachus is described as a gift received from the king of Sidon when Menelaus stopped there. The krater of Achilles was originally brought into port by Phoenician traders, but is described as having changed hands multiple times (cf. Winter 1995, 248). These instances show a tradition of gift-giving where precious items travelled extensively, changing hands even after their initial purchase. Still, these items are significant for understanding the quality and desirability of Phoenician finished items. Archaeological evidence of such luxury items, in particular metal bowls of Phoenician design, have been cataloged by Markoe (1985) and show a wide distribution across the Mediterranean. However, it is difficult to determine how they arrived at their final resting place, a fact that these texts only reinforce. Phoenician cargo should not be considered to be merely a collection of trinkets and luxury vessels. Winter (1995, 253) suggests that “one begins to see the Homeric references as extremes in what was probably a graded continuum of production appropriate to targeted consumers. Thus, neither Eumaeus’ *athurmata* nor Patroklos’ bowl alone, nor indeed the two together as reductive exemplars, would do justice to the range of Phoenician production.” Regarding the specific case of the Homeric epic she goes on to conclude

²⁵⁵ Greek *athurmata*

that “information has been provided (and/or omitted) as and when it suits the narrative purposes, rather than in an attempt to be historically accurate and comprehensive, and therefore the shipload of *athurmata* should not be taken as documentary evidence for the general nature of Phoenician cargoes in the period” (ibid). This is certainly the case, but at the same time the *athurmata* provide an interesting complementary description, along with all the other sources we have at our disposal, to better understanding the various elements and aspects of Phoenician cargoes and Phoenician trade.

Homer also describes certain trading practices of the Phoenicians. In the case of Eumaeus’ tale of his abduction the Phoenicians are described as arriving at his home island and staying there for a year trading until their ship was full of goods to take with them. This is certainly describing a situation where there was no Phoenician settlement in the area.²⁵⁶ One can easily see how a permanent settlement could be an advantageous development to this system. The settlers could spend their time acquiring goods year-round, allowing the Phoenician merchants to travel more quickly, and reducing the time they would need to spend on the ground acquiring new cargo. Odysseus’ fictional account of his arrival to Ithaca also suggests certain trade patterns. Winter (1995, 248) notes that Odysseus first encounters the Phoenician captain in Egypt, accompanies him home to Phoenicia, where he stays for a lengthy period of time resupplying before setting out again for North Africa. Although this tale is fictional, Winter suggests that it contains what appears to be a realistic account of maritime trade patterns.

Ezekiel 27

While Homer focuses on the smaller craft items of the Phoenicians, the Bible offers a broader picture of Phoenician trade, the best description coming from Ezekiel’s explanation of the trade of Tyre in chapter 27, in particular verses 12-23. This text is useful in that it portrays

²⁵⁶ And thus, at least in the case of demographics, reflect a pre-colonization or seafaring phase (Winter 1995, 251).

Tyre's role in both overland and maritime trade, illustrating extensive connections in all directions. The historical context of Ezekiel is the 6th century BCE, spanning roughly the period of 593-571 BCE, and corresponding with the Babylonian exile of Judah. Ezekiel himself is of a priestly family and was among of a group of exiles taken away to Babylonia as part of Nebuchadnezzar II's campaign in 597 BCE (Zimmerli 1979). Thus, the overarching context of Ezekiel is the period of Neo-Babylonian rule in the southern Levant, during the first quarter of the 6th century. This is slightly later than the focus of this study; however, the activities of Tyre can safely be assumed to retain continuity with the practices of the 8th-7th centuries BCE. The dating, however, of Ezekiel 27 within the larger context of Ezekiel's prophecies has been a matter of scholarly debate that is worthy of further discussion, with dates for the origins of the list ranging from the 10th century to the Hellenistic period.²⁵⁷ Zimmerli (1983) suggests that historical context of this oracle as the Babylonian siege of Tyre, in the first quarter of the 6th century BCE. Diakonoff (1992, 170) similarly dates the text to the early 6th century, around the 585 BCE, corresponding with the early stages of the Babylonian siege on Tyre, with a *terminus ante quem* of 573 BCE for the texts of Ezekiel 26-28, which envision the eventual fall of the city, which does not occur. Saur (2010) suggests that context of the oracle as the destruction of Tyre points to a later redaction, by an author familiar with the downfall of the city at the hands of Alexander the Great in the 4th century BCE.²⁵⁸ Diakonoff (1992, 171) rejects the possibility of later redaction, noting that the geographical names mentioned in Ezekiel 27 were no longer used during the Hellenistic period.²⁵⁹ Diakonoff suggests that the information in this passage

²⁵⁷ for a summary of the major scholarly opinions on the dating of this text cf. Greenberg 1997, 568-9; Saur 2008b.

²⁵⁸ Although Saur notes that the text is a mix of earlier and later elements (2010, 213), and suggests that the list of trade is better dated to the 7th/6th century BCE (2008a, 180; 2008b, 70). Jigoluv also argues for a later date, suggesting the text reflects the Persian period in the 4th century (2007, 93-5).

²⁵⁹ Contra Bunnens 1979, 88-90, who sees a post-Ezekiel redaction of the text. Zimmerli does not reject the idea of later redaction, however he argues that the oracles against Tyre are better situated in the 6th century BCE, and cannot easily be attributed to the conquest of Tyre by Alexander (1983).

accurately reflects the trade situation prior to the siege, and suggests the possibility that Ezekiel sojourned for a time in the city between Judah and Babylon, or that he learned of this trade from Tyrian exiles living in Babylon at the same time as Ezekiel (1992, 192).²⁶⁰ Mazar (1986, 81) suggests that the piece is of a much earlier date, and is taken from Phoenician poetry originally composed in the 10-9th centuries BCE, which Ezekiel learned from Phoenician exiles while living at Tel Abib on the Chebar canal.²⁶¹ Mazar suggests that at this time Ezekiel interacted with a group of Tyrian exiles living at Bit Surraia, a community established on the Chebar in the vicinity of Nippur. Katzenstein (1997, 154) generally follows Mazar, dating the text to the 9th century BCE and the reign of Ethbaal I and his successors. We agree with Diakonoff that the text best reflects the trade patterns of the late 7th-early 6th century, but the possibility that the information came from a community such as the Tyrian exiles at Bit Surraia is a possibility (1992, 192).

Ezekiel 27 is one of the most comprehensive documents in this regard on the subject of Phoenician trade, listing a number of geographical regions that engaged in trade with the Phoenicians, and listing the goods involved in this trade. As such, this text and is worthy of a more detailed study. The text reads as follows:²⁶²

“Tarshish was your dealer²⁶³ because of your great riches, in silver, iron, tin and lead which they sold²⁶⁴ as your exports. Yavan, Tubal, and Meshek, they were your merchants;²⁶⁵ in

²⁶⁰ Liverani also supports a late 7th-early 6th century context for the list (1991, 79), Katz (2008, 129), follows Diakonoff’s interpretation on the dating of the text.

²⁶¹ Cf. Ezekiel 3:15

²⁶² While I have footnoted here some of the major textual emendations influencing this translation cf. also Table 7 and Table 8 for further commentary.

²⁶³ For Our translation we have chosen to translate *rokel* and its derivative forms as “merchant” and *soher* and its forms as “dealer” following Diakonoff (1992, 182-3). Although we agree with Diakonoff that the latter is a collective term, but agree with him that translating the two terms in a distinct manner is significant (1992, 182-3).

²⁶⁴ We follow Diakonoff in understanding נָתַן + כּ as having a meaning to ‘to sell’ rather than ‘to give’ with parallels for this formulation with the Akkadian verb *nadanu* in Akkadian economic texts (1992, 183).

human beings²⁶⁶ and vessels of bronze which they sold as your imports. From Beth-Togarmah horses, steeds, and mules they sold as your exports. The Rhodians²⁶⁷ were your merchants; many coastlands were your market, on your behalf, ivory tusks and ebony they brought back as your payment. Edom was your dealer, because of your craftsmanship, in turquoise, purple, embroidered work, fine linen, red jasper, and chalcedony which they sold for your export. Judah and the land of Israel, they were your merchants; wheat, olives,²⁶⁸ meal,²⁶⁹ honey, oil, and resin they sold as your imports. Damascus was your dealer, because of your abundant goods and because of your vast wealth; in wine of Helbon, and white wool, pithoi of wine from Izalla²⁷⁰ they sold as your exports: iron ingots, cassia and reeds were among your imports. Dedan was your merchant in saddlecloths for riding. Arabia and all the princes of Qedar they were your dealers on your behalf, in lambs, rams, and goats; in these they were your dealers. The merchants of Sheba and Raamah, they were your merchants in the choicest of spices and every type of precious stone and gold they sold as your exports. Haran, Canneh and Eden, the merchants of Sheba, Ashur, and Chilmad were your merchants. These were your merchants in fine garments, in blue-purple fabric and embroidered work, in multi-colored carpets, and tightly wound cords, in your marketplace. The ships of Tarshish were your carriers of your imports, and you were filled, and you were greatly respected in the sea.”

²⁶⁵ In our translation of “merchant” we follow Diakonoff, who argues convincingly against the term as translated “broker or agent” in favor of “trader or merchant,” and his characterization of these individuals as private traders, as opposed to official trade agents (1992, 182).

²⁶⁶ In this context human beings is clearly referring to slaves, a translation supported by the Vulgate, cf. Diakonoff 1992, 185.

²⁶⁷ Following Zimmerli (1983) and Diakonoff (1992, 189) have convincingly argued for the emendation of ךךך to ךךך based both of context and parallel passages in Genesis 10 and 1 Chronicles 1, associated with the Kittim.

²⁶⁸ We agree with Diakonoff that a reading of זית בהטים is a preferable emendation to the Masoretic text, which reads בוחטי מנית (Diakonoff 1992, 185).

²⁶⁹ For the translation of meal we follow Greenberg 1997, 556; paralleling an Akkadian cognate *pelel-nigu*, which is associated in a text from Esarhaddon with honey, the next commodity listed. Diakonoff has suggested an emendation to *dwng*, meaning wax, but also suggests a possible interpretation of Millet based on the same cognate suggested by Greenberg (1992, 185).

²⁷⁰ In our translation we follow the suggestion of Millard (1962, 201-3), followed also by Diakonoff (1992, 188) to read the phrase as “casks/pithoi of wine from Izalla.”

Discussion on this portion of Ezekiel 27 has focused on elements such as identifying the various geographical locations, the trade goods, and technical trading vocabulary (cf. Tables 7-8). Regarding the geography, Liverani (1991, 68) convincingly argues that the text is arranged generally from north to south, or northwest to south-east. He further identifies the commodities mentioned as adhering to a pattern of concentric belts, with an inner belt (consisting of Judah, Israel, and Damascus) supplying agricultural goods, a second belt (Beth-Togarmah, Arabs/princes of Qedar, and Damascus again) supplying livestock, a third belt (Yavan, Tubal, Meshek, Dedan, Edom, and the traders of v.23) supplying textiles, and an outer belt supplying precious metals and luxury goods (1991, 73). Liverani (1991, 74) suggests that these belts form logical trade patterns, taking into account types of goods and transportation costs. Diakonoff (1992, 183-4) discusses extensively the technical terms of trade found within the text to convincingly argue for different types of transactions. Diakonoff argues that the merchandise mentioned in this passage is classified according to both its destination, and general character, highlighting three terms: *עזבונים*, *מערב*, and *אשכר*. Diakonoff translates *מערב*, as a technical term for ‘import,’ or that which entered to the port by the ship. This term is also attested in a fifth century Aramaic papyrus, referring to goods being entered/loaded onto the ship. Diakonoff identifies *אשכר* as an Akkadian loanword from *iškaru*, and translates it as ‘delivered produce.’ This term is, however, rare in the Hebrew Bible, occurring only in this passage and Psalm 72:10. The final term is *עזבונים*, based on the root *עזב*, with a base meaning ‘to leave/go out.’ For this reason, Diakonoff concludes that this term should be understood as a place, namely a storage location for leaving goods. Based on this interpretation he concludes that this term refers to items that are imported for the specific purpose of re-export (1992, 184, 193). Thus, the list of goods includes two main categories: imports for local use and consumption, and imports for the

purpose of re-export and trade. In the former category are foodstuffs, livestock, and some metal implements and textiles. In the latter category are precious metals, precious stones, fine textiles, and horses (cf. table in Diakonoff 1992, 193). This fits a logical separation between staples and luxury goods, although to be sure Tyre must also have consumed luxury goods such as silver, gold, and fine textiles, and not only facilitated trade in these materials. Greenberg (1997, 553) follows Diakonoff by translating מערב as import and עזבונים as export, while noting that Diakonoff is surely correct in his understanding of the term as referring to ‘import for the purpose of re-export.’

Liverani (1991, 70) also notes that this text stresses inland connections more than maritime ones, indicating that overland trade with the center was equally if not more important than the maritime routes (cf. also Elat 1991). While we agree with Liverani that the overland aspect of Phoenician trade has been minimized in favor of their maritime trade, part of this may also be the bias of the author, who was not sailor and was more familiar with the landlocked areas of the ancient Near East. Certainly the overland component was an important element within Phoenician trade, including the import of foodstuffs required to sustain the city, as well as luxury goods for trade from various Mesopotamian, Levantine, and Arabian sources.

Table 7: Places mentioned in Ezekiel 27

Location	Identification
Tarshish (תרשיש) v.12	Diakonoff identifies as Tartessus in Spain (1992, 187), following this identification by Galling (1972), also followed by Zimmerli (1983), Elat (1982a), Greenberg (1997) and Saur (2008a).

Table 7 (cont.)

<p>Yavan (יוון), Tubal (תבל), and Meshek (משך) v.13</p>	<p>Ionia, Cilicia (Aramaean state of Tabal), and Phrygia (Diakonoff 1992, 185; Zimmerli 1983; Greenberg 1997),²⁷¹ The Greek world and central Anatolia (Liverani 1991, 69). <i>Mušku</i> is the Assyrian term for the region of Phrygia (Liverani 1992, 30-1; Saur 2008a, 174).</p>
<p>Beth-Togarmah (בית תוגרמה) v.14</p>	<p>Eastern Anatolia (Liverani 1991, 69), following Astour (1976, 569) in identifying the place name with the Hittite Tegarama or the Neo-Assyrian <i>Til-Garimmu</i> (also followed by Zimmerli 1983 and Saur 2008a) Lipinski suggests that this term should be read as <i>Bit-Tugdamme</i>, representing the Land of Tugdamme (like the designation of <i>Bit Humri</i> for Israel), and associates the location with the Cimmerians, and one of their chieftains Tugdamme (1985, 218), Diakonoff follows this interpretation locating this region in Cappadocia or Armenia (Diakonoff 1992, 178, n.48).</p>
<p>Sons of Dedan (בני דדן) v.15</p>	<p>Zimmerli emends the text to בני רדן and interprets the location as Rhodes (1983, also favored by Diakonoff 1992, 189; and Greenberg 1997, 554-555). Liverani finds this emendation anachronistic and prefers a location in Cilicia, with an emendation to read as <i>Danunim</i> (1991, 69, n.13). Certainly not to be confused with Dedan of v.20.²⁷²</p>
<p>Aram (ארם) v.16</p>	<p>This reading is generally emended to Edom (אדום)²⁷³ (Liverani 1991, 69; Diakonoff 1992, 187, Zimmerli 1983; Greenberg 1997, 555).</p>

²⁷¹ Zimmerli notes that while Yavan is related to Ionians, it is also a collective name in Hebrew for Greeks in general (1983)

²⁷² An important issue in this identification are the goods from this location, namely ivory and ebony, which are not native to Egypt. Diakonoff suggests these could have been carried in trade from there by Rhodians via the colony at Naukratis (1992, 189-90). The solution suggested by Liverani also does not solve the problem of the origin of these goods (1991, 73-4). He suggests that these either be goods that should be associated with the real Dedan, mentioned in v.20 as part of the South Arabian Caravan trade, or as part of sea trade with Egypt, like Diakonoff suggests (1991, 73-4). Cooke maintains that the reading of Dedan is correct (1936, 301-2), and these Egyptian goods are part of the Arabian trade.

²⁷³ This emendation is based primarily on the list of associated goods, which fit better in a context of South Arabian trade than with Aram, which would also essentially duplicate Damascus, mentioned in the following verse (Diakonoff 1992, 187; Liverani 1991, 69, n.14; Lindsay 1976, 30), cf. Haran (1968, 204) for a counter argument. Greenberg discounts the importance of the goods, stating that they are not native to either region (1997, 555), but prefers the emendation to Edom, so that vv.16-18 follow a North-South pattern (ibid.), which Liverani also supports (1991, 69).

Table 7 (cont.)

Judah (יהודה), the Land of Israel (ארץ ישראל) v. 17	Judah and the territory of the northern kingdom ²⁷⁴
Damascus (דמשק) v. 18	Kingdom of Aram-Damascus
Dan (דן), Yavan (יון), Uzzal (אוזל) v.19	Liverani reads these locations as Dan, Yavan, and Uzzal (which he locates in Arabia, also Zimmerli 1983 ²⁷⁵), but concludes that the text is corrupt and problematic, and likely continues the list of items from Damascus (Liverani 1991, 69). Saur maintains the location of Uzal in Yemen, citing it as the pre-Islamic name for ṣan'ā (2008a, 175). Diakonoff reads these as products of Damascus and not locations (1992, 188; also Greenberg 1997, 557). ²⁷⁶
Dedan (דדן) v.20	Diakonoff associates Dedan with an Arabian city in the northern Hejaz south-east of Tayma (1992, 190). Liverani locates Dedan in central Arabia (1991, 69), and Greenberg locates Dedan at the oasis of al-'Ula in Northwest Arabia (1997, 558).
Arabia (ערב), princes of Qedar (נשיאי קדר) v.21	Arabia and the Princes of Qedar refer more to people groups than a specific region, but focus on the nomadic Bedouin inhabiting the northern Arabian desert (Greenberg 1997, 558; Liverani 1991, 69). Zimmerli includes the area of the Syrian Desert as well (1983). Eph'al notes that in the texts of Ashurbanipal the Qedarites occupy the border regions along the western edge of the fertile crescent, ²⁷⁷ as well as a center in Dumah and the eastern part of the Wadi Sirhan (1982, 225).

²⁷⁴ The mention of the Land of Israel is important to this text, due to the exile of the Northern Kingdom of Israel in 722 BCE and the incorporation of the territory into the Neo-Assyrian provincial system. Greenberg suggests that this terminology is acceptable even after the fall of the northern kingdom citing the phrase in II Chronicles 30:25 and 34:7 (1997, 556). Zimmerli also notes the possibility of the phrase to mean “all the land ruled by a broadly conceived ‘Israel’” or possibly archaizing terminology (1983). The mention of Israel is part of Mazar’s argument for a 10th/9th c. origin of the original text (1986, 82, n.13; cf. also van Dijk 1968). Greenberg’s argument against this as anachronistic, however, is convincing and this passage should not be seen as supporting an early origin for the text.

²⁷⁵ Zimmerli makes the identification based off of Genesis 10, but notes the possibility of Izalla as an alternative reading (1983), which is supported by Millard (1962) and Diakonoff (1992, 188) and Greenberg (1997, 557).

²⁷⁶ See note above for the discussion of the translation of these terms as items of the trade of Damascus.

²⁷⁷ He also notes ND2773, which records the raids of Qedarites against the kingdom of Moab (1982, 224).

Table 7 (cont.)

<p>Merchants of Sheba (שבא) and Raamah (רעמה) v.22</p>	<p>The mention of “merchants of” again suggests interaction with traders originating from locations within southern Arabia (Liverani 1991, 69). Greenberg suggests that these are unknown Arabian locations (1997, 559), While Sheba is traditionally associated with the kingdom of Saba’ (Eph’al 1982, 227-9), Eph’al notes references that support Sabaeen population in northern Arabia as well (1982, 229). Raamah is mentioned alongside Sheba in other biblical texts²⁷⁸ and likely refers to the area south of Wadi Nerjan (Zimmerli 1983; Diakonoff 1992).</p>
<p>Harran (חרן), Canneh (כנה), Eden (עדן), traders of Sheba (שבא), Assur (אשור), and Chilmad (כלמד) v.23</p>	<p>Diakonoff suggests that the text is clearly corrupted, based on the lack of geographical association between Sheba and Harran, which he identifies as the large commercial center in Northern Mesopotamia. Diakonoff reads כלמד as two words, reading all of Media (this emendation is supported by Zimmerli 1983). Diakonoff emends the order of the text to associate Harran with the traders of Assur and all of Media, and reads Canneh and Aden with the traders of Sheba. He identifies this two locations as important ports in southern Arabia (1992, 190-1). Liverani identifies the locations as Harran, Eden as Bit-Adini, an Aramaean south of Carchemish,²⁷⁹ Assur as the Assyrian city, and suggests that Canneh and Chilmad are unknown (1991, 69-70, cf. also Greenberg 1997, 559). Zimmerli removes Sheba as a repetition error from the previous line, and emends כנה to בני translating as ‘the sons of Eden’ (1983). Lipinski suggests that שבע is intrusive, and emends כלמד to כלמר, suggesting a location at the city of Kullimer, north east of Diyarhakhir (1985, 219).</p>

²⁷⁸ Genesis 10, 1 Chronicles 1

²⁷⁹ Diakonoff disagrees with this identification, stating that Bit-Adini is a dynasty, not a country, and one that had long since been destroyed by the Assyrians (1992, 191), however cf. Lemaire 1981, 324; Liverani 1992, 70-71, 128; Hawkins 1982, 384-5; Millard 1993. While the state is conquered by Shalmaneser III, Diakonoff’s claim that it is a dynasty not a state is inaccurate, and as a province it persists, and should not be considered implausible in the context of this passage (cf. Honigmann 1938, 33-4, who cites a reference to Bit-Adini from the reign of Ashurbanipal).

Table 8: Goods Mentioned in Ezekiel 27

Location ²⁸⁰	Goods	Analysis
Tarshish	Silver (כסף), Iron (ברזל), Tin (בדיל), Lead (עופרת)	The southern coast of Spain is well-known for her access to silver in the Late Iron Age, with evidence of mining at places such as Rio Tinto (Mata 2002, 295; Neville 2007, 140) and Monte Romero (Kassianidou 1993), Iron is also attested from this region (Aubet-Semmler 2002a, 86), and slag from Iron workshops has been found at sites such as Toscanos in Malaga (Neville 2007, 135). Lead is not local to the region, but Lead is found in ancient slag heaps from Spain. The material was imported, possibly from Cartagena (Anguilano et al. 2011). The sources of tin in the ancient world are Afghanistan (Reiter 1997, 2006), although sources in Cornwall have also been suggested (Muhly 1985, 287; 2003, 144). ²⁸¹ Recently Yener has advocated for a source of tin in the Taurus region (2000, 71-2). However, there are also abundant tin resources in Iberia (Muhly 1985, 286), specifically northern Portugal, which fits nicely with the origins of the other metals on the southern coast of Spain (for Phoenicians in Portugal cf. Neville 2007, 35). Classical sources, such as Strabo and Diodorus, also associate the region of Tartessus with similar products (Cooke 1936, 300).
Yavan, Tubal, Meshek	Slaves (נפש אדם), bronze vessels (כלי נהשת)	We have already commented on the Phoenician involvement in the slave trade. Bronze Vessels are a common product of many regions including Syria and Anatolia. Bronze Vessels occur frequently in Assyrian tribute/booty lists,(cf. Bagg 2011, 145; Liverani 1992, 161-2), including Ashurnasirpal II's tribute from <i>Musku</i> (Grayson 1991, 198, line I.74).

²⁸⁰ The locations here represent our understanding of the text, taking into account the emendations mentioned in Table 7, reflected in our translation of the text.

²⁸¹ Muhly suggests down-the-line trade for the arrival of tin from this region during the Bronze Age, noting the evidence of early exploitation and mining in the Cornwall region (1985, 287-9), However, cf. also discussion in Penhallurick 1986, 123-31.

Table 8 (cont.)

Beth-Togarmah	Horses (סוסים), steeds (פרשים), mules (פרדים)	The differing interpretations of Beth-Togarmah are both located in Anatolia, an area well known for its equids (Zimmerli 1983), which are commonly attested in the Assyrian tribute lists from the region (Bagg 2011, 143). Wild horses are native to central Anatolia (Anthony 2007, 198), and may have been a part of trade with the Mediterranean world from the Late Bronze Age (Bryce 1989, 13-14). Three different types of equids are mentioned in this passage, סוסים, the common Hebrew term for horses, פרשים, a term traditionally associated with horsemen, can also mean steeds, ²⁸² which can be achieved by emending the vocalization from an initial <i>qames</i> to a <i>shewa</i> (cf. Greenberg 1997, 554, also Diakonoff 1992, 187). Diakonoff proposes the translation of Geldings, suggesting that פרשים were ממה for riding, as opposed to the סוסים, and thus translates as gelding (ibid, cf. also Niehr 125)
Rhodes	Ivory tusks (קרנות שן), ebony (הובנים)	As we mentioned previously (table 1, n.2) neither of these goods are found in Rhodes, and instead are native to Egypt, but could have been acquired by Rhodian traders. During the Iron Age the primary source of ivory were the tusks of the African elephant (Barnett 1982, 4-5; Moorey 1994, 125). ²⁸³ Ebony is found in regions of Ethiopia as well as India (Meiggs 1982, 282-3; Leemans 1960, 27; Stol 1979, 34ff.). In this context the ebony certainly originates in Egypt. The Hebrew term for ebony, הובנים is likely a loanword from the Egyptian <i>hbnj</i> (Stol 1979, 42).

²⁸² Cf. Joel 2:4

²⁸³ It is important to note the possibility of the Syrian elephant during the late Iron Age, following attestations in the Assyrian texts (cf. Moorey 1994, 116-17), however, their numbers were at best small, and possibly part of a transplanted herd (Winter 1973, 226-7). Even in the case of their existence Egypt is a more likely trade partner for Rhodes, and the ebony mentioned is certainly of Egyptian origin.

Table 8 (cont.)

Edom	Turquoise (נִפֶּךְ), purple (אַרְגָּמָם), embroidery (רִקְמָה), linen (בֹּיָץ), red-jasper (רֵאֶמֶת), chalcedony (כֹּדֶד)	<p>The goods of Edom are listed as textiles and precious stones. As we have noted previously (table 7, n.3), these are goods better associated with the South Arabian Caravan Trade, although this is still problematic, because textiles are not a product with which this trade is strongly associated. The Hebrew term נִפֶּךְ is rare in the Hebrew Bible, occurring twice in Exodus, as a stone of the Ephod, and once in Ezekiel 28:13 among a list of precious stones. Zimmerli understands these as garnets (1983; cf. also Cooke 1936, 302). Greenberg understands the term as referring to turquoise malachite, mined in Sinai (1997, 555)²⁸⁴, also Diakonoff (1992, 187).²⁸⁵ Purple refers to dyed textiles. These are associated with textiles dyed using crushed murex shell, and are a product associated in particular with the Phoenician world, but also the coast of the southern Levant (Nunn 1928, 115-6; King and Stager 2001, 161-2).²⁸⁶ Following the trend of textiles רִקְמָה is commonly associated with embroidery, or things ‘woven together’ although Diakonoff suggests that an exact meaning as a type of textile is uncertain (1992, 187). בֹּיָץ is a type of fine linen.²⁸⁷ Linen originates in the Egyptian world (Elat 1978, 41; Forbes 1956, 27-8). The meaning of רֵאֶמֶת is uncertain. Zimmerli suggests coral, based in part of Wellhausen’s comparison with the Arabic <i>ra’ama</i> for mussels (1983; cf. also Greenberg 1997, 555-6; Harris 1963, 60-1). Stager translates this term as red jasper, continuing the theme of precious stones (2003, 240; see also Lipinski 1985, 218 and Cooke 1936, 303). The term כֹּדֶד refers to another gem stone, likely red in color, and thus is often translated as rubies (Greenberg 1997, 556).²⁸⁸ This translation is followed by Zimmerli (1983), whereas Diakonoff suggests a reading of Chalcedony (1992, 190, followed by Stager 2003, 240). Harris suggests that כֹּדֶד likely refers to agate, either banded or moss variety, or a similar looking stone, such as carnelian or jasper (1963, 54). While Harris identifies these stones with sources in India and Madagascar, he suggests an Egyptian origin during the Iron Age (ibid.). Precious stones are difficult to translate, but are generally associated with the South Arabian caravan trade (both in the Assyrian texts, Eph’al 1982, 123, and in this passage, v. 22). Linen is associated with Egypt, and purple with the Mediterranean coast. Thus this verse includes a variety of goods from various origins that seem best connected with some kind of overland trade.</p>
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²⁸⁴ Derivative from the Egyptian term *mfk(t)* (Greenberg 1997, 555).

²⁸⁵ As opposed to a translation of emeralds, which Diakonoff notes were mined on an island in the Red Sea (1992, 187).

²⁸⁶ There are two types of murex shells, the *murex trunculus* and the *murex brandaris* (Jensen 1963, 105), one produces as red-purple dye (referenced here) and the second a blue-purple dye (likely referenced in verse 23; Jensen 1963, 109), although clear cut distinction between the two dyes in the context of the biblical text is difficult (King and Stager 2001, 161-2).

²⁸⁷ The usage of בֹּיָץ, as opposed to שֵׁשׁ, another term for linen (used in Ez. 27:7) is noteworthy. בֹּיָץ is only otherwise attested in late biblical Hebrew, cf. Hurvitz 1967, Greenberg follows Hurvitz in suggesting an Egyptian origin for שֵׁשׁ and an Aramaean/Akkadian origin for בֹּיָץ, and finds the term fitting for a description of Tyrian trade (1997, 555), however this does not account for the use of שֵׁשׁ in v.7.

²⁸⁸ Cooke argues the rubies/carbuncles are anachronistic translations, and that neither stone was known in ancient times (1936, 302).

Table 8 (cont.)

<p>Judah and the Land of Israel</p>	<p>Wheat of Minnith (חטי מניח), meal (פנג), honey (דבש), oil (שמן), balm/resin (צרי)</p>	<p>Diakonoff (1992, 185) emends חטי מניח to זית (ו) חטים, translating as wheat and olives, as opposed to associating the wheat with a region of Minnith, which scholars associate with the town of Maanith in Ammon (cf. Greenberg 1997, 556; Zimmerli 1983). The translation of olive certainly fits in with a list of the products of Israel and Judah, and this reading is certainly plausible, and preferred here. Israel is mentioned as a supplier of wheat to Tyre also in 1 Kings 5:10-11. פנג is a hypax, and can be understood following the Akkadian cognate <i>pelennigu</i>, meaning a type of meal (Greenberg 1997, 556), or something baked (Zimmerli 1983).²⁸⁹ Liverani, following Stol 1979, 68-71,²⁹⁰ suggests a translation of opopanax, a type of gum-resin (1991, 73). Diakonoff tentatively suggests a possible emendation to דווג, meaning wax, which he suggests would also fit the context (1992, 185), but this emendation is dubious and unnecessary. This list closely parallels the description of the fruits of the land of Israel in Deuteronomy 8:8. Diakonoff identifies צרי with the balm of Gilead (1992, 185), a terebinth resin (cf. Liverani 1991, 73; Stol 1979, 50-7).</p>
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²⁸⁹ Here the former is preferable, as the usefulness of baked goods over long-distance trade is questionable.

²⁹⁰ Stol's interpretation hinges on a parallel between *pannag* and the Greek *panakes*, a term for opopanax and used for medicinal purposes (1979, 69-71).

Table 8 (cont.)

<p>Damascus</p>	<p>Wine of Helbon (יין חלבון), white wool (צמד צחר), Pithoi of wine from Izalla (ודן ויון (מאוזל), iron ingots (ברזל עשות), cassia (קדה), canes (קנה)</p>	<p>Helbon is a famous wine-growing region in classical sources (cf. Stager 2005, 243; 2003, 241), and is located north of Damascus near the modern city of Helbun. Wine of Helbon is also recorded in Assyrian chronicles from the time of Nebuchadnezzar (Greenberg 1997, 556-7; Zimmerli 1983). Zimmerli understands צחר as an unidentified place name (1983), however Diakonoff argues for an emendation to צוחר, meaning ‘white’ (1992, 188). For the emendation of ודן ויון מאוזל cf. Millard 1962, 201-3), who reads the phrase as ודני יין מאוזל, a convincing solution followed by Diakonoff (1992, 188) Greenberg (1997, 557), and Stager (2003, 2400-1). Izalla, is an attested wine growing region in the Anatolian foothills, attested in cuneiform sources (Stager 2003, 241).²⁹¹ ברזל עשות, or ‘thick iron,’ is best understood as iron ingots (Greenberg 1997, 557). Iron has common sources in the Taurus mountains, as well as Cyprus and portions of Anatolia (Reiter 1997, 112, 344). Although Zimmerli suggests a reading of עשות as worked iron, referring to manufactured goods, following the translation in the Septuagint (1983). Based on a similar reading others have translated as ‘wrought iron.’ ‘Cassius and Calamus’ (קדה וקנה) have been interpreted as spices from the Arabian trade (Greenberg 1997, 557), but Diakonoff discounts this attribution, suggesting קדה is a type of resin and that קנה is the Greek <i>kalamos</i>, and that there is no reason to interpret these as imported goods (1992, 186). Cassia is traditionally associated with an origin in southeast Asia, along with cinnamon (Casson 1984, 225-239; Jacob 2011, 11-13). The fact that the latter substance has recently been attested in residue analysis of Phoenician flasks from the southern Levant dating to the 11th-10th centuries BCE (Namdar et al. 2013; Gilboa and Namdar 2015).</p>
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²⁹¹ Including tribute taken by Ashurnasirpal II and a list of wine sacrificed to Marduk by Nebuchadnezzar II, where wine from Izalla is listed first (cf. Millard 1962, 201).

Table 8 (cont.)

Dedan	Saddle blankets for riding (בגדי חופש (לרכבה	The sole product from Dedan is ‘woolen cloths for riding.’ The term חופש is a hypax, but has been identified as a cognate to the Akkadian <i>hibšu</i> for wool (Greenberg 1997, 558). The goods follow Eph‘al’s description of Dedan as portraying nomadic groups in Northern Arabia that were not affiliated with the South Arabian Caravan trade (1982, 231ff).
Arabia and the Princes of Qedar	Lambs (כרים), rams (אילים), goats (עתודים)	This group of goods includes all livestock. Qedar is associated with a federation of nomadic Bedouin inhabiting the fringes of the north Arabia, Transjordan, and the western edge of the fertile crescent (Eph‘al 1982, 223-6). As such their association with livestock and herding is fitting. The Septuagint reads camels, lambs and rams, which would also be fitting in this context.
Merchants of Sheba and Raamah	Choice spices (ראש כל בשם), all kinds of precious stones (כל אבן יקרה), gold (זהב)	Spices, precious stones, and gold are the prizes best associated with the land of Saba’ and the South Arabian caravan trade, and are evident in the list of Assyrian tribute and booty exacted from these people (Eph‘al 1982, 123). ²⁹² These are also the goods listed in the Queen of Sheba narrative in 1 kings 10:10.
Harran, Canneh, Eden and the traders of Sheba and all of Media	Fine garments (מכללים), blue-purple cloaks (גלומי תכלת), embroidery (רקמה), multi-colored carpets (גנזי גנזים), tightly wound cords (חבלים חבשים (וארזים)	מכללים is a hypax, Greenberg cites the Akkadian cognate <i>maklulu</i> (a type of garment), and the Hebrew term מכלול found in Ezekiel 23:12 in his translation of ‘gorgeous clothes’ (1997, 560). גלום is also a hypax, translated conjecturally by Greenberg as cloaks following the verb גרם ‘to wrap up’ and the Aramaic <i>glym</i> ’ (1997, 560). The term certainly refers to some type of garment of textile, dyed with blue-purple coloring (see commentary on v.16). רקמה is also mentioned in v.16. Both גנז and גנזים are hypaxes, and are translated by Greenberg as multi-colored carpets/rugs, based on an Aramaic targum to Esther, where diners are reclining on <i>gnzy</i> . Greenberg sees ברומ as a cognate to the Akkadian <i>birme</i> , a common designation for multi-colored textiles (1997, 560). The final item, חבלים חבשים וארזים, is also difficult. Greenberg suggests a reading of ‘tied with ropes and preserved in cedar, reflecting the method of transportation (1997, 560). ²⁹³ Diakonoff reads this similarly as tightly bound with cords (1992, 189). This verse is difficult, but portrays a variety of textiles that matches the variety of traders mentioned, but makes up what Diakonoff calls “a typical list of exports from Tyre proper” (1992, 189).

²⁹² Cf. tribute exacted by Tiglath-pileser III.

²⁹³ This reading is based on interpreting ארזים as relating to cedar (ארז) and the translation of the Septuagint, which reads ‘bound in ropes and cypress wood.’

Motivations behind Phoenician Expansion

In the following section, we will examine the combination of factors that influenced Phoenicia's expansive policies. Aubet (1993, 52) suggests that Tyre in particular was founded on three axes: "their role as intermediaries between the great powers of the east, their specialist production of luxury goods, and their preoccupation with becoming the main supplier of metals to the Asian empires." Aubet further suggests that a combination of internal and external factors incentive Phoenician westward expansion.

Niemeyer (2006, 148) accredits the motivation for Phoenician expansion to the desire or need to obtain raw materials for their own local production needs, specifically metals (cf. also Pappa 2013, 16-17). However, these ventures only led to permanent settlements due to the competition introduced by the expanding Greek colonies in the 8th century, leading for a new need to protect the trade routes established during the pre-colonization movement (2006, 160). This follows the suggestion of Burkert (1992, 21) that "the expansion of the Greeks and the Phoenicians in the Mediterranean appears from early on to develop in mutual competition." Aubet (1993, 314-5), however, rejects this hypothesis seeing more of a symbiotic relationship in the earliest stages of the two settlement movements. Winter (1995, 254-5) notes references to a climate of competition in the classical texts between Phoenicians and Greeks and while she admits that it is difficult to project these texts back to the late Iron Age, she still suggests that this should be sufficient to call into question Aubet's hypothesis that goods of mixed origin show a climate of co-operation rather than competition.

Another hypothesis for the impetus behind Phoenician expansion suggests that the lack of local agricultural land and population pressures drove the Phoenicians to seek out new settlement

sites abroad (Aubert 1993, 53-8; Wagner and Alvar 1989; 2003).²⁹⁴ Food shortage was clearly a concern for Iron Age Phoenicia (Markoe 2000, 94; Aubert 1993, 56-7). The biblical text describes multiple instances of grain being shipped to Phoenicia including Solomon's transactions with Hiram of Tyre in the Bible, where he provides a regular supply of grain in exchange for more material and work for the temple.²⁹⁵ A similar feature is present in the list of the economic transactions of Tyre in the late Iron Age provided by Ezekiel.²⁹⁶ Also, internal conflicts between Phoenician city-states over territory were likely related in part to dealing with problems of overpopulation, food supply, and control over a limited hinterland (Aubert 1993, 56-7). This explanation, however, does not explain the pre-colonial phase of Phoenician expansion and is primarily based on models of Greek colonial expansion (Pappa 2013, 15). The groundwork for the expansion of the 8th-7th centuries was laid earlier, but did not accompany any permanent settlement, suggesting that while population pressures existed in Phoenicia, they resulted in expansions to the south and east (Markoe 2000, 32-3), not colonial expansion to the west. A corollary to this is found in the site of Ashkelon, which like the Phoenician city-states lacked the agricultural hinterland to feed its population (Weiss and Kislev 2004, 11) and needed to supplement its local agricultural production with trade. Ashkelon, however, subsisted quite well despite these limitations and although it was closely connected to the sea, was not involved in colonizing ventures. Land shortage turned the attention of Phoenician city-states to the sea and trade to supplement subsistence, but did not drive them away from their homeland to settle abroad (Sommer 2007, 102). While Phoenician expansion may not have been intended to solve a problem of overpopulation, the process still would have had a positive effect on that issue. This returns us to the Malthusian problem discussed by Temin. An increasing population on fixed

²⁹⁴ This explanation is discarded by Niemeyer 2006, 148.

²⁹⁵ 1 Kings 5

²⁹⁶ Ezekiel 27:17

land eventually leads to marginal yields for labor, and minimal economic growth (Temin 2012, 62). This problem assumes that land is a fixed value. By establishing settlements overseas the Phoenician colonies would have been able to solve the Malthusian problem in two ways: first by decreasing the population at home, leading to increased potential for those who remained in the Phoenician homeland and secondly, by expanding the area available for exploitation by utilizing new lands away from home. Whether or not this was the impetus behind Phoenician expansion, breaking out of Malthusian constraints was certainly a benefit and a contributing element to economic growth in the 8th-7th centuries BCE.

A third hypothesis explains the impetus behind expansion as a side-effect of the activity of the Neo-Assyrian Empire. Neo-Assyrian conquests of northern Syria and Anatolia likely cut-off, or severely limited Phoenician access to the raw materials of these regions, in particular metals, forcing the Phoenician artisan workshops to seek out new sources of raw material in the Mediterranean world (Van Dommelen 1998, 70). We will discuss the relationship of Assyria and Phoenicia more in depth in the following section.

Phoenicia and her Neighbors

The Phoenicians and Assyria

In order to understand the role of the Phoenicians within the broader framework of the ancient Near Eastern economy in the Iron Age it is first necessary to look at the motivations and factors behind their expansion into the Mediterranean. Primary in this discussion is the role, if any, of Assyria in Phoenician expansion. Discussions of this topic harken back to the work of Susan Frankenstein (1979). Frankenstein linked the westward expansion of the Phoenician city-states to Assyrian demand for raw materials, in particular silver. This demand incentivized the Phoenicians to search for new sources of these highly desirable metals. The main role of the

Phoenicians was as a middle man, supplying goods for neighboring empires (1979, 273-4). Of particular interest in this regard were the silver mines in Spain. Frankenstein's thesis has more recently been expanded by Gitin (1995, 1997, 2012), who also credits Assyria with an active hand in the process of Phoenician expansion. According to Gitin, the Phoenician city states served as the economic surrogate for Assyria, carrying out their interests in the Western Mediterranean (1995, 61; 1997, 78-7; 2012, 225, 244; Gitin and Golani 2004, 204; cf. also Markoe 2000, 1998, Allen 1997, 159-60; Larsen 1979, 101 and the discussion in Niemeyer 2000, 102-3). Central to this interpretation is an active Assyria. Assyria was not just one of many potential consumers in a Mediterranean/ancient Near Eastern marketplace, but rather they were a strong handed imperial overlord, manipulating and controlling trade through their dependent vassals, for their own needs and interests.

Faust (2011) has recently argued against this reconstruction, arguing that Assyria played a negligible role in the Mediterranean economy of the late Iron Age, including their interactions with the Phoenicians. Faust (2011, 78) characterizes Assyria as follows: "It is true that Assyria greatly benefited from this prosperity through taxation and tribute. They did not, however, generate it, nor did they plan it or invest in it. In a sense, the prosperity was due to the market forces of the 7th century, and not to any pre-planned state enterprise... The Assyrians helped principally by not destroying, and indirectly perhaps also by demanding tribute which forced the local rulers to find additional sources of income." Thus, Faust concludes that "The economies of Phoenicia, Philistia, and Judah prospered during the seventh century BCE, not due to Assyria but in spite of it" (2011, 78). Faust and Weiss (2011, 198) relegate Assyria to the role of "a bully who comes to prospering stores, demanding protection money." Fletcher (2012, 215-7) similarly minimizes the role of Assyria, suggesting that they served as a large consumer, thus stimulating

the Mediterranean market, but without taking an active role. A more measured approach has been suggested by Niemeyer (2000, 103), who asserts that “it is out of well-planned political opportunism and the desire to survive as political communities that the Phoenician city-states had developed into a kind of service society for Assyria. But at all events this cannot be taken to see Tyre as an ‘instrument’ of Assyrian imperialism, expansionism, and demand for raw materials.” Similarly, Markoe’s (2000, 98) qualification that “it is difficult to quantify the economic impact exerted upon the Phoenician cities by their Iron Age political overlords...financial obligations varied considerably through time, as dictated by changing political circumstances,” brings to the fore the necessary variable of time and that, as we discussed in chapter 3, Assyrian policy was not monolithic and contains both chronological and geographic variances.

The major problem positing an Assyrian trade mandate as the reason behind Phoenician expansion is that it is mono-factoral. As will be discussed in the following section, there are numerous elements present in the late Iron Age Mediterranean that incentivized an expansion of trade networks (Bondi 1995, 273-4). On one hand, to limit this complexity to a top-down Assyrian imposition is to ignore these factors. On the other hand, one cannot dismiss, along with Faust (2011), an active Assyrian interest and involvement in the Phoenician coast and Phoenician affairs. In his analysis of the Assyrian data Faust focuses on the royal inscriptions, namely the lists of tribute and booty extracted from Phoenicia at the hands of the Assyrians, while ignoring the letters and treaties. His primary focus is on the development of the southern Levant, where he sees a lack of Assyrian interest in local development and hands-off policy of governance. In the places where they are more involved (eg. Samaria), Faust notes a lack of local economic development. Faust’s argument focuses on the particulars of the southern Levant and he assumes

that Assyrian policy is uniform and monolithic, and that the same factors apply to their interaction with the Phoenicians. According to the accounts in the royal inscriptions, and using data from the southern Levant, Assyria does appear as a bully, extracting tribute with low regard for the economic development of vassal territories. In reality, however, Assyrian activity in North Syria differs considerably from their activity in the southern Levant as we discussed in chapter 3, and thus in the case of the Phoenician city-states we must carefully examine the nature of Assyrian involvement.

In order to analyze these contradicting claims we must examine the nature of the evidence. The basis for positing the active Assyrian imposition as the impetus behind Phoenician colonial expansion hinges on two main factors: the timing of Phoenician colonial activity and the Assyrian texts. The Phoenician colonial expansion phase is attest archaeologically from the second half of the 8th century. This corresponds roughly with the time period when the Phoenician city states came under Assyrian domination during the reign of Tiglath-pileser III (Elat 1982a, 68). Larsen (1979, 101) effectively summarizes this opinion stating that “The Phoenician expansion in the Mediterranean area coincided with the flowering of the Assyrian Empire, and it seems obvious that there is a connection here.” Recent research, however, has questioned this ‘obvious connection,’ particularly Phoenician finds in the Mediterranean stretching back into the 9th century and earlier. Niemeyer (2000, 104) rightly notes that the first wave of Phoenician expansionism precedes the 8th century, and that the Assyrians cannot be seen as the impetus behind this pre-colonial expansion phase (cf. also Fletcher 2012).

A second source used to support a strong and active Assyrian presence in Phoenician expansion is the Assyrian texts themselves. The most important of these are Esarhaddon’s treaty with Baal, King of Tyre, and a series of letters between Assyrian officials serving in Phoenicia

and the capital. Esarhaddon's vassal treaty with Baal king of Tyre is an important source for understanding the relationship between Assyria and Phoenicia from the eyes of the Assyrians. This treaty highlights the Assyrian interest in controlling shipping and trade in and out of the city of Tyre. The first issue highlighted is Assyria's right to information. Within the city of Tyre Assyria stationed an official (*qēpu*)²⁹⁷ who was part of all the dealings of the palace. This treaty stipulates that the *qēpu* must be present at all meetings of the city council, and for the opening and reading of all letters that came to the king.²⁹⁸ The text is broken, but records multiple references to ships, so it can be assumed that all voyages of the palace would be known by, and to some degree overseen and approved by the *qēpu*. A second stipulation states that: "If there is a ship of Baal or the people of Tyre that is shipwrecked off the land of the Philistines or within Assyrian territory, everything that is on the ship belongs to Esarhaddon king of Assyria; however, one must not do any harm to any person on board the ship but must return them all to their country" (*SAA* 2 5, lines 15-17). This stipulation reveals a number of important details regarding the Assyrian view of international trade. First, all cargo on Phoenician ships belongs to Esarhaddon, if those ships do not reach port the cargo still belongs to Esarhaddon. This does not mean that he would physically take possession of all of the cargo, but that in principle the proceeds of Phoenician shipping belong to the Assyrian king. Secondly, this applies to ships within Assyrian territory, mainly along the Levantine coast. There is no mention of the status of ships venturing out into the western Mediterranean. The Phoenician colonial system was not part of Assyria, and these territories are not mentioned in this treaty. This observation goes nicely with the next stipulation of the treaty, which lists the ports of trade belonging to Assyria. In this part of the treaty Esarhaddon outlines the Assyrian ports of trade (KAR.MEŠ.KASKAL.MEŠ)

²⁹⁷ See discussion of *qēpu* in chapter 3.

²⁹⁸ *SAA* 2, 5, lines 6-11.

stretching from “Akko, Dor to the entire district of the Philistines, and to all the cities within Assyrian territory on the seacoast, and to Byblos, the Lebanon, all the cities of the mountains, all (these) being cities of Esarhaddon, king of Assyria” (ibid. lines 18-21). The stipulation gives Baal and the Tyrians the right to enter these cities, gives them official protection, and stipulates that they will pay tolls as they have done in the past.²⁹⁹ This highlights the Assyrian interest in shipping, namely tolls. The Assyrians here are primarily concerned with protecting shipping and securing their import tax through the *kāru* system. There is no mention of going to distant lands and securing specific resources for the Assyrians abroad, merely that any ship arriving in a port within Assyrian territory must pay an appropriate tax to Assyria. There is no stipulation for them to serve as middlemen for particular goods, nor any mention of activity in areas outside of Assyrian control. Certainly the Assyrians were interested in obtaining these resources and taxing their percentage, but there is no reference to a larger partnership where the Phoenicians act as Assyrian agents abroad. Assyrian interest seems limited to an import tax on all goods entering Assyrian controlled territory.

A series of letters dating to the reign of Esarhaddon records correspondence between an Assyrian official serving in Arwad. According to the official a certain Ikkilû “does not let the boats come up to the port of the king, my lord, but has turned the whole trade for himself. He provides for anyone who comes to him, but kills anyone who docks at the Assyrian harbor, and steals his boat” (*SAA 16*, 127, lines 15-22). This Ikkilû also employs an agent who searches out news from Assyria and keeps him updated with information.³⁰⁰ The Assyrian official claims furthermore that he is being bullied and is afraid of Ikkilû and the merchants, who have received

²⁹⁹ *SAA 2*, 5 lines 22-30.

³⁰⁰ *SAA 16*, 127, lines 24-27.

investments in silver from members of the king's entourage,³⁰¹ a fact that he reiterates in a further letter.³⁰² These two letters reveal some of the complexity of the relationship between Assyria and the Phoenician city-states. First of all, in addition to the port taxes it is clear that people within Assyria invested money in Phoenician trade houses, as part of independent merchant ventures. Secondly, it clearly shows instances of local resistance to Assyrian policy as outlined in the Vassal treaty, a topic we discussed in chapter 3. The Assyrian system was based on the collection of tolls and taxes at Assyrian sanctioned harbors. These letters make it clear that at least in Arwad there were alternative "unofficial" docking places that the locals are using, presumably to avoid these taxes and are running might could be considered a black market shipping cartel with the sponsorship of certain high officials, who have investment interests and share in the profits. This highlights the difference between the Assyrian ideal for the Phoenician situation and the actuality on the ground. The Assyrian official laments that there is nothing he can do about the situation without a royal order to arrest those involved.³⁰³

A second set of letters, dating to the reign of Tiglath-pileser III, was found at the site of Nimrud (Kalhu) which detail the correspondence of a certain Qurdi-Aššur-lamur with the palace, and deal with the Phoenician coast (Yamada 2008, 296). In ND 2715 Qurdi-Aššur-lamur writes that he acquires a tax from Tyre of all the timber that is brought down there from the Mount Lebanon area,³⁰⁴ however he records difficulties regarding the tax collectors stationed at the harbors. Qurdi-Aššur-lamur writes that the men of Tyre have attacked and killed these tax collectors, with a similar situation occurring in Sidon.³⁰⁵ The situation is resolved by deploying troops allowing tax collectors to be re-instated. Qurdi-Aššur-lamur uses these troops to threaten

³⁰¹ *SAA 16*, 127, lines r5-10.

³⁰² *SAA 16*, 128

³⁰³ *SAA 16*, 127, lines r3-4.

³⁰⁴ Saggs 1955, ND 2715 lines 5-11.

³⁰⁵ *Ibid.* lines 11-18; *SAA 19*, 22

the cutting of timbers, and demands that the timbers be brought down to the city, and commands them not to sell the timbers to the Egyptians or the Philistines.³⁰⁶ A second letter (ND 2370) deals with Assyrian intervention on behalf of the Phoenicians against Ionian raiders (Yamada 2008, 304-5; *SAA 19*, 25). This type of interaction is also attested in the royal inscriptions of Sargon II, who drives off Ionians disrupting the territories of Tyre and Que (Fuchs 1994, 109, lines 117-119). These letters are consistent with the Assyrian attitudes displayed in the later texts from Esarhaddon's reign. The Assyrians were primarily concerned with taxes and tolls, in particular timber and harbor taxes. A garrison was stationed locally to protect Assyrian interests and secure these revenues, be it from local resistance to tax-collectors, or foreign raiders such as the Ionians. Already during the reign of Tiglath-pileser III, Phoenician resistance to Assyrian taxation is evidenced, either through the killing or chasing off of the tax collectors, particularly those stationed at the harbors.

These texts clearly show a pronounced Assyrian interest on taxing the revenue from any kind of trade entering into the Levant through a mechanism of controlled harbors, garrisons, and officials. They do not, however, show any clear evidence for Assyria meddling in how, where, and in what commodities the Phoenicians conduct such trade. While one can easily posit that Assyrian demand was one of many factors incentivizing Phoenician desire to expand their trade networks, a more active heavy-handed role is not clear from the textual record. That is not to say Assyria's only involvement is as a tax-collector. They have an active garrison to ensure their taxation and trade interests, both internal and external. They station officials and set up *kāru* to ensure their percentages, but also promoted safe travel and open ports to traders operating within Assyrian jurisdiction. In this way they supported unencumbered trade in regions under their control. Their effectiveness in these endeavors can certainly be called into question. The letters

³⁰⁶ Ibid. 20-5.

record ample instances of resistance to Assyria's interests in controlling trade revenues. Even the Assyrian ideal, however, does not appear to have been the micromanagement of trade, which was left largely in the hands of the merchants themselves. Assyrian concern was with the extraction of taxes and tolls, with whom or for what the Phoenicians traded.

An exception is found in ND 2715, in which we find a command for the Tyrians to not trade with the Philistines and Egyptians, however this should be seen as a notable exception due to a specific geo-political climate, or perhaps a trend of black market sales or tax evasion in this type of transaction. At the time of this letter, these areas were enemies of Assyria. It is natural that Assyria would want to limit trade between its provinces and enemies (although the successful imposition of this is unlikely). The statement in ND2715 is not representative of Assyrian economic statement on acceptable trading practices, but a political statement about not trading certain 'goods of interest' with enemies of Assyria. A similar situation is reflected in the smuggling operation between men of Kumme and Urartu (*SAA 5*, 100).

Thus, in light of the evidence Niemeyer's (2000, 104) statements seem the most accurate. Assyria was the strong political presence in the region, and following Phoenician expansion, once the Assyrians learned how profitable this trade was, they tried to profit from it and increased their exploitation of the Phoenician city-states into the 7th century BCE. For the Phoenicians, keeping Assyria happy had high economic value.³⁰⁷ This does not make the Phoenicians into Assyrian trade surrogates in the Mediterranean, but at the same time does not leave them as a fully independent identity. Assyria had an active presence in the region, and keeping them happy, to degree, was profitable for continued economic and political autonomy.

³⁰⁷ Rebellion against Assyria could lead to higher taxes, annexation, and eventually destruction, all of which play out in Phoenicia from the reigns of Sennacherib through Ashurbanipal.

Thus the two regions formed an uneasy symbiotic relationship (Niemeyer 2004, 246).

Negotiating when and how to resist their political oppressors was part of life as a Phoenician.

From the perspective of the Assyrians the Phoenicians dramatically lowered their transaction costs for dealing with the Mediterranean world, in particular knowledge and infrastructure. The Assyrians lacked the Phoenicians' knowledge of sea-faring and where to acquire various trade goods. The Assyrians also lacked the infrastructure to easily and cheaply acquire these goods, such as a fleet of ships, trade colonies across the Mediterranean, and local contacts. Even if Assyria wanted to mandate Phoenician trade it is unlikely that they had the necessary information. It was the Phoenician traders, not the Assyrians who knew how much of certain goods could be sold or traded where, at what margins, for which desired commodities, and how to best make use of price differentials.

Assyria did not have the long term build-up of contacts, and thus was incapable of controlling this type of trade. These elements represent the cost of maritime transacting, and for land-based polities the start-up costs were prohibitive. This is why the Phoenicians were integral to incentivizing mainland participation in the market. They used their knowledge and connections to lower the cost of transacting and incentivize increased participation in the Mediterranean market system. It was in Assyria's best interest to use the Phoenicians' ability to reduce the cost of transacting in the Mediterranean, but only to a point. When their tolls were being avoided, or the goods were being filtered through black market transactions the Assyrians were no longer benefitting. To limit this risk the Assyrians took certain precautions, such as the installation of officials and treaty stipulations. In the case of repeated rebellion the Assyrians were certainly not benefitting, leading to the eventual destruction of the Phoenician cities when the cost of maintenance outweighed the benefits. Thus, we can agree with Aubet (1993 52) that

“the role played by Assyria was bound to be important, and perhaps even decisive, but only as a corollary to the circumstances of the internal socio-economic policy of the Phoenician cities...the ultimate cause of the expansion westwards must be sought fundamentally in the internal dynamics of Phoenician society in the east.”

The Phoenicians and the Southern Levant

The previous discussion serves as necessary precursor to the primary question at hand: how did the Phoenicians fit into the larger economic system of the southern Levant during the late Iron Age? Gitin (1995, 61) views the Phoenicians as Assyrian surrogate middlemen enforcing the larger economic aims of their Assyrian overlords, distributing goods from production zones in the southern Levant (primarily olive oil at Ekron), and returning desired luxury goods and metals, primarily silver, from the western Mediterranean. Faust and Weiss (2011) suggest a model based on World Systems Theory, with Phoenicia serving as the economic center of a Mediterranean world system (cf. also Sommer 2000). While acknowledging Phoenicia's political subordination to Assyria, Faust and Weiss (2011, 197) claim that it serves as an economic core for a Mediterranean based world system, with all goods flowing to, or more accurately through them as merchant middlemen. Thus, according to Faust and Weiss, it was demand from Phoenician merchants that stimulated the economic prosperity of the southern Levant. Philistia and Judah increased production to meet Phoenician demand for wine and olive oil, which they distributed across the Mediterranean for profit.

The role of Phoenicia in both Gitin and Faust and Weiss' reconstruction fails to adequately account for the complexity of Phoenicia's involvement in the trade networks of the late Iron Age. According to Gitin's analysis the Phoenicians lack agency, and are mere puppets of the Assyrian economic machine. As Niemeyer (2000, 104), Fletcher (2012), and Faust and

Weiss (2011, 195-6) have pointed out, expansion into the Mediterranean begins in the period preceding Assyrian domination. They rightly note that the Phoenician trade network is an expansion of networks that had existed in the Mediterranean since the second millennium. These networks suffered some decline with the collapse of the Late Bronze Age palatial system, but this collapse was not complete. Thus, the Phoenicians were part of a deep-time Mediterranean trade network that persisted from the Bronze Age through to modern times. Yet, at the same time, Phoenicia cannot be seen as a core in a World System. As we discussed in chapter 1, core-periphery models suffer from an assumption of radial trade models, when in fact goods move in a variety of patterns for a variety of reasons. To assume that all goods moving in the Mediterranean do so in a radial fashion to a Phoenician center is an oversimplification of trade patterns, which involved multiple mediators (although Phoenicia was the most significant), and also ignores overland trade that never reached Mediterranean markets. In particular, this reconstruction fails to account for the rise of the Greeks. By the 7th century, the Phoenicians are not the only traders operating in the Mediterranean. At this time, the Greeks had become a powerful competitor trade stations and colonies of their own, which are attested by sites such as Naukritis in Egypt (cf. Waldbaum 1997). Faust and Weiss' view also implies a monolithic entity of Phoenicia, when in fact there were multiple independent, and perhaps competing city-states (Oded 1974, 40). This competition is especially true along the mainland, where Sidon and Tyre were in constant conflict over territory throughout the late Iron Age (Markoe 2000, 41-6).

Decline

One of the advantages of Gitin's reconstruction of the economy of the southern Levant is that it takes into account both the periods of economic growth and expansion, which are attested in the archaeological record at sites such as Ekron and Ashkelon, as well as their decline at the

end of the seventh century. He associates the period of economic growth with Assyrian imposed production demands, and the decline with the fall of Assyria and their withdrawal from the territories in the southern Levant. We have already examined how the growth of the economy can be attributed to Phoenician expansion, which worked to reduce transaction costs and incentivized large volume trade; however it is also important to take into account the decline of production at the end of the seventh century. Like the production centers in the southern Levant, the system of Phoenician settlement across the Mediterranean also entered a phase of decline at the close of the 7th c. BCE, featuring the abandonment of certain foundations in Spain, and a general disruption in trade that marks the beginning of the Punic era (Pappa 2013, xv). Aubet (1993, 275) proposes that the collapse of Assyria as a key factor in the decline of Phoenician colonies along the Spanish coast alongside inflation due to years of flooding the silver market (1993, 275)

Another explanation looks to the political events of the 6th century BCE to explain the decline of the Phoenician Mediterranean trade network, which reached its lowest point during the 6th century during the period of Neo-Babylonian rule. This explanation credits the decline to the destruction of Tyre by the Babylonians in 573 BCE (Markoe 2000, 47-8, Van Dommelen 1998, 116). At this same time, the Phoenician settlements along the Spanish coast went through a period of crisis (Aubet 1993, 273-5; Van Dommelen 1998, 116). This explanation attributes the crisis period to the effects of the pressures on the Phoenician homeland by the Mesopotamian empires, which in turn spurred the development in Phoenician Carthage, the most powerful of the colonies to the west, which rose to prominence in the 6th and 5th centuries BCE, eventually leading to the establishment of a Punic Kingdom in the western Mediterranean centered in North Africa (Bartolini 2003, 197-8; Niemeyer 2000, 104ff.; Van Dommelen 1998, 116). While it is

tempting to link the Babylonian destruction of the Tyre, after a protracted siege of the city, and increased political pressures on Phoenicia from the imperial powers from the time of Esarhaddon onwards, to the decline in production in Philistia and the Spanish colonies (cf. Niemeyer 2006, 162-3), this does not make sense chronologically. During the reign of Esarhaddon, the region was still flourishing, despite the conquest of Sidon, and the Babylonian siege of Tyre post-dates the period of production decline in the southern Levant, and occurs after the destruction of Philistine cities such as Ashkelon and Ekron in 604 BCE. Additionally, the distribution of Phoenician imports along the Spanish coast ended at the end of the seventh century, well before the destruction of Tyre (Van Dommelen 1998, 116, Aubet 1993, 275). Increased pressure on the Phoenician homeland can therefore not be linked to economic decline in the southern Levant. While acknowledging that a decrease in silver demand likely played a role in the collapse of the Phoenician colonies in southern Spain, Van Dommelen (1998, 116) also notes the importance of the emergence of the Greeks as a competitor in Mediterranean trade, shifting the balance of power in the region (cf. also Aubet 1993, 274). A decrease in silver demand cannot explain the decline of production centers in the southern Levant, however the emergence of the Greeks and the balance of power in Mediterranean trade is worthy of further investigation.

Phoenician Expansion and Transaction Costs

Earlier in this chapter we evaluated a few ways in which Phoenician expansion may have served to reduce the cost of transacting in the Mediterranean market. In this section, we will develop these ideas further, in order to demonstrate how Phoenicia worked to change the social sphere of the market in a manner that incentivized more widespread participation in this sphere. According to Douglass North, *Organizations* are the units or players that operate within institutional structures (1990, 5). For our purposes, then, we can consider the Phoenician and

Greek merchants the organizations operating within the economic context of maritime trade. Organizations work within institutional structures to take advantage of opportunities, and at the same time induce change in institutional structures (ibid. 9). Specifically, returning to Temin's model, an explanation of Phoenician strategy in expansion is best understood through the lens of transaction costs.

According to New Institutional Economics, "when it is costly to interact, institutions matter" (North 1990, 12). Transaction costs consist of "the costs of measuring the valuable attributes of what is being exchanged and the costs of protecting rights and enforcing agreements (ibid.27)" and these costs impact economic behavior by incentivizing participation in certain economic contexts. In the real world, there is a real cost to transacting, including risk management, value measurement, and the protection and enforcement of property rights. All of these elements factor into whether or not it is profitable, or economically efficient to trade. Economic growth can occur when transaction costs are lowered, making trade more appealing and more profitable. North (1990, 68) further notes that: "Transaction costs are the most observable dimension of the institutional framework that underlies the constraints of exchange. They consist of those costs that go through the market and therefore are measureable, and of hard-to-measure costs that include acquiring information, queuing, bribery, and so forth, as well as the losses due to imperfect monitoring and enforcement." As an observable dimension of the institutional framework, transaction costs are accessible to the ancient historian or archaeologists, however some of these costs are easier to assess than others, and according to North (1990, 68), it is these hard-to-measure costs that make it difficult, even in modern societies, to assess to total transaction costs in any given situation. Nevertheless, by examining

how Phoenician trade lowered the cost of maritime transactions in the late Iron Age we can gain a clearer picture of their influence on the economic performance of the region.

The costliness of information is a crucial component to overall transaction costs (North 1990, 27; Rao 2003, 11-12). One of the goals of Phoenician settlement abroad was to establish local agents in foreign location. Employing overseas agents reduces transaction costs by removing the need for a merchant to travel with his goods, and allowing them instead, to operate through local agents, a method that greatly increases efficiency gains (Grief 1989, 857). Traditionally, such agents were established by using kinship ties and groups. The use of supposedly more trustworthy agents worked to decrease risk of lost cargo through opportunistic behavior or defection (North 1991, 99-100). The need for agents is especially true in a world of merchant venturing, where goods are sold upon arrival for an expected profit, rather than sold prior to shipping. A merchant venturing system adds costs of risk and value measuring to any given transaction, and the strength of the market must be evaluated. As such, these ventures have a greater speculative risk (de Roover 1963, 44). Price variability and the relatively slow speed of information transfer further increases these transaction costs (ibid. 45). Superior infrastructure, including employing agents in prime trading locations, greatly reduces these transaction costs and also reduces the risk involved in these merchant ventures (Grief 1989, 857, de Roover 1963, 44). Local agents further reduced the risk of the “agency problem,” whereby an agent trading in someone else’s property can disappear with the capital, or claim that it was lost at sea, and thus cheat the merchants, disappearing in a foreign land with no hope for restitution on the part of the merchants (Grief 1989, 858, North 1991, 100). Such opportunistic behaviors again increase the costs and risks of transacting (Furubotn and Richter 2005, 5). This “agency problem” can be reduced by forming mutually beneficial coalitions, by which all members benefit from

communal information, and thereby do better economically as a whole than they could be “going rogue” or defecting. The coalition worked together to reduce transaction cost to the point where defection was no longer an economically rational behavior (Grief 1989, 859). Similarly, the expertise of agents abroad within these coalitions diversifies and spreads risk, all of which help in reducing the costliness of transactions (ibid. 863). Such business organization and behavior is known across history, including the presence of local agents in the Old Assyrian caravan trade (Stratford 2010; Dercksen 2008; Larsen 1967), and the Maghribi traders in the Medieval Mediterranean (Grief 1989). The motives behind Phoenician settlement seem to best fit these patterns of trade organization, whereby the use of permanent settlements and agents increases economic performance by lowering the costliness of transactions.

North (1990, 135) identified three broad margins at which innovations can lower transaction costs. Transactions costs can be lowered by 1) increasing the mobility of capital, 2) lowering the cost of information, and 3) spreading risk (ibid. 125).

Increased mobility of capital occurred in the Late Iron Age through the use of a silver standard.³⁰⁸ This was not purely a Phoenician innovation, but came about due to an increased amount of silver in the economic system that made it practical to use as a set standard. Phoenician exploitation of silver mines in Spain³⁰⁹ certainly played a role in the rise of the silver standard, and as a means of increasing capital mobility they had a vested interest in maintaining this influx. It was not merely Assyrian demand for silver that pushed the Phoenicians to exploit new silver resources (as suggested by Frankenstein 1979 and Gitin 1997), but it was also self-interest as a way to increase capital mobility and reduce transaction costs. A set silver standard

³⁰⁸ Other metals were still used as exchange, predominantly copper, but by the 7th century silver was the most common standard, cf. Fales 1996, 19; Radner 1999a, 129 and Aubet 1993, 60-64.

³⁰⁹ Cf. Tsirkin 1979, Elat 1982a, Aubet-Semmler 2002b; Mata 2002, Jurado 2002, Aubet 1993, 236-241 and Kassianidou 1993. Although cf. also Muhly 1998 for a different opinion.

allowed for the easy re-use and deployment of capital for a variety of functions, both internally and externally. It allowed for an easier flow of capital both across regional boundaries and across sectors of production and distribution. Another way in which capital mobility can be increased is by the use of a standardized set of weights and measures (North 1990, 121). We know that across the larger ancient Near East there were multiple different weight standards in use, and even regions under Neo-Assyrian hegemony did not adopt a single unified standard (Fales 1996; Radner 1999a, 130; Allen 2005, 81). However, the Phoenicians were able to achieve a degree of standardization in the shipment of certain goods through the use of their own transport amphorae. The Phoenicians mass produced the transport amphorae which they used for the shipment of wine, and probably olive oil as well, across the Mediterranean. In stratum II at Tyre the remains of kilns for the large-scale production of such amphorae were discovered (Bikai 1978, 13). Additional kilns have been excavated at Sarepta, where 22 examples were found in the industrial quarter. Alongside these kilns were facilities for fabricating and drying vessels as well as a tank for levigating clay (Pritchard 1978, 117-123; Anderson 1987). These jars have been found on Phoenician shipwrecks (Stager 2003), as well as at numerous sites with Phoenician settlement across the Mediterranean (Niemeyer and Schubart 1975). These jars are all of similar shapes and sizes, and measurements conducted on these jars show that they were manufactured to fit a standardized volume, approximately equivalent to 4 Egyptian *heqats* (Finkelstein et al. 2011). This is not to say that the Egyptian standard was used for all weights and measures across the Mediterranean, but it does show that the Phoenicians were working to standardize unit sizes by the use of uniformly manufactured transport amphorae, which would further increase capital mobility and reduce transaction costs, specifically the costs of weighing and measuring out the contents of such jars. Additionally, these jars may also have served as a

type of branding. In the later Persian, Hellenistic, and Roman periods, the archaeological records has revealed the existence of a large variety of amphorae, with a large variety of designs, each indicating the place of manufacture and origin (Twede 2002, 98-100). Twede (ibid. 107) emphasizes the developing role of packaging as a marker for contents, both the quantity and quality. This development also has an impact on transaction costs, signifying origin and quality without having to open and test the contents.

A second mechanism for lowering transaction costs is increasing information. This includes valuing goods, knowledge of where to obtain goods, and knowledge of demand for trade goods. By establishing a network of settlements across the Mediterranean the Phoenicians were able to maintain good information chains and keep a finger on production capabilities of various regions, as well as the going rates for goods, both those traded and those obtained. Ground agents greatly assist in the valuation process. Similarly, these agents could provide information on the scale of goods available for trade, and the demand for foreign materials, allowing the Phoenicians to operate more efficiently and on a larger scale, maximizing cargo. With their information networks the Phoenicians could also capitalize on specific circumstances. Drought or Famine in a region could cause an increase in demand in that region for products such as wine or olive oil for example. Information is judged according to the quantity and quality of links in the information network. By having their own agents in numerous locations the Phoenicians were able to maintain both. In order to be useful these network hubs require regular contact and maintenance, something the Phoenicians were able to accomplish by regular trade with their colonial agents (Sommer 2007, 99). The permanence of the colonies, as opposed to pre-colonial contact, allowed for a continuous string of information to flow from local producers

to Phoenician traders. Sommer (2007, 103) has suggested that in particular the temples of Melqart served as a place for the exchange of this knowledge and information.

Finally, risk spreading procedures are a means of reducing transaction costs. This mechanism is closely related to information. Knowledge reduces the chances of showing up in a region to trade and not having the correct cargo, or not being able to acquire desired goods. The presence of multiple ports allowed safe resting places and reduced the risk of lost or stolen cargo. Knowledge of the coasts and the sailing minimized risks of shipwrecks and lost investments. Reducing the chance of lost cargo was a key factor in risk management. Beyond the threats of ships sinking in transit piracy was another risk to merchant ships. Safe ports would help minimize this risk and there is evidence from later periods (Persian and Hellenistic) of elaborate defense systems at Phoenician ports to combat this threat (Markoe 2000, 83, Dietler 2007, 247).³¹⁰ The Ionian raiders mentioned in Sargon II's royal inscriptions are an example of pirate-raiders that threatened Phoenician trade off of the Cilician coast (Lanfranchi 2000, 15; Gallagher 1999, 92, cf. also Greco 2006, 172). Piracy was also a subsidiary means of enrichment for the Phoenicians themselves, a characteristic emphasized in Homer's descriptions of Phoenicians in the *Odyssey*.³¹¹ Enforcement of property rights and trade agreements required such costs as protection of the goods (against pirates), and the negotiation and enforcement of contracts in foreign lands. Merchant enclaves greatly assist in the latter, and can form an institutional body that ostracizes merchants who fail to adhere to established agreements (North 1991, 100; Grief 1989).

Knowledge of sailing and navigation was of particular importance, and will be examined in the following section. Thus, it is evident that the Phoenician activity in the Mediterranean

³¹⁰ Cf. discussion in Temin 2013, 222 on the effects of piracy on transaction costs.

³¹¹ Cf. Aubet 1993, 102-8.

centered on behavior that reduced transaction costs, by increasing capital mobility, increasing information, and reducing risk. All of this played a role in the prosperity of surrounding regions during the 7th century BCE, allowing them to overcome the constraints of partial information and high transaction costs that plagued Mediterranean trade since the collapse of the Late Bronze Age system. In this manner, the Phoenicians in the Iron Age served a similar function to the *pax Romana* in the Temin's reconstruction of the Roman economy.

Shipping in the Mediterranean

The general scholarly consensus has been that sailing in the Mediterranean is constricted by the weather patterns, prevailing winds, and currents (Beresford 2013, 1-10, Casson 1995, 270-1, Rouge 1981, 15-16; Bartolini 1995, 282). Aubet (1993, 144) summarizes the situation as follows: "Throughout antiquity, sailing was restricted to periods of good weather...ships weighed anchor at the beginning of spring and returned to port in October...Winter sailing was not widespread in the Mediterranean until the sixteenth century." These limitations are generally assumed from the writing of classical authors such as Hesiod's *Works and Days*, Vegetius' *Epitoma rei militaris* and an edict of Gratian, all of which set forward ideal sailing dates that start and end within a month of each other (Beresford 2013, 11).³¹² The term "ideal" in this context is crucial. Obviously, certain seasons are preferable, but this does not mean that sailing in less preferable conditions was impossible, or even irrational from an economic perspective (Horden and Purcell 2000, 142-3).

Recently, Beresford (2013) has called into question the consensus view that Mediterranean sailing was limited to the spring/summer months except in times of dire need or warfare. Beresford's study focuses on the classical period, but many of his observations are equally applicable to the late Iron Age. Beresford (2013, 56, 67) suggests that Mediterranean is

³¹² For a discussion of the sailing season as recorded in these texts cf. Beresford 2013, 11-32 and Tammuz 2005 146.

not a homogenous sailing environment, and certain portions are more dangerous than others. There is a large range of meteorological variation in sea conditions, and in fact sailing in the summer season in areas in the west was no more dangerous than winter sailing along the coast of Egypt, the Levant and southern Anatolia. Even in winter, the weather conditions were no more hazardous than shipping in the Black Sea or along the Atlantic Coast, both of which were already accomplished by mariners in the Iron Age (2013, 105). Beresford also notes that the textual record is not uniform in its dismissal of shipping during winter months. Numerous exceptions can be found in classical literature, where winter shipping occurred.³¹³ The same is true of “times of need” including war and famine. These tend to be seen as aberrations and exceptional circumstances, however the evidence suggests that wintertime travel persisted in classical times, particularly along the Levantine seaboard (2013, 51-2; cf. also Marzano 2011 for the persistence of wintertime trade between Egypt and Italy in the Roman period). Beresford’s study of the classical texts indicating a closed sailing season suggests that these text were written by land-based people, wary of the sea, and living in locations where the regional variances within the Mediterranean led to particularly harsh winter conditions that were not true of the Mediterranean as a whole (2013, 266-75; 2009, 139-40).³¹⁴

An important text for understanding the ancient sailing season comes from 5th century BCE Elephantine in Egypt, in the form of an Aramaic customs account. The text records a list of duties collected from Phoenician and Ionian ships that entered and left port in Egypt during the year 475 BCE (Yardeni 1994, 67). These texts record the activity for what would be a ten month sailing season, with only the months of January and February not included (ibid. 69) However,

³¹³ Cf. Beresford 2013, 32-51.

³¹⁴ Similarly Beresford suggests that Vegetius’ text is intended in particular reference to warships, and is not meant for merchant ships, which were of a different construction and designed for different types of sailing, cf. Beresford 2009.

the first ship arrives in March, which suggests a February departure from its previous location, and the last ship departed sometime in early December (Tammuz 2005, 151).³¹⁵ This would indicate that the sailing season in the Persian period was considerably longer than what the classical sources suggest. Based on this text and other ancient sources, Tammuz (2005, 156) proposes that shipping took place almost year round, but that in different seasons different shipping routes were preferable. There are two types of shipping routes: coastal navigation and open-water navigation. The dangers of winter weather primarily affect coastal navigation: minimal daylight, poor visibility, and dangerous shorelines. All of these factors are mitigated by open-water navigation. A ship could still founder in a heavy storm, but open-water navigation would limit the dangers of running ashore along dangerous coastlines.³¹⁶ Thus Tammuz concludes that coastal navigation was likely limited in harsh winter conditions, but that open water navigation was possible year round, and favored in the winter.³¹⁷ In fact, in the case of a storm sailors would take to open water, avoiding the danger of the shore (Bascom 1976, 73).

Aubet (1993, 140-1) has noted that the patterns of Phoenician colonization coincide with the exploitation of both coastal and open water navigation. Some settlements, such as those located along the North African coast, coincide with the daily stages of maritime travel (ca. 19-25 miles). However, many of the Phoenician settlements, such as those at Sardinia, Sicily, and Ibiza, are better suited for longer distance open-water travel.³¹⁸ Thus, sailing in the Mediterranean involved an extensive set of navigational knowledge, including deep water routes, coastal routes, night time navigation for long journeys, and the ability to navigate dangerous

³¹⁵ Cf. Tammuz 2005, Table 2 for a complete list of ships and dates.

³¹⁶ Bascom estimates that in the 18th and 19th century 2 to 4 times as many ships were wrecked off the coast as on open water (1976, 72).

³¹⁷ The cessation of coastal navigation is attested in Late Bronze Age texts, cf. discussion in Tammuz 2005, 146-151. This is the opposite of the suggestion of Horden and Purcell (following Braudel), that during the winter small vessels making short journeys close to shore could ignore the major hazards of winter travel (2000, 142).

³¹⁸ Cf. also Bascom 1976, fig.10

waters in poor visibility. The skill of these sailors and navigators could greatly reduce the risk of lost cargo (although some cargo loss is inevitable, as is attested by Phoenician shipwrecks found in the Mediterranean).³¹⁹ Similarly, knowledge of open sea routes and night time navigation allowed for shorter travel times of multiple days across the open sea, rather than hugging the coasts. This type of travel allowed the Phoenicians to sail almost year round, even in conditions of poor visibility. Lengthening the shipping season also plays into the idea of lowering information costs, with a near constant influx of the most up-to-date information from the Phoenician agents abroad. The integration of various markets and regional centers across the Mediterranean is dependent on the speed of communication and transportation, both of which would be severely limited by a short sailing season (Marzano 2011, 186). Knowledge of regional shortages could become obsolete before the news could reach the Phoenician centers. A longer shipping season also plays into capital mobility, allowing for materials to be shifted year round across the Mediterranean. Thus, Phoenician investment in an in-depth knowledge of sailing and the sea was a vital element that reduced the risk, and cost of participating in Mediterranean trade. This knowledge was the product of long-term investment, and could not be easily replicated. Therefore other groups that wanted to participate in this aspect of Mediterranean trade were at a disadvantage. The start-up costs of competing with Phoenician infrastructure were for the most part prohibitive. An exception came in the form of the Greeks, who also had a long tradition of sea-faring and Mediterranean connection. We will now turn our attention to them and examine how the emergence of Greek competition affected participation in the Mediterranean market at the end of the 7th century BCE.

³¹⁹ For a discussion of Phoenician navigational techniques cf. Bartolini 1995.

Greeks in the Mediterranean in the Late Iron Age

Historical Overview: Greek Renaissance and Expansion in the Late Iron Age

An important aspect for understanding the growth cycles within the Mediterranean world is an examination of all of the regional players. In this regard the rise of the Greeks as a significant trade competitor with the Phoenicians is significant. In this section, we will briefly outline a history of the trajectory of Greek involvement in Mediterranean trade in the late Iron Age, and examine what impact this might have had on the Phoenician trade systems, and ultimately the economy of the Southern Levant. The rise of the Greeks as a player in the Mediterranean economy has been largely ignored in scholarship of the southern Levant. One of the major reasons for this is that Greek pottery in the region is rare, with only scattered sherds attested outside of a few sites, namely Ashkelon and Meşad Heshavyahu (cf. Fantalkin 2001, 137-9). However, even if Fantalkin is correct that the access of Greek traders and settlers to the Levant was severely limited by the Assyrians in an effort to protect Phoenician trade interests (2006), this does not mean that their presence did not have severe effects on the local economy. In this section, we will examine how the emergence of the Greeks could have had drastic effects on the economy of the southern Levant, even in cases of limited contact.

Broadly, the Iron Age in the Levant lines up with the Greek “Dark Ages,” and Early Archaic period.³²⁰ The “Dark Age” spanned the period from the collapse of the Mycenaean Palatial System at the end of the Late Bronze Age until the rise of Archaic Greece either around 800 or 700 BCE (Papadopoulos 1996, 253; Shapiro 2007, 1). This period was marked by varying scales of recession, with a decline in the standard of living from the Late Bronze Age, accompanied by a population decrease (Morris 2009, 66). The beginnings of the Archaic period

³²⁰ As more research sheds light on this period the appropriateness of the term “dark age” has been called into question. It is a scholarly term for the period in between the well-studied Mycenaean Era and Archaic Greece (Papadopoulos 1996, 253; Dickinson 2006; Muhly 1998, 320).

are nebulous, and are identified by the gradual renaissance and re-emergence of Greece from the “Dark Ages” between 800-700 BCE. This movement is marked by the emergence of alphabetic writing, monumental architecture, and overseas trade and colonization, and extensive population growth (Shapiro 2007, 2; Morris 2009, 66). Thus, the 8th-7th centuries BCE witness the rise of Archaic Greece, and the re-emergence of the Greek city-states as an increasingly significant entity in the Mediterranean world. Like the Phoenicians, the Greeks of the late Iron Age were not a monolithic singular entity, but rather a conglomeration of numerous city states that spawned multiple expansion movements, that together made up the process of Greek expansion.

During the 9th-7th centuries BCE the Greeks, like the Phoenicians, began to establish their own system of settlements and colonies across the Mediterranean. During their own phase of Mediterranean expansion the Greeks established two different types of settlements: 1) *emporía* or trading posts, which were not necessarily independent communities and were at times established among populations of non-Greeks, and 2) *apoikía*, the Greek term for permanent settlement or colony, meaning home away from home (Antonaccio 2007, 203-4; Osborne 2009, 80; Hansen 2006, 3-5; Greco 2006, 169). Greco (2006, 169) attributes the foundation of the *apoikiai* to crises in the home city of the founding groups, which led to the foundation of new communities unrelated to that of the homeland, and which developed on an independent trajectory.

Beginning sometime in the 8th century Greece entered a period of revitalization and recovery. This period was characterized by a massive population increase. Archaeological survey in the Aegean has shown that most sites show an increase in size around 700 BCE, and new sites such as Corinth and Eretria were established. Based on the survey data Morris (Morris 2007, 219; 2009, 67; cf. also Osborne 2009, 35-40) suggests that the population doubled across Greece

during the 8th century BCE. The first stage of colonial³²¹ expansion was already taking place during the 8th century, and was focused on the areas around the Aegean, Sicily, and southern Italy (Antonaccio 2007, 206-7; Morris 2007, 219; Osborne 2009, 67-70). In the seventh century expansion continued in these regions, but also extended into the Black Sea and the western Mediterranean including the coast of Spain and North Africa (Antonaccio 2007, 207; cf. also Osborne 2007, 278; 2009 table 5 and Tsetschladze 2006 lxiiiiff).³²² Greek colonization was not a monolithic enterprise, but rather a combination of expansive movements taken on by numerous independent city states. This was certainly true to some extent of the Phoenician settlement movement as well, but unlike the Phoenician examples we are better able to trace the relationship of the Greek colonies to their founding city-states (cf. Tsetschladze 2006, table 6).

The Greek colonization movement has been accredited to a variety of stimuli, including ‘land hunger,’ to escape overpopulation and general demographic pressures and stresses, or as an enterprise to secure valuable resources and trading partners (Antonaccio 2007, 210; De Angelis 2002, 299; Blakeway 1932/1933, 170-1; Osborne 1997, 251). It is certainly the case that a multiplicity of factors were involved, and varied according to the different founding city-states. Similar to the case of the Phoenician pre-colonization movement, the Greek settlements seem to adhere to patterns following earlier trade and exchange relationships (Antonaccio 2007, 201). However, there is also evidence supporting a ‘land-hunger’ movement, and a desire to exploit high yield agricultural areas, and in many cases early colonies were founded in areas with notably higher rainfall than their origins in the south-eastern portions of the Greek Peninsula

³²¹ As we noted earlier in the case of Phoenicians, the appropriateness of ‘colony’ to describe Greek settlement and expansion is a matter of debate, cf. for example Osborne 1997; Tsetschladze 2006, xxvff.

³²² For Greek colonization of Italy cf. D’Agostino 2006, for Sicily Dominguez 2006, for southern Spain and the Iberian Peninsula cf. Dominguez 2006b, Boardman 2006 for settlements in the eastern Mediterranean

(Osborne 2007, 277-283; De Angelis 2002, 300).³²³ De Angelis (2002, 299-304) has noted that these two factors do not need to form a dichotomy, and that agricultural production for trade may have also been a motivating factor, in particular noting the presence of numerous grain silos at Megara Hyblaia, which could have provided for both subsistence needs and as products for long-distance trade. Like the Phoenicians, the Greek system of agents abroad also allowed for an increased flow of knowledge and information that allowed them to tailor and maximize production to changes in demand across the Mediterranean, increasing productive potential and reducing the transaction costs of imperfect knowledge (Osborne 2007, 291-2).

It has been suggested that the Greek overseas settlements, rather than an *ad hoc* response to internal crisis, were part of a long-term strategy of risk-management to avoid future scarcity (De Angelis 2002, 303). This interpretation concurs with Horden and Purcell's (2000, 177ff.) characterization of the larger Mediterranean condition, which they suggest was driven by various mechanisms of risk management. According to their analysis the Mediterranean as a whole is characterized by a mixture of good and bad years, where the good outnumber the bad, but the bad are common enough to pose a constant threat that must be taken into consideration. For the societies of the Mediterranean, preparing for these bad years through means of diversification, redistribution and storage was an essential part of life (cf. also Purcell 2006, 10; cf. Osborne 1996, 49 for comments on the specific conditions of Archaic Greece).

Morris (2009, 67) stresses some common possible responses to the problems of an increasing population: intensification, extensification, and reorganization. Intensification can only improve conditions to a certain point, at which we see decreasing yields as land is use is fully exploited. This follows the Malthusian problems, which are presented by the ratio of

³²³ Although this was not always the case, for example the settlement at Pithekoussai was founded in an area with limited agricultural potential (Osborne 2007, 283).

population to available land. Foxhall (2007, 16-17) has argued, however, that there is no such problem in the late Iron Age, and if anything there was a labor shortage rather than a land shortage, and that the archaeological evidence suggests that marginal lands are not fully exploited until the classical period (cf. also Tsetskhladze 2006, xxx).³²⁴

Extensification becomes a favorable response to spread risk and deal with the population growth of the 8th century BCE. Risk may have been a primary contributing factor rather than overpopulation, with expansion serving as a mechanism to deal with potential years of shortage due to poor rainfall (Osborne 1996, 49; De Angelis 2002, 300). As we described relating to Phoenician expansion and the Malthusian problem, Greek settlement served a two-fold approach on this front, both decreasing the population of the homeland (even if this was unnecessary at the time), while at the same time adding potentially exploitable hinterland in the form of new colonies (Morris 2009, 68). This being said, the Greek settlement and expansion had much more of an agricultural emphasis in certain areas than what is seen in the Phoenician system. Morris (2009, 68) suggests that reorganization of land within a territory could be employed as another response to the problem of population increase, making more effective use of comparative advantage (2009, 68). Temin (2012, 66-67) has adequately demonstrated how reorganization to make better use of comparative advantage can have the effect of a shock to the Malthusian system. Thus, the reorganization response proposed by Morris (2009, 70) would further supplement changing demographics made possible by colonial expansion and allow for unprecedented economic growth during this period.

³²⁴ However, Tsetskhladze also notes that this was variable depending on the individual city-state, noting Ionia as an example of a forced migration (2006, xxx).

Greek vs. Phoenician Models of Colonization

We have suggested that there are many similarities between Greek and Phoenician colonization movements in terms of the economic incentives behind them. In particular, both movements contributed to lowering transaction costs by increasing knowledge and minimizing risk. Similarly, both systems broadly worked to reduce the Malthusian constraints on economic growth by managing the ratio of population to land, both at home and abroad. However, we do not want to suggest that these were two identical movements, even if they shared a common economic logic. Niemeyer (2006, 143) notes that there beyond a chronological difference between the two movements (with the Phoenician movement beginning much earlier), there is also “an intrinsic difference between Phoenician expansion and Greek colonization, which is due partly to the different conditions and purposes prevailing, partly due to the respective historical settings.” In particular, Niemeyer highlights the role of population pressures, which he sees as central to the Greek colonization movement, but were not a factor in Phoenician expansion, which he characterizes as an enlargement of the Phoenician’s economic range of interaction (2006, 148, 159). Thus, he characterizes the Phoenician settlement movement as a focus on creating ports of trade, while the Greek colonial enterprise had an added element of significantly increasing its hinterland territories with newly established settlements abroad. This conclusion was also supported by Crielaard (1996, 247-9), who suggests that the merchant origins of the Phoenicians made them comfortable importing or trading for agricultural products, whereas the Greek settlers, in the case of his study the Euboeans, were designed to subsist independent of trade in subsistence products, and thus required sufficient hinterland. Crielaard also suggests that this is the reason why many of the Phoenician settlements collapsed at the end of the 7th century. The political problems engulfing the Phoenician homeland reduced the ability of the mainland to

support its colonies, although Carthage served a notable exception (ibid. 248; cf. also Tsetskhladze 2006, xlviiii-xlix). Therefore, although Greek and Phoenician expansions were implemented differently, they both followed the same logic. This is partially because both polities were entrenched in the social context of the market, and made decisions according to the logic of that market. In order to increase the economic efficiency of the market both entities focused on finding ways to reduce the costs of transacting in the market.

Discussion: Competition and Consumption

In this section, we will examine how the emergence of Greek competition in the world of Mediterranean trade in the late 7th century may have had a negative impact on the production centers of wine and olive oil in the southern Levant. At face value, the emergence of competition for the distribution of goods would appear to be a positive development for the producers. If the Phoenicians monopolized Mediterranean trade into the early 7th century BCE, then they had the power to dictate their profit margins and costs in the distribution of goods, with little recourse for the local producers. Competition, in theory would allow for better profit margins, by introducing more options for the distribution of goods. The situation, however, is much more complex, in part because the Greek city-states themselves were also producers of olive oil and wine, the major exports of the southern Levant. The extent of the Greek export of these items in the late 7th century can be seen through the widespread finds of the SOS amphora across the Mediterranean (cf. Johnston and Jones 1978), a transport vessel for Greek wine and oil (Osborne 2007, 285-6; 2009, 213).

To understand how Greek competition may have had a negative effect on Levantine production we turn to the basic principles of supply-and-demand. In the case of expanding markets, such as we see in the Iron Age Mediterranean, there comes a point in time where the

market steadies (eg. no new demand). At this point, Paterson (1998, 165) notes that “there are no great new markets to be found. What then happens is the creation of an ‘economy of substitution’ –in order to create markets for your goods you have to substitute them for the goods of others. So an increase in the exports from one area is normally matched by a decline in similar exports from another area. No new markets are created.” This economy of substitution is predicated on factors that are difficult to delineate and often come down to concepts such as ‘taste’ or ‘fashion,’ which are culturally constructed (ibid. 165). Such decisions can also be predicated on qualitative issues such as cost, or quality. It is important to note, however, that the higher cost or better quality items do not necessarily prevail. In many cases, the lower quality but more cost effective items find a specific niche in the market that allows them to persist (cf. Carandini 1989 on classes of wine for consumption in Roman Italy).

The importance of taste in consumption patterns has been amply demonstrated by Foxhall (1998, 300ff), who notes that distribution patterns of goods in the Archaic Mediterranean do not follow strictly along patterns of ‘need’ or ‘shortage.’ In fact, there are many examples of regions that are themselves producers of wine or olive oil that also import these goods from other regions.³²⁵ From this she concludes that “ancient peoples of the Mediterranean and the Near East were clearly connoisseurs of specialness in foodstuffs from overseas. Foreign produce, from particular places, was deemed to have regionally specific, desirable qualities not attributed to the homegrown” (1998, 303). Noting these regionally specific matters of taste was certainly an import aspect of the informational flow that allowed the Phoenicians, and later the Greeks, to lower transaction costs and maximize distributive potential. Traders and settlers could also have

³²⁵ Foxhall lists a number of specific examples of this practice including the import of Greek olive oil and wine to the northern Levant, Nile fish imported to Cyprus, trade between Greek city states in wine and oils, the import of perfumes from the Aegean into the northern Levant, and even the import of different types of grain (1998, 301; Osborne 1996, 52-3).

an important role in forming these conceptions of value and fashion (Paterson 1998, 165). Fashion in consumption is not static, and is a way of linking an individual to a larger, global set of ideologies and values, but is also culturally constructed (Foxhall 1998, 306). Informal institutions incentivize certain types of fashion and taste, by reducing the mental transaction cost, and can be linked to concepts such as social capital (cf. for example Becker 1996; Walsh 2013, 84ff.). Preference is an important aspect of consumption, which in turn can have direct repercussions on production. An example of how competition affected consumption and production patterns has been presented by Carandini (1989) in his study of the distribution of wine between the second century BCE and the second century CE. In this study, he focuses on the variability in wine quantities and how these variances relate to production and distribution. Carandini (1989, 16) identified three classes of wine: rustic wine, associated with subsistence economic activity, second class wine—medium quality wine designed for long-term conservation and consumed broadly across society, and fine high quality luxury wines. The second class wines, with their broad distribution, contributed most significantly to the larger economy. Carandini notes a fundamental change in the wine trade in the first century BCE with the development of provincial competition to the Italian production. Provinces, especially in Spain, became large production centers that supplied demand for wine in other provinces, notably Gaul, and replaced the market there for Italian wine (1989, 18). This follows along Paterson's observation that at a certain point the only way to create a new market within a system is to replace an existing one (1998, 165). The expanded consumption of wine by the middle and lower classes also increased demand for lower quality wine, rather than the luxury wines produced in Italy. In the face of this changing demand the provincial wines, although of lower quality, but less expensive and longer lasting, grew in popularity at the expense of local

Italian wine production, due to their mass production for mass consumption (Carandini 1989, 19-22). This led to changes in production patterns in the villas of Italy, including a sharp decline or abandonment in wine production and a shift to production of other goods (ibid. 21).

How can competition and consumption patterns relate to the changes in production in the southern Levant of olive oil and wine? We noted in chapter 2 that during the early 7th century there was an unprecedented increase in wine and olive oil production in the southern Levant, primarily in Philistia, marked by the mass production center for olive oil at Ekron and the winery at Ashkelon. However, in both cases this production diminished drastically in the latter part of the 7th century BCE. This diminution coincides with the period of an increasing Greek presence in the Mediterranean, and a corresponding supply of Greek wine and olive oil. Similarly, the late 7th century sees the emergence of wine and olive oil grown locally in the Phoenician settlements in the west, including Carthage and along the southern coast of Spain (Greene 1995). Thus, during at the end of the 7th century we can see a situation mirroring Paterson's analysis of the Roman Mediterranean in the first century CE. There were fewer, if any emerging markets for olive oil and wine consumption, and a glut of potential suppliers in the system. The production within the areas of Phoenician settlement would have both decreased demand for these goods and created new areas of supply. Increasing Greek presence across the Mediterranean would have similarly increased the potential sources for wine and olive oil. If the situation is at all similar to that of the 1st century CE Roman expansion, these new supplies would only find a market by replacing a former market. Could the southern Levant be the market that was being replaced? How does the issue of taste factor into these transitions? Paterson (1968, 165) highlights the role of individual *negotiatores* in dictating impressions of fashion and taste. The polities of the southern Levant had no colonial settlements, and no ground agents. They were

lacking in these types of individuals to promote their product abroad, and ensure high demand. Agents from Phoenician and Greek city-states could act on the ground as these *negotiatores* to shape impressions of certain types of wine. We do not have good evidence for changing consumption patterns such as Carandini described in the Iron Age, nor do we have textual evidence for the local impressions of types of wine. It is unclear what type of market the wines and oil of the southern Levant catered to, and with which markets they were in competition. With such evidence lacking firm conclusions on the exact repercussions of increased competition are difficult to assert, however there are good parallels that increasing competition across the Mediterranean region can have a sharp effect on production patterns, and this certainly must be considered for the case of the southern Levant. In this regard, however, an important clue may be provided by the establishment of the Greek emporium at Naukratis. The earliest Greek pottery at the site dates to around 620 BCE, and at its foundation the site was already an important trading center (Boardman 2006, 526-7; 1994, 142; Hansen 2006, 19). The presence of this *emporium* signifies Greek inroads into the Egyptian market for wine and olive oil, a market previously supplied by the southern Levant.

Evidence of the importance of taste and fashion, linked to the origin of wines and olive oils, can be found in the design of the containers in which they were shipped. Variety in the shape and decoration of amphorae proliferated in the periods immediately following the late Iron Age, but were already appearing with the Greek amphorae of the 7th century.³²⁶ This diversity served as a marketing tool to mark the origins and volume of the transported goods (Twede 2002, 103-4; Osborne 2007, 291).³²⁷ This indicates that the origin of the wine or olive oil was important to consumers, and branding mattered. Archaeological evidence from shipwrecks

³²⁶ The most common early type is the SOS amphora, cf. Johnston and Jones 1978.

³²⁷ Note that they did not necessarily identify the contents, Foxhall has argued that the early Greek amphorae, for example, were multipurpose and used to carry a wide range of commodities (2007, 18).

suggests that in the Late Iron Age the Phoenicians transported items in their own transport amphorae, of distinct sizes and visually recognizable. The Phoenician brand can thus be seen as an important aspect of distribution, and these amphorae are widely attested across the Mediterranean, whereas locally made vessels from the southern Levant are less frequently attested. This system of marketing flourishes from the Persian period onward and hints at the importance of origin in consumption patterns.³²⁸

Additionally, Assyria may have had a role to play in decision-making. We examined in chapter 3 how one of Assyria's primary economic interests revolved around taxation, in particular import and export taxes. Their control of ports through the *kāru* system in the southern Levant may have incentivized the Phoenicians and Greeks to trade in goods from other suppliers in the Mediterranean outside of Assyrian control, that did not have to deal with these import/export taxes, most notably production in the Phoenician colonies and the Aegean.

While the hard data to propose competition as the source of a diminution of production in the southern Levant is frustratingly lacking, it is still an enticing explanation for the decreases in production of the late 7th century BCE. Whereas the increase in production can be attributed to increasing demand in Egypt and new demand in the Phoenician colonies, the diminution coincided with an increase in the Mediterranean supply of the same goods previously mass-produced in the southern Levant, and takes into account a multiplicity of factors that were emerging at that time, including production increases in the Phoenician colonies, the re-emergence of the Greek city states, and the political situation of the southern Levant under Assyrian hegemony. In the face of rising competition the polities of the southern Levant lacked the infrastructure, provided by agents abroad and a colonial system, to ensure continued demand for their product as opposed to alternatives. The re-emergence of the southern Levant as a major

³²⁸ Many of these designs were not purely for branding but had functional origins as well, cf. Twede 2002, 101.

exporter of wine and olive oil in the Persian period solves some of these problems when the region becomes part of the territory of Tyre and was incorporated fully into the Phoenician trade network with its developed infrastructure. As such, the growth and decline of olive and wine production in southern Levant is mostly a consequence of supply and demand. A growing demand in the 8th and early 7th century becomes static in the mid to late 7th century, while at the same time the amount of suppliers increases. In the face of these shifts the polities of the southern Levant lacked the infrastructure to maintain demand for their specific product over other available options. In this shift the matter of taste or preference played a significant role which the polities of the southern Levant were ill-equipped to negotiate.

Conclusions

The changes in production patterns in wine and olive oil in the southern Levant during the late Iron Age seem to be best explained as a result of a complex set of conditions emerging in to the west in the Mediterranean world. These changes were spurred by changes within the institution of the market. The increases in production were a result of new incentives for large-scale long-distance trade brought about by Phoenician expansion. Phoenician expansion served to lower the transaction cost of large scale long-distance trade by increasing knowledge of values and markets and decreasing risk. These factors, along with increasing demand from their new colonies and the revitalization of Egypt, made production for large-scale export practical and rational, whereas previously the risk and uncertainty involved incentivized different risk-spreading, production patterns. The diminution of production at the end of the 7th century was a result of increasing competition, whereby the demand for the products of the southern Levant was reduced, making such large-scale production for export no longer rational. Central to this change was the emergence of new supply sources for the primary goods of the southern Levant:

wine and olive oil, both from the Aegean world and from the Phoenician settlements in the west. The polities of the southern Levant lacked the agents abroad or the infrastructure to ensure the demand for their goods in foreign markets, or the knowledge to tailor their production to changing demands, thus increasing the transaction costs of long-distance trade and incentivizing a change in production patterns. Reduced transaction cost incentivized people in the southern Levant to increasingly engage in the social context of the market. This was particularly true of places like Ekron and Ashkelon, which fully embraced the economic logic of the market through specialization and mass-production. At the same time, competition late in the Iron Age reduced demand for southern Levantine goods. At this point, the logic of the market no longer made the sense in the same way, and parts of the population moved back to participating in other economic spheres.

Chapter 6: Conclusions

Over the past five chapters we have examined the major players that made up the economic network of the southern Levant in the late Iron Age, including the local polities of Judah and the Philistine city-states, Assyria, the South Arabian caravans, and the Phoenicians and Greeks. We have also identified a number of social contexts of economic activity, ranging from the household or clan, to the palace, to the market, to the empire and to pastoral-nomadism, which we have labeled as institutions. These social spheres were all overlapping, and individuals were capable of existing in multiple spheres simultaneously as well as shifting among these various contexts. Each context followed its own economic logic, and factors such as transaction costs encouraged the participation of certain individuals in certain spheres. Each regional actor helped shape these institutions and factored into the transaction costs that influenced economic decision-making. Thus, no single element or entity was responsible for changing economic behavior. By and large, the economy continued to function along traditional subsistence and production patterns that had defined, and would continue to define the region until modern times. Institutions such as the household, following the economic logic of subsistence agriculture, showed a remarkable degree of continuity from earlier periods, and were only marginally affected by the social changes in the late Iron Age. Other institutions, such as the market, were influenced by the activities of the regional actors in ways that incentivized greater participation in this social context.

We began our discussion by suggesting that Peter Temin's model for the Roman economy was also a useful framework for explaining the motivations and incentives behind changes in the decision-making process that determined with which social contexts individuals engaged. Having examined the evidence, both textual and archaeological, for how various actors

participated in the economy, both internal and external, we will now return to Temin's model and examine how all of these regional actors worked together to influence the types of economic behavior that are attested for the southern Levant.

New Institutional Perspective Revisited

In order to form an explanatory model that fits the available data from the southern Levant, we must first return to the New Institutional Economics framework that we proposed in chapter 1. In chapter 1, we suggested that through the lens of New Institutional Economics we could explain the combination of factors that led to economic growth of the 8th-7th c. BCE. We further suggested that Peter Temin's model for explaining the Roman economy by focusing on New Institutional economics, in particular transaction costs, as well as concepts of comparative advantage and a Malthusian model of economic growth, was a useful explanatory tool for understanding the logic of institutional participation (2012; 2013).

Transaction Costs

As we have already discussed, transaction costs consist of the total of resources used in the process of exchanging ownership rights (Silver 1985, 1; North 1990, 61-8; Garraty 2010, 16; Menard and Shirley 2005, 1). According to North (1990, 68), "They consist of those costs that go through the market and therefore are measureable, and of hard-to-measure costs that include time acquiring information, queuing, bribery, and so forth, as well as the losses due to imperfect monitoring and enforcement. These hard-to-measure costs make it difficult to assess precisely the total transaction costs resulting from a particular institution." Becker (1976, 1996) has added to this mixture the role of institutions in governing preferences, which are reflected in society by concepts such as taste, fashion, or style. Institutions can either raise or lower transaction costs, thereby affecting economic efficiency and encouraging certain behavior. North (1990, 135)

suggests that innovations lowering transaction costs occur in response to three challenges: 1) that of increasing the mobility of capital, 2) of lowering the cost of information, and c) of spreading risk.

In his study of the Roman economy, Temin suggested that transaction costs were lowered by the extension of the *pax Romana* across the Mediterranean, making trade in the region more profitable and reducing risk. Central to Temin's analysis were a few elements which he attributed to the *pax Romana*. One key for Temin was the elimination of piracy in the Mediterranean by Pompey ca. 67 BCE. This stability reduced the risk of overseas transport, thus reducing transaction cost and incentivizing a broader distribution of staple goods across the Mediterranean. In turn, this allowed for regions to maximize their comparative advantage and stimulate economic growth (2013, 222-3). A more efficient, well-maintained system of roads was also essential to lowering transportation costs overland (ibid. 223). Additionally, standardized administrative systems, protection of contracts under a single legal system, and consistent weights and measures were all means of lowering transaction costs that one might expect under imperial rule (Temin 2012, 59-60, North 1990, 121).

The situation in the Mediterranean and Near Eastern Iron Age was slightly different, but we can still identify certain developments that would have lowered the cost of transacting for maritime and overland trade, by promoting easier, less risky, and more profitable transactions. It is tempting to suggest that the extension of the Assyrian Empire, forming a *pax Assyriaca* had the same effect on the overall economy in the Iron Age as the *pax Romana* did on later maritime trade, but this is unfortunately not the case. We have already argued that the designation of *pax Assyriaca* cannot be accurately used to describe a newfound period of unprecedented peace and prosperity that united for the first time all the polities of the ancient Near East under a single

imperial power. The factors that Temin credited for lowering transaction costs during the Roman Empire are inapplicable to the situation in the Iron Age. Assyrian weight standards, currency, writing systems, and even law were not adopted throughout the empire (Allen 2005, 81, Bagg 2013, 125-7). In fact, we see an Egyptian standard emerging in Judah, and in the size of Phoenician amphorae (Redford 1973, 15; Kletter 1998; Finkelstein et al. 2011).

Recently, Radner has highlighted the importance of effective and efficient long-distance communication for the successful maintenance of early empires, noting that “reliable and fast long-distance communication facilitates the successful delegation of power from the center to the local administrations” (2014b,1). While some scholars have argued for the construction of a system of royal roads in the Neo-Assyrian period, which would have increased the ease and speed, thus decreasing the cost, of overland transport (Bennett 1978, 165; Astour 1995, 1417; Wilkinson et al. 2005, 32-36), Kessler (1995) has countered that for the most part these roads followed pre-existing commercial routes, were not necessarily better maintained, and may not have integrated the distant corners of the empire. Kessler suggests that rather than a well-maintained series of highways the road system of the Neo-Assyrian period was “complex and not always so well organized” (1995, 136; Radner 2014a). Overall, the texts do not provide adequate knowledge regarding the maintenance and construction of the Neo-Assyrian road system, although maintenance of stations along these routes was apparently the prerogative of the local governors (Radner 2014a, 64, 71). The royal road network was for administrative and political communication purposes, not for economic ones, such as the massed transportation of goods. Despite this, the Assyrians apparently established a network to spread information quickly and effectively around the empire through the innovative implementation of a long-distance high speed communication network (Radner 2014b, 6). While the focus of this system was political

information, it certainly could contribute to increased commercial knowledge, leading to a further reduction in the transaction costs of overland trade. These developments, however, should not be seen as a major factor in lowering transaction costs. On the sea the Neo-Assyrians had no naval power to limit actions such as piracy, and actions of piracy and raiding are well attested across the Mediterranean in this period (cf. *SAA 19, 25*, but more importantly numerous references from Homer, which we discussed in chapter 5), although it seems the Assyrians tried to limit raiding in the coastal areas they influenced.

The issue of standardized language and an increasing level of education or literacy is an interesting one. While cuneiform was not imposed upon the vassal states, during the Neo-Assyrian period Aramaic spread to become the *lingua franca* across the Assyrian Empire. The ability to transact in one agreed-upon language certainly would have reduced transaction costs in making and enforcing contracts. The continued presence of other languages such as Phoenician and Greek in the west may have limited these benefits, but the emergence of common language for contracts should be seen as providing some reduction to the cost of transacting. It is possible that this transition to Aramaic also led to a general increase in literacy, following the widespread adoption of an alphabetic script, although there is little evidence to support this hypothesis (cf. Van der Toorn 2009, 10-11). For the purpose of lowering transaction costs, however, there is no need for an increase in high-level literacy, merely the ability of more people to read and write basic contracts, accounting documents, or simple transactions, of the type that are recorded on numerous ostraca throughout the region from this period (cf. for example the collections at Samaria, Arad, Ashkelon, etc.- many published by Dobbs-Allsopp et al. 2005; Whitt 1995, 2388-89). The rising number of these ostraca in later, post-Assyrian periods, particularly along the coast and in administrative centers, may be an indication of a rise in low-level literacy that would

certainly have played a role in reducing the cost of transacting, particularly on the part of making and enforcing contracts. Still, this cannot be attributed to the presence of a *pax Assyriaca*.

The Assyrian Empire did, however, play some role, even if small, in lowering certain transaction costs. First, they provided additional security to property rights. This is attested by Esarhaddon's treaty with Ba'al king of Tyre. Additionally, in the case of a dispute there was the possibility of petitioning the Assyrian king, an activity well attested in the Neo-Assyrian administrative documents (cf. eg. *SAA 16*, chapter 4). Although these protections may not represent anything new (previously they may have been, and likely still were, provided on a local level), they did add an extra option for redress, especially for Assyrian sympathizers who found themselves in newfound positions of power. The Assyrians, together with the Phoenicians, also played a role in adopting a silver standard (cf. discussion in chapter 5). The adoption of the silver standard was a critical development for lowering transaction costs, by increasing the mobility of capital (cf. North 1990, 135). Additionally, the presence of a standard, acting as money in this sense, worked to reduce transaction costs by facilitating the drawing up of contracts, as well as reducing the number of (potentially spoilable) goods in-kind that would need to be held for exchange (Coase 2005, 36). At the same time Assyria may also have slightly raised the cost of transacting on the market through their imposition of taxes and tolls at their various customs houses.

Phoenician institutions were essential for reducing the cost of transacting across the Mediterranean. One mechanism for lowering transaction costs is increasing information (or lowering the cost of obtaining information). This includes valuing goods, knowledge of where to obtain goods (supply), and knowledge of demand for trade goods. By establishing a network of settlements across the Mediterranean, the Phoenicians were able to maintain good information

chains and keep a finger on the production capabilities of various regions, as well as the going rates for goods, both those traded and those obtained. Ground agents greatly assisted in the valuation process. Similarly, these agents could have provided information on the scale of goods available for trade, and the demand for foreign materials, allowing the Phoenicians to operate more efficiently and on a larger scale, maximizing cargo. Through their information networks the Phoenicians could also have capitalized on specific circumstances such as drought or famine in a region that could cause an increase in demand in that region for certain products.

Information is judged according to the quantity and quality of links in the information network. By having their own agents in numerous locations the Phoenicians were able to maintain both. In order to be useful these network hubs required regular contact and maintenance, something the Phoenicians were able to accomplish by regular trade with their colonial agents (Sommer 2007, 99). The permanence of the colonies, as opposed to pre-colonial contact, allowed for a continuous string of information to flow from local producers to Phoenician traders. Sommer (2007, 103) has suggested that in particular the temples of Melqart served as a place for the exchange of this knowledge and information. Phoenician agents abroad also reduced the risk of loss of property or increased costs due to opportunism, shirking, moral hazard, or other forms of adverse strategic behavior (cf. Williamson 2000, 601). Furubotn and Richter (2005, 5) highlight the costliness of opportunism in transactions, especially evaluating opportunistic as against non-opportunistic actors. Having agents, possibly even relatives, working reduced the risk of defecting (which we discussed in chapter 5) and so helped reduce the costliness of evaluating trading partners.

Finally, risk-spreading procedures are a means of reducing transaction costs. This mechanism is closely related to information. Knowledge reduces the chances of showing up in a

region to trade and not having the correct cargo, or not being able to acquire desired goods. The presence of multiple ports allowed safe resting places and reduced the risk of lost or stolen cargo. Knowledge of the coasts and the sailing minimized risks of shipwrecks and lost investments. Reducing the chance of lost cargo was a key factor in risk management. Beyond the threats of ships sinking in transit, piracy was another risk to merchant ships. Safe ports would have helped minimize this risk, and there is evidence from later periods (Persian and Hellenistic) of elaborate defense systems at Phoenician ports to combat this threat (Markoe 2000, 83, Dietler 2007, 247).³²⁹ Enforcement of property rights and trade agreements required such costs as protection of the goods (against pirates, raiders or opportunistic kings), and negotiation and enforcement of contracts in foreign lands. Merchant enclaves greatly assisted in the latter, and could form an institutional body that ostracized merchants who failed to adhere to established agreements (North 1991, 100; Grief 1989).

Thus, it is evident that the Phoenician presence in the Mediterranean centered on reducing transaction costs by increasing capital mobility, increasing information, and reducing risk. All of this played a role in the prosperity of surrounding regions during the 7th century BCE, allowing them to overcome the constraints of partial information and high transaction costs that had plagued Mediterranean trade since at least the collapse of the Late Bronze Age system and thereby encouraging increased participation in maritime trade.

Comparative Advantage and Malthusian Growth Models

The exploitation of comparative advantage is another factor that Temin highlights as an important element in the growth of the Roman economy. Temin's discussion of the effects of comparative advantage on production includes concepts such as opportunity cost and the production profitability frontier. Opportunity cost emphasizes the economic cost in labor to

³²⁹ Cf. discussion in Temin 2013, 222 on the effects of piracy on transaction costs.

diversify production, by focusing on how many units are not produced of one commodity in order to produce another. The production profitability frontier is a measure of how much of a region's labor goes into the production of certain goods, and differs according to the decisions of production ratios for various goods by a given country. Comparative advantage exploits the production profitability differentials of various regions in relationships that are beneficial for all parties involved (Temin 2012, 55-7). These theories are highlighted in particular in Faust and Weiss's "profitability zone" model of production (2005, 77ff). Faust and Weiss's suggestion that the southern Levant was divided into profitability zones- the coast and areas around Jerusalem specializing in wine, the Shephelah specializing in olive oil, and the hill country and Beersheba Valley specializing cereal- is in essence a description of the model of comparative advantage. While the coastal plain had an absolute advantage in the production of both wine and wheat, it could choose to focus its labor on the specialization of wine, due to subsidies in grain from other regions, facilitated through trade. The Shephelah, most notably the region around Ekron, focused on its comparative advantage in olive oil production. The hill country was suitable for wine and olive production, and while it continued to exploit these commodities, its comparative advantage lay in grain production, which was not being produced in other regions, because of the opportunity cost to produce grain, as opposed to the higher revenue products such as olive oil and wine. This comparative advantage incentivized Judah to dedicate more labor resources to the production of grains. These zones, however, are not a new product of the 7th century. The profitability of these crops and the fertility of the various regions are part of the long-term exploitation pattern of climatic and geographical conditions of the regions. Thus, the changes in production strategies in the 7th century cannot be explained by the establishment of new profitability zones. Instead, these changes can be attributed to the changing political boundaries

of the region in the 7th century, following Sennacherib's campaign and the reduced costs provided by the Phoenicians for transacting in the Mediterranean market.

During Sennacherib's campaign against Hezekiah and Judah he claims in the Rassam cylinder that "I surrounded and conquered forty-six of his fortified walled cities and smaller settlements in their environs, which were without number...As for him (Hezekiah), I confined him inside the city of Jerusalem, his royal city, like a bird in a cage...I detached from his land cities that I had plundered and I gave (them) to Mitinti, the king of Ashdod, and Padi, the king of Ekron, and Silli-Bel, the king of the land of Gaza, (and thereby) made his land smaller."³³⁰ One recension of this text includes Ashkelon along with Gaza, Ekron, and Ashdod as a recipient of Judahite land (Tadmor 1966, 97), a reading followed by Na'aman (2009, 354-5). In the many copies of this text the mention of Ashkelon occurs only once, and should not be considered accurate, especially given the role of Šidqa, the king of Ashkelon, in the rebellion. It is clear, however, that prior to the invasion of Sennacherib Ashkelon had land-holding to the north along the coastal plain, including Jaffa, which is listed along with Bit-Daggana, Banayabarqa, and Azuru, as holdings of Šidqa that were conquered and plundered by Sennacherib (Grayson and Novotny 2012, 64, line 41). Na'aman (1998, 223-5) has hypothesized that these northern holdings were either turned over to Padi and Ekron or divided between the Assyrian provinces centered at Samaria and Dor (2009, 355). Finally, Sennacherib claims to have deported 200,150 persons from Judah, most of whom likely inhabited sites within the Shephelah. Although the exactness of these numbers is highly questionable, it seems clear that a significant number of persons were deported.

What the text of Sennacherib's third campaign clearly demonstrates, however, is that the Shephelah was depopulated, many of its cities and towns were destroyed, and a large portion of

³³⁰ Rassam Cylinder lines 49, 52-3, translation from Grayson and Novotny 2012, 65.

the population was deported. This is corroborated by all of the excavations and surveys conducted in this region. Secondly, a large segment of Judah, consisting of the cities plundered by Sennacherib, namely the Shephelah, was transferred to the Philistine kingdoms of Ekron, Ashdod, and Gaza. How this land was parceled is not clear, and was certainly not the concern of the compiler of Sennacherib's royal inscriptions. Sennacherib's invasion and deportations have already been correctly highlighted as the reason for the demographic depopulation of the Shephelah from the 8th-7th century (Finkelstein 1994, 173-7; Bunimovitz and Lederman 2003, 21; Gitin 1997, 82). Counter-claims that the destruction and depopulation of the Shephelah at the hands of Sennacherib are overemphasized (eg. Fantalkin 2004) are not supported by the weight of the archaeological and textual evidence; however, claims that the entire region was maintained as an "unpopulated agricultural buffer" (Bunimovitz and Lederman 2003, 22), are likewise overstated. Settlement activity decreased dramatically in the region, but did not disappear altogether.

Much of the Shephelah appears to have been transferred to Ekron. In particular, the transfer of olive groves in the region would correspond well with the increase in Ekron's olive oil industry at the start of the 7th century BCE. To understand this transfer it is helpful to step back and take a broader view of olive exploitation in the Iron Age. In his exhaustive survey of olive oil installations in the southern Levant, Faust (2011, 68-71) notes an interesting pattern. In the 9th century many of the installations are smaller, and part of a lineage economy, and tend to be located in the northern kingdom of Israel. During the 8th century larger installations appear in the Shephelah, most notably at Beth Shemesh and Tell Beit Mirsim. Faust argues that these do not reflect a different economic system, but rather the importance of olive oil production in the

local economy.³³¹ Following the conquest of the Shephelah at the end of the 8th century, these installations go out of use, and olive production rises at centers in Philistia, such as Ekron, Tel Batash, and Tel Hadid. Thus in terms of olive oil production, there is a trend, shifting from the northern Kingdom, to the southern Kingdom, to Philistia. In each case, this follows waves of depopulation at the hands of the Assyrians. First, there was the conquest of the northern Kingdom, which led to the disappearance of these sites; then the Shephelah was conquered at the end of the 8th century. Ekron and the other Philistine centers do not escape this pattern, finally meeting their end at the hands of the Babylonians at the end of the 7th century BCE. Thus, the Assyrian campaigns have a notable impact on production; and with each successive wave production shifts to the locations that were left intact by the Assyrian advance.

The fall of the northern production centers seems to have ended olive oil exploitation in that region in the late Iron Age (Faust 2011, 71). This would have incentivized an increase in labor resources in Judah to exploit this production, beyond the subsistence level. Thus, increases in the 8th century production in the Shephelah can be explained as local decision-makers changing productive patterns to new social conditions and incentives. The shift from the Shephelah to Philistia in the 7th century would supply the same incentives, but with the additional incentive of an increase in exploitable land. Ekron lies on the border of the most productive olive producing regions of the southern Levant, which are located in the foothills, and would have needed to import olive crops for production (Faust 2011, 71). This would explain why there was no evidence of olive exploitation prior to the 7th century BCE (Gitin 2000, 563). However, the acquisition of new hinterland, in the ideal olive growing region of the Shephelah, would incentivize just such import and production at a new center. Finkelstein (1994 180) has

³³¹ For a counter argument cf. Finkelstein and Na'aman who suggest that these centers reflect a well-planned state organized system of olive production (2004, 74). We agree with Faust that the evidence better supports local lineage production, just on a larger scale; see also Master 2009, 311.

argued that many of the orchards of the Shephelah were transferred to Ekron after Sennacherib's invasion (cf. also Fantalkin 2004, 255; Bunimovitz and Lederman 2003, 22), which meshes nicely with the Assyrian inscriptional evidence (note that Ekron is the closest of the Philistine cities that received Judahite land from Sennacherib to the Shephelah). The acquisition of this new land would be ample incentive to dramatically increase production.

Even with the incentive of new lands, explanation must be given for the hyper-specialization seen at Ekron, as opposed to the earlier production sites that Faust argues represent production on a lineage level. To explain this we turn again to the effect of the Assyrian invasion on social structures, most notably their policy of forced deportations. Schloen (2001, 147, 183) has highlighted the role of deportation in breaking up traditional kin-based social structures, and dramatically changing the social institutions governing production. The Assyrian deportations would have removed any existing lineage-based productive units from the Shephelah. As a secondary effect, the Assyrians granted this new land to the city of Ekron. But who exactly were the recipients of this land? While there is no proof, it is likely that this land came into the hands of the palace, and was distributed through land grants to various nobles and people of influence who had supported Padi. Such a policy is well attested in the ancient world, and makes perfect sense in the political environment of the 7th century (cf. Rainey 1962; Fox 2000, 210-213; Schloen 2001, 241-246; *SAA 12*). As such, the estate owners would be officials centered in Ekron, who came into the possession of large land holdings throughout the Shephelah. If any families retained land in the region, as Schloen has suggested (2001, 143), it would be as tenants working for newly minted estate owners of Ekron. This also explains why production was centered so far away from the orchards. Gitin (1995, 63) has suggested that Ekron was chosen as a production center due to its location with good access to the coast for export of the produce (cf.

also Scheepers 2006, 605), but this is based on a model of Assyrian imposition, rather than local development. It is logical for the owners of estates to want to control production, and to do so in close proximity to themselves and their urban setting.

In this scenario, a desire for control and oversight was motivating economic activity and outweighed the cost of transport from distant estates. A common argument against the movement of agricultural products over long distance is the cost of overland transport. If the cost of overland transport is not prohibitive, the extensive hinterland required to maximize the productivity of a site such as Ekron would have extended great distances from the site.³³² The prohibitive cost of overland transport has been repeatedly stressed in dealing with agricultural produce (Hopkins 1980, 102; Chaney 1989, 18-19; Master 2003, 48).³³³ This assumption, however, has been recently addressed in a study regarding land transport in Roman Egypt by Colin Adams (2007). Adams first notes that in most cases land transport is unavoidable, even if costly. Very few locations have direct access only to maritime or riverine routes, and thus land transport, even to port, is a necessary part of any movement of goods (cf. also Faust and Weiss 2005, 83-4; Laurence 1998). Secondly, much of the cost of overland transport is dedicated to the hiring of pack animals and labor (Adams 2007, 6). If these estates belonged to wealthy officials it is reasonable to assume that they may have been able to use their own pack animals, or borrow from others. Agricultural cycles are also seasonal. Thus after the harvest time is not a limiting constraint on the farmer. It is reasonable to assume that with a surplus of labor time, and one's own pack animals, land transport to the center at Ekron, even from great distances, could be done economically. The issue of controlled production and distribution of the final product from

³³² See Eitam 1996, 183 for estimates on orchards necessary to supply Ekron and also estimates of Stager 1990, 97-8.

³³³ Many of these assumptions relate back to Diocletian's Edict of Maximum prices, the fallacy of this is demonstrated by Adams (2007, 4-5).

Ekron (or Tel Batash or Tel Hadid, for that matter), can be considered maximizing behavior, even if in a vacuum it could be considered economically inefficient. In this case control and oversight, risk-managing behaviors, outweigh the costs of overland transportation. This situation would also result in the archaeological reality of decreased settlement in the Shephelah, with no incentive to repopulate towns closer to the orchards. The uniformity of the construction of the industrial zone at Ekron can be attributed to a top down implementation by estate owners (whether the palace or high officials), to oversee the production of the yield of their more distant estates. This reconstruction avoids any Assyrian imposition on production, yet the Assyrian-imposed political and social changes opened new doors to incentivize different production strategies.

Increased production and economic growth can also be explained as a result of Malthusian growth strategies. In the Shephelah area Ekron benefitted from an increased amount of land at the expense of Judah, and the depopulation of that area would have had the same effect as a major plague: more resources available for distribution among fewer people. Such conditions are ripe for economic expansion and growth. A negative demographic balance enables an increase in general standard of living, without the need for massive technological development or large scale reorganization of social institutions. Repopulation of the area due to this prosperity and increasing birth rates could be responsible for the eventual diminution of production late in the 7th century, although other factors also likely played a role, which will be discussed presently.

Thus the demographic changes brought about by the Assyrian conquests in the 8th century led to a negative demographic balance that favored development in Ekron, and led to a shift in production strategies in the region as production zones switched hands politically. Now we

return to comparative advantage and Faust and Weiss's "profitability zone" model. The problem with this model, as we have seen, is the assumption that this system is new to the 7th century. The climate and topography favoring certain types of production are part of the *longue durée* and were not new to the 7th century. On top of this a "profitability zone" model cannot be implemented overnight. Faust and Weiss attribute the "profitability zone" model to Phoenician controlled demand across the Mediterranean (2011, 194). But, while Phoenician activity certainly increases in the 7th century – indeed, their presence expands greatly across the Mediterranean - Mediterranean trade is also not new. Stager highlights the presence of Mediterranean, and particularly Egyptian, demand, for Levantine produce from the advent of maritime travel (1985, 172-181; 1990, 629-35). Thus maritime trade in these goods can also be attributed to a function of the *longue durée*. A "profitability zone" model practically would take a long time to implement. Stager notes that "olive trees must grow 15-20 years before producing their full yield, and even then they produce only in alternate years," and "vineyards also take years, even generations before they yield their best quality vintage," while noting that it takes vines 5-6 years to yield any produce (1985, 177, cf. also Walsh 2000, 20). Thus in the time it would take to plant new crops in response to increasing Phoenician demands, we would have already reached the point of diminishing production at the end of the 7th century. It is only logical that production focused on primarily taking advantage of existing resources. This is where comparative advantage comes into play. Estate owners in Ekron had no need to diversify production for risk management, and could afford to invest more labor resources into concentrated olive production. They could thus limit the opportunity cost of subsistence pattern diversification, which Hopkins associates with clan-based lineage production (1983, 192). A negative demographic balance meant that less grain was required to feed a depleted population,

and allowed for various regions to maximize their comparative advantage, rather than tailor production to “profitability zones.” Phoenician demand may have spurred an increase in productive intensity, but did not stimulate a complete overhaul of productive patterns.

But how does Ashkelon fit into this model? Ashkelon arguably did not see an increase in land holdings in the 7th century BCE, and if anything lost hinterland in the Sharon. Similarly, Ashkelon did not suffer deportations as were seen in the Shephelah. Regarding Ashkelon’s focus on wine production, Master (2009, 313) notes that “while it is true that Ashkelon was a highly specialized city in the seventh century, it was not much more specialized than it had been in other periods.” Still, intensification in wine production is evidenced. A supply of grain from Judah certainly aided this specialization, but as Master (2009, 313) notes, Ashkelon had been dependent on agricultural surplus from inland cities since the Bronze Age. The case of Ashkelon supports the evidence that the “profitability model” cannot be seen as a unique development of the 7th century, but describes *longue durée* geographical conditions in the region, that are reflected clearly in a few intense production centers in the 7th century. Faust and Weiss’s suggestion of an increasing Mediterranean market, however, may explain the increased intensity of production at Ashkelon. In particular Phoenician colonies presented new markets for wine and olive oil, as evidenced by the presence of transport amphorae associated with these goods at Carthage and sites in Spain (Hadjisavvas 2003, 122; Ramon 2002, 148).³³⁴ Whether or not wine and olive oil from the Levant ended up in these locations is inconsequential; their demand led to an increased demand in the Mediterranean as larger unit. Thus, if Phoenicia supplied all of the wine and olive oil needs of its colonies, then they were not supplying the Egyptian market, etc. North Africa and southern Spain, however, were quite capable of growing their own wine and olive oil, and have suitable agricultural conditions, that have been extensively exploited. Despite

³³⁴ For survey of Phoenician finds at selected Spanish sites cf. Bierling ed. (2002).

this suitability, however, the vine and the olive are not native to these regions, and are generally assumed to have been introduced there by the Phoenicians (Greene 1995, 311; Hadjisavvas 2003, 118). The important question focuses on when these crops were introduced. Thus, at the earliest the vine would have been introduced in Carthage no earlier than the 8th century BCE,³³⁵ and clear archaeological evidence for the vine is not attested before the 4th century BCE (Greene 1995, 313). A similar picture is presented in Spain, with the archaeological attestation of a Phoenician presence no earlier than the 8th century BCE (Markoe 2000, 183). On top of this, we must return to Stager's comments about the time investment necessary to produce sufficient yields of wine and olive oil; this takes at least twenty to twenty-five years (1985; 177), although the first meager harvests might begin producing in 5-10 years (Walsh 2000, 20; Hopkins 1985, 227). Additionally, there is a substantial capital investment, including land, vinestocks, and tools and technology, such as presses, vats, and treading basins, and the return on this investment is significantly delayed (Greene 1995, 316; Walsh 2000, 20). For these reasons it is reasonable to assume that the earliest colonists would not have immediately introduced the vine and olive to these new regions and only after establishing a firm presence in the area may have started production of their own. This is supported by the presence of amphorae at Phoenician colonies, most commonly associated with the transport and import of wine and olive oil. In the 8th and early 7th century there is no reason to assume that production of wine and olive oil existed at a large enough scale to supply the consumptive needs of the colonists, if at all. It is possible that at the end of the 7th century local production had expanded to meet these needs, thus resulting in a shrinking market for imported wine and olive oil. This could have had a negative impact on the mass production centers at Ekron and Ashkelon, but archaeological evidence for this is lacking.

³³⁵ Based on the foundation of the Phoenician colony there, which literary sources date to 814 BCE, and archaeological data suggesting a slightly later 8th century date (Greene 1995, 313).

Another source of market increase in the 7th century was occurring in Egypt. The 7th century sees the rise of the Saite dynasty, and a period of Egyptian revitalization (Faust and Weiss 2005; 85-6; Taylor, 2004; Kitchen 1986). Evidence of an increasing market for olive oil in the Mediterranean is also attested by an increase in Cyprus for export, which is also reflected in the shipwrecks of Kekova Adasi and Kepce Burnu (Hadjisavvas 2003, 145; Greene et al. 2010).

Thus we conclude that increasing markets around the Mediterranean and changing political and social demographics at home spurred the intensification and specialization of production in Philistia in the early 7th century. But this does not fully explain the diminution of production in the late 7th century. This may be partially explained by increased productivity of the Phoenician colonies, whose crops were finally starting to reach their full productive potential, and by a positive demographic balance in the Levant, but in our view neither of these is sufficient. Gitin argues that this diminution is due to Assyrian withdrawal from the region. Gitin attributes the movement to intensification and specialization of production to an Assyrian directive, and thus the diminution reflects a weakening Assyria (1995, 73; 1997, 99). This explanation has the advantage of accounting for the diminution of production at Ashkelon as well. However, it is predicated on a heavy Assyrian interest in the agricultural production of the southern Levant, which has been discounted convincingly by Faust (2011, 72ff.), Na'aman (2009, 354), and Master (2009, 312), as we discussed in chapter 3.

One additional explanation again takes into account the shifting political circumstances in the Levant. The late 7th century sees the revitalization and expansion of Judah, which up until this point had been recovering from Sennacherib's conquest. Under Josiah Judah expanded its boundaries, including reclamation of former holdings in the Shephelah and expansion to the north (cf. Barkay 1992, 355; Rainey 1983, 16-17). The evidence for this lies in a series of bullae

dating paleographically to the seventh century, and relating to the administrative system of Josiah. These bullae include collections from sites in the north, formerly under Assyrian rule (‘Arubbot) and the Shephelah (Lachish, Nesib; Heltzer 2000, 106-8). The re-founding of Lachish stratum II is another well-noted feature of the repopulation of the Negev under Judah (Rainey 1983, 16-17; Barkay 1992, 346). This expansion could have led to the loss of the olive orchards that supplied Ekron (Finkelstein 1994, 180). Josianic expansion, however, would have had no effect on the production of wine in Ashkelon, which also diminishes in the late 7th century.

To explain the diminution of production at Ashkelon we turn to another phenomenon of the late 7th century: the dramatic increase in the presence of East Greek pottery.³³⁶ The massive amounts of East Greek pottery found in the 604 BCE destruction layer at Ashkelon are indicative of an emerging Greek presence in a Mediterranean trading network formerly dominated by the Phoenicians. The late 7th century witnessed an increase in Greek trading and settlement throughout the Mediterranean, the most significant of these in Egypt at the site of Naukratis, named the “official” Greek port in Egypt (Waldbaum 2011, 139). It thus appears that in the 7th century the Greeks rise to prominence as a player in the world of Mediterranean trade, offering competition to a system formerly monopolized by the Phoenicians.³³⁷ On the face of it, competition does not seem as if it should have a negative effect on production. If anything, new potential trade partners could increase bargaining power and create more favorable prices. In a capitalist system competition is good for the consumer. Competition among middlemen or distributors is good for the producer. Competition can, however, have a negative impact on production in certain regions. For an example of this we return to the classical world and a study

³³⁶ cf. Waldbaum 2011.

³³⁷ While Greek goods could have been, and indeed at some times were, transported by Phoenicians, the presence of the *emporium* at Naukratis as well as other Greek *emporia* throughout the Mediterranean at this time suggests a strong presence of Greek traders in addition to the Phoenicians (Waldbaum 2011, 139-41).

by Carandini on Roman wine and African olive oil. Central to this study is a point that is just as relevant for the Iron Age as it was for the Roman Empire, and is still true today: not all wine and olive oil are the same. There are low-tier, mid-tier and upper-tier wines and olive oils, with different markets and price points, meant for different consumers (ibid. 16). First of all, this means that wine and olive oil could be imported even into regions perfectly capable of producing their own, a fact attested by finds of the Cypriot basket-handled amphorae at sites in the Levant, including Ashkelon (Greene et al. 2010, 66). This is especially true for agricultural products, with varying yearly yields. Famine in a region of traditional surplus production would require an increase in imported material. This is especially relevant to the olive, which is noted for its biennial growing cycles (ibid. 65; Hadjisavvas 2009, 145, Faust and Weiss 2005, 77; Stager 1990, 97-8). In the Roman period competition from provincial sources of wine, wine that was of lower quality, but in higher demand due to its affordability, led to a decrease in demand for locally produced wine in Italy, and forced producers to specialize for a specific market, and overall production decreased (Carandini 1989, 17-21). Provincial wines were cheap, abundant, and foreign, giving them added appeal (ibid. 19). The introduction of Greek traders and Greek wine into the Mediterranean could have had a similar effect. We do not have information from the Iron Age on the quality or cost of wines from different regions, but there is evidence to suggest that each wine came with its own distinct flavor, and price point (Koh et al. 2014).

Thus, in the case of the olive oil industry, we see a shift over time from the 9th through the 7th century in which the social context of production shifted from a household/clan context to that of the market. The household context followed the economic logic of small scale, diversifying strategies, whereas the market context was governed by the logic of market forces, which in this case allowed for the specialization and mass-production until a decrease in demand

led to its decline at the end of the 7th century. This shift was incentivized by a number of factors. The Phoenician expansion lowered the risks and costs of market transactions in the Mediterranean, reducing the problems of specialization. Secondly, the deportations of Assyria may have disrupted some of the household structures in the prime olive growing region of the Shephelah. Furthermore, the Assyrian deportations and land reallocations led to a change in ownership patterns in which increases in land-holdings incentivized the investigation of new methods for profiting off of this land. Sites like Ashkelon had long been oriented towards the Mediterranean and were deeply ingrained in the social context of the market. In this case, the reduction of transaction costs incentivized the continued participation in this context, but the rise and decline of production occurred in coordination with the economic logic of the market: supply and demand.

The Question of Caravans

What we have presented to this point is a highly integrated system of the non-radial movement of goods around the ancient Near East and Mediterranean in the Late Iron Age. The factors incentivizing these movements came from a multiplicity of factors, including the Assyrian Empire and Phoenician trade networks, incentivizing certain local production strategies, primarily through lowering transaction costs. Up to this point, however, we have not integrated the data from the Negev relating to the role of the Arabian Caravan trade, and the polities of the Transjordan, most specifically Edom. This is because, from a larger perspective, the Arabian trade was not, in historical fact, well integrated into this system at this point. We argued in chapter 4 that many of the demographic shifts in the 8th-7th century that led to increased urbanization in the Negev were largely socio-political, stemming from a shift in the social context in parts of the region from pastoral-nomadism to sedentism, motivated by security

concerns. We also noted the substantial evidence for the increasing political instability of the desert tribes in this period, which may have influenced the build-up of fortifications in the region and the corresponding increase of settlement of these regions. This build-up could also represent early local attempts to attract more trade by developing infrastructure along the caravan routes. Increased tensions may have also incentivized the caravans to follow these protected routes. The rulers of Judah certainly would have been interested in the luxury goods of the caravans, like all other elites, and this was their only way of obtaining such goods, which were undoubtedly heading to larger markets on the Mediterranean, middle Euphrates, Phoenicia, or Damascus. Despite this interest the caravans do not appear to have been outside of the normal systems, and not yet regularly integrated, which would occur in the following centuries. As an occasional (but potentially lucrative) and unpredictable outside contributor the caravans should not be seen as a foundational element to the economy of the region. This does not say that they were ignored or insignificant, but suggests that they were not well understood or well integrated.

Conclusions

Over the course of this dissertation, we have shown that the economy of the 8th-7th centuries BCE in the southern Levant was quite complex, involving a number of participants working with different motivations in many interacting social contexts. The actions of these regional actors affected economic behavior by incentivizing the participation in certain social contexts as opposed to others.

Assyria's political policies saw the reallocation of lands at the end of the 8th century in a manner that favored certain polities, and the removal of a large portion of the local population. These changes made more land available to the remaining population, which could have also worked to stimulate economic growth. Phoenician expansion reduced the cost of maritime

transactions, reducing risk through the use of trade colonies and decreasing the costs of obtaining knowledge and enforcing transactions, while at the same time providing new demand for Levantine goods, promoting an increased reliance on trade and allowing regions to make better use of their comparative advantage. Many of the changes in production can be attributed to issues of supply and demand. The early 7th century saw an increase in demand, through Egyptian and Phoenician colonial expansion. By the end of the 7th century, however, local production in Phoenician colonies reduced that demand, by adding to the supply. Furthermore, other sources of wine and olive oil, mainly from the Greek world, came into competition with the Phoenician distribution networks. This increase meant that supply was sufficient to meet the demand, and that issues of taste became increasingly important. The polities of the southern Levant lacked the local infrastructure (through ground agents, trade colonies, and local connections) to promote their product over other suppliers, which increased the risk of finding a profitable transaction. These polities also lacked the information networks to profit from sudden demand (or lack thereof) in certain locations. These increased the risk of failed ventures, which increased the cost of transacting, and so encouraged a return to previous risk-spreading production strategies that were less reliant on the maritime market.

In the case of the southern Levant the dominant institutions remained the household/clan, the market, and the palace. The household/clan continued to follow the logic of diversification and subsistence level production that mirrored the activities of this institution in the region for centuries. The social context of the market flourished in this period, especially along the coast, due in a large part to Phoenician expansion which reduced transaction costs. The palace was negatively affected by conflicts with the emerging institution of the empire. Both operated under the logic of taxation/tribute, and thus saw a degree of overlap. Therefore, although we have

highlighted some changes in these institutions, the larger structures show continuity with the institutions and social contexts of earlier periods. At the same time, new social contexts also emerged. The Assyrian Empire brought with it a new context that allowed for advancement through imperial patronage. The emergence of the South Arabian trade route also opened up the possibility for the exploitation of the long-distance overland trade as another sphere of economic action, although this institution was only in its nascent phases during the late Iron Age and was not widely exploited.

Bibliography

- Adams, Colin. 2007. *Land Transport in Roman Egypt: A Study of Economics and Administration in a Roman Province*. Oxford: Oxford University Press.
- Aharoni, Miriam. 1993. "Arad." *The New Encyclopedia of Archaeological Excavations in the Holy Land* 1: 82–87.
- Aharoni, Y. 1966a. "Hebrew Ostraca from Tel Arad." *Israel Exploration Journal* 16 (1): 1–7.
- . 1966b. "The Use of Hieratic Numerals in the Hebrew Ostraca and the Shekel Weights." *Bulletin of the American Schools of Oriental Research* 184: 13–19.
- . 1967. "Forerunners of the Limes: Iron Age Fortresses in the Negev." *Israel Exploration Journal* 17 (1): 1–17.
- . 1981. *Arad Inscriptions*. Jerusalem: Israel Exploration Society.
- Albright, W.F. 1942. *Archaeology and the Religion of Israel*. Baltimore, MD: Johns Hopkins University Press.
- . 1945. "Some Recent Publications Received by the Editor." *Bulletin of the American Schools of Oriental Research* 98: 27–31.
- . 1960. *The Archaeology of Palestine*. Penguin Books.
- Allen, Mitchell J. 1997. "Contested Peripheries: Philistia in the Neo-Assyrian World System." PhD, UCLA.
- . 2005. "Power Is in the Details: Administrative Technology and the Growth of Ancient Near Eastern Cores." In *The Historical Evolution of World-Systems*, edited by Christopher Chase-Dunn and E.N. Anderson, 75–91. New York: Palgrave Macmillan.
- Amiran, Ruth. 1970. *Ancient Pottery of the Holy Land: From Its Beginnings in the Neolithic Period to the End of Iron Age*. Rutgers University Press.
- Amiran, Ruth, and I Dunayevsky. 1958. "The Assyrian Open-Court Building and Its Palestinian Derivatives." *Bulletin of the American Schools of Oriental Research* 149: 25–32.
- Anastasio, Stefano. 2010. *Atlas of the Assyrian Pottery of the Iron Age*. Subartu, XXIV. Turnhout, Belgium: Brepols.
- Anderson, William P. 1987. "The Kilns and Workshops of Sarepta (Sarafand, Lebanon): Remnants of a Phoenician Ceramic Industry." *Berytus* 35: 41–66.

- Anguilano, Lorna, Thilo Rehren, Wolfgang Muller, and Beno Rothenberg. 2011. "The Importance of Lead in the Silver Production at Riotinto (Spain)." *Archeosciences*, 269–76.
- Anthony, David. 2007. *The Horse, The Wheel, and Language: How Bronze Age Riders from the Eurasian Steppes Shaped the Modern World*. Princeton: Princeton University Press.
- Antonaccio, Carla M. 2007. "Colonization: Greece on the Move, 900-480." In *The Cambridge Companion to Archaic Greece*, edited by H.A. Shapiro. Cambridge: Cambridge University Press.
- Astour, Michael. 1965. "The Origin of the Terms 'Canaan,' 'Phoenician,' and 'Purple.'" *Journal of Near Eastern Studies* 24 (4): 346–50.
- . 1976. "Ezekiel's Prophecy of Gog and the Cuthean Legend of Naram-Sin." *Journal of Biblical Literature* 95 (4): 567–79.
- . 1995. "Overland Trade Routes in Ancient Western Asia." In *Civilizations of the Ancient Near East*, edited by Jack Sasson, 1401–20. Peabody, MA: Hendrickson.
- Aubet, Maria. 1993. *The Phoenicians and the West: Politics, Colonies and Trade*. Cambridge: Cambridge University Press.
- Aubet-Semmler, Maria. 2002a. "Notes on the Economy of the Phoenician Settlements." In *The Phoenicians in Spain: An Archaeological Review of the Eighth-Sixth Centuries BCE*, edited by Marilyn Bierling, 79–96. Winona Lake, IN: Eisenbrauns.
- . 2002b. "Phoenician Trade in the West: Balance and Perspectives." In *The Phoenicians in Spain: An Archaeological Review of the Eighth-Sixth Centuries BCE*, edited by Marilyn Bierling, 97–112. Winona Lake, IN: Eisenbrauns.
- Avigad, N. 1972. "Two Hebrew Inscriptions on Wine Jars." *Israel Exploration Journal* 22.
- . 2011. "An Edomite Seal." In *Tel 'Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*, edited by Benjamin Sass, 227. Annual of the Nelson Glueck School of Biblical Archaeology, VIII. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- Ayalon, Etan. 1995. "The Iron Age II Pottery Assemblage from Horvat Teiman (Kuntillet 'Ajrud)." *Tel Aviv* 22: 141–205.
- Aznar, Carolina. 2005. "Exchange Networks in the Southern Levant during the Iron II: A Study of Pottery Origin and Distribution." Ph.D., Cambridge, MA: Harvard University.
- Bagg, Ariel. 2010. "Interaktionsformen zwischen Nomaden und Sesshaften in Palästina anhand neuassyrischer Quellen." *Die Welt des Orients* 40 (2): 190–215.

- . 2011. *Die Assyrer und das Westland: Studien zur historischen Geographie und Herrschaftspraxis in der Levante im 1. Jt. V.u. Z.* Orientalia Lovaniensia Analecta 216. Leuven: Uitgeverij Peeters en Departement Oosterse Studies.
- . 2013. “Palestine under Assyrian Rule: A New Look at the Assyrian Imperial Policy in the West.” *Journal of the American Oriental Society* 133 (1): 119–44.
- Ballard, Robert D., Lawrence E. Stager, Daniel M Master, Dana Yoerger, David Mindell, Louis L. Whitcomb, Hanumant Singh, and Dennis Piechota. 2002. “Iron Age Shipwrecks in Deep Water off Ashkelon, Israel.” *American Journal of Archaeology* 106 (2): 151–68.
- Balmuth, Miriam S. 1975. “The Critical Moment: The Transition from Currency to Coinage in the Eastern Mediterranean.” *World Archaeology* 6 (3): 293–98.
- Barbanes, Eleanor. 2003. “Panning an Empire: City and Settlement in the Neo-Assyrian Period.” *The Canadian Society for Mesopotamian Studies Bulletin* 38: 15–22.
- Barjamovic, Gojko. 2011. *A Historical Geography of Ancient Anatolia in the Assyrian Colony Period*. Copenhagen: Museum Tusulanum.
- Bär, Jurgen. 1996. *Der assyrische Tribut und seine Darstellung: Eine Untersuchung zur Imperialen Ideologie im neuassyrischen Reich*. Alter Orient Und Altes Testament 243. Neukirchen-Vluyn: Neukirchen Verlag.
- Barkay, Gabriel. 1992. “The Iron II-III.” In *The Archaeology of Ancient Israel*, edited by Amnon Ben-Tor, 302–73. New Haven, CT: Yale University Press.
- Barnett, R.D. 1982. *Ancient Ivories in the Middle East*. Qedem 14. Jerusalem: The Institute of Archaeology. The Hebrew University of Jerusalem.
- Bartlett, John. 1989. *Edom and the Edomites*. Journal for the Study of the Old Testament Supplement Series 77. Sheffield: Sheffield Academic Press.
- Bartolini, Piero. 1995. “Navires et Navigation.” In *La Civilization Phénicienne et Punique: Manuel de Recherche*, edited by Veronique Krings, 282–89. New York: Brill.
- . 2003. “The Phoenicians and Carthage in the Central Mediterranean between the 8th and the 5th Centuries BC.” In *Sea Routes: Interconnections in the Mediterranean 16th-6th C. BC, Proceedings of the International Symposium Held at Rethymnon, Crete September 29th-October 2nd 2002*, edited by Nicholas Stampolidis and Vassos Karageorghis, 197–200. Athens: University of Crete and the A.G. Leventis Foundation.
- Bar-Yosef Mayer, Daniella. 2007. “Shell Trade at Kadesh-Barnea.” In *Excavations at Kadesh-Barnea (Tell El-Qudierat) 1976-1982*, edited by Rudolf Cohen and Hannah Bernick-Greenberg, 273–84. IAA Reports 34. Jerusalem: Israel Antiquities Authority.

- . 2011. “Mediterranean and Red Sea Shells.” In *Tel 'Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*, edited by Yifat Thareani, 298–300. Annual of the Nelson Glueck School of Biblical Archaeology, VIII. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- Bascom, Willard. 1976. *Deep Water, Ancient Ships*. Garden City, NY: Doubleday.
- Bass, George F. 1986. “A Bronze Age Shipwreck at Ulu Burun (Kas): 1984 Campaign.” *American Journal of Archaeology* 90 (3): 269–96.
- Becker, C. 2008. “Die Tierknochnfunde aus Tall Šēh Hamad/Dūr Katlimmu: Eine Zoogeographisch-Haustierkundliche Studie.” In *Umwelt und Subsistenz der assyrischen Stadt Dūr-Katlimmu am Unteren Habur*, edited by Hartmut Kühne, 61–132. Berichte der Ausgrabung von Tall Šēh Hamad/Dūr-Katlimmu 8. Wiesbaden: Harrasowitz.
- Becker, Gary. 1976. *The Economic Approach to Human Behavior*. Chicago: University of Chicago Press.
- . 1996. *Accounting for Tastes*. Cambridge, MA: Harvard University Press.
- Becking, Bob. 1981. “The Two Neo-Assyrian Documents from Gezer in their Historical Context.” *Jaarbericht van Het Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux* 27: 76–89.
- Beck, P. 1973. “A Votive Cylinder Seal.” In *Beer-Sheba I: Excavations at Tel Beer-Sheba, 1969-1971 Seasons*, edited by Y. Aharoni, 56–60. Tel Aviv.
- Bedford, Peter. 2009. “The Neo-Assyrian Empire.” In *The Dynamics of Ancient Empires*, edited by Ian Morris and Walter Scheidel, 30–65. New York: Oxford University Press.
- Beeston, A.F.L. 2005. “Sabaeen Origins.” *Proceeding of the Seminar for Arabian Studies*, 65–70.
- Beit-Arieh, Itzhaq. 1989. “New Data on the Relationship between Judah and Edom towards the End of the Iron Age.” In *Recent Excavations in Israel: Studies in Iron Age Archaeology*, edited by Seymour Gitin and W.G. Dever, 125–32. Annual of the American Schools of Oriental Research 49. Winona Lake, IN: Eisenbrauns.
- . 1991. “The Edomite Shrine at Horvat Qitmit in the Judean Negev.” *Tel Aviv* 18: 93–116.
- . 1993a. “Horvat Qitmit.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1230–33.
- . 1993b. “Horvat Radum.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1254–55.

- . 1993c. “Horvat ’Uza.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1495–97.
- . 1993d. “Tel ’Ira.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2: 642–46.
- . 1995. *Horvat Qitmit: An Edomite Shrine in the Biblical Negev*. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 11. Tel Aviv: Institute of Archaeology, Tel Aviv University.
- . 1999. *Tel ’Ira: A Stronghold in the Biblical Negev*. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 15. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2007. “Epigraphic Finds.” In *Horvat ’Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 122–87. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 25. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2008a. “Tel Hadid.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 5: 1757–58.
- . 2008b. “Tel Malhata.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 5: 1917–18.
- . 2009. “Judah versus Edom in the Eastern Negev.” *Studies in the History and Archaeology of Jordan* 10: 597–602.
- Beit-Arieh, Itzhaq, and Bruce C. Cresson. 1985. “An Edomite Ostrakon from Horvat ’Uza.” *Tel Aviv* 12: 96–101.
- . 2007a. “Introduction.” In *Horvat ’Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, 1–14. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 25. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2007b. “Stratigraphy and Architecture.” In *Horvat ’Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, 303–17. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 25. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Bell, Lanny. 2011. “A Collection of Egyptian Bronzes.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 397–420. Winona Lake, IN: Eisenbrauns.

- Bennett, C.M. 1978. "Some Reflections of Neo-Assyrian Influence in Transjordan." In *Archaeology in the Levant: Essays for Kathleen Kenyon*, edited by Roger Moorey and Peter Parr, 165–71. Warminster, England: Aris & Phillips Ltd.
- . 1982. "Neo-Assyrian Influence in Transjordan." In *Studies in the History and Archaeology of Jordan I*, edited by Adnan Hadidi, 181–87. Amman: Department of Antiquities.
- Ben-Shlomo, David. 2014a. "Assyrian-Style Pottery (Palace Ware)." In *The Smithsonian Institution Excavation at Tell Jemmeh, Israel, 1970-1990*, edited by David Ben-Shlomo and G.W. Van Beek, 732–48. Washington D.C.: Smithsonian Institution Scholarly Press.
- . 2014b. "Results from Field IV: The Iron II and Later Periods." In *The Smithsonian Institution Excavation at Tell Jemmeh, Israel, 1970-1990*, edited by David Ben-Shlomo and G.W. Van Beek, 403–641. Washington D.C.: Smithsonian Institution Scholarly Press.
- . 2014c. "Tell Jemmeh, Philistia and the Neo-Assyrian Empire during the Late Iron Age." *Levant* 46 (1): 58–88.
- Ben-Tor, Amnon. 1992. *The Archaeology of Ancient Israel*. New Haven, CT: Yale University Press.
- Ben-Tor, Daphna. 1997. "The Relations between Egypt and Palestine in the Middle Kingdom as Reflected by Contemporary Canaanite Scarabs." *Israel Exploration Journal* 47: 162–89.
- . 2007. *Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period*. Orbis Biblicus et Orientalis Series Archaeologica 27. Fribourg and Göttingen.
- Ben-Yosef, Erez, Mohammed Najjar, and Thomas Levy. 2014. "New Iron Age Excavations at Copper Production Sites, Mines, and Fortresses in Faynan." In *New Insights into the Iron Age Archaeology of Edom, Southern Jordan*, edited by Thomas Levy, Mohammed Najjar, and Erez Ben-Yosef, 2:767–886. Los Angeles, CA: The Cotsen Institute of Archaeology Press.
- Beresford, James. 2009. "Experimental Maritime Archaeology and the Seasonality of Trade, Warfare, and Piracy on the Graeco-Roman Mediterranean." *Skyllis: Zeitschrift für Unterwasserarchaeologie* 9 (2): 138–47.
- . 2013. *The Ancient Sailing Season*. Mnemosne Supplements: History and Archaeology of Classical Antiquity 351. Leiden: Brill.
- Berlejung, Angelika. 2012. "Assyrians in the West: Assyrianization, Colonialism, Indifference, or Development Policy?" In *Congress Volume Helsinki 2010*, edited by Martti Nissinen,

- 21–59. Supplements to *Vetus Testamentum* 148. Leiden: Brill.
- Bernick-Greenberg, Hannah. 2007. “The Ceramic Assemblages and the Wheel-Made Typology.” In *Excavations at Kadash-Barnea (Tell El-Qudierat) 1976-1982*, edited by Rudolf Cohen and Hannah Bernick-Greenberg, 131–86. IAA Reports 34. Jerusalem: Israel Antiquities Authority.
- Bienkowski, Piotr. 1992. “The Beginning of the Iron Age in Southern Jordan: A Framework.” In *Early Edom and Moab: The Beginning of the Iron Age in Southern Jordan*, edited by Piotr Bienkowski, 1–12. Sheffield Archaeological Monographs 7. Sheffield: J.R. Collis Publications.
- . 1995a. “Conclusions.” In *Excavations at Tawilan in Southern Jordan*, edited by Piotr Bienkowski and C.M. Bennett, 101–6. Oxford: Oxford University Press.
- . 1995b. “The Edomites: The Archaeological Evidence from Transjordan.” In *You Shall Not Abhor an Edomite for He Is Your Brother: Edom and Seir in History and Tradition*, edited by Diana Edelman, 41–92. Archaeology and Biblical Studies 3. Atlanta, GA: Scholars Press.
- . 2000. “Transjordan and Assyria.” In *The Archaeology of Jordan and Beyond: Essays in Honor of James Sauer*, edited by Lawrence E. Stager, Joseph A. Greene, and Michael D. Coogan, 44–58. Winona Lake, IN: Eisenbrauns.
- . 2002. *Busayra Excavations by Crystal-M. Bennett 1971-1980*. Oxford: Oxford University Press.
- Bienkowski, Piotr, and L. Sedman. 2001. “Buseirah and Judah: Stylistic Parallels in the Material Culture.” In *Studies in the Archaeology of the Iron Age in Israel and Jordan*, edited by Amihai Mazar, 310–25. Journal for the Study of the Old Testament Supplement Series 331. Sheffield: Sheffield Academic Press.
- Bienkowski, Piotr, and Eveline van der Steen. 2001. “Tribes, Trade, and Towns: A New Framework for the Late Iron Age in Southern Jordan and the Negev.” *Bulletin of the American Schools of Oriental Research* 323: 21–47.
- Bikai, Patricia. 1978. *The Pottery of Tyre*. England: Aris & Phillips Ltd.
- Birney, Kathleen J., and Ely Levine. 2011. “Balance Weights.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 473–92. Winona Lake, IN: Eisenbrauns.
- Blakeway, Alan. 1932. “Prolegomena to the Study of Greek Commerce with Italy, Sicily, and France in the Eighth and Seventh Centuries BC.” *The Annual of the British School at Athens* 33: 170–208.

- Blanton, Richard E., and Lane F. Fargher. 2010. "Evaluating Causal Factors in Market Development in Pre-Modern States: A Comparative Study, with Critical Comments on the History of Ideas about Markets." In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher Garraty and Barbara Stark, 207–26. Boulder, CO: University Press of Colorado.
- Bloch-Smith, Elizabeth. 1992. *Judahite Burial Practices and Beliefs about the Dead*. Journal for the Study of the Old Testament Supplement Series 123. Sheffield: Sheffield Academic Press.
- Bloom, Joanne. 1988. "Material Remains of the Neo-Assyrian Presence in Palestine and Transjordan." PhD, Bryn Mawr.
- Boardman, John. 1994. "Settlement for Trade and Land in North Africa: Problems of Identity." In *The Archaeology of Greek Colonisation: Essays Dedicated To Sir John Boardman*, edited by Tsetschladze, G. and Franco De Angelis, 137–49. Oxford: Oxbow Books.
- . 2006. "Greeks in the East Mediterranean (South Anatolia, Syria, Egypt)." In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschladze, G., 1:507–34. Leiden: Brill.
- Boer, Roland. 2007. "The Sacred Economy of Ancient 'Israel.'" *Scandinavian Journal of the Old Testament* 21 (1): 29–48.
- . 2015. *The Sacred Economy of Ancient Israel*. Louisville, KY: Westminster John Knox Press.
- Bondi, S.F. 1995. "Le Commerce, Les Echanges, L'Economie." In *La Civilisation Phénicienne et Punique: Manuel de Recherche*, edited by Veronique Krings, 268–81. New York: Brill.
- Borger, Rikele. 1956. *Die Inscripten Asarhaddons Königs von Assyrien*. AfO 9. Graz: Selbstverlage des Herausgebers.
- . 1996. *Beiträge zum Inscriptenwerk Assurbanipals*. Wiesbaden: Harrassowitz.
- Bornstein, S. 1990. "The Ship of the Desert: The Dromedary Camel (*Camelus Dromedarius*), a Domesticated Animal Species Well Adapted to Extreme Conditions of Aridness and Heat." *Rangifer* 3: 231–36.
- Bowen, Richard LeBaron. 1958. "Ancient Trade Routes in South Arabia." In *Archaeological Discoveries in South Arabia*, edited by Richard LeBaron Bowen and Frank P. Albright, 35–42. Baltimore, MD: Johns Hopkins University Press.
- Bowen, Richard LeBaron, and Frank P. Albright. 1958. *Archeological Discoveries in South Arabia*. Baltimore, MD: Johns Hopkins University Press.

- Brandl, Baruch. 1984a. "The Engraved Tridacna-Shell Discs." *Anatolian Studies* 34: 15–41.
- . 1984b. "The Restoration of an Engraved Tridacna Shell from Arad" 3: 76–79.
- . 2001. "Two Engraved Tridacna Shells from Tel-Miqne-Ekron." *Bulletin of the American Schools of Oriental Research* 323.
- . 2012. "Scarabs, Scaraboids, Other Stamp Seals, and Seal Impressions." In *Excavations at the City of David 1978-1985, Directed by Yigal Shiloh*, edited by Alon De Groot and Hannah Bernick-Greenberg, VIIB:377–96. Qedem 54. Jerusalem: The Institute of Archaeology. The Hebrew University of Jerusalem.
- Braudel, Fernand. 1972. *The Mediterranean and the Mediterranean World in the Age of Philip II*. 2nd ed. New York.
- . 1980. *On History*. Chicago, IL: University of Chicago Press.
- Brody, Aaron. 2014. "Interregional Interaction in the Late Iron Age: Phoenician and Other Foreign Goods from Tell En-Nasbeh." In *Material Culture Matters: Essays on the Archaeology of the Southern Levant in Honor of Seymour Gitin*, edited by John R. Spencer, Robert A. Mullins, and Aaron Brody, 53–68. Winona Lake, IN: Eisenbrauns.
- Bron, Francois. 1995. "Vestiges de L'écriture Sud-Sémitique Dans Le Croissant Fertile." In *Présence Arabe dans le Croissant Fertile avant l'Hégire*, edited by H. Lozachmeur, 81–91. Paris.
- Bron, Francois, and A. Lemaire. 2009. "Nouvelle Inscription Sabéenne et le Commerce en Transeuphratène." *Transeuphratène* 38: 11–30.
- Broodbank, Cyprian. 2006. "The Origins and Early Development of Mediterranean Maritime Activity." *Journal of Mediterranean Archaeology* 19 (2): 199–230.
- . 2013. *The Making of the Middle Sea: A History of the Mediterranean from the Beginning to the Emergence of the Classical World*. Oxford: Oxford University Press.
- Broshi, M. 1974. "The Expansion of Jerusalem in the Reigns of Hezekiah and Manasseh." *Israel Exploration Journal* 24 (1): 21–26.
- Brown, Brian. 2013. "The Structure and Decline of the Middle Assyrian State: The Role of Autonomous and Non-state Actors." *Journal of Cuneiform Studies* 65: 97–126.
- Bryce, Trevor. 1989. "The Nature of Mycenaean Involvement in Western Anatolia." *Historia: Zeitschrift für alte Geschichte* 38 (1): 1–21.
- Bulliet, R.W. 1975. *The Camel and the Wheel*. Cambridge, MA: Harvard University Press.

- Bunimovitz, Shlomo, and Zvi Lederman. 2003. "The Final Destruction of Beth Shemesh and the Pax Assyriaca in the Judean Shephelah." *Tel Aviv* 30: 3–26.
- Bunnens, Guy. 1979. *L'Expansion Phénicienne en Méditerranée: Essai d'interprétation Fondé sur une Analyse Des Traditions Littéraires*. Bruxelles: Institut Historique Belge de Rome.
- Burdajewicz, Mariusz. 2000. "Gaza Pendant les Périodes Du Bronze Moyen et Récent et de l'Âge Du Fer." In *Gaza Méditerranéenne: Histoire et Archéologie en Palestine*, edited by Jean-Baptiste Humbert, 31–39. Paris: Éditions Errance.
- Burger, Pamela. 2012. "Genetic Traces of Domestication in Old World Camelids." In *Camels in Asia and North Africa: Interdisciplinary Perspectives on Their Past and Present Significance*, edited by Eva-Maria Knoll and Pamela Burger, 17–28. Österreichische Akademie Der Wissen, Philosophisch-Historische Klasse Denkschriften 451. Wien: Osterreichischen Akademie der Wissenschaften.
- Burke, Aaron A. 2012. "Coping with the Effects of War. Refugees in the Levant during the Bronze and Iron Ages." In *Disaster and Relief Management. Katastrophen und ihre Bewältigung*, 263–288. Tübingen: Mohr Siebeck.
- Burkert, Walter. 1992. *Orientalizing Revolution: The Near Eastern Influence on Greek Culture in the Early Archaic Age*. Revealing Antiquity 5. Cambridge, MA: Harvard University Press.
- Byrne, Ryan. 2003. "Early Assyrian Contacts with Arabs and the Impact on Levantine Vassal Tribute." *Bulletin of the American Schools of Oriental Research* 331: 11–25.
- Carandini, Andrea. 1989. "Italian Wine and African Oil: Commerce in a World Empire." In *The Birth of Europe: Archaeology and Social Development in the First Millennium AD*, edited by Klavs Randsborg, 16–24. *Analecta Romana Instituti Danici*, XVI. Roma: L'Erma di Bretschneider.
- Carmi, Israel, and Dror Segal. 2012. "C14 Dates from Kuntillet 'Ajrud." In *Kuntillet 'Ajrud (Horvat Teman): An Iron II Religious Site on the Judah-Sinai Border*, edited by Ze'ev Meshel, 61–64. Jerusalem: Israel Exploration Society.
- Carruthers, Douglas. 1918. "The Great Desert Caravan Route, Aleppo to Basra." *The Geographical Journal* 52 (3): 157–84.
- Casson, Lionel. 1984. *Ancient Trade and Society*. Detroit: Wayne State University Press.
- . 1995. *Ships and Seamanship in the Ancient World*. 2nd ed. Baltimore, MD: Johns Hopkins University Press.
- Caubet, Annie. 2013. "Working Ivory in Syria and Anatolia during the Late Bronze-Iron Age."

- In *Across the Border: Late Bronze-Iron Age Relations between Syria and Anatolia. Proceedings of a Symposium Held at the Research Center of Anatolian Studies, Koc University, Istanbul May 31-June 1, 2010*, edited by K. Alishan Yener, 449–63. *Ancient Near Eastern Studies* 42. Leuven: Peeters.
- Chamaza, G.W. Vera. 2005. *Die Rolle Moabs in der Neuassyrischen Expansionspolitik*. *Alter Orient und Altes Testament* 321. Münster: Ugarit-Verlag.
- Champion, Timothy C. 1989. "Introduction." In *Centre and Periphery: Comparative Studies in Archaeology*, edited by Timothy C. Champion, 1–20. New York: Routledge.
- Chaney, Marvin. 1989. "Bitter Bounty: The Dynamics of Political Economy Critiqued by the Eighth-Century Prophets." In *Reformed Faith and Economics*, edited by Robert L. Stivers, 15–30. New York: University Press of America.
- Chapman, Malcolm, and Peter Buckley. 1997. "Markets, Transaction Costs, Economists, and Social Anthropologists." In *Meanings of the Market: The Free Market in Western Culture*, edited by James G. Carrier, 225–50. New York: Berg.
- Chase-Dunn, Christopher. 1990. "Resistance to Imperialism: Semi-peripheral Actors." *Review* 13 (1): 1–31.
- Chase-Dunn, Christopher, and Thomas D. Hall. 1991. "Conceptualizing Core/Periphery Hierarchies for Comparative Studies." In *Core/Periphery Relations in Pre-Capitalist Worlds*, edited by Christopher Chase-Dunn and Thomas D. Hall, 5–43. Boulder, CO: Westview Press.
- Chase-Dunn, Christopher, Daniel Pasciuiti, Alexis Alvarez, and Thomas Hall. 2006. "Growth/Decline Phases and Semi-Peripheral Development in the Ancient Mesopotamian and Egyptian World-Systems." In *Globalization and Global History*, edited by Barry Gills K. and William R. Thompson, 114–38. New York: Routledge.
- Claessen, H.J.M. 1989. "Tribute and Taxation - Or How to Finance Early States and Empires." In *le Tribut dans l'Empire Perse*, edited by Pierre Briant and C. Herrenschildt, 45–59. *Travaux de l'Institut d'Études Iraniennes de l'Université de La Sorbonne Nouvelle* 13. Paris: Peeters.
- Cline, Eric. 1994. *Sailing the Wine-Dark Sea: International Trade and the Late Bronze Age Aegean*. Oxford: Tempus Reparatum.
- . 2000. "'Contested Peripheries' in World Systems Theory: Megiddo and the Jezreel Valley as a Test Case." *Journal of World-Systems Research* VI (1): 7–16.
- Coase, Ronald. 2005. "The Institutional Structure of Production." In *Handbook of New Institutional Economics*, edited by Claude Menard and Mary Shirley, 31–40. Springer.

- Cogan, Mordechai. 1995. "A Lamashtu Plaque from the Judaean Shephelah." *Israel Exploration Journal* 45 (2/3): 155–61.
- . 2001. *Kings. I Kings*. Vol. 10. The Anchor Yale Bible Commentaries. New York: Doubleday.
- . 2008. "The Assyrian Stela Fragment from Ben-Shemen." In *Treasures on Camels' Humps: Historical and Literary Studies from the Ancient Near East Presented to Israel Eph'al*, edited by Mordecai Cogan and Dan'el Kahn, 66–69. Jerusalem: Magnes Press.
- Cohen, Rudolf, and Hannah Bernick-Greenberg. 2007. *Excavations at Kadesh-Barnea (Tell El Qudeirat) 1976-1982*. 2 vols. IAA Reports 34. Jerusalem: Israel Antiquities Authority.
- Cohen, Rudolph. 1979. "The Iron Age Fortresses in the Central Negev." *Bulletin of the American Schools of Oriental Research* 236: 61–79.
- Collon, Dominique. 1977. "Ivory." *Iraq* 39 (2): 219–22.
- Connan, J. 1999. "Use and Trade of Bitumen in Antiquity and Prehistory: Molecular Archaeology Reveals Secrets of Past Civilizations." *Philosophical Transactions of The Royal Society of London* 354: 33–50.
- Connan, Jacques, Arie Nissenbaum, and Daniel Dessort. 1992. "Molecular Archaeology: Export of Dead Sea Asphalt to Canaan and Egypt in the Chalcolithic-Early Bronze Age (4th-3rd Millennium BC)." *Geochimica et Cosmochimica Acta* 56: 2743–59.
- Connan, Jacques, Arie Nissenbaum, Kendra Imbus, John Zumberge, and Stephen Macko. 2006. "Asphalt in Iron Age Excavations from the Philistine Tel Mique-Ekron City (Israel): Origin and Trade Routes." *Organic Geochemistry* 37: 1768–86.
- Cooke, G.A. 1936. *A Critical and Exegetical Commentary on the Book of Ezekiel*. International Critical Commentary. Edinburgh: T. & T. Clark.
- Crielaard, Jan P. 1996. "How the West Was Won: Euboeans vs. Phoenicians." In *Die Akten des Internationalen Kolloquiums "Interactions in the Iron Age: Phoenicians, Greeks, and Indigenous Peoples of the Western Mediterranean" in Amsterdam am 26 Und 27 Marz 1992*, edited by Hans Georg Niemeyer, 235–60. Mainz: P. von Zabern.
- Croft, Paul. 2004. "Archaeozoological Studies." In *The Renewed Excavations at Lachish (1973-1994)*, edited by David Ussishkin, V:2254–2503. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Crone, Patricia. 1987. *Meccan Trade and the Rise of Islam*. Princeton, NJ: Princeton University Press.
- Cross, Frank M. 2008. "Inscriptions in Phoenician and Other Scripts." In *Ashkelon I*:

- Introduction and Overview (1985-2006)*, edited by Lawrence E. Stager, J. David Schloen, and Daniel M Master, 333–72. Winona Lake, IN: Eisenbrauns.
- Culican, W. 1991. “Phoenicia and Phoenician Colonization.” In *The Cambridge Ancient History: The Assyrian and Babylonian Empires and Other States of the Near East, from the Eighth to Sixth Centuries BCE*, edited by John Boardman, I.E.S. Edwards, N.G.L. Hammond, and E. Sollberger, III:2:461–546. New York: Cambridge University Press.
- D’ Agata, Anna Lucia. 1997. “Incense and Perfumes in the Late Bronze Age Aegean.” In *Profumi d’Arabia*, edited by Alessandra Avanzini, 85–99. Rome: L’Erma di Bretschneider.
- D’ Agostino, Bruno. 2006. “The First Greeks in Italy.” In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetskhladze, G., 1:201–38. Leiden: Brill.
- Dalley, Stephanie. 2000. “Shamshi-Ilu, Language and Power in the Western Assyria Empire.” In *Essays on Syria in the Iron Age*, edited by G. Bunnens, 211–33. Ancient Near Eastern Studies Supplement 7. Louvain: Peeters.
- . 2004. “Recent Evidence from Assyrian Sources for Judaeon History from Uzziah to Manasseh.” *Journal for the Study of the Old Testament* 28 (4): 387–401.
- Dalton, George. 1975. “Karl Polanyi’s Analysis of Long Distance Trade and His Wider Paradigm.” In *Ancient Civilization and Trade*, edited by Jeremy Sabloff and C.C. Lamberg-Karlovsky, 63–132. Albuquerque, NM: University of New Mexico Press.
- D’Altroy, Terence. 1992. *Provincial Power in the Inka Empire*. Washington D.C.: Smithsonian Institute Press.
- Danin, Avinoam. 1985. “Paleoclimates in Israel: Evidence from Weathering Patterns of Stones in and near Archaeological Sites.” *Bulletin of the American Schools of Oriental Research* 259: 33–43.
- . 1986. “Patterns of Biogenic Weathering as Indicators of Paleoclimates in Israel.” *Proceeding of the Royal Society of Edinburgh. Section B. Biological Sciences* 89: 243–53.
- Dar, Shimon. 1986. *Landscape and Pattern: An Archaeological Survey of Samaria 800 B.C.E.-636 C.E.* 2 vols. BAR International Series 308. Oxford: Archaeopress.
- Dayan, Tamar. 1999. “Faunal Remains: Areas A-G.” In *Tel ’Ira: A Stronghold in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 480–87. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 15. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.

- Dayton, J.E. 1972. "Midianite and Edomite Pottery." *Proceedings of the Seminar for Arabian Studies* 2: 25–37.
- De Angelis, Franco. 2002. "Trade and Agriculture at Megara Hyblaia." *Oxford Journal of Archaeology* 21 (3): 299–310.
- Deblauwe, F. 1991. "Old South Arabian Trade Routes." *Orientalia Lovaniensia Periodica* 22: 133–58.
- DeJong-Ellis, Maria. 1974. "Taxation in Ancient Mesopotamia: The History of the Term *Miksu*." *Journal of Cuneiform Studies* 26 (4): 211–50.
- De Maaijer, Remco, and Bram Jagersma. 2003. "Review of the Sumerian Dictionary of the University of Pennsylvania Museum. Vol.1: A Part III." *Archiv für Orientforschung* 50: 351–55.
- De Odorico, Michael. 1995. *The Use of Numbers and Quantifications in the Assyrian Royal Inscriptions*. State Archives of Assyria Studies, III. Helsinki: The Neo-Assyrian Text Corpus Project.
- Dercksen, J.G. 2008. "The Assyrian Colony at Kanesh." In *Hattusa-Bogazkoy: Das Hethiterreich im Spannungsfeld des Alten Orients*, edited by G. Wilhelm, 109–24. Wiesbaden: Harrassowitz.
- De Roover, R. 1963. "The Organization of Trade." In *The Cambridge Economic History of Europe from the Decline of the Roman Empire*, edited by M.M. Postan, E.E. Rich, and E. Miller, 42–118. New York: Cambridge University Press.
- Dezső, Tamás. 2012. *The Assyrian Army I. The Structure of the Neo-Assyrian Army as Reconstructed from the Assyrian Palace Reliefs and Cuneiform Sources. 2. Cavalry and Chariotry*. Budapest: Eötvös University.
- Diakonoff, I.M. 1992. "The Naval Power and Trade of Tyre." *IEJ* 42: 168–93.
- Dickinson, Oliver. 2006. *The Aegean from Bronze Age to Iron Age: Continuity and Change between the Twelfth and Eighth Centuries BC*. New York: Routledge.
- Dicou, Bert. 1994. *Edom, Israel's Brother and Antagonist: The Role of Edom in Biblical Prophecy and Story*. Journal for the Study of the Old Testament Supplement Series 169. Sheffield: Sheffield Academic Press.
- Dietler, Michael. 2007. "The Iron Age in the Western Mediterranean." In *The Cambridge Economic History of the Greco-Roman World*, edited by Walter Scheidel, Ian Morris, and Richard Saller, 242–76. Cambridge: Cambridge University Press.
- Dietrich, Manfred. 2003. *The Babylonian Correspondence of Sargon and Sennacherib*. State

Archives of Assyria 17. Helsinki: Helsinki University Press.

- DiVito, Robert. 1993. "The Tell El-Kheleifeh Inscriptions." In *Nelson Glueck's 1938-1940 Excavations at Tell El-Kheleifeh: A Reappraisal*, edited by Gary D. Pratico, 51–64. American Schools of Oriental Research Archaeological Reports 3. Atlanta, GA: Scholars Press.
- Dobbs-Allsopp, F.W., J.J.M. Roberts, C.L. Seow, and R.E. Whitaker. 2005. *Hebrew Inscriptions: Texts from the Biblical Period of the Monarchy with Concordance*. New Haven, CT: Yale University Press.
- Dominguez, Adolfo. 2006a. "Greeks in Sicily." In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschladze, G., 1:253–357. Leiden: Brill.
- . 2006b. "Greeks in the Iberian Peninsula." In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschladze, G., 1:429–506. Leiden: Brill.
- Donner, H., and W. Röllig. 1962. *Kanaanäische und Aramäische Inschriften*. 3 vols. Wiesbaden: Harrasowitz.
- Dorsey, David A. 1991. *The Roads and Highways of Ancient Israel*. Baltimore, MD: Johns Hopkins University Press.
- Dothan, Marcus. 1971. *Ashdod II-III: The Second and Third Seasons of Excavation 1963, 1965*. 'Atiqot, IX-X. Jerusalem.
- Dozeman, Thomas. 2009. *Exodus*. Eerdmans Critical Commentary. Grand Rapids, MI: Eerdmans.
- Dubovsky, Peter. 2006. *Hezekiah and the Assyrian Spies: Reconstruction of the Neo-Assyrian Intelligence Services and Its Significance for 2 Kings 18-19*. *Biblica et Orientalia* 49. Roma: Ed. Pontificio Istituto Biblico.
- . 2012. "King's Direct Control: Neo-Assyrian *Qēpu* Officials." In *Organization, Representation, and Symbols of Power in the Ancient Near East: Proceedings from the 54th Rencontre Assyriologique Internationale at Würzburg 20-25 July 2008*, edited by G. Wilhelm, 449–60. Winona Lake, IN: Eisenbrauns.
- Earle, Timothy. 1982. "Prehistoric Economics and the Archaeology of Exchange." In *Contexts for Prehistoric Exchange*, edited by Jonathan Ericson and Timothy Earle, 1–12. New York: Academic Press.
- Ebeling, E. 1948. "Mittelassyrische Rezepte zur Herstellung von Wohlriechenden Salben." *Orientalia* 17: 299–313.

- Edelstein, Gershon. 2000. "A Terraced Farm at Er-Ras." *'Atiqot* 40: 39–64.
- Edens, Christopher, and Garth Bawden. 1989. "History of Tayma and Hejazi Trade during the First Millennium BC." *Journal of the Economic and Social History of the Orient* 32 (1): 48–103.
- Eitam, David. 1990. "Textile and Olive Oil Production in Ancient Israel during the Iron Age Period." In *Pigments et Colorants de l'Antiquité au Moyen Âge: Teniture, Peinture, Enluminure: Études Historiques et Physico-Chimiques, Colloque International Du CNRS*, 283–90. Paris: Editions du Centre national de la recherche scientifique.
- . 1996. "The Olive Oil Industry at Tel Miqne Ekron during the Late Iron Ages." In *Olive Oil in Antiquity: Israel and Neighboring Countries from the Neolithic to the Early Arab Period*, edited by David Eitam and Michael Heltzer, 167–96. History of the Ancient Near East Studies, VII. Padova: Sargon srl.
- Ekholm, K., and J Friedman. 1979. "'Capital' Imperialism and Exploitation in Ancient World Systems." In *Power and Propaganda: A Symposium on Ancient Empires*, edited by M.T. Larsen, 41–58. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- Elat, Moshe. 1977. *Economic relations in the Lands of the Bible c.1000-539 B.C.* Jerusalem. (Hebrew)
- . 1978. "The Economic Relations of the Neo-Assyrian Empire with Egypt." *JAOS* 98 (1): 20–34.
- . 1979. "The Monarchy and the Development of Trade in Ancient Israel." In *State and Temple Economy in the Ancient Near East*, edited by E. Lipinski, 2:527–46. *Orientalia Lovaniensia Analecta* 6. Leuven: Departement Orientalistiek.
- . 1982a. "Tarshish and the Problem of Phoenician Colonisation in the Western Mediterranean." *Orientalia Lovaniensia Periodica* 13: 55–69.
- . 1982b. "The Impact of Tribute and Booty on Countries and People within the Assyrian Empire." *Archiv für Orientforschung* 19: 244–51.
- . 1987. "Der Tamkaru im neuassyrischen Reich." *Journal of the Economic and Social History of the Orient* 30: 233–54.
- . 1991. "Phoenician Overland Trade within the Mesopotamian Empires." In *Ah, Assyria... Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, XXXIII:21–35. Scripta Hierosolymitana. Jerusalem: Magnes Press.
- Engstrom, C. M. A. 2004. "The Neo-Assyrians at Tell El-Hesi: A Petrographic Study of Imitation Assyrian Palace Ware." *Bulletin of the American Schools of Oriental Research*,

69–81.

- Eph'al, Israel. 1974. "'Arabs' in Babylonia in the 8th Century BC." *Journal of the American Oriental Society* 94 (1): 108–15.
- . 1979. "Assyrian Dominion in Palestine." In *The World History of the Jewish People: The Age of Monarchies: Political History*, edited by Abraham Malamat, 4:276–89. Israel: Jewish History Publications.
- . 1982. *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent 9th-5th Centuries BC*. Jerusalem: Magnes Press.
- . 1983. "On Warfare and Military Control in the Ancient Near Eastern Empires: A Research Outline." In *History, Historiography, and Interpretation. Studies in Biblical and Cuneiform Literatures*, edited by Hayim Tadmor and Moshe Weinfeld, 88–106. Jerusalem: Magnes Press.
- . 2005. "Esarhaddon, Egypt, and Shubria: Politics and Propaganda." *Journal of Cuneiform Studies* 57: 99–111.
- . 2010. "Assyrian Imperial Rule in Non-Literary Documents Relating to the Territory 'Beyond the River.'" *Beersheva* XIX: 31–70. (Hebrew).
- Evenari, Michael, Leslie Shanan, and Naphtali Tadmor. 1971. *The Negev: The Challenge of a Desert*. Cambridge, MA: Harvard University Press.
- Fales, Frederick M. 1996. "Prices in Neo-Assyrian Sources." *State Archives of Assyria Bulletin* 10: 11–53.
- . 2008. "On *Pax Assyriaca* in the Eighth-Seventh Centuries BCE and Its Implications." In *Isaiah's Vision of Peace in Biblical and Modern International Relations: Swords into Plowshares*, edited by Raymond Cohen and Raymond Westbrook, 17–35. New York: Palgrave Macmillan.
- . 2010. *Guerre et Paix En Assyrie Religion et Imperialisme*. Paris: Les Éditions du Cerf.
- Fales, Frederick M., and J. N. Postgate. 1995. *Imperial Administrative Records, Part II: Provincial and Military Administration*. State Archives of Assyria 11. Helsinki: Helsinki University Press.
- Fantalkin, Alexander. 2001. "Mezad Heshavyahu: Its Material Culture and Historical Background." *Tel Aviv* 28: 3–165.
- . 2004. "The Final Destruction of Beth Shemesh and the *Pax Assyriaca* in the Judean Shephelah: An Alternative View." *Tel Aviv* 31: 245–61.

- . 2006. “Identity in the Making: Greeks in the Eastern Mediterranean during the Iron Age.” In *Naukratis: Greek Diversity in Egypt. Studies on East Greek Pottery and Exchange in the Eastern Mediterranean*, edited by A. Villing and U. Schlotzhauer, 199–235. The British Museum Research Publications 162. London: The British Museum.
- Fantalkin, Alexander, and Oren Tal. 2009. “Re-Discovering the Iron Age Fortress at Tell Qudadi in the Context of Neo-Assyrian Imperialistic Policies.” *Palestine Exploration Quarterly* 141 (3): 188–206.
- Farber, W. 1993. “Myrrhe. B.” In *Reallexicon der Assyriologie und Vorderasiatischen Archäologie*, edited by D.O. Edzard, 8:536–37. New York: Walter de Gruyter.
- Fargo, Valerie M. 1993. “Tell El-Hesi.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2: 630–34.
- Faust, Avraham. 2003. “The Farmstead in the Highlands of Iron Age II Israel.” In *The Rural Landscape of Ancient Israel*, edited by Aren M. Maeir, Shimon Dar, and Ze’ev Safrai, 91–104. Oxford: Archaeopress.
- . 2005a. “The Israelite Village: Cultural Conservatism and Technological Innovation.” *Tel Aviv* 32: 204–19.
- . 2005b. “The Settlement of Jerusalem’s Western Hill and the City’s Status in the Iron Age II Revisited.” *Zeitschrift des Deutschen Palästina-Vereins* 121 (2): 97–118.
- . 2006. “The Negev ‘Fortresses’ in Context: Reexamining the ‘Fortress’ Phenomenon in Light of General Settlement Processes of the Eleventh-Tenth Centuries B.C.E.” *Journal of the American Oriental Society* 126 (2): 135–60.
- . 2008. “Settlement and Demography in Seventh-Century Judah and the Extent and Intensity of Sennacherib’s Campaign.” *Palestine Exploration Quarterly* 140 (3): 168–94.
- . 2011. “The Interests of the Assyrian Empire in the West: Olive Oil Production as a Test-Case.” *Journal of the Economic and Social History of the Orient* 54: 62–86.
- . 2014. “On Jerusalem’s Expansion during the Iron Age II.” In *Exploring the Narrative: Jerusalem and Jordan in the Bronze and Iron Ages*, edited by Eveline van der Steen, Jeannette Boertien, and Noor Mulder-Hymans, 256–285. London: Bloomsbury.
- Faust, Avraham, and Adi Erlich. 2011. *The Excavations of Khirbet Er-Rasm, Israel: The Changing Faces of the Countryside*. Oxford: Archaeopress.
- Faust, Avraham, and Ehud Weiss. 2005. “Judah, Philistia and the Mediterranean World: Reconstructing the Economic System of the Seventh Century BCE.” *BASOR* 338: 71–92.
- . 2011. “Between Assyria and the Mediterranean World: The Prosperity of Judah and

- Philistia in the Seventh Century BCE in Context.” In *Interweaving Worlds: Systemic Interactions in Eurasia, 7th to 1st Millennia BC*, edited by Toby Wilkinson, Susan Sherratt, and John Bennet, 189–204. Oxford: Oxbow Books.
- Feig, Nurit. 2003. “Excavations at Beit Safafa: Iron II and Byzantine Agricultural Installations South of Jerusalem.” *’Atiqot* 44: 191–238.
- Finkelstein, Israel. 1988. “Arabian Trade and Socio-Political Conditions in the Negev in the Twelfth-Eleventh Centuries BCE.” *JNES* 47 (4): 241–52.
- . 1992. “Horvat Qitmit and the Southern Trade in the Late Iron Age II.” *Zeitschrift des Deutschen Palästina-Vereins* 108 (2): 156–70.
- . 1994. “The Archaeology of the Days of Manasseh.” In *Scripture and Other Artifacts: Essays on the Bible and Archaeology in Honor of Philip J. King*, edited by M.D. Coogan, J.C. Exum, and Lawrence E. Stager, 169–87. Louisville: Westminster John Knox Press.
- . 1995. *Living on the Fringe: The Archaeology and History of the Negev, Sinai, and Neighboring Regions in the Bronze and Iron Ages*. Sheffield: Sheffield Academic Press.
- Finkelstein, Israel, and Nadav Na’aman. 2004. “The Judahite Shephelah in the Late Eight and Early Seventh Centuries BCE.” *Tel Aviv* 31: 60–79.
- Finkelstein, Israel, and Eli Piasezky. 2008. “The Date of Kuntillet ’Ajrud: The C14 Perspective.” *Tel Aviv* 35: 175–85.
- Finkelstein, Israel, and Lily Singer-Avitz. 2001. “Ashdod Revisited.” *Tel Aviv* 28: 231–59.
- . 2004. “‘Ashdod Revisited’ --Maintained.” *Tel Aviv* 31: 122–35.
- Finkelstein, Israel, E. Zupansky, Y. Gadot, Daniel M. Master, Lawrence E. Stager, and I. Benenson. 2011. “Phoenician ‘Torpedo’ Amphoras and Egypt: Standardization of Volume Based on Linear Dimensions.” *Agypten und Levante* XXI: 261–80.
- Finley, Moses. 1973. *The Ancient Economy*. Berkeley, CA: University of California Press.
- Finné, Martin, Karin Holmgren, Hanna Sundqvist, Erika Weiberg, and Michael Lindblom. 2011. “Climate in the Eastern Mediterranean, and Adjacent Regions, during the Past 6000 Years --A Review.” *Journal of Archaeological Science* 38: 3153–73.
- Flad, Rowan K., and Pochan Chen. 2011. *Ancient Central China: Centers and Peripheries along the Yangzi River*. Cambridge: Cambridge University Press.
- Fletcher, Richard Nathan. 2012. “Opening the Mediterranean: Assyria, the Levant and the Transformation of Early Iron Age Trade.” *Antiquity* 86: 211–20.

- Forbes, R.J. 1956. *Studies in Ancient Technology IV*. 1st ed. Leiden: Brill.
- . 1965. *Studies in Ancient Technology II*. 2nd ed. Leiden: Brill.
- Fouts, David M. 1994. “Another Look at Large Numbers in Assyrian Royal Inscriptions.” *Journal of Near Eastern Studies* 53 (3): 205–11.
- Foxhall, Lin. 1998. “Cargoes of the Heart’s Desire: The Character of Trade in the Archaic Mediterranean World.” In *Archaic Greece: New Approaches and New Evidence*, edited by N. Fisher and H. van Wees, 295–309. London: Duckworth.
- . 2007. *Olive Cultivation in Ancient Greece: Seeking the Ancient Economy*. Oxford: Oxford University Press.
- Fox, Nili S. 2000. *In Service of the King: Officialdom in Ancient Israel and Judah*. Monographs of the Hebrew Union College 23. Cincinnati, OH: Hebrew Union College.
- Frahm, Eckart. 1997. *Einleitung in Die Sanherib-Inschriften*. Archiv für Orientforschung 26. Wien: Institut für Orientalistik der Universität Wien.
- . 2006. “Images of Assyria in Nineteenth and Twentieth Century Western Scholarship.” In *Orientalism, Assyriology, and the Bible*, edited by Steven Holloway, 74–94. Hebrew Bible Monographs 10. Sheffield: Sheffield Phoenix Press.
- Frankenstein, Susan. 1979. “The Phoenicians in the Far West: A Function of Neo-Assyrian Imperialism.” In *Power and Propaganda: A Symposium on Ancient Empires*, edited by M.T. Larsen, 41–58. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- Free, Joseph P. 1944. “Abraham’s Camels.” *Journal of Near Eastern Studies* 3 (3): 187–93.
- Freud, Liora. 1999. “Iron Age Pottery.” In *Tel ’Ira: A Stronghold in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 189–289. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 15. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2007a. “Iron Age Pottery.” In *Horvat ’Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 77–121. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 25. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2007b. “Pottery and Small Finds.” In *Horvat ’Uza and Horvat Radum: Two Fortresses in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 318–22. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 25. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.

- University.
- . 2008. “The Date of Kuntillet ’Ajrud: A Reply to Lily Singer-Avitz.” *Tel Aviv* 35: 169–74.
- . 2014. “Local Production of Edomite Cooking Pots in the Beersheba Valley: Petrographic Analysis from Tel Malhata, Horvat ’Uza, and Horvat Qitmit.” In *Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age*, edited by Juan Manuel Tebes, 283–306. Ancient Near Eastern Studies Supplement 45. Leuven: Peeters.
- Freud, Liora, and Itzhaq Beit-Arieh. 1995. “Pottery.” In *Horvat Qitmit: An Edomite Shrine in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 209–57. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series. Tel Aviv: Institute of Archaeology, Tel Aviv University.
- Fuchs, Andreas. 1994. *Die Inschriften Sargons II aus Khorsabad*. Göttingen: Cuvillier.
- Fuchs, Andreas, and Simo Parpola. 2001. *The Correspondence of Sargon II, Part III: Letters from Babylonia and the Eastern Provinces*. State Archives of Assyria 15. Helsinki: Helsinki University Press.
- Furubotn, Eirik, and Rudolf Richter. 2005. *Institutions and Economic Theory: The Contribution of the New Institutional Economics*. 2nd ed. Ann Arbor, MI: University of Michigan Press.
- Galil, Gershon. 1992. “Conflicts between Assyrian Vassals.” *State Archives of Assyria Bulletin* 6 (1): 55–63.
- . 2006. “Financing of Private Commercial Enterprises in the Neo-Assyrian Period: KAV 121 and Other Related Texts from Assur.” *State Archives of Assyria Bulletin* 15.
- Gallagher, William R. 1999. *Sennacherib’s Campaign to Judah*. Studies in the History and Culture of the Ancient Near East, XVIII. Leiden: Brill.
- Galling, Kurt. 1972. “Der Weg der Phöniker nach Tarsis in literarischer und archäologischer Sicht.” *Zeitschrift des Deutschen Palästina-Vereins* 88 (1): 1–18.
- Galter, Hannes D. 1993. “‘...an der Grenze der Länder im Westen’ Saba’ in den assyrischen Königsinschriften.” In *Studies in Oriental Culture and History: Festschrift for Walter Dostal*, edited by A. Gingrich, S. Haas, G. Paleczek, and T. Fillitz, 29–40. Frankfurt am Main: Peter Lang.
- Gane, Roy. 1997. “The Role of Assyria in the Ancient Near East During the Reign of Manasseh.” *Andrews University Seminary Studies* 35 (1): 21–32.

- Garelli, Paul. 1991. "The Achievement of Tiglath-Pileser III: Novelty or Continuity?" In *Ah, Assyria...Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, edited by Mordechai Cogan and Israel Eph'al. Scripta Hierosolymitana 33. Jerusalem: Magnes Press.
- Garraty, Christopher. 2010. "Investigating Market Exchange in Ancient Societies: A Theoretical Review." In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher Garraty and Barbara Stark, 3–32. Boulder, CO: University Press of Colorado.
- Gaspa, Salvatore. 2014. "Silver Circulation and the Development of the Private Economy in the Assyrian Empire (9th-7th Centuries BCE)." *Studia Mesopotamica: Jahrbuch für altorientalische Geschichte und Kultur* 1: 85–136.
- Gerardi, Pamela. 1992. "The Arab Campaigns of Ashurbanipal: Scribal Reconstruction of the Past." *State Archives of Assyria Bulletin* 6: 67–103.
- Geva, Hillel. 2003. "Western Jerusalem at the End of the First Temple Period in Light of the Excavations in the Jewish Quarter." In *Jerusalem in Bible and Archaeology: The First Temple Period*, edited by Andrew Vaughn and Ann Killebrew, 183-208. Society of Biblical Literature Symposium Series 18. Leiden: Brill.
- . 2006. "Settlement on the Southwestern Hill of Jerusalem at the End of the Iron Age: A Reconstruction Based on the Archaeological Evidence." *Zeitschrift des Deutschen Palästina-Vereins* 122(2): 140-150.
- Geva, Shulamit. 1980. "A Neo-Assyrian Cylinder Seal from Beth-Shan." *Journal of Ancient Near Eastern Studies* 12: 45–49.
- . 1982. "Archaeological Evidence for the Trade between Israel and Tyre?" *Bulletin of the American Schools of Oriental Research* 248: 69–72.
- Gibbon, Edward. 1776. *The History of the Decline and Fall of the Roman Empire*. Oxford: Pickering.
- Gibson, Shimon, and Gershon Edelstein. 1985. "Investigating Jerusalem's Rural Landscape." *Levant* 17: 139–55.
- Gilboa, Ayelet, and Dvory Namdar. 2015. "On the Beginnings of South Asian Spice Trade with the Mediterranean Region: A Review." *Radiocarbon* 57 (2): 265–83.
- Gitin, Seymour. 1989. "Incense Altars from Ekron, Israel and Judah: Context and Typology." *Eretz-Israel* 20: 52* – 68*.
- . 1995. "Tel Migne Ekron in the 7th Century BCE: The Impact of Economic Innovation and Foreign Culture on a Neo-Assyrian Vassal City-State." In *Recent Excavations in*

- Israel: A View to the West. Reports on Kabri, Nami, Miqne-Ekron, Dor and Ashkelon*, edited by Seymour Gitin, 61–79. Archaeological Institute of America: Colloquia and Conference Papers 1. Dubuque, IA: Kendall/Hunt.
- . 1996. “Tel Miqne-Ekron in the 7th B.C. City Plan Development and the Oil Industry.” In *Olive Oil in Antiquity: Israel and Neighboring Countries from the Neolithic to the Early Arab Period*, edited by David Eitam and Michael Heltzer, 219–42. History of the Ancient Near East Studies, VII. Padova: Sargon srl.
- . 1997. “The Neo-Assyrian Empire and Its Western Periphery: The Levant with a Focus on Philistine Ekron.” In *Assyria 1995: Proceedings of the Tenth Anniversary Symposium of the Neo-Assyrian Text Corpus Project, Helsinki, September 7-11, 1995*, edited by Simo Parpola and R.M. Whiting, 77–103. Helsinki: Neo-Assyrian Text Corpus Project.
- . 1998. “Philistia in Transition: The Tenth Century BCE and Beyond.” In *Mediterranean Peoples in Transition: Thirteenth to Early Tenth Centuries BCE*, edited by Seymour Gitin, Amihai Mazar, and Ephraim Stern, 162–83. Jerusalem: Israel Exploration Society.
- . 2000. “Ekron, A Late Philistine City: The Impact of the Neo-Assyrian Empire in the 7th Century BCE.” In *Proceedings of the First International Congress of the Archaeology of the Ancient Near East*, edited by Paolo Matthiae, 1:561–68. Rome: Università degli studi di Roma “La Sapienza” Dipartimento di scienze storiche archeologiche dell’antichità.
- . 2002. “The Four-Horned Altar and Sacred Space: An Archaeological Perspective.” In *Sacred Time, Sacred Place: Archaeology and Religion of Israel*, edited by Barry M. Gittlen, 95–123. Winona Lake, IN: Eisenbrauns.
- . 2003a. “Israelite and Philistine Cult and the Archaeological Record in the Iron II: The ‘Smoking Gun’ Phenomenon.” In *Symbiosis, Symbolism, and the Power of the Past: Canaan, Ancient Israel, and Their Neighbors from the Late Bronze Age through Roman Palestine*, edited by W.G. Dever and Seymour Gitin, 279–98. Winona Lake, IN: Eisenbrauns.
- . 2003b. “Neo-Assyrian and Egyptian Hegemony over Ekron in the Seventh-Century BCE: A Response to Lawrence E. Stager.” *Eretz-Israel* 27: 55–61.
- . 2009. “The Late Iron Age II Incense Altars from Ashkelon.” In *Exploring the Longue Durée: Essays in Honor of Lawrence E. Stager*, edited by J. David Schloen, 127–36. Winona Lake, IN: Eisenbrauns.
- . 2012. “Temple Complex 650: The Impact of Multi-Cultural Influences on Philistine Cult in the Late Iron Age.” In *Temple Building and Temple Cult: Architecture and Cultic Paraphernalia of Temples in the Levant (2.-1. Mill. B.C.E.)*, edited by Jens Kamlah, 223–58. ADPV 41. Wiesbaden: Harrassowitz.
- Gitin, Seymour, and Trude Dothan. 1987. “The Rise and Fall of Ekron of the Philistines: Recent

- Excavations at an Urban Border Site.” *The Biblical Archaeologist* 50 (4): 197–222.
- Gitin, Seymour, Trude Dothan, and Joseph Naveh. 1997. “A Royal Dedicatory Inscription from Ekron.” *Israel Exploration Journal* 47 (1): 1–16.
- Gitin, Seymour, and Amir Golani. 2001. “The Tel Miqne-Ekron Silver Hoards: The Assyrian and Phoenician Connections.” In *Hacksilver to Coinage: New Insights into the Monetary History of the Near East and Greece*, edited by Miriam Balmuth, 27–48. Numismatic Studies 24. New York: The American Numismatic Society.
- . 2004. “A Silver-Based Monetary Economy in the Seventh Century BCE: A Response to Raz Kletter.” *Levant* 36: 203–5.
- Gledhill, John, and Mogens Trolle Larsen. 1982. “The Polanyi Paradigm and a Dynamic Analysis of Archaic States.” In *Theory and Explanation in Archaeology: The Southampton Conference*. New York: Academic Press.
- Glueck, Nelson. 1939. *Explorations in Eastern Palestine III*. Annual of the American Schools of Oriental Research 18-19.
- . 1993. “Tell El-Kheleifeh.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 3: 867–69.
- Gommans, Jos. 2010. “Empires and Emporia: The Orient in World Historical Space and Time.” *Journal of the Economic and Social History of the Orient* 53: 3–18.
- Gonzalez de Canales, F., L. Serrano, and J. Llopart. 2009. “The Two Phases of Western Phoenician Expansion beyond the Huelva Finds: An Interpretation.” *Ancient West and East* 8 (1): 1–20.
- Grant, Christina Phelps. 2003. *The Syrian Desert: Caravans, Travel and Exploration*. London: Kegan Paul.
- Grayson, A. Kirk. 1980. “Assyria and Babylonia.” *Orientalia* 49 (2): 140–94.
- . 1991. *Assyrian Rulers of the Early First Millennium BC I (1114-859 BC)*. The Royal Inscriptions of Mesopotamia Assyrian Periods 2. Toronto: University of Toronto Press.
- . 1995. “Assyrian Rule of Conquered Territory in Western Asia.” In *Civilizations of the Ancient Near East*, edited by Jack Sasson, 959–68. Peabody, MA: Hendrickson.
- . 1996. *Assyrian Rulers of the Early First Millennium BC II (858-745 BC)*. The Royal Inscriptions of Mesopotamia Assyrian Periods 3. Toronto: University of Toronto Press.
- Grayson, Albert Kirk, and Jamie R. Novotny. 2012. *The Royal Inscriptions of Sennacherib, King of Assyria (704-681 BC), Part 1*. Royal Inscriptions of the Neo-Assyrian Period 3/1.

- Winona Lake, IN: Eisenbrauns.
- . 2014. *The Royal Inscriptions of Sennacherib, King of Assyria (704-681 BC), Part 2. Royal Inscriptions of the Neo-Assyrian Period 3/2*. Winona Lake, IN: Eisenbrauns.
- Greco, Emanuele. 2006. “Greek Colonisation in Southern Italy: A Methodological Essay.” In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetskhladze, G., 1:169–200. Leiden: Brill.
- Greenberg, Moshe. 1997. *Ezekiel 21-37: A New Translation with Introduction and Commentary*. New York: Doubleday.
- Greenberg, Raphael, and Gilad Cinamon. 2006. “Stamped and Incised Jar Handles from Rogem Gannim and Their Implications for the Political Economy of Jerusalem, Late 8th-Early 4th Centuries BCE.” *Tel Aviv*, 229–43.
- . 2011. “Excavations at Rogem Gannim, Jerusalem: Installations of the Iron Age, Persian, Roman and Islamic Periods.” *’Atiqot* 66: 79–106.
- Greene, Elizabeth, Mark L. Lawall, and Mark E. Polzer. 2008. “Inconspicuous Consumption: The Sixth-Century BCE Shipwreck at Pabuc Burnu, Turkey.” *American Journal of Archaeology* 112 (4): 685–711.
- Greene, Elizabeth, Justin Leidwanger, and Harun Ozdas. 2011. “Two Early Archaic Shipwrecks at Kekova Adasi and Kepece Burnu, Turkey.” *The International Journal of Nautical Archaeology* 40 (1): 60–68.
- Greene, Joseph A. 1995. “The Beginnings of Grape Cultivation and Wine Production in Phoenician/Punic North Africa.” In *The Origins and Ancient History of Wine*, edited by Patrick E. McGovern, Stuart J. Fleming, and Solomon H. Katz, 311–22. Luxembourg: Gordon and Breach Publishers.
- Greenhut, Zvi, and Alon De Groot. 2009. *Salvage Excavations at Tel Moza -The Bronze and Iron Age Settlements and Later Occupations*. IAA Reports 39. Jerusalem: Israel Antiquities Authority.
- Grief, Avner. 1989. “Reputation and Coalitions in Medieval Trade: Evidence from Maghribi Traders.” *The Journal of Economic History* 49 (4): 857–82.
- Grigson, Caroline. 2012. “Camels, Copper and Donkeys in the Early Iron Age of the Southern Levant: Timna Revisited.” *Levant* 44 (1): 82–100.
- Groom, Nigel. 1981. *Frankincense and Myrrh: A Study of the Arabian Incense Trade*. New York: Longman.
- Grossman, Gregory. 1963. “Notes for a Theory of the Common Economy.” *Soviet Studies* 15 (2):

101–23.

- Guasch-Jane, Maria Rosa. 2008. *Wine in Ancient Egypt: A Cultural and Analytical Study*. BAR International Series 1851. Oxford: Archaeopress.
- Gunneweg, J., T. Beier, U. Diehl, D. Lambrecht, and H. Mommsen. 1991. “‘Edomite,’ ‘Negebite’ and ‘Midianite’ Pottery from the Negev Desert and Jordan: Instrumental Neutron Activation Analysis.” *Archaeometry* 33 (2): 239–53.
- Gunneweg, J., and H. Mommsen. 1995. “Instrumental Neutron Activation Analysis of Vessels and Cult Objects.” In *Horvat Qitmit: An Edomite Shrine in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 280–86. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series. Tel Aviv: Institute of Archaeology, Tel Aviv University.
- Hadjisavvas, Sophocles. 2003. “The Production and Diffusion of Olive Oil in the Mediterranean, Ca. 1500-500 BC.” In *Sea Routes: Interconnections in the Mediterranean 16th-6th C. BC, Proceedings of the International Symposium Held at Rethymnon, Crete September 29th-October 2nd 2002*, edited by Nicholas Stampolidis and Vassos Karageorghis, 117–23. Athens: University of Crete and the A.G. Leventis Foundation.
- . 2009. “Wine for the Elite, Olive Oil for the Masses: Some Aspects of Early Agricultural Technology in Cyprus.” In *Exploring the Longue Duree: Essays in Honor of Lawrence E. Stager*, edited by J. David Schloen, 305–17. Winona Lake, IN: Eisenbrauns.
- Hadley, Judith M. 1993. “Kuntillet ‘Ajrud: Religious Centre of Desert Way Station?” *Palestine Exploration Quarterly* 125: 115–24.
- Haiman, Mordechai. 1992. “Water Sources and the Iron Age II Settlement Pattern in the Negev Desert.” In *Cura Aquarum in Israel*, edited by Christoph Ohlig, Yehuda Peleg, and Tsvika Tsuk, 23–32. Siegburg.
- . 1994. “The Iron Age II Sites of the Western Negev Highlands.” *Israel Exploration Journal* 44 (1/2): 36–61.
- . 2003. “The 10th Century BC Settlement of the Negev Highlands and Iron Age Rural Palestine.” In *The Rural Landscape of Ancient Israel*, edited by Aren M. Maeir, Shimon Dar, and Ze’ev Safrai, 71–90. Oxford: Archaeopress.
- Hakker-Orion, Dalia. 2007. “The Faunal Remains.” In *Excavations at Kadesh-Barnea (Tell El-Qudierat) 1976-1982*, edited by Rudolf Cohen and Hannah Bernick-Greenberg, 285–302. IAA Reports 34. Jerusalem: Israel Antiquities Authority.
- Hallo, William. 1960. “From Qarqar to Carchemish: Assyria and Israel in the Light of New Discoveries.” *Biblical Archaeologist* 23 (2): 33–61.
- Hallo, William, and William Kelly Simpson. 1998. *The Ancient Near East: A History*. 2nd ed.

- Fort Worth: Harcourt Brace College Publishers.
- Hallo, William, and K. Lawson Younger, eds. 2003. *The Context of Scripture*. 3 vols. Leiden: Brill.
- Hall, Thomas D. 1999. "World Systems and Evolution: An Appraisal." In *World-Systems Theory in Practice: Leadership, Production, and Exchange*, edited by P.N. Kardulias, 1–24. New York: Rowman & Littlefield Publishers Inc.
- Halpern, Baruch. 1991. "Jerusalem and the Lineages in the Seventh Century BCE: Kinship and the Rise of Individual Moral Liability." In *Law and Ideology in Monarchic Israel*, edited by Baruch Halpern and Deborah Hobson, 11–107. *Journal for the Study of the Old Testament Supplement Series* 124. Sheffield: Sheffield Academic Press.
- Hansen, Mogens H. 2006. "Emporion. A Study of the Use and Meaning of the Terms in the Archaic and Classical Periods." In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschkladze, G., 1:1–40. Leiden: Brill.
- Haran, Menahem. 1968. "Observations on the Historical Background of Amos 1:2-2:6." *Israel Exploration Journal* 18 (4): 201–12.
- . 1993. "'Incense Altars' --Are They?." In *Biblical Archaeology Today, 1990. Proceedings of the Second International Congress on Biblical Archaeology (Jerusalem)*, edited by Avraham Biran and Joseph Aviram, 237–47. Jerusalem: Israel Exploration Society.
- Harrell, J.A., and M.D. Lewan. 2002. "Sources of Mummy Bitumen in Ancient Egypt and Palestine." *Archaeometry* 44 (2): 285–93.
- Harris, John S. 1963. "An Introduction to the Study of Personal Ornaments of Precious, Semi-Precious and Imitation Stones Used throughout Biblical History." *The Annual of Leeds University Oriental Society* 4: 49–83.
- Hart, Stephen. 1995. "Area D at Buseirah and Edomite Chronology." In *Trade, Contact, and the Movement of Peoples in the Eastern Mediterranean: Studies in Honor of J. Basil Hennessy*, edited by Stephen Bourke and Jean-Paul Descoedres, 241–64. *Mediterranean Archaeology Supplement* 3. Sydney: Meditarch.
- Hausleiter, Arnulf. 2010. *Neuassyrische Keramik im Kerngebiet Assyriens: Chronologie und Formen*. Abhandlung der Deutschen Orient-Gesellschaft 27. Wiesbaden: Harrassowitz.
- Hausleiter, Arnulf, and Andrzej Reiche, eds. 1999. *Iron Age Pottery in Northern Mesopotamia, Northern Syria and South-Eastern Anatolia*. *Altertumskunde des Vorderen Orients* 10. Münster: Ugarit-Verlag.
- Hausmann. 1997. "מֶרֶ." In *Theological Dictionary of the Old Testament*, edited by G. Johannes

- Botterweck and Helmer Ringgren, 8:557–60. Grand Rapids, MI: Eerdmans.
- Hawkins, J.D. 1982. “The Neo-Hittite States in Syria and Anatolia.” In *The Prehistory of the Balkans and the Middle East and the Aegean World, Tenth to Eighth Centuries BC*, edited by John Boardman, I.E.S. Edwards, N.G.L. Hammond, and E. Sollberger, 2nd ed., 372–441. The Cambridge Ancient History III.1. Cambridge: Cambridge University Press.
- . 1986. “Royal Statements of Ideal Prices: Assyrian, Babylonian, and Hittite.” In *Ancient Anatolia: Aspects of Change and Cultural Development; Essays in Honor of Machteld J. Mellink*, edited by Jeanny Vorys Canby, Edith Porada, Tamara Stech, and Brunilde S. Ridgway, 93–102. Madison WI: University of Wisconsin Press.
- Hayward, Lorna. 1990. “The Origin of the Raw Elephant Ivory Used in Greece and the Aegean during the Late Bronze Age.” *Antiquity* 64: 103–9.
- Heiss, Johann. 2012. “Caravans from South Arabia: Roads and Organization.” In *Camels in Asia and North Africa: Interdisciplinary Perspectives on their Past and Present Significance*, edited by Eva-Maria Knoll and Pamela Burger, 131–40. Österreichische Akademie der Wissen, Philosophisch-Historische Klasse Denkschriften 451. Wien: Oesterreichen Akademie der Wissenschaften.
- Hellwing, Shlomo, and Yitzak Adjeman. 1986. “Animal Bones.” In *Izbet Sartah: An Early Iron Age Site near Rosh Ha’ayin, Israel*, edited by Israel Finkelstein, 141–52. BAR International Series 299. Oxford: B.A.R.
- Heltzer, Michael. 1978. “Eighth Century B.C. Inscriptions from Kalakh (Nimrud).” *Palestine Exploration Quarterly* 110: 3–9.
- . 2000. “Some Questions Concerning the Economic Policy of Josiah, King of Judah.” *Israel Exploration Journal* 50 (1/2): 105–8.
- Hepper, F. Nigel. 1969. “Arabian and African Frankincense Trees.” *The Journal of Egyptian Archaeology* 55: 66–72.
- Herr, Larry G. 2014. “Hebrew, Moabite, and Edomite Seal Scripts.” In “*An Eye for Form*”: *Epigraphic Essays in Honor of Frank Moore Cross*, edited by Jo Ann Hackett and Walter Aufrecht, 187–201. Winona Lake, IN: Eisenbrauns.
- Herrmann, Christian. 2011. “Egyptian Amulets.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 359–96. Winona Lake, IN: Eisenbrauns.
- Herrmann, Georgina, and Stuart Laidlaw. 2009. *Ivories from Nimrud VI: Ivories from the North West Palace (1845-1992)*. Henry Ling, The Dorset Press.
- Herrmann, Virginia. 2011. “Society and Economy under Empire at Iron Age Sam’al (Zincirli

- Höyük, Turkey).” Ph.D., Chicago, IL: University of Chicago.
- Herzog, Ze’ev. 1993. “Tel Beersheba.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 1: 167–73.
- . 1994. “The Beersheba Valley: From Nomadism to Monarchy.” In , edited by Finkelstein, Israel and Na’aman, Nadav, 122–49. Jerusalem: Israel Exploration Society.
- . 2002. “The Fortress Mound at Tel Arad: An Interim Report.” *Tel Aviv* 29: 3–109.
- Hesse, Brian, Deidre Fulton, and Paula Wapnish. 2011. “Animal Remains.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 615–44. Winona Lake, IN: Eisenbrauns.
- Hicks, Frederic. 1994. “Alliance and Intervention in Aztec Imperial Expansion.” In *Factional Competition and Political Development in the New World*, edited by Elizabeth Brumfiel and John W. Fox, 111–16. Cambridge: Cambridge University Press.
- Hirth, Kenneth. 2010. “Finding the Mark in Marketplace: The Organization, Development, and Archaeological Identification of Market Systems.” In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher Garraty and Barbara Stark, 227–48. Boulder, CO: University Press of Colorado.
- Höfner, Maria. 2000. “Appendix: Remarks on Potsherds with Incised South Arabian Letters.” In *Excavations at the City of David 1978-1985, Directed by Yigal Shiloh*, edited by D.T. Ariel, VI:26–28. Qedem 41.
- Hoftijzer, J., and K. Jongeling. 1995. *Dictionary of the North-West Semitic Inscriptions*. 2 vols. Leiden: Brill.
- Holladay, John S. 2001. “Toward a New Paradigmatic Understanding of Long-Distance Trade in the Ancient Near East: From the Middle Bronze II to Early Iron II - A Sketch.” In *The World of the Aramaeans II: Studies in History and Archaeology in Honor of Paul-Eugene Dion*, edited by P.M. Michele Daviau, John W. Wevers, and Michael Weigl, 136–98. Journal for the Study of the Old Testament Supplement Series 325. Sheffield: Sheffield Academic Press.
- . 2006. “Hezekiah’s Tribute: Long Distance Trade and the Wealth of Nations Ca. 1000-600 BC: A New Perspective.” In *Confronting the Past: Archaeological and Historical Essays on Ancient Israel in Honor of William G. Dever*, 309–31. Winona Lake, IN: Eisenbrauns.
- . 2009. “How Much Is That In...? Monetization, Money, and Royal States and Empires.” In *Exploring the Longue Durée: Essays in Honor of Lawrence E. Stager*, edited by J. David Schloen, 207–22. Winona Lake, IN: Eisenbrauns.

- Holloway, Steven. 2002. *Aššur Is King! Aššur Is King! Religion in the Exercise of Power in the Neo-Assyrian Empire*. Culture and History of the Ancient Near East 10. Leiden: Brill.
- Hopkins, D.C. 1983. "The Dynamics of Agriculture in Monarchical Israel." In *Society of Biblical Literature 1983 Seminar Papers*, edited by Kent H. Richards, 177–202. Chico, CA: Scholars Press.
- . 1985. *The Highlands of Canaan: Agriculture Life in the Early Iron Age*. Sheffield: Almond.
- . 1996. "Bare Bones: Putting Flesh on the Economics of Ancient Israel." In *The Origins of the Ancient Israelite States*, edited by V. Fritz, 121–39. Sheffield, England: Sheffield Academic Press.
- Hopkins, Keith. 1980. "Taxes and Trade in the Roman Empire." *The Journal of Roman Studies* 70: 101–25.
- Horden, Peregrine, and Nicholas Purcell. 2000. *The Corrupting Sea: A Study of Mediterranean History*. Malden, MA: Blackwell Publishers.
- Horowitz, Wayne, and Takayoshi Oshima. 2006. *Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times*. Jerusalem: Israel Exploration Society.
- Horwitz, Liora Kolska. 1999. "Faunal Remains: Areas L and M." In *Tel 'Ira: A Stronghold in the Biblical Negev*, edited by Itzhaq Beit-Arieh, 488–94. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 15. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Horwitz, Liora Kolska, Shlomo Hellwing, Omri Lernau, and H. K. Mienis. 2012. "The Faunal Remains and the Function of the Site." In *Kuntillet 'Ajrud (Horvat Teman): An Iron II Religious Site on the Judah-Sinai Border*, edited by Ze'ev Meshel, 327–40. Jerusalem: Israel Exploration Society.
- Horwitz, Liora Kolska, and Steven Rosen. 2005. "A Review of Camel Milking in the Southern Levant." In *The Zooarchaeology of Fats, Oils, Milk, and Dairying*, edited by J. Mulville and A.K. Outram, 121–31. Oxford: Oxbow Books.
- Houtman, C. 1994. *Der Pentateuch: Die Geschichte seiner Erforschung neben einer Auswertung*. Kampen: Kok Pharos.
- . 2000. *Exodus Volume 3: Chapters 20-40*. Historical Commentary on the Old Testament. Leuven: Peeters.
- Hoyland, Robert G. 2001. *Arabia and the Arabs from the Bronze Age to the Coming of Islam*. London: Routledge.

- Humbert, Jean-Baptiste, and Yasser Matar Abu Hassuneh. 2000. "Fouilles d'Anthedon (Blakhiyah)." *Dossiers d'Archéologie* 240: 52–53.
- Humbert, Jean-Baptiste, and Moain Sadeq. 2000. "Fouilles de Blakhiyah-Anthedon." In *Gaza Méditerranéenne: Histoire et Archéologie en Palestine*, edited by Jean-Baptiste Humbert, 105–20. Paris: Éditions Errance.
- Hunt, Robert. 2005. "One-Way Economic Transfers." In *A Handbook of Economic Anthropology*, edited by James G. Carrier, 290–301. Northampton, MA: Edward Elgar.
- Hurvitz, Avi. 1967. "Notes and Observations: The Use of $\psi\psi$ and $\beta\beta$ in the Bible and Its Implications for the Date of P." *Harvard Theological Review* 60: 117–21.
- Iserlis, Mark, and Yifat Thareani. 2011. "Petrographic Analysis." In *Tel 'Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*, edited by Yifat Thareani, 179–87. Annual of the Nelson Glueck School of Biblical Archaeology, VIII. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- Issar, Arie. 1998. "Climate Change and History during the Holocene in the Eastern Mediterranean Region." In *Water, Environment and Society in Times of Climate Change*, edited by Arie Issar and Neville Brown, 113–28. Dordrecht: Kluwer Academic Publishers.
- Jacob, Ronja. 2011. *Kosmetik im Antiken Palästina*. Alter Orient und Altes Testament 389. Münster: Ugarit-Verlag.
- Jaffe, S. 1988. "Climate of Israel." In *The Zoogeography of Israel: The Distribution and Abundance at a Zoogeographical Crossroad*, edited by Y. Yom-Tov and E. Tchernov, 79–94. Monographae Biologicae 62. Dordrecht: Dr W. Junk.
- James, Frances W. 1966. *The Iron Age at Beit Shean: A Study of Levels VI-IV*. Philadelphia: University Museum, University of Pennsylvania.
- James, Peter. 2006. "Dating Late Iron Age Ekron (Tel Miqne)." *Palestine Exploration Quarterly* 138 (2): 85–97.
- Jankowska, N.B. 1969. "Some Problems of the Economy of the Assyrian Empire." In *Ancient Mesopotamia: Socio-Economic History*, edited by I.M. Diakonoff, 253–76. Moscow: Nauka.
- Jennings, Justin. 2006. "Cores, Peripheries, and Regional Realities in Middle Horizon Peru." *Journal of Anthropological Archaeology* 25: 346–70.
- Jensen, Lloyd B. 1963. "Royal Purple of Tyre." *Journal of Near Eastern Studies* 22 (2): 104–18.
- Jigoulov, Vadim. 2007. "The Phoenician City-States of Tyre and Sidon in Ancient Jewish

- Texts.” *Scandinavian Journal of the Old Testament* 21 (1): 73–105.
- Johnston, Alan, and R.E. Jones. 1978. “The ‘SOS’ Amphora.” *The Annual of the British School at Athens* 73: 103–41.
- Jurado, Jesus Fernandez. 2002. “The Tartessian Economy: Mining and Metallurgy.” In *The Phoenicians in Spain: An Archaeological Review of the Eighth-Sixth Centuries BCE*, edited by Marilyn Bierling, 241–62. Winona Lake, IN: Eisenbrauns.
- Jursa, Michael. 2010. *Aspects of the Economic History of Babylonia in the First Millennium BC: Economic Geography, Economic Mentalities, Agriculture, the Use of Money and the Problem of Economic Growth*. Alter Orient und Altes Testament 377. Münster: Ugarit-Verlag.
- Kamlah, Jens. 2003. “Tempel 650 in Ekron und die Stadttempel der Eisenzeit in Palästina.” In *Saxa Loquentur: Studien zur Archäologie Palästinas/Israels. Festschrift für Volkmar Fritz zum 65. Geburtstag*, edited by Cornelis G. den Hertog, Ulrich Hübner, and Stefan Münger, 101–26. Alter Orient und Altes Testament 302. Münster: Ugarit-Verlag.
- Kapera, Zdzislaw. 1976. “The Ashdod Stele of Sargon II.” *Folia Orientalia* 17: 87–99.
- Kaplan, Yehuda. 2008. “Recruitment of Foreign Soldiers into the Neo-Assyrian Army during the Reign of Tiglath-Pileser III.” In *Treasures on Camels’ Humps: Historical and Literary Studies from the Ancient Near East Presented to Israel Eph’al*, edited by Mordecai Cogan and Dan’el Kahn, 135–52. Jerusalem: Magnes Press.
- Kassianidou, Vasiliki. 1993. “The Production of Silver in Monte Romero, a 7th Century BC Workshop in Huelva, Spain.” *Papers from the Institute of Archaeology* 4: 37–47.
- Kataja, L., and R. Whiting. 1995. *Grants, Decrees and Gifts of the Neo-Assyrian Period*. State Archives of Assyria 12. Helsinki: Helsinki University Press.
- Katzenstein, H.J. 1997. *The History of Tyre from the Beginning of the Second Millennium BCE until the Fall of the Neo-Babylonian Empire in 538 BCE*. Jerusalem: Schocken Institute for Jewish Research.
- Katz, Hayah. 2008. “The Ship from Uluburun and the Ship from Tyre: An International Trade Network in the Ancient Near East.” *Zeitschrift des Deutschen Palästina-Vereins* 124 (2): 128–42.
- Kaufman, I.T. 1967. “New Evidence from Hieratic Numerals on Hebrew Weights.” *Bulletin of the American Schools of Oriental Research* 188: 39–41.
- Kaufman, Steven A. 2007. “The Phoenician Inscription of the Incirli Trilingual: A Tentative Reconstruction and Translation.” *Maarav* 14 (1): 7–26.

- Keel, Othmar. 2011. "Seals and Seal Impressions." In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 341–58. Winona Lake, IN: Eisenbrauns.
- Kelm, George, and Amihai Mazar. 1996. "7th Century BCE Oil Presses At Tel Batash, Biblical Timnah." In *Olive Oil in Antiquity: Israel and Neighboring Countries from the Neolithic to the Early Arab Period*, edited by David Eitam and Michael Heltzer, 243–48. History of the Ancient Near East Studies, VII. Padova: Sargon srl.
- Kessler, Karlheinz. 1997. "'Royal Roads' and Other Questions of the Neo-Assyrian Communications System." In *Assyria 1995: Proceedings of the Tenth Anniversary Symposium of the Neo-Assyrian Text Corpus Project, Helsinki, September 7-11, 1995*, edited by Simo Parpola and R.M. Whiting, 129–36. Helsinki: Neo-Assyrian Text Corpus Project.
- King, Philip J., and Lawrence E. Stager. 2001. *Life in Biblical Israel*. Louisville: Westminster John Knox Press.
- Kinnier-Wilson, J.V. 1972. *The Nimrud Wine Lists: A Study of Men and Administration at the Assyrian Capital in the Eighth Century B.C.* London: British School of Archaeology in Iraq.
- Kitchen, Kenneth. 1986. *The Third Intermediate Period in Egypt (1100-650 BC)*. 2nd ed. England: Aris & Phillips Ltd.
- . 1997. "Sheba and Arabia." In *The Age of Solomon: Scholarship at the Turn of the Millennium*, edited by Lowell K. Handy, 126–53. Studies in the History and Culture of the Ancient Near East, XI. Leiden: Brill.
- . 2002. "The Elusive Land of Punt Revisited." In *Trade and Travel in the Red Sea Region*, edited by P. Lunde and A. Porter. Oxford: Archeopress.
- Klein, Jacob. 2014. "From Agade to Samaria: The Inflationary Price of Barley in Situations of Famine." In *Studies in Economic and Social History of the Ancient Near East in Memory of Péter Vargyas*, edited by Zoltan Csabai, 167–80. Ancient Near East and Mediterranean Studies 2. Budapest: L'Harmattan.
- Klemm, Rosemarie, and Dietrich Klemm. 2013. *Gold and Gold Mining in Ancient Egypt and Nubia: Geoarchaeology of the Ancient Gold Mining Sites in the Egyptian and Sudanese Eastern Deserts*. Berlin: Springer.
- Kletter, Raz. 1998. *The Economic Keystones: The Weight System of the Kingdom of Judah*. Journal for the Study of the Old Testament Supplement Series. Sheffield: Sheffield Academic Press.
- . 2004. "Coinage before Coins?: A Response." *Levant* 36: 207–10.

- Kletter, Raz, and Wolfgang Zwickel. 2006. "The Assyrian Building of 'Ayyelet Ha-Sahar.'" *Zeitschrift des Deutschen Palästina-Vereins* 122 (2): 151–86.
- Knauf-Belleri, Ernst-Axel. 1995. "Edom: The Social and Economic History." In *You Shall Not Abhor an Edomite for He Is Your Brother: Edom and Seir in History and Tradition*, edited by Diana Edelman, 93–117. *Archaeology and Biblical Studies* 3. Atlanta, GA: Scholars Press.
- Knauf, Ernst-Axel. 2008. "From Archaeology to History, Bronze and Iron Ages with Special Regard to the Year 1200 B.C.E., and the Tenth Century." In *Israel in Transition: From Late Bronze II to Iron IIA (c.1250-850 B.C.E.)*, edited by Lester Grabbe, I:72–85. New York: T. & T. Clark.
- Koehler, Ludwig, and Walter Baumgartner. 2001. "The Hebrew and Aramaic Lexicon of the Old Testament." In . Leiden: Brill.
- Kogan-Zehavi, Elena. 2005. "An Assyrian Building South of Tel Ashdod." *Qadmoniot*, no. 38: 87–90. (Hebrew).
- . 2008. "Ashdod." *The New Encyclopedia of Archaeological Excavations in the Holy Land* 5: 1573–74.
- Koh, Andrew J., Assaf Yasur-Landau, and Eric Cline. 2014. "Characterizing a Middle Bronze Palatial Wine Cellar from Tel Kabri, Israel." *PLOS One* 9 (8): 1–15.
- Kopytoff, Igor. 1986. "The Cultural Biography of Things: Commoditization as Process." In *The Social Life of Things: Commodities in Cultural Perspectives*, edited by Arjun Appadurai, 64–91. New York: Cambridge University Press.
- Krzyszowska, O.H. 1988. "Ivory in the Aegean Bronze Age: Elephant Tusk or Hippopotamus Ivory?" *The Annual of the British School at Athens* 83: 209–34.
- Ktalav, Inbar, and Oded Borowski. 2010. "Molluscs from Iron Age Tel Halif." *Tel Aviv* 37: 126–35.
- Kühne, Hartmut. 2002. "Thoughts about Assyria after 612 BC." In *Of Pots and Plans. Papers on the Archaeology and History of Mesopotamia and Syria Presented to David Oates in Honour of His 75th Birthday*, edited by Lamia al-Gailani Werr, John Curtis, Harriet Martin, Augusta McMahon, Joan Oates, and Julian Reade, 171–75. London: NABU Publications.
- . 2013. "State and Empire of Assyria in Northeast Syria." In *Archeologie et Histoire de la Syrie I: La Syrie de l'époque Néolithique à l'âge du Fer*, edited by Winifried Orthmann, Paolo Matthiae, and Michel al-Maqdissi, 473–98. Wiesbaden: Harrasowitz.

- Kuhrt, Amelie. 1995. *The Ancient Near East c.3000-330 BC*. New York: Routledge.
- Laato, Antti. 1995. "Assyrian Propaganda and the Falsification of History in the Royal Inscriptions of Sennacherib." *Vetus Testamentum* 45 (2): 198–226.
- Labat, R. 1959. "Le Premier Chapitre d'un Précis Médical Assyrien." *Revue d'Assyriologie* 53: 1–18.
- LaBianca, Oystein. 1990. *Hesban I: Sedentarization and Nomadization, Food System Cycles at Hesban and Vicinity in Transjordan*. Berrien Springs, MI: Andrews University Press.
- Lambert, W.G. 1960. "The Domesticated Camel in the Second Millennium: Evidence from Alalakh and Ugarit." *Bulletin of the American Schools of Oriental Research* 160: 42–43.
- Lanfranchi, G.B. 1997. "Consensus to Empire: Some Aspects of Sargon II's Foreign Policy." In *Assyrien im Wandel der Zeiten*, edited by Hartmut Waetzoldt and Harald Hauptmann, 81–87. Heidelberg Studien zum Alten Orient 6. Heidelberg: Heidelberg Orientverlag.
- . 2000. "The Ideological and Political Impact of Assyrian Imperial Expansion on the Greek World." In *The Heirs of Assyria : Proceedings of the Opening Symposium of the Assyrian and Babylonian Intellectual Heritage Project Held in Tvärminne, Finland, October 8-11, 1998*, edited by Sanna Aro and R.M. Whiting, 7–34. Helsinki: Neo-Assyrian Text Corpus Project.
- . 2003. "The Assyrian Expansion in the Zagros and the Local Ruling Elites." In *Continuity of Empire (?): Assyria, Media, Persia*, edited by G.B. Lanfranchi, Michael Roaf, and Robert Rollinger, 79–118. History of the Ancient Near East Monographs, V. Padova: S.A.R.G.O.N.
- . 2005. "The Luwian-Phoenician Bilingual of Cinekoy and the Annexation of Cilicia to the Assyrian Empire." In *Von Sumer bis Homer: Festschrift für Manfred Schretter Zum 60. Geburtstag am 25. Februar 2004*, edited by Robert Rollinger, 481–96. Alter Orient und Altes Testament 325. Münster: Ugarit-Verlag.
- Lanfranchi, G.B., and Simo Parpola. 1990. *The Correspondence of Sargon II, Part II: Letters from the Northern and Northeastern Provinces*. State Archives of Assyria 5. Helsinki: Helsinki University Press.
- Langgut, Dafna, Israel Finkelstein, and Thomas Litt. 2013. "Climate and the Late Bronze Collapse: New Evidence from the Southern Levant." *Tel Aviv* 40: 149–75.
- Langgut, Dafna, Israel Finkelstein, Thomas Litt, Frank Neumann, and Mordecai Stein. 2015. "Vegetation and Climate Changes during the Bronze and Iron Ages (~3600-600 BCE) in the Southern Levant Based on Palynological Records." *Radiocarbon* 57 (2): 217–35.
- Larsen, Mogens Trolle. 1967. *Old Assyrian Caravan Procedures*. Istanbul: Nederlands

Historisch-Archaeologisch Instituut in het Nabije Oosten.

- . 1979. “The Tradition of Empire in Mesopotamia.” In *Power and Propaganda: A Symposium on Ancient Empires*, edited by Mogens Trolle Larsen, 75–103. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- Lauinger, Jacob. 2013. “The Neo-Assyrian Adê: Treaty, Oath, or Something Else?” *Zeitschrift für altorientalische und biblische Rechtsgeschichte* 19: 99–115.
- Laurence, Ray. 1998. “Land Transport in Roman Italy: Costs, Practice, and the Economy.” In *Trade, Traders and the Ancient City*, edited by Helen Parkins and Christopher Smith, 125–43. New York: Routledge.
- Leemans, W.F. 1960. “The Trade Relations of Babylonia and the Question of Relations with Egypt in the Old Babylonian Period.” *Journal of the Economic and Social History of the Orient* 3 (1): 21–37.
- Lehmann, Gunnar. 2012. “Survival and Reconstruction of Judah in the Time of Manasseh.” In *Disaster and Relief Management. Katastrophen und ihre Bewältigung*, 289–310. Tübingen: Mohr Siebeck.
- Leichty, Erle. 2011. *The Royal Inscriptions of Esarhaddon, King of Assyria*. Royal Inscriptions of the Neo-Assyrian Period 4. Winona Lake, IN: Eisenbrauns.
- Lemaire, A. 1974. “Un Nouveau Roi Arabe de Qédar dans l’inscription de l’autel À Encens de Lakish.” *Revue Biblique*, 63–72.
- . 1977. *Inscriptions Hébraïques, Tome 1: Les Ostraca*. Paris: Les Éditions du Cerf.
- . 1981a. “Classification des Estampilles Royales Judéennes.” *Eretz-Israel* 15: 54–60.
- . 1981b. “Le Pays d’Eden et le Bêt-Adini. Aux Origines d’un Mythe.” *Syria* 58 (3/4): 313–30.
- . 2002. “La Reine de Saba À Jérusalem: La Tradition Ancienne Reconsidérée.” In *Kein Land für sich Allein : Studien zum Kulturkontakt in Kanaan, Israel/Palästina und Ebirnari für Manfred Weippert Zum 65. Geburtstag*, edited by Ulrich Hübner and Ernst-Axel Knauf, 43–55. Göttingen: Vandenhoeck & Ruprecht.
- . 2012. “New Perspectives on the Trade Between Judah and South Arabia.” In *New Inscriptions and Seals Relating to the Biblical World*, edited by Meir Lubetski and Edith Lubetski, 93–110.
- Lernau, Hanan, and Omri Lernau. 1989. “Fish Bone Remains.” In *Excavations in the South of the Temple Mount: The Ophel of Biblical Jerusalem*, edited by Eilat Mazar and Benjamin Mazar, 155–61. Qedem 29. Jerusalem: Institute of Archaeology, Hebrew University of

Jerusalem.

- Lernau, Omri. 2011. "Fish Remains." In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 645–58. Winona Lake, IN: Eisenbrauns.
- Levine, Baruch A. 1993. *Numbers 1-20: A New Translation with Introduction and Commentary*. The Anchor Yale Bible Commentaries 4a. New York: Doubleday.
- Levy, Yosi, and Martin Peilstocker. 2008. "Rishon Le-Ziyyon." *The New Encyclopedia of Archaeological Excavations in the Holy Land* 5: 2020–22.
- Levy, Yosi, Martin Peilstocker, and A. Ginzburg. 2004. "An Iron Age Fortress in the Sand Dunes of Rishon Lezion." *Qadmoniot* 128: 92–94. (Hebrew).
- Lewy, Julius. 1956. "On Some Institutions of the Old Assyrian Empire." *Hebrew Union College Annual* 27: 1–79.
- Liebowitz, Harold. 1977. "Bone and Ivory Inlay from Syria and Palestine." *Israel Exploration Journal* 27: 89–97.
- Lindsay, J. 1976. "The Babylonian Kings and Edom 605-550 BC." *Palestine Exploration Quarterly* 108: 29–39.
- Lipshitz, Nili, and Gideon Biger. 1991. "Cedars of Lebanon ('Cedrus Libani') in Israel during Antiquity." *Israel Exploration Journal* 41 (1): 167–75.
- . 1995. "The Timber Trade in Ancient Palestine." *Tel Aviv* 22: 121–27.
- Lipiński, Edward. 1985. "Products and Brokers of Tyre According to Ezekiel 27." In *Phoenicia and Its Neighbours : Proceedings of the Colloquium Held on the 9th and 10th of December 1983 at the "Vrije Universiteit Brussel", in Cooperation with the "Centrum Voor Myceense en Archaisch-Griekse Cultuur,"* edited by Edward Lipiński and E. Gubel, 213–20. Leuven: Peeters.
- . 1995. "The Phoenicians." In *Civilizations of the Ancient Near East*, edited by Jack Sasson, II:1321–34. New York: Charles Scribner's Sons.
- . 2006. *On the Skirt of Canaan: Historical and Topographical Researches*. *Orientalia Lovaniensia Analecta* 153. Leuven: Peeters.
- Lipschits, O., O. Sergi, and I. Koch. 2010. "Royal Judahite Jar Handles: Reconsidering the Chronology of the *lmlk* Stamp Impressions." *Tel Aviv: Journal of the Institute of Archaeology of Tel Aviv University* 37 (1): 3–32.
- . 2011. "Judahite Stamped and Incised Jar Handles: A Tool for Studying the History of

- Late Monarchic Judah.” *Tel Aviv: Journal of the Institute of Archaeology of Tel Aviv University* 38 (1): 5–41.
- Liverani, Mario. 1979. “The Ideology of the Assyrian Empire.” In *Power and Propaganda: A Symposium on Ancient Empires*, edited by M.T. Larsen, 297–317. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- . 1991. “The Trade Network of Tyre According to Ezek. 27.” In *Ah, Assyria...Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, edited by Mordechai Cogan and Israel Eph‘al, 65–79. Scripta Hierosolymitana 33. Jerusalem: Magnes Press.
- . 1992a. “Early Caravan Trade between South-Arabia and Mesopotamia.” *Yemen* 1: 111–15.
- . 1992b. *Studies on the Annals of Ashurnasirpal II*. Rome.
- . 2003. “The Influence of Political Institutions on Trade in the Ancient Near East (Late Bronze to Early Iron Age).” In *Mercantil e Politica nel Mondo Antico*, edited by C. Zaccagnini, 119–37. Saggi Di Storia Antica 21. Rome: L’Erma di Bretschneider.
- . 2005. “The Near East: The Bronze Age.” In *The Ancient Economy: Evidence and Models*, edited by J.G. Manning and Ian Morris, 47–57. Stanford: Stanford University Press.
- Loud, Gordon. 1936. “An Architectural Formula for Assyrian Planning Based on the Results of Excavations at Khorsabad.” *Revue d’Assyriologie* 33: 153–60.
- Luckenbill, D.D. 1924. *The Annals of Sennacherib*. OIP 2. Chicago: University of Chicago Press.
- Lumsden, Stephen. 2001. “Power and Identity in the Neo-Assyrian World.” In *The Royal Palace Institution in the First Millennium BC: Regional Development and Cultural Interchange between East and West*, edited by Inge Nielsen, 33–51. Monographs of the Danish Institute at Athens 4. Athens: Danish Institute at Athens.
- Luukko, Mikko. 2012. *The Correspondence of Tiglath-Pileser III and Sargon II from Calah/Nimrud*. State Archives of Assyria 19. Helsinki: Helsinki University Press.
- Luukko, Mikko, and Greta Van Buylaere. 2002. *The Political Correspondence of Esarhaddon*. State Archives of Assyria 16. Finland: Neo-Assyrian Text Corpus Project.
- Machinist, Peter. 1993. “Assyrians on Assyria in the First Millennium.” In *Anfänge Politischen Denkens in der Antike: Die Nahöstlichen Kulturen und die Griechen*, edited by K.A. Raaflaub. Schriften Des Historischen Kollegs 24. München: R. Oldenbourg Verlag.

- Maeir, Aren M. 2002. "The Relations between Egypt and the Southern Levant during the Late Iron Age: The Material Evidence from Egypt." *Agypten und Levante* 12: 235–46.
- Magee, Peter. 2014. "When, and for What Purpose, Were Camels Used for Overland Trade in the Ancient Near East." In . San Diego, CA.
- Malbran-Labat, Florence. 1982. *L'Armée et l'organisation Militaire de l'Assyrie: D'Après les Lettres des Sargonides Trouvées À Ninive*. Hautes Études Orientales 19. Geneva: Librairie Droz.
- Malul, Meir. 1996. "The Olive Tree and Its Products in Ancient Mesopotamia." In *Olive Oil in Antiquity: Israel and Neighboring Countries from the Neolithic to the Early Arab Period*, edited by David Eitam and Michael Heltzer, 91–100. History of the Ancient Near East Studies, VII. Padova: Sargon srl.
- Manitius, W. 1910. "The Army and Military Organization of the Assyrian Kings." *Zeitschrift für Assyriologie* 24: 90–107.
- Manuelli, Federico. 2009. "Assyria and the Provinces: Survival of Local Features and Imposition of New Patterns in the Peripheral Regions of the Empire." *Mesopotamia* 54: 113–27.
- Markoe, Glenn. 1985. *Phoenician Bronze and Silver Bowls from Cyprus and the Mediterranean*. Berkeley, CA: University of California Press.
- . 2000. *The Phoenicians*. Berkeley: University of California Press.
- . 2003. "Phoenician Metalwork Abroad: A Question of Export or On-Site Production." In *Sea Routes: Interconnections in the Mediterranean 16th-6th C. BC, Proceedings of the International Symposium Held at Rethymnon, Crete September 29th-October 2nd 2002*, edited by Nicholas Stampolidis and Vassos Karageorghis, 209–16. Athens: University of Crete and the A.G. Leventis Foundation.
- Martin, W.J. 1936. *Tribut und Tributleistungen bei den Assyrern*. Helsinki: Druckerei der Finnischen litteraturgesellschaft.
- Marzano, A. 2011. "Snails, Wine, and Winter Navigation." In *Maritime Technology in the Ancient Economy: Ship-Design and Navigation*, edited by W.V. Harris and K. Iara, 179–87. Portsmouth, RI: Journal of Roman Archaeology.
- Master, Daniel M. 2003. "Trade and Politics: Ashkelon's Balancing Act in the Seventh Century BCE." *Bulletin of the American Schools of Oriental Research* 330: 47–64.
- . 2009. "From the Buqe'ah to Ashkelon." In *Exploring the Longue Durée: Essays in Honor of Lawrence E. Stager*, edited by J. David Schloen, 305–17. Winona Lake, IN: Eisenbrauns.

- . 2014. “Economy and Exchange in the Iron Age Kingdoms of the Southern Levant.” *Bulletin of the American Schools of Oriental Research* 372: 81–97.
- Master, Daniel M., and Lawrence E. Stager. 2011. “Conclusion.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 737–40. Winona Lake, IN: Eisenbrauns.
- Matthews, J.F. 1984. “The Tax Law of Palmyra: Evidence for Economic History in a City of the Roman East.” *The Journal of Roman Studies* 74: 157–80.
- Mattingly, G. L. 1980. “Neo-Assyrian Influence at Tell Jemmeh.” *Near East Archaeological Society Bulletin*, 15–16.
- Mazar, A., and S. Ahituv. 2011. “Tel Rehov in the Assyrian Period: Squatters, Burials, and a Hebrew Seal.” In *The Fire Signals of Lachish: Studies in Archaeology and History of Israel in the Late Bronze Age, Iron Age, and Persian Period in Honor of David Ussishkin*, edited by Israel Finkelstein and Nadav Na’aman, 265–80. Winona Lake, IN: Eisenbrauns.
- Mazar, Amihai. 1982. “Iron Age Fortresses in the Judean Hills.” *Palestine Exploration Quarterly* 114: 87–109.
- . 1992. *Archaeology of the Land of the Bible, 10,000-586 B.C.E.* New York: Doubleday.
- . 2005. “The Debate over the Chronology of the Iron Age in the Southern Levant: Its History, the Current Situation, and a Suggested Resolution.” In *The Bible and Radiocarbon Dating: Archaeology, Text, and Science*, edited by Thomas Levy and Thomas Higham, 13–28. London: Equinox.
- Mazar, Amihai, and Nava Panitz-Cohen. 2001. *Timnah (Tel Batash)*. Vol. II. Qedem 42. Jerusalem: The Hebrew University.
- Mazar, Benjamin. 1986. “The Philistines and the Rise of Israel and Tyre.” In *The Early Biblical Period Historical Studies*, edited by S. Ahituv and Baruch Levine, 63–82. Jerusalem: Israel Exploration Society.
- . 1993. “En Gedi.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2: 399–405.
- . 2007. “History of the Oasis of En-Gedi.” In *En-Gedi Excavations I*, edited by Ephraim Stern, 1–13. Jerusalem: Israel Exploration Society.
- Mazar, Eilat. 1985. “Edomite Pottery at the End of the Iron Age.” *Israel Exploration Journal* 35 (4): 253–69.
- McGovern, Patrick E. 2003. *Ancient Wine: The Search for the Origins of Viniculture*. Princeton:

Princeton University Press.

- Meiggs, Russell. 1982. *Trees and Timber in the Ancient Mediterranean World*. Oxford: Clarendon Press.
- Melville, Sarah. 2010. "Kings of Tabal: Politics, Competition, and Conflict in a Contested Periphery." In *Rebellions and Peripheries in the Cuneiform World*, edited by Seth F. Richardson, 85–107. American Oriental Series 91. New Haven, CT: American Oriental Society.
- Menard, Claude, and Mary Shirley. 2005. "Introduction." In *Handbook of New Institutional Economics*, edited by Claude Menard and Mary Shirley, 1–20. Springer.
- Meshel, Ze'ev. 1993. "Horvat Teman." *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1458–64.
- . 2012. *Kuntillet 'Ajrud (Horvat Teman): An Iron Age II Religious Site on the Judah-Sinai Border*. Jerusalem: Israel Exploration Society.
- Meshel, Ze'ev, Israel Carmi, and Dror Segal. 1995. "C14 Dating of an Israelite Biblical Site at Kuntillet 'Ajrud (Horvat Teman)." *Radiocarbon* 37 (2): 205–12.
- Michel, R.H., and Patrick E. McGovern. 1987. "The Chemical Processing of Royal Purple Dye: Ancient Descriptions Elucidated by Modern Science." *Archeomaterials* 1 (2): 135–43.
- Mienis, H. K. 1992. "Molluscs." In *Excavations at the City of David 1978-1985, Directed by Yigal Shiloh*, III:122–30. Qedem 33. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- . 2012. "Shells." In *Kuntillet 'Ajrud (Horvat Teman): An Iron II Religious Site on the Judah-Sinai Border*, edited by Ze'ev Meshel, 332. Jerusalem: Israel Exploration Society.
- Miglio, Adam E. 2014. *Tribe and State: The Dynamics of International Politics and the Reign of Zimri-Lim*. Gorgias Studies in the Ancient Near East 8. Piscataway, NJ: Gorgias Press.
- Milgrom, Jacob. 1991. *Leviticus 1-16: A New Translation with Introduction and Commentary*. The Anchor Yale Bible Commentaries 3. New York: Doubleday.
- Millard, Alan. 1962. "Ezekiel XXVII 19: The Wine Trade of Damascus." *Journal of Semitic Studies* 7 (2): 201–3.
- . 1991. "Large Numbers in Assyrian Royal Inscriptions." In *Ah, Assyria...Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, edited by Mordechai Cogan and Israel Eph'al, 213–21. Scripta Hierosolymitana 33. Jerusalem: Magnes Press.

- . 1993. “Eden, Bit Adini and Beth Eden.” *Eretz-Israel*, 173–77.
- Millar, Fergus. 1998. “Caravan Cities: The Roman Near East and Long-Distance Trade by Land.” *Bulletin of the Institute of Classical Studies* 42: 119–37.
- Miller, Daniel. 2009. “Objectives and Consequences of the Neo-Assyrian Imperial Exercise.” *Religion and Theology* 16: 124–49.
- Miller, Robert. 1986. “Elephants, Ivory, and Charcoal: An Ecological Perspective.” *Bulletin of the American Schools of Oriental Research* 264: 29–43.
- Mittman, Siegfried. 1993. “‘Gib den Kittäern 3 B(at) Wein’: Mengen und Güter in den Arad-Briefen.” *Zeitschrift des Deutschen Palästina-Vereins* 109 (1): 39–48.
- Momrak, Kristoffer. 2005. “The Phoenicians in the Mediterranean: Trade, Interaction and Cultural Transfer.” *Altorientalische Forschungen* 32 (1): 168–81.
- Monroe, Christopher M. 2009. *Scales of Fate: Trade, Tradition, and Transformation in the Eastern Mediterranean Ca. 1350-1175 BCE*. *Alter Orient und Altes Testament* 357. Münster: Ugarit-Verlag.
- Montgomery, James A., and Henry Snyder Gehmann. 1951. *The Book of Kings*. International Critical Commentary. Edinburgh: T. & T. Clark.
- Moorey, P.R.S. 1994. *Ancient Mesopotamian Materials and Industries*. Oxford: Clarendon Press.
- Moran, William. 1992. *The Amarna Letters*. Baltimore, MD: Johns Hopkins University Press.
- Morris, Ian. 2007. “Early Iron Age Greece.” In *The Cambridge Economic History of the Greco-Roman World*, edited by Walter Scheidel, Ian Morris, and Richard Saller, 211–41. Cambridge: Cambridge University Press.
- . 2009. “The Eighth-Century Revolution.” In *A Companion to Archaic Greece*, edited by K.A. Raaflaub and H. van Wees, 64–80. Wiley-Blackwell.
- Moscatti, S. 1995. “Introduction.” In *La Civilization Phénicienne et Punique: Manuel de Recherche*, edited by Veronique Krings, 1–15. New York: Brill.
- Motro, Hadas. 2011. “Archaeozoological Analysis of the Faunal Remains.” In *Tel 'Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*, edited by Yifat Thareani, 265–97. *Annual of the Nelson Glueck School of Biblical Archaeology*, VIII. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- Muhly, James D. 1985. “Sources of Tin and the Beginnings of Bronze Metallurgy.” *American Journal of Archaeology* 89 (2): 275–91.

- . 1998. “Tin, Copper, Silver and Iron: The Search for Metallic Ores as an Incentive for Foreign Expansion.” In *Mediterranean Peoples in Transition: Thirteenth to Early Tenth Centuries BCE*, edited by Seymour Gitin, Amihai Mazar, and Ephraim Stern, 314–31. Jerusalem: Israel Exploration Society.
- . 2003. “Trade in Metals in the Late Bronze Age and the Iron Age.” In *Sea Routes: Interconnections in the Mediterranean 16th-6th C. BC, Proceedings of the International Symposium Held at Rethymnon, Crete September 29th-October 2nd 2002*, edited by Nicholas Stampolidis and Vassos Karageorghis, 141–50. Athens: University of Crete and the A.G. Leventis Foundation.
- Mulder, Martin J. 1998. *1 Kings, Volume 1. 1 Kings 1-11*. Historical Commentary on the Old Testament. Leuven: Peeters.
- Müller, Gerfrid. 1997. “Gedanken zur neuassyrischen ‘Geldwirtschaft.’” In *Assyrien im Wandel der Zeiten*, edited by Hartmut Waetzoldt and Harald Hauptmann, 115–21. Heidelberg: Heidelberg Studien zum Alten Orient 6. Heidelberg: Heidelberg Orientverlag.
- Mumford, Gregory. 1998. “International Relations between Egypt, Sinai, and Syria-Palestine during the Late Bronze Age to Early Persian Period (Dynasties 18-26: C. 1550-525 BC): A Spatial and Temporal Analysis of the Distribution and Proportions of Egyptian(izing) Artefacts and Pottery in Sinai and Selected Sites in Syria-Palestine.” Ph.D., Toronto: University of Toronto.
- Murphy, Roland E. 1990. *The Song of Songs*. Hermeneia: A Critical and Historical Commentary on the Bible. Minneapolis: Fortress Press.
- Na’aman, Nadav. 1979a. “Sennacherib’s Campaign to Judah and the Date of the LMLK Stamps.” *Vetus Testamentum* XXIX (1): 61–86.
- . 1979b. “The Brook of Egypt and Assyrian Policy on the Border of Egypt.” *Tel Aviv* 6: 68–90.
- . 1986. “Hezekiah’s Fortified Cities and the ‘LMLK’ Stamps.” *Bulletin of the American Schools of Oriental Research* 261: 5–21.
- . 1987. “The Negev in the Last Century of the Kingdom of Judah.” *Cathedra* 42: 3–15. (Hebrew).
- . 1991a. “Forced Participation in Alliances in the Course of the Assyrian Campaigns to the West.” In *Ah, Assyria...Studies in Assyrian History and Ancient Near Eastern Historiography Presented to Hayim Tadmor*, XXXIII:80–98. Scripta Hierosolymitana. Jerusalem: Magnes Press.
- . 1991b. “The Kingdom of Judah under Josiah.” *Tel Aviv* 18: 3–71.

- . 1995. “Province System and Settlement Pattern in Southern Syria and Palestine in the Neo-Assyrian Period.” In *Neo-Assyrian Geography*, edited by Mario Liverani, 103–15. Rome.
- . 1998. “Two Notes on the History of Ashkelon and Ekron in the Late Eighth-Seventh Centuries BCE.” *Tel Aviv* 25: 219–27.
- . 2001. “An Assyrian Residence at Ramat Rahel?” *Tel Aviv* 28: 260–80.
- . 2003. “Ekron under the Assyrian and Egyptian Empires.” *Bulletin of the American Schools of Oriental Research* 332: 81–91.
- . 2008. “When and How did Jerusalem Become a Great City? The Rise of Jerusalem as Judah’s Premier City in the Eighth-Seventh Centuries B.C.E.” *Bulletin of the American Schools of Oriental Research* 347: 21–56.
- . 2008. “The Suhu Governors’ Inscriptions in the Context of Mesopotamian Royal Inscriptions.” In *Treasures on Camels’ Humps: Historical and Literary Studies from the Ancient Near East Presented to Israel Eph’al*, edited by Mordecai Cogan and Dan’el Kahn, 221–36. Jerusalem: Magnes Press.
- . 2009. “Ashkelon Under the Assyrian Empire.” In *Exploring the Longue Durée: Essays in Honor of Lawrence E. Stager*, edited by J. David Schloen, 351–59. Winona Lake, IN: Eisenbrauns.
- . 2014. “Dismissing the Myth of a Flood of Israelite Refugees in the Late Eighth Century BCE.” *Zeitschrift für die alttestamentliche Wissenschaft* 126 (1): 1–14.
- Na’aman, Nadav, and Yifat Thareani-Sussely. 2006. “Dating the Appearance of Imitations of Assyrian Ware in Southern Palestine.” *Tel Aviv* 33: 60–82.
- Na’aman, Nadav, and Ran Zadok. 2000. “Assyrian Deportations to the Province of Samerina in the Light of Two Cuneiform Tablets from Tel Hadid.” *Tel Aviv* 27: 159–88.
- Nadelman, Yonatan. 1990. “‘Chiseled’ Inscriptions and Markings on Pottery Vessels from the Iron Age II (Discussion and Catalogue).” *Israel Exploration Journal* 40 (1): 31–41.
- Namdar, Dvory, Ayelet Gilboa, Ronny Neumann, Israel Finkelstein, and Steve Weiner. 2013. “Cinnamaldehyde in Early Iron Age Phoenician Flasks Raises the Possibility of Levantine Trade with South East Asia.” *Mediterranean Archaeology and Archaeometry* 12 (3): 1–19.
- Nam, Roger. 2012. *Portrayals of Economic Exchange in the Book of Kings*. Leiden: Brill.
- Naveh, Joseph. 1966. “The Scripts of Two Ostraca from Elath.” *Bulletin of the American Schools*

- of Oriental Research* 183: 27–30.
- . 2001. “A Sixth Century BCE Edomite Seal from ’En-Hazeva.” *’Atiqot* 42: 197–98.
- . 2011. “An Edomite Inscription.” In *Tel ’Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*, edited by Yifat Thareani, 227. Annual of the Nelson Glueck School of Biblical Archaeology, VIII. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- Negueruela, I., J. Pinedo, M. Gomez, A. Minano, I. Arellano, and J.S. Barba. 1995. “Seventh-Century BC Phoenician Vessel Discovered at Playa de La Isla, Mazarron, Spain.” *The International Journal of Nautical Archaeology* 24 (3): 189–97.
- Neumann, Frank, Christian Schölzel, Thomas Litt, Andreas Hense, and Mordecai Stein. 2007. “Holocene Vegetation and Climate History of the Northern Golan Heights.” *Vegetation History and Archaeobotany* 16: 329–46.
- Neville, Ann. 2007. *Mountains of Silver and Rivers of Gold: The Phoenicians in Iberia*. Oxford: Oxbow Books.
- Niehr. 2003. “פרש.” In *Theological Dictionary of the Old Testament*, edited by G. Johannes Botterweck and Helmer Ringgren, 12:124–28. Grand Rapids, MI: Eerdmans.
- Nielsen, Kjeld. 1986. *Incense in Ancient Israel*. Supplements to Vetus Testamentum, XXXVIII. Leiden: Brill.
- Niemeyer, Hans Georg. 1995. “Expansion et Colonisation.” In *La Civilization Phénicienne et Punique: Manuel de Recherche*, edited by Veronique Krings, 247–67. New York: Brill.
- . 2000. “The Early Phoenician City-States on the Mediterranean. Archaeological Elements for Their Description.” In *A Comparative Study of Thirty City-State Cultures: An Investigation Conducted by the Copenhagen Polis Centre*, edited by Mogens Herman Hansen, 89–116. Copenhagen: The Royal Danish Academy of Sciences and Letters.
- . 2004. “The Phoenicians and the Birth of Multinational Mediterranean Society.” In *Commerce and Monetary Systems in the Ancient World: Means of Transmission and Cultural Interaction*, edited by Robert Rollinger and Christopher Ulf, 245–56. *Oriens et Occidens* 6. München: Franz Steiner Verlag.
- . 2006. “The Phoenicians in the Mediterranean. Between Expansion and Colonisation: A Non-Greek Model of Overseas Settlement and Presence.” In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschladze, G., 1:143–68. Leiden: Brill.
- Niemeyer, Hans Georg, and H. Schubart. 1975. *Trayamar: Die Phönizischen Kammergräber unter die Niederlassung an der Algarrobo-Mündung*. Madrider Beiträge 4. Mainz am

- Rhein: P. von Zabern.
- Nissenbaum, Arie. 1993. "The Dead Sea -- An Economic Resource for 10000 Years." *Hydrobiologia* 267: 127–41.
- North, Douglass. 1990. *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.
- . 1991. "Institutions." *The Journal of Economic Perspectives* 5 (1): 97–112.
- . 1998. "Economic Performance through Time." In *International Agricultural Development*, edited by Carl K. Eicher and John M. Staatz, 3rd ed., 78–90. Baltimore, MD: Johns Hopkins University Press.
- Nunn, A. 1928. "Purpur." In *Reallexicon der Assyriologie und Vorderasiatischen Archäologie*, edited by Erich Ebeling and Bruno Meissne, 5:115–16. Berlin: Walter de Gruyter.
- Oded, Bustanay. 1970. "Observations on Methods of Assyrian Rule in Transjordan after the Palestinian Campaign of Tiglath-Pileser III." *Journal of Near Eastern Studies* 29 (3): 177–86.
- . 1974. "The Phoenician Cities and the Assyrian Empire in the Time of Tiglath-Pileser III." *Zeitschrift des Deutschen Palästina-Vereins* 90 (1): 38–49.
- . 1979. *Mass Deportations and Deportees in the Neo-Assyrian Empire*. Wiesbaden: Dr. Ludwig Reichert Verlag.
- . 1992. *War, Peace, and Empire: Justifications for War in Assyrian Royal Inscriptions*. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Ofer, Avi. 1994. "'All the Hill Country of Judah': From a Settlement Fringe to a Prosperous Monarchy." In , edited by Israel Finkelstein and Nadav Na'aman, 92–121. Jerusalem: Israel Exploration Society.
- . 2001. "The Monarchic Period in the Judean Highland: A Spatial Overview." In *Studies in the Archaeology of the Iron Age in Israel and Jordan*, edited by Amihai Mazar, 14–37. Journal for the Study of the Old Testament Supplement Series 331. Sheffield: Sheffield Academic Press.
- Olivier, J.P.J. 1994. "Money Matters: Some Remarks on the Economic Situation in the Kingdom of Judah during the Seventh Century B.C." *Biblische Notizen* 73: 90–100.
- Olmstead, A.T. 1923. *History of Assyria*. New York: Charles Scribner's Sons.
- Oren, E. D. 1982. "Ziglag: A Biblical City on the Edge of the Negev." *The Biblical Archaeologist* 45 (3): 155–66.

- . 1993a. “Ethnicity and Regional Archaeology: The Western Negev under Assyrian Rule.” In *Biblical Archaeology Today, 1990. Proceedings of the Second International Congress on Biblical Archaeology (Jerusalem)*, edited by Avraham Biran and Joseph Aviram, 102–5. Israel Exploration Society.
- . 1993b. “Ruqeish.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1293–94.
- . 1993c. “Tel Haror.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2: 580–84.
- Oren, E. D., Martha A. Morrison, and Itzhak Gilead. 1986. “Land of Gerar Expedition: Preliminary Report for the Seasons of 1982 and 1983.” *Bulletin of the American Schools of Oriental Research, Supplementary Studies* 24: 57–87.
- Oren, E. D., and E. Netzer. 1993. “Tel Sera’.” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 4: 1329–35.
- Ornan, Tallay. 1997. “Mesopotamian Influence on the Glyphic of Israel and Jordan in the First Millennium BC.” Ph.D., Jerusalem: Hebrew University.
- . 2001. “Ištar as Depicted on Finds from Israel.” In *Studies in the Archaeology of the Iron Age in Israel and Jordan*, edited by Amihai Mazar, 235–56. *Journal for the Study of the Old Testament Supplement Series* 331. Sheffield: Sheffield Academic Press.
- . 2003. “On the Dating of Some Middle Assyrian Cylinder Seals.” *NABU*, no. 3: 71–73.
- Ornan, Tallay, Steven Ortiz, and Samuel Wolff. 2013. “A Newly Discovered Neo-Assyrian Cylinder Seal from Gezer in Context.” *Israel Exploration Journal* 63 (1): 6–25.
- Ornan, Tallay, and Benjamin Sass. 1992. “A Product of Cultural Interaction: The Seal of Nergal-Sallim.” *The Israel Museum Journal* 10: 63–66.
- Osborne, Robin. 1996. “Pots, Trade and the Archaic Greek Economy.” *Antiquity* 70: 31–44.
- . 1997. “Early Greek Colonization? The Nature of Greek Settlement in the West.” In *Archaic Greece: New Approaches and New Evidence*, 251–69. London: Duckworth.
- . 2004. “Homer’s Society.” In *Cambridge Companion to Homer*, edited by Robert Fowler, 206–19. Cambridge: Cambridge University Press.
- . 2007. “Archaic Greece.” In *The Cambridge Economic History of the Greco-Roman World*, edited by Walter Scheidel, Ian Morris, and Richard Saller, 277–301. Cambridge: Cambridge University Press.

- . 2009. *Greece in the Making 1200-479 BCE*. 2nd ed. Routledge History of the Ancient World. New York: Routledge.
- Otzen, Benedikt. 1979. "Israel under the Assyrians." In *Power and Propaganda: A Symposium on Ancient Empires*, edited by Mogens Trolle Larsen, 251–61. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- Papadopoulos, J.K. 1996. "Dark Age Greece." In *The Oxford Companion to Archaeology*, edited by B.M. Fagan, 253–55. Oxford: Oxford University Press.
- Pappa, Eleftheria. 2013. *Early Iron Age Exchange in the West: Phoenicians in the Mediterranean and the Atlantic*. Ancient Near Eastern Studies Supplement 43. Leuven: Peeters.
- Parchami, Ali. 2009. *Hegemonic Peace and Empire: The Pax Romana, Britannica, and Americana*. New York: Routledge.
- Parker, A.J. 1990. "The Pattern of Commerce as Evidenced by Shipwrecks." In *Le Commerce Maritime Romain en Méditerranée Occidentale*, 147–68. PACT 27. Strasbourg: Conseil de l'Europe.
- . 1992. *Ancient Shipwrecks of the Mediterranean and the Roman Provinces*. BAR International Series 580. Oxford: Archaeopress.
- . 2008. "Artifact Distribution and Wreck Locations: The Archaeology of Roman Commerce." *Memoirs of the American Academy in Rome. Supplementary Volumes* 6: 177–96.
- Parker, Barbara. 1961. "Administrative Tablets from the North-West Palace, Nimrud." *Iraq* 23 (1): 15–67.
- Parker, Bradley J. 1997. "Garrisoning the Empire: Aspects of the Construction and Maintenance of Forts on the Assyrian Frontier." *Iraq* 59: 77–87.
- . 2001. *The Mechanics of Empire: The Northern Frontier of Assyria as a Case Study in Imperial Dynamics*. Helsinki: The Neo-Assyrian Text Corpus Project.
- . 2003. "Archaeological Manifestations of Empire: Assyria's Imprint on Southeastern Anatolia." *American Journal of Archaeology* 107 (4): 525–57.
- . 2011. "The Construction and Performance of Kingship in the Neo-Assyrian Empire." *Journal of Anthropological Research* 67: 357–86.
- Park, Seong Hyun. 2009. "A Morphometric Approach to the Classification and Sequencing of the Iron II Pottery of Tel Ashkelon, Israel." Ph.D., Cambridge, MA: Harvard University.

- Parpola, Simo. 1987. *The Correspondence of Sargon II, Part I: Letters from Assyria and the West*. State Archives of Assyria 1. Helsinki: Helsinki University Press.
- Parpola, Simo, and Kazuko Watanabe. 1988. *Neo-Assyrian Treaties and Loyalty Oaths*. State Archives of Assyria 2. Finland: Neo-Assyrian Text Corpus Project.
- Parr, Peter. 1988. "Pottery of the Late Second Millennium BCE from West Arabia and Its Historical Implications." In *Araby the Blest*, edited by Dan T. Potts, 73–89. Copenhagen.
- . 1989. "Aspects of the Archaeology of North-West Arabia in the First Millennium BC." In *L'Arabie Préislamique et son Environnement Historique et Culturel*, edited by T. Fahd, 39–66. Université Des Sciences Humaines de Strasbourg: Travaux Du Centre de Recherche Sur Le Proche-Orient et La Grèce Antiques 10. Leiden: Brill.
- Parsons, Stephen. 2003. "The Olive Oil Industry: Its Practice and Impact in Iron Age Israel (1200-332 BCE)." Fort Worth: Southwestern Baptist Theological Seminary.
- Paterson, Jeremy. 1998. "Trade and Traders in the Roman World: Scale, Structure and Organization." In *Trade, Traders and the Ancient City*, edited by Helen Parkins and Christopher Smith, 149–67. New York: Routledge.
- Paul, Shalom. 2012. *Isaiah 40-66: Translation and Commentary*. Eerdmans Critical Commentary. Grand Rapids, MI: Eerdmans.
- Peacock, M. 2011. "Rehabilitating Homer's Phoenicians: On Some Ancient and Modern Prejudices against Trade." *Ancient Society* 41: 1–29.
- Pečirková, Jana. 1987. "The Administrative Methods of Assyrian Imperialism." *Archiv Orientální* 55: 162–75.
- Penhallurick, R.D. 1986. *Tin in Antiquity*. London: The Institute of Metals.
- Petrie, Flinders. 1928. *Gerar*. London: British School of Archaeology in Egypt.
- Piepkorn, Arthur C. 1933. *Historical Prism Inscriptions of Ashurbanipal I: Editions E, B1-5, D, and K*. Assyriological Studies 5. Chicago: University of Chicago Press.
- Polanyi, Karl. 1944. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.
- . 1957. "The Economy as Instituted Process." In *Trade and Market in the Early Empires*, edited by Karl Polanyi, Arensberg, Conrad, and Pearson, Harry, 243–69. Glencoe, Illinois: The Free Press.
- Pommerening, Tanja. 2005. *Die Altägyptischen Hohlmasse*. Studien zur altägyptischen Kultur Beihefte 10. Hamburg: Helmut Buske.

- Pope, Marvin. 1977. *Song of Songs*. The Anchor Yale Bible Commentaries 7C. New York: Doubleday.
- Porada, Edith. 1948. *Corpus of the Near Eastern Seals in North American Collections I: The Pierpont Morgan Library*. Washington.
- Postgate, J.N. 1974. *Taxation and Conscription in the Assyrian Empire*. Rome: Biblical Institute Press.
- . 1979. “The Economic Structure of the Assyrian Empire.” In *Power and Propaganda: A Symposium on Ancient Empires*, edited by M.T. Larsen, 193–222. Mesopotamia: Copenhagen Studies in Assyriology 7. Copenhagen: Akademisk Forlag.
- . 1987. “Employer, Employee and Employment in the Neo-Assyrian Empire.” In *Labor in the Ancient Near East*, edited by Marvin Powell, 257–70. American Oriental Series 68. New Haven, CT: American Oriental Society.
- . 1992. “Trees and Timber in the Assyrian Texts.” In *Trees and Timber in Mesopotamia*, 177–92. Bulletin on Sumerian Agriculture, VI. Cambridge: Aris and Phillips Ltd.
- Powell, Barry. 2004. *Homer*. Blackwell Introductions to the Classical World. Malden, MA: Blackwell.
- Powell, Marvin. 1992. “Weights and Measures.” *Anchor Bible Dictionary*. New York: Doubleday.
- . 1995. “Wine and the Vine in Ancient Mesopotamia: The Cuneiform Evidence.” In *The Origins and Ancient History of Wine*, edited by Patrick E. McGovern, Stuart J. Fleming, and Solomon H. Katz, 311–22. Luxembourg: Gordon and Breach Publishers.
- . 1996. “Money in Mesopotamia.” *Journal of the Economic and Social History of the Orient* 39 (3): 224–42.
- Pratico, Gary D. 1993. *Nelson Glueck’s 1938-1940 Excavations at Tell El-Kheleifeh: A Reappraisal*. American Schools of Oriental Research Archaeological Reports 3. Atlanta, GA: Scholars Press.
- Pritchard, James B. 1964. *Winery, Defenses, and Soundings at Gibeon*. Museum Monographs. Philadelphia, PA: The University Museum of the University of Pennsylvania.
- . 1978. *Recovering Sarepta, A Phoenician City*. Princeton, NJ: Princeton University Press.
- Prop, William. 2006. *Exodus 19-40*. Vol. 2a. The Anchor Yale Bible Commentaries. New York: Doubleday.

- Pryor, Frederic L. 1977. *The Origins of the Economy: A Comparative Study of Distribution in Primitive and Peasant Economies*. New York: Academic Press.
- . 2005. *Economic Systems of Foraging, Agriculture, and Industrial Societies*. Cambridge: Cambridge University Press.
- Purcell, Nicholas. 2003. “The Boundless Sea of Unlikeness? On Defining the Mediterranean.” *Mediterranean Historical Review* 18 (2): 9–29.
- Raaflaub, K.A. 2006. “Historical Approaches to Homer.” In *Ancient Greece: From Mycenaean Palaces to the Age of Homer*, edited by Sigrid Deger-Jalkotzy and Irene S. Lemos, 449–64. Edinburgh Leventis Studies 3. Edinburgh: Edinburgh University Press.
- Rackham, H. 1945. *Pliny Natural History*. Vol. IV. Loeb Classical Library. London: William Heinemann.
- Radner, Karen. 1999a. “Money in the Neo-Assyrian Empire.” In *Trade and Finance in Ancient Mesopotamia*, edited by J.G. Dercksen, 127–57. Mos Studies 1. Leiden: Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- . 1999b. “Traders in the Neo-Assyrian Period.” In *Trade and Finance in Ancient Mesopotamia*, edited by J.G. Dercksen, 101–26. Mos Studies 1. Leiden: Nederlands Historisch-Archaeologisch Instituut te Istanbul.
- . 2000. “How Did the Neo-Assyrian King Perceive His Land and Its Resources?” In *Rainfall and Agriculture in Northern Mesopotamia*, edited by R.M. Jas, 233–46. Istanbul: Nederlands Historisch-Archaeologisch Instituut.
- . 2007a. “Abgaben an König von Assyrien aus dem In- Und Ausland.” In *Geschenke und Steuern, Zölle und Tribute: Antike Abgabenformen in Anspruch und Wirklichkeit*, edited by H. Klinkott, S. Kubisch, and R. Müller-Wollermann, 213–30. Culture and History of the Ancient Near East 29. Leiden: Brill.
- . 2007b. “Hired Labour in the Neo-Assyrian Empire.” *State Archives of Assyria Bulletin* 16: 185–226.
- . 2008. “Esarhaddon’s Expedition from Palestine to Egypt in 671 BCE: A Trek through Negev and Sinai.” In *Fundstellen: Gesammelte Schriften zur Archäologie und Geschichte Alt Vorderasiens*, edited by Dominik Bonatz, Rainer Czichon, and Janoscha Kreppner, 305–14. Wiesbaden: Harrasowitz.
- . 2011. “Fame and Prizes: Competition and War in the Neo-Assyrian Empire.” In *Competition in the Ancient World*, edited by N. Fisher and H. van Wees, 37–58. The Classical Press of Wales.

- . 2012. “Between a Rock and a Hard Place: Musasir, Kumme, Ukku, and Subria -- The Buffer States between Assyria and Urartu.” In *Biainili-Urartu: The Proceedings of Th Symposium Held in Munich 12-14 October 2007*, edited by S. Kroll, C. Gruber, U. Hellwag, M. Roaf, and P. Zimansky, 243–64. Leuven: Peeters.
- . 2014a. “An Imperial Communication Network: The State Correspondence of the Neo-Assyrian Empire.” In *State Correspondence in the Ancient World: From New Kingdom Egypt to the Roman Empire*, edited by Karen Radner, 64–93. Oxford Studies in Early Empire. Oxford: Oxford University Press.
- . 2014b. “Introduction: Long-Distance Communication and the Cohesion of Early Empires.” In *State Correspondence in the Ancient World: From New Kingdom Egypt to the Roman Empire*, edited by Karen Radner, 1–9. Oxford Studies in Early Empire. Oxford: Oxford University Press.
- Rainey, Anson. 1962. “Administration in Ugarit and the Samaria Ostraca.” *Israel Exploration Journal* 12 (1): 62–63.
- . 1971. “A Hebrew ‘Receipt’ from Arad.” *Bulletin of the American Schools of Oriental Research* 202: 23–30.
- . 1982. “Wine From the Royal Vineyards.” *Bulletin of the American Schools of Oriental Research* 245: 57–62.
- . 1983. “The Biblical Shephelah of Judah.” *Bulletin of the American Schools of Oriental Research* 251: 1–22.
- . 1988. “Toward a Precise Date for the Samaria Ostraca.” *Bulletin of the American Schools of Oriental Research* 272: 69–74.
- . 1993. “Manasseh, King of Judah, in the Whirlpool of the Seventh Century BCE.” In *Kinattutu ša Darati: Raphael Kutscher Memorial Volume*, edited by Anson Rainey, 147–64. Tel Aviv: Institute of Archaeology, Tel Aviv University.
- Rainey, Anson, and Steven Notley. 2006. *The Sacred Bridge: Carta’s Atlas of the Biblical World*. Jerusalem: Carta.
- Ramon, Juan. 2002. “The Ancient Colonization of Ibiza: Mechanisms and Process.” In *The Phoenicians in Spain: An Archaeological Review of the Eighth-Sixth Centuries BCE*, edited by Marilyn Bierling, 127–53. Winona Lake, IN: Eisenbrauns.
- Rao, P.K. 2003. *The Economics of Transaction Costs: Theory, Methods, and Applications*. New York: Palgrave Macmillan.
- Redford, Donald B. 1973. “Studies in Relations between Palestine and Egypt during the First Millennium B.C.: II. The Twenty-Second Dynasty.” *Journal of the American Oriental*

- Society* 93 (1): 3–17.
- Reese, D. S., H. K. Mienis, and F. R. Woodward. 1986. “On the Trade of Shells and Fish from the Nile River.” *Bulletin of the American Schools of Oriental Research*, 79–84.
- Reese, D. S., and C. Sease. 1993. “Some Previously Unpublished Fragments of Engraved Tridacna Shells.” *Journal of Near Eastern Studies* 52: 109–28.
- . 2004. “Additional Unpublished Engraved Tridacna and Andara Shells.” *Journal of Near Eastern Studies* 63: 29–41.
- Reich, Ronny. 1984. “The Identification of the ‘Sealed “Kāru” of Egypt.”” *Israel Exploration Journal* 34 (1): 32–38.
- . 1992. “Palaces and Residences in the Iron Age.” In *The Architecture of Ancient Israel: From the Prehistoric to the Persian Periods*, edited by Ronny Reich and Aharon Kempinski, 202–22. Jerusalem: Israel Exploration Society.
- . 1993. “Abu Salima, Tell (Sheikh Zuweid).” *The New Encyclopedia of Archaeological Excavations in the Holy Land* 1: 15.
- . 2003. “On the Assyrian Presence at Ramat Rahel.” *Tel Aviv* 30: 124–29.
- Reich, Ronny, and Baruch Brandl. 1985. “Gezer under Assyrian Rule.” *Palestine Exploration Quarterly* 117: 41–54.
- Reich, Ronny and Eli Shukron. 2003. “Urban Development of Jerusalem in the Late Eighth Century B.C.E.” in *Jerusalem in Bible and Archaeology: The First Temple Period*, edited by Andrew Vaughn and Ann Killebrew, 209–218. Society of Biblical Literature Symposium Series 18. Leiden: Brill.
- Reich, Ronny, Eli Shukron, and Omri Lerna. 2007. “Recent Discoveries in the City of David, Jerusalem.” *Israel Exploration Journal* 57 (2): 153–69.
- Reiter, Karin. 1997. *Die Metalle im Orient unter besonderer Berücksichtigung altbabylonischer Quellen*. AOAT 249. Münster: Ugarit-Verlag.
- Renger, Johannes. 1990. “Different Economic Spheres in the Urban Economy of Mesopotamia.” In *The Town as Regional Economic Center in the Ancient Near East*, edited by Erik Aerts and Horst Klengel, 20–28. Leuven: Leuven University Press.
- . 2003. “Trade and Market in the Ancient Near East: Theoretical and Factual Implications.” In *Mercantil e Politica nel Mondo Antico*, edited by C. Zaccagnini, 15–39. Roma: L’Erma di Bretschneider.
- Retso, Jan. 1991. “The Domestication of the Camel and the Establishment of the Frankincense

- Road from South Arabia.” *Orientalia Suecana* XL: 187–219.
- Reynolds, Frances. 2003. *The Babylonian Correspondence of Esarhaddon*. State Archives of Assyria 18. Helsinki: Helsinki University Press.
- Roberts, J.J.M. 1991. *Nahum, Habakkuk, and Zephaniah: A Commentary*. Louisville, KY: Westminster John Knox Press.
- Robin, Christian. 2002. “Saba’ and the Sabaeans.” In *Queen of Sheba: Treasures from Ancient Yemen*, 51–66. British Museum Press.
- Rollston, Christopher A. 2014. “The Iron Age Edomite Script and Language.” In *New Insights into the Iron Age Archaeology of Edom, Southern Jordan*, edited by Thomas Levy, Mohammed Najjar, and Erez Ben-Yosef, 2:961–75. Los Angeles, CA: The Cotsen Institute of Archaeology Press.
- Ronen, Yigal. 1996. “The Enigma of the Shekel Weights of the Judean Kingdom.” *The Biblical Archaeologist* 59 (2): 122–25.
- Rosen, Arlene. 2000. “Environmental Change and Human Adaptational Failure at the End of the Early Bronze Age in the Southern Levant.” In *Third Millennium B.C. Climate Change and Old World Collapse*, edited by H.N. Dalfes, George Kukla, and Harvey Weiss, 25–38. Berlin: Springer.
- Rosen, Steven A. 2008. “Desert Pastoral Nomadism in the Longue Durée: A Case Study from the Negev and the Southern Levantine Deserts.” In *The Archaeology of Mobility: Old World and New World Nomadism*, edited by Hans Barnard and Willeke Wendrich, 115–40. Los Angeles, CA: Cotsen Institute of Archaeology.
- Rosen, Steven A., and Gideon Avni. 1993. “The Edge of Empire: The Archaeology of Pastoral Nomads in the Southern Negev.” *The Biblical Archaeologist* 56 (4): 189–99.
- Rouge, J. 1981. *Ships and Fleets of the Ancient Mediterranean*. Middletown, CT: Wesleyan University Press.
- Routledge, Bruce. 1997. “Mesopotamian ‘Influence’ in Iron Age Jordan: Issues of Power, Identity, and Value.” *Bulletin of the Canadian Society for Mesopotamian Studies* 32: 33–41.
- Rowton, M.B. 1967. “The Woodlands of Western Asia.” *JNES* 26 (4): 261–77.
- Ruiz Mata, Diego. 2002. “The Ancient Phoenicians of the 8th and 7th Centuries BC in the Bay of Cadiz: State of the Research.” In *The Phoenicians in Spain: An Archaeological Review of the Eighth-Sixth Centuries BCE*, edited by Marilyn Bierling, 155–98. Winona Lake, IN: Eisenbrauns.

- Saggs, H.W.F. 1955. "The Nimrud Letters, 1952 Part II." *Iraq* 17 (2): 126–60.
- . 1984. *The Might That Was Assyria*. London: Sidgwick & Jackson.
- Sapir-Hen, Lidar, and Erez Ben-Yosef. 2013. "The Introduction of Domestic Camels to the Southern Levant." *Tel Aviv* 40: 277–85.
- Sass, Benjamin. 1990. "Arabs and Greeks in Late First Temple Jerusalem." *Palestine Exploration Quarterly* 122: 59–61.
- Saur, Markus. 2008a. "Tyros im Spiegel des Ezechielbuches." In *Israeliten und Phönizier: Ihre Beziehungen im Spiegel der Archäologie und der Literatur des Alten Testaments und seiner Umwelt*, edited by Markus Witte and Johannes Diehl, 165–90. *Orbis Biblicus et Orientalis* 235. Göttingen: Vandenhoeck & Ruprecht.
- . 2008b. *Der Tyroszyklus des Ezechielbuches*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 386. Berlin: Walter de Gruyter.
- . 2010. "Ezekiel 26-28 and the History of Tyre." *Scandinavian Journal of the Old Testament* 24 (2): 208–21.
- Scheepers, Coenraad. 2006. "The Olive Oil Industry at Ekron and Co-Existence under Neo-Assyrian Dominion: A Socio-Economic Model for South Africa." *Journal for Semitics* 15 (2): 590–616.
- . 2010. "The Effect of Neo-Assyrian Non-Interference Policy on the Southern Levant: An Archaeological Investigation." *Old Testament Essays* 23 (2): 350–66.
- Schipper, Bernd U. 2011. "Egyptian Imperialism after the New Kingdom: The 26th Dynasty and the Southern Levant." In *Egypt, Canaan, and Israel: History, Imperialism, Ideology, and Literature. Proceedings of a Conference at the University of Haifa, 3-7 May 2009*, edited by S. Bar, D. Kahn, and J.J. Shirley, 268–90. *Culture and History of the Ancient Near East* 52. Leiden: Brill.
- Schloen, J. David. 2001. *The House of the Father as Fact and Symbol: Patrimonialism in Ugarit and the Ancient Near East*. Harvard Semitic Museum Publications. Winona Lake, IN: Eisenbrauns.
- Schneider, Jane. 1977. "Was There a Pre-Capitalist World System?" *Peasant Studies* 6 (1): 20–29.
- Schneider, Tammi. 2014. "Mesopotamia (Assyrians and Babylonians) and the Levant." In *The Oxford Handbook of the Archaeology of the Levant: C. 800-332 BCE*, 98–106.
- Schreiber, Nicola. 2003. *The Cypro-Phoenician Pottery of the Iron Age*. *Culture and History of the Ancient Near East* 13. Leiden: Brill.

- Scott, R.B.Y. 1955. "Solomon and the Beginning of Wisdom in Israel." In *Wisdom in Israel and in the Ancient Near East*, edited by M. Noth and T. Winton, 262–90. *Vetus Testamentum, Supplements 3*. Leiden: Brill.
- Segal, Dror. 1995. "C14 Dates from Horvat Teman (Kuntillet 'Ajrud) and Their Archaeological Correlation." *Tel Aviv* 22: 208–12.
- Seger, Joe D. 1993. "Tel Halif." *The New Encyclopedia of Archaeological Excavations in the Holy Land* 2: 553–59.
- Seland, Eivind H. 2008. "Trade Routes of Palmyra: With Special Notes on Western Routes in the Palmyrene Trade." In *Jebel Bishri in Context : Introduction to the Archaeological Studies and the Neighbourhood of Jebel Bishri in Central Syria : Proceedings of a Nordic Research Training Seminar in Syria, May 2004*, edited by Minna Lonnqvist, 89–98. BAR International Series 1817. Oxford: Archaeopress.
- . 2011. "The Persian Gulf or the Red Sea? Two Axes in Ancient Indian Ocean Trade, Where to Go and Why?" *World Archaeology* 43 (3): 398–409.
- Sergi, O., A. Karasik, Y. Gadot, and O. Lipschits. 2012. "The Royal Judahite Jar: A Computer-Generated Typology and Its Archaeological Implications." *Tel Aviv* 39: 64–92.
- Shapiro, H.A. 2007. "Introduction." In *The Cambridge Companion to Archaic Greece*, edited by H.A. Shapiro, 1–10. Cambridge: Cambridge University Press.
- Shea, William. 1977. "The Date and Significance of the Samaria Ostraca." *Israel Exploration Journal* 27 (1): 16–27.
- Sherratt, E.S. 1990. "Reading the Texts: Archaeology and the Homeric Question." *Antiquity* 64: 807–24.
- Sherratt, Andrew, and Susan Sherratt. 1991. "From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems." In *Bronze Age Trade in the Mediterranean*, edited by N.H. Gale, 351–86. *Studies in Mediterranean Archaeology* 90. Jonsered: Paul Astroms Forlag.
- Sherratt, Susan. 2003. "The Mediterranean Economy: Globalization at the End of the Second Millennium BCE." In *Symbiosis, Symbolism, and the Power of the Past: Canaan, Ancient Israel, and Their Neighbors from the Late Bronze Age through Roman Palestine*, 37–62. Winona Lake, IN: Eisenbrauns.
- . 2010. "Greeks and Phoenicians: Perceptions of Trade and Traders in the Early First Millennium BC." In *Social Archaeologies of Trade and Exchange: Exploring Relationships among People, Places, and Things*, edited by Alexander A. Bauer and Anna S. Agbe-Davies, 119–42. Walnut Creek, CA: Left Coast Press.

- Shiloh, Y. 1987. "South Arabian Inscriptions from the City of David, Jerusalem." *Palestine Exploration Quarterly* 119: 9–18.
- Silberman, Lou H. 1974. "The Queen of Sheba in Judaic Tradition." In *Solomon and Sheba*, edited by James B. Pritchard. London: Phaidon.
- Silver, Morris. 1982. *Prophets and Markets: The Political Economy of Ancient Israel*. Boston, MA: Kluwer-Nijhoff.
- . 1985. *Economic Structures of the Ancient Near East*. Totowa, NJ: Barnes & Noble Books.
- Singer-Avitz, Lily. 1999. "Beersheba: A Gateway Community in Southern Arabian Long-Distance Trade in the Eighth Century BCE." *Tel Aviv* 26: 3–74.
- . 2002. "Arad: The Iron Age Pottery Assemblage." *Tel Aviv* 29: 110–214.
- . 2004a. "Busayra Painted Ware at Tel Beersheba." *Tel Aviv* 31: 80–89.
- . 2004b. "The Qurayyah Painted Ware." In *The Renewed Excavations at Lachish (1973-1994)*, edited by David Ussishkin, III:1280–87. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2006. "The Date of Kuntillet 'Ajrud." *Tel Aviv* 33: 196–228.
- . 2007. "On Pottery in Assyrian Style: A Rejoinder." *Tel Aviv* 34: 182–203.
- . 2010. "A Group of Phoenician Vessels from Tel Beersheba." *Tel Aviv* 37: 188–99.
- . 2014. "Edomite Pottery in Judah in the Eighth Century BCE." In *Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age*, edited by Juan Manuel Tebes, 267–82. Ancient Near Eastern Studies Supplement 45. Leuven: Peeters.
- Sinopoli, Carla M. 1994. "The Archaeology of Empires." *Annual Review of Anthropology* 23: 159–80.
- Smith, A.M. 2010. "From Murex Shells to Purple Cloth." *Journal for Semitics* 19: 599–611.
- Smith, Neil, and Thomas Levy. 2014. "Iron Age Ceramics of Edom: A New Typology." In *New Insights into the Iron Age Archaeology of Edom, Southern Jordan*, edited by Thomas Levy, Mohammed Najjar, and Erez Ben-Yosef, 2:297–459. Los Angeles, CA: The Cotsen Institute of Archaeology Press.
- Snodgrass, A.M. 1974. "An Historical Homeric Society." *The Journal of Hellenic Studies* 94:

114–25.

- Sommer, Michael. 2000. *Europas Ahnen: Ursprünge des Politischen bei den Phönikern*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- . 2007. “Networks of Commerce and Knowledge in the Iron Age: The Case of the Phoenicians.” *Mediterranean Historical Review* 22 (1): 97–111.
- Stager, Lawrence E. 1976. “Farming in the Judean Desert during the Iron Age.” *Bulletin of the American Schools of Oriental Research* 221: 145–58.
- . 1985. “The Firstfruits of Civilization.” In *Palestine in the Bronze and Iron Ages: Papers in Honour of Olga Tufnell*, edited by J.N. Tubb, 172–88. London: Institute of Archaeology.
- . 1990. “Shemer’s Estate.” *Bulletin of the American Schools of Oriental Research*, 93–107.
- . 1996. “Ashkelon and the Archaeology of Destruction: Kislev 604 BCE.” *Eretz-Israel* 25: 61* – 74*.
- . 2001. “Port Power in the Early and Middle Bronze Age: The Organization of Maritime Trade and Hinterland Production.” In *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, edited by Samuel Wolff, 625–38. Studies in Ancient Oriental Civilization. Chicago, IL: The Oriental Institute of the University of Chicago.
- . 2003. “Phoenician Shipwrecks in the Deep Sea.” In *Sea Routes: Interconnections in the Mediterranean 16th-6th C. BC, Proceedings of the International Symposium Held at Rethymnon, Crete September 29th-October 2nd 2002*, edited by Nicholas Stampolidis and Vassos Karageorghis, 233–47. Athens: University of Crete and the A.G. Leventis Foundation.
- . 2005. “Phoenician Shipwrecks and the Ship Tyre (Ezekiel 27).” In *Terra Marique: Studies in Art History and Marine Archaeology in Honor of Anna Marguerite McCann on the Receipt of the Gold Medal of the Archaeological Institute of America*, edited by John Pollini, 238–54. Oxford: Oxbow Books.
- Stager, Lawrence E., Daniel M Master, and J. David Schloen, eds. 2011. *Ashkelon 3*. Winona Lake, IN: Eisenbrauns.
- Stager, Lawrence, E., Daniel M Master, and J. David Schloen. 2011. “The Winery in Grid 38.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence Stager E., Daniel M Master, and J. David Schloen, 13–20. Winona Lake, IN: Eisenbrauns.
- Stanish, Charles. 1997. “Nonmarket Imperialism in the Prehispanic Americas: The Inka

- Occupation of the Titicaca Basin.” *Latin American Antiquity* 8 (3): 195–216.
- . 2010. “Labor Taxes, Market Systems, and Urbanization in the Prehistoric Andes: A Comparative Perspective.” In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher Garraty and Barbara Stark, 185–206. Boulder, CO: University Press of Colorado.
- Stark, Barbara, and Christopher Garraty. 2010. “Detecting Marketplace Exchange in Archaeology: A Methodological Review.” In *Archaeological Approaches to Market Exchange in Ancient Societies*, edited by Christopher Garraty and Barbara Stark, 33–60. Boulder, CO: University Press of Colorado.
- Starr, Ivan. 1990. *Queries to the Sun god: Divination and Politics in Sargonid Assyria*. State Archives of Assyria 4. Helsinki: Helsinki University Press.
- Steiner, Margaret. 2001. “Jerusalem in the Tenth and Seventh Centuries BCE: From Administrative Town to Commercial City.” In *Studies in the Archaeology of the Iron Age in Israel and Jordan*, edited by Amihai Mazar, 280–88. Journal for the Study of the Old Testament Supplement Series 331. Sheffield: Sheffield Academic Press.
- Stein, Gil. 1999. *Rethinking World-Systems: Diasporas, Colonies, and Interaction in Uruk Mesopotamia*. Tucson, AZ: University of Arizona Press.
- Stern, Ephraim. 1982. *Material Culture of the Land of the Bible in the Persian Period 538-332 B.C.* Jerusalem: Israel Exploration Society.
- . 2001. *Archaeology of the Land of the Bible: The Assyrian, Babylonian, and Persian Periods (732-332 B.C.E.)*. New York: Doubleday.
- . 2007. *En-Gedi Excavations I*. Jerusalem: Israel Exploration Society.
- Stern, Ephraim, and Sveta Matskevich. 2007. “Stratigraphy of Stratum V.” In *En-Gedi Excavations I*, edited by Ephraim Stern, 77–85. Jerusalem: Israel Exploration Society.
- Steuer, Robert O. 1947. *Über das Wohlriechende Natron bei den alten Aegyptern: Interpretation, Darstellung, und Kultur des Sntr*. Leiden: Brill.
- Stol, Marten. 1979. *On Trees Mountains and Millstones in the Ancient Near East*. Leiden: Ex Oriente Lux.
- Stratford, Edward. 2010. “Agents, Archives, and Risk: A Micronarrative Account of Old Assyrian Trade through Salim-Ahum’s Activities in 1890 BC.” Ph.D., Chicago, IL: University of Chicago.
- Tadmor, Hayim. 1958. “The Campaigns of Sargon II of Assur: A Chronological-Historical Study.” *Journal of Cuneiform Studies* 12 (1): 22–40.

- . 1966. “Philistia Under Assyrian Rule.” *The Biblical Archaeologist* 29 (3): 86–102.
- . 1975. “Assyria and the West: The 9th Century and Its Aftermath.” In *Unity and Diversity: Essays in the History, Literature, and Religion of the Ancient Near East*, edited by Hans Goedicke and J.J.M Roberts, 36–48. Baltimore, MD: The Johns Hopkins University Press.
- . 1995. “The Seal of Bel-Asharedu ---A Case of ‘Migration.’” In *Immigration and Emigration within the Ancient Near East*, edited by K. van Lerberghe and A. Schoors, 345–55. *Orientalia Lovaniensia Analecta* 68. Leuven: Peeter.
- . 1997. “Propaganda, Literature, Historiography: Cracking the Code of the Assyrian Royal Inscriptions.” In *Assyria 1995: Proceedings of the 10th Anniversary Symposium of the Neo-Assyrian Text Corpus Project*, edited by Simo Parpola and R.M. Whiting, 325–38. Helsinki: Neo-Assyrian Text Corpus Project.
- Tadmor, Hayim, and Shigeo Yamada. 2011. *The Royal Inscriptions of Tiglath Pileser III (744-727 BC), and Shalmaneser V (726-722 BC), Kings of Assyria*. The Royal Inscriptions of The Neo-Assyrian Period 1. Winona Lake, IN: Eisenbrauns.
- Tammuz, Oded. 2005. “Mare Clausum? Sailing Seasons in the Mediterranean in Early Antiquity.” *Mediterranean Historical Review* 20 (2): 145–62.
- Taylor, John. 2004. “The Third Intermediate Period (1069-664 BC).” In *The Oxford History of Ancient Egypt*, edited by Ian Shaw, 330–68. Oxford: Oxford University Press.
- Tebes, Juan Manuel. 2006. “Trade and Nomads: The Commercial Relations between the Negev, Edom, and the Mediterranean in the Late Iron Age.” *Journal of the Serbian Archaeological Society* 22: 45–62.
- . 2007. “Assyrians, Judaeans, Pastoral Groups, and the Trade Patterns in the Late Iron Age Negev.” *History Compass* 5 (2): 619–31.
- Teckoglu, R., and A. Lemaire. 2000. “La Bilingue Royal Louvito-Phénicienne de Çineköy.” *Comptes Rendus de l’Academie des Inscriptions et Belles Lettres* 144 (3): 961–1007.
- Temin, Peter. 2012. “The Contribution of Economics.” In *The Cambridge Companion to The Roman Economy*, edited by Walter Scheidel, 45–70. New York: Cambridge University Press.
- . 2013. *The Roman Market Economy*. Princeton, NJ: Princeton University Press.
- Thareani-Sussely, Yifat. 2007a. “Ancient Caravanserais: An Archaeological View from ‘Aroer.’” *Levant* 39: 123–41.

- . 2007b. “The ‘Archaeology of the Days of Manasseh’ Reconsidered in Light of Evidence from the Beersheba Valley.” *Palestine Exploration Quarterly* 139 (2): 69–77.
- Thareani, Yifat. 2010. “The Spirit of Clay: ‘Edomite Pottery’ and Social Awareness in the Late Iron Age.” *Bulletin of the American Schools of Oriental Research* 359: 35–55.
- . 2011. *Tel ’Aroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement*. Vol. VIII. Annual of the Nelson Glueck School of Biblical Archaeology. Jerusalem: Nelson Glueck School of Biblical Archaeology.
- . 2014. “The Judean Desert Frontier in the Seventh Century BCE: A View from ’Aroer.” In *Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age*, edited by Juan Manuel Tebes, 227–66. Ancient Near Eastern Studies Supplement 45. Leuven: Peeters.
- Thompson, Christine M. 2003. “Sealed Silver in Iron Age Cisjordan and the ‘Invention’ of Coinage.” *Oxford Journal of Archaeology* 22 (1): 67–107.
- Tosi, M. 1928. “Karneol.” In *Reallexicon der Assyriologie und Vorderasiatischen Archaeologie*, edited by Erich Ebeling and Bruno Meissner, 5:448–52. Berlin: Walter de Gruyter.
- Tropper, Joseph. 1993. *Die Inschriften von Zincirli*. Abhandlungen zur Literatur Alt-Syrien-Palästinas 6. Münster: Ugarit-Verlag.
- Tsetschladze, G., Hans Georg. 2006. “Introduction: Revisiting Ancient Greek Colonisation.” In *Greek Colonisation: An Account of Greek Colonies and Other Settlements Overseas*, edited by Tsetschladze, G., 1:xxiii – lxxxiii. Leiden: Brill.
- Tsirkin, Y. 1979. “Economy of the Phoenician Settlements in Spain.” In *State and Temple Economy in the Ancient Near East*, edited by E. Lipinski, 2:547–64. *Orientalia Lovaniensia Analecta* 6. Leuven: Departement Orientalistik.
- Turner, Geoffrey. 1970. “The State Apartments of Late Assyrian Palaces.” *Iraq* 32 (2): 177–213.
- Twede, Diana. 2002. “Commercial Amphoras: The Earliest Consumer Packages.” *Journal of Macromarketing* 22 (1): 98–108.
- Uerpmann, Hans-Peter, and Margarethe Uerpmann. 2002. “The Appearance of the Domestic Camel in South-East Arabia.” *The Journal of Oman Studies* 12: 235–60.
- Uerpmann, Margarethe, and Hans-Peter Uerpmann. 2012. “Archeozoology of Camels in South-Eastern Arabia.” In *Camels in Asia and North Africa: Interdisciplinary Perspectives on Their Past and Present Significance*, edited by Eva-Maria Knoll and Pamela Burger, 109–22. *Osterreichische Akademie der Wissen, Philosophisch-Historische Klasse Denkschriften* 451. Wien: Osterreichischen Akademie der Wissenschaften.

- Ussishkin, David. 2004. *The Renewed Archaeological Excavations at Lachish (1973-1994)*. Vol. 1. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- . 2011. “The Dating of the Lmlk Storage Jars and Its Implications: A Rejoinder to Lipschits, Sergi, and Koch.” *Tel Aviv* 38: 220–40.
- Utzschneider, Helmut. 1988. *Das Heiligtum und das Gesetz: Studien zur Bedeutung der Sinaitischen Heiligtumstexte (Ex 25-40; Lev 8-9)*. Orbis Biblicus et Orientalis. Göttingen: Vandenhoeck & Ruprecht.
- Van Beek, G.W. 1958. “Frankincense and Myrrh in Ancient South Arabia.” *Journal of the American Oriental Society* 78 (3): 141–52.
- . 1960. “Frankincense and Myrrh.” *The Biblical Archaeologist* 23 (3): 69–95.
- . 1983. “Digging up Tell Jemmeh.” *Archaeology* 36: 12–19.
- . 2008. *Glorious Mud*. Washington D.C.: Smithsonian Institution Scholarly Press.
- Vanderhooft, D. 1995. “The Edomite Dialect and Script: A Review of the Evidence.” In *You Shall Not Abhor an Edomite for He Is Your Brother: Edom and Seir in History and Tradition*, edited by Diana Edelman, 137–58. Archaeology and Biblical Studies 3. Atlanta, GA: Scholars Press.
- Van der Plicht, Johannes, Hendrik Bruins, and Albert Nijboer. 2009. “The Iron Age around the Mediterranean: A High Chronology Perspective from the Radiocarbon Database.” *Radiocarbon* 51 (1): 213-242.
- Van der Toorn, Karel. 2007. *Scribal Culture and the Making of the Hebrew Bible*. Cambridge, MA: Harvard University Press.
- Van der Veen, Peter. 2011. “The Seal Material.” In *Umm Al-Biyara: Excavations by Crystal M. Bennett in Petra 1960-1965*, edited by Piotr Bienkowski, 79–84. Oxford: Oxbow Books.
- Van der Veen, Peter, and Francois Bron. 2014. “Arabian and Arabizing Epigraphic Finds from the Iron Age Southern Levant.” In *Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age*, edited by Juan Manuel Tebes, 203–26. Ancient Near Eastern Studies Supplement 45. Leuven: Peeters.
- Van Dijk, H.J. 1968. *Ezekiel’s Prophecy on Tyre*. Biblica et Orientalia 20. Rome: Pontifical Biblical Institute.
- Van Dijk, J. 1983. *LUGAL UD ME-LÁM-Bi NIR-GÁL: Le Récit Épique et Didactique des Travaux de Ninurta, du Déluge et de la Nouvelle Création*. Leiden: Brill.

- Van Dommelen, P. 1998. *On Colonial Grounds: A Comparative Study of Colonialism and Rural Settlement in First Millennium BC West Central Sardinia*. Leiden: Faculty of Archaeology, Leiden University.
- Van Driel, G. 2002. *Elusive Silver: In Search of a Role for a Market in an Agrarian Environment. Aspects of Mesopotamia's Society*. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Van Minnen, Peter. 2000. "Agriculture and the 'Taxes-and-Trade' Model in Roman Egypt." *Zeitschrift für Papyrologie und Epigraphik* 133: 205–20.
- Van Neer, W., Omri Lernau, R. Friedman, Gregory Mumford, J. Poblome, and M. Waelkens. 2004. "Fish Remains from Archaeological Sites as Indicators of Former Trade Connections in the Eastern Mediterranean." *Paleorient* 30 (1): 101–47.
- Varisco, Daniel Martin. 2012. "What Camels Eat: A Study in Arabic Ethnobotany." In *Camels in Asia and North Africa: Interdisciplinary Perspectives on Their Past and Present Significance*, edited by Eva-Maria Knoll and Pamela Burger, 151–62. Österreichische Akademie der Wissen, Philosophisch-Historische Klasse Denkschriften 451. Wien: Osterreichischen Akademie der Wissenschaften.
- Vaughn, Andrew G. 1999. *Theology, History, and Archaeology in the Chronicler's Account of Hezekiah*. Archaeology and Biblical Studies 4. Atlanta, GA: Scholars Press.
- Veenhof, Klaas R. 1972. *Aspects of Old Assyrian Trade and Its Terminology*. Studia et Documenta Ad Iura Orientis Antiqui Pertinentia, X. Leiden: Brill.
- . 1980. "Kanish, Karum." In *Reallexicon der Assyriologie und Vorderasiatischen Archaeologie*, edited by D.O. Edzard, 5:369–78. New York: Walter de Gruyter.
- . 1995. "Kanesh: An Assyrian Colony in Anatolia." In *Civilizations of the Ancient Near East*, edited by Jack Sasson, 859–71. Peabody, MA: Hendrickson.
- . 1997. "'Modern' Features in Old Assyrian Trade." *Journal of the Economic and Social History of the Orient* 40 (1): 336–66.
- . 2015. "How to get rid of somebody? A Note on ARM 14, 78 and Genesis 37." *N.A.B.U.*: 15-16.
- Veldhuijzen, Harold A. 2009. "Red Hot: The Smithy at Beth Shemesh." *Near Eastern Archaeology* 72 (3): 129–31.
- Verreth, Herbert. 1999. "The Egyptian Eastern Border Region in Assyrian Sources." *Journal of the American Oriental Society* 119 (2): 234–47.
- Von Soden, Wolfram. 1939. "Aus einen Ersatzopferitual für den Assyrischen Hof." *Zeitschrift*

für Assyriologie 45: 42–61.

Wagner, C.G. and J. Alvar. 1989. “Fenicios en Occidente: La Colonización Agrícola.” *Revista di Studi Fenici* 17 (1): 61-102.

———. 2003. “La Colonización Agrícola en la Península Ibérica. Estado de la Cuestión y Nuevas Perspectivas.” In *Ecohistoria del Paisaje Agrario: La Agricultura Fenicio-Púnica en el Mediterráneo*, edited by Carlos Gómez Bellard, 187-204. Sèrie Història 95. València: Universitat de València.

Waldbaum, Jane. 1994. “Early Greek Contacts with the Southern Levant, Ca. 1000-600 B.C.: The Eastern Perspective.” *Bulletin of the American Schools of Oriental Research* 293: 53–66.

———. 1997. “Greeks in the East or Greeks and the East? Problems in the Definition and Recognition of Presence.” *Bulletin of the American Schools of Oriental Research* 305: 1–17.

———. 2011. “Greek Pottery.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence Stager E., Daniel M Master, and J. David Schloen, 127–338. Winona Lake, IN: Eisenbrauns.

Wallerstein, Immanuel. 1974. *The Modern World System*. New York: Academic Press.

Walsh, Carey Ellen. 2000. *The Fruit of the Vine: Viticulture in Ancient Israel*. Harvard Semitic Monographs 60. Winona Lake, IN: Eisenbrauns.

Walsh, Justin. 2013. *Consumerism in the Ancient World: Imports and Identity Construction*. Routledge Monographs in Classical Studies 17. New York: Routledge.

Walton, Joshua T. 2011. “Egyptian Pottery.” In *Ashkelon 3: The Seventh Century BC*, edited by Lawrence E. Stager, Daniel M. Master, and J. David Schloen, 123–26. Winona Lake, IN: Eisenbrauns.

Wapnish, Paula. 1981. “Camels and Caravans at Tell Jemmeh.” *Journal of the Ancient Near Eastern Society* 13: 101–21.

Washbrook, David. 2010. “Merchants, Markets, and Commerce in Early Modern South India.” *Journal of the Economic and Social History of the Orient* 53: 266–89.

Watanabe, Kazuko. 1987. *Die Adê-Vereidigung anlässlich der Thronfolgeregelung Asarhaddons*. Berlin: Gebr. Mann.

Weidner, Ernst. 1941. “Šilkan(he)ni, König von Musri, ein Zeitgenoss Sargons II. Nach einem neuen Bruchstück der Prisma-Inschrift des Assyrischen Königs.” *Archiv für Orientforschung* 14: 40–53.

- Weiss, Barry. 1982. "The Decline of Late Bronze Age Civilization as a Possible Response to Climatic Change." *Climatic Change* 4: 173–98.
- Weiss, Ehud, and Mordecai Kislev. 2004. "Plant Remains as Indicators for Economic Activity: A Case Study from Iron Age Ashkelon." *JAS* 31: 1–13.
- Weiss, Harvey. 2000. "Late Third Millennium Abrupt Climate Change and Social Collapse in West Asia and Egypt." In *Third Millennium B.C. Climate Change and Old World Collapse*, edited by H.N. Dalfes, George Kukla, and Harvey Weiss, 711–24. Berlin: Springer.
- Weiss, H., M.-A. Courty, W. Wetterstrom, F. Guichard, L. Senior, R. Meadow, and A. Curnow. 1993. "The Genesis and Collapse of Third Millennium North Mesopotamian Civilization." *Science* 261 (5124): 995–1004.
- Wellhausen, Julius. 1885. *Prolegomena to the History of Israel*. Edinburgh: Adam and Charles Black.
- Whiting, Charlotte M. 2007. *Complexity and Diversity in the Late Iron Age Southern Levant: The Investigation of "Edomite" Archaeology and Scholarly Discourse*. BAR International Series 1672. Oxford, England: Archaeopress.
- Whitt, William. 1995. "The Story of the Semitic Alphabet." In *Civilizations of the Ancient Near East*, edited by Jack Sasson, 2379–98. Peabody, MA: Hendrickson.
- Wilkinson, T.J. 2000. "Environmental Fluctuations, Agricultural Production and Collapse: A View from Bronze Age Upper Mesopotamia." In *Third Millennium B.C. Climate Change and Old World Collapse*, edited by H.N. Dalfes, George Kukla, and Harvey Weiss, 67–106. Berlin: Springer.
- Wilkinson, T.J., Jason Ur, Eleanor Barbanes Wilkinson, and Mark Altaweel. 2005. "Landscape and Settlement in the Neo-Assyrian Empire." *Bulletin of the American Schools of Oriental Research* 340: 23–56.
- Willard, Alice. 1993. "Gold, Islam, and Camels: The Transformative Effects of Trade and Ideology." *Comparative Civilizations Review* 28: 80–105.
- Williamson, Oliver E. 2000. "The New Institutional Economics: Taking Stock, Looking Ahead." *Journal of Economic Literature* 38 (3): 595–613.
- Winter, Irene. 1973. "North Syria in the Early First Millennium, with Special Reference to Ivory Carving." PhD, Columbia University.
- . 1983. "Carchemish Ša Kišad Puratti." *Anatolian Studies* 33: 177–97.

- . 1995. “Homer’s Phoenicians: History, Ethnography, or Literary Trope? A Perspective on Early Orientalism.” In *The Ages Homer: A Tribute to Emily Townsend Vermeule*, edited by Jane B. Carter and Sarah P. Morris, 247–71. Austin: University of Texas.
- Wiseman, D.J. 1993. *1 and 2 Kings: An Introduction and Commentary*. Downers Grove, IL: Intervarsity Press.
- Wolff, Samuel. 1996. “Archaeology in Israel.” *American Journal of Archaeology* 100 (4): 725–68.
- Woolf, Greg. 1993. “Roman Peace.” In *War and Society in the Roman World*, edited by John Rich and Graham Shipley, 171–94. New York: Routledge.
- Yamada, Shigeo. 2000. *The Construction of the Assyrian Empire: A Historical Study of the Inscriptions of Shalmaneser III (859-924 BC) Relating to His Campaigns to the West*. Leiden: Brill.
- . 2005. “Kārus on the Frontiers of the Neo-Assyrian Empire.” *Orient: The Reports of the Society for Near Eastern Studies in Japan* 40: 56–90.
- . 2008. “Qurdi-Aššur-Lamur: His Letters and Career.” In *Treasures on Camels’ Humps: Historical and Literary Studies from the Ancient Near East Presented to Israel Eph’al*, edited by Mordechai Cogan and Dan’el Kahn, 296–311. Jerusalem: Magnes Press.
- Yardeni, A. 1994. “Maritime Trade and Royal Accountancy in an Erased Customs Account from 475 BCE on the Aḥiqar Scroll from Elephantine.” *Bulletin of the American Schools of Oriental Research*, 67–78.
- Yassine, K. 1988. “Ammonite Fortresses: Date and Function.” In *Archaeology of Jordan: Essays and Reports*, edited by K. Yassine, 11–31. Amman: University of Jordan.
- Yeivin, S. 1966. “A Hieratic Ostrakon from Arad.” *Israel Exploration Journal* 16: 153–59.
- Yener, K. Alishan. 2000. *The Domestication of Metals: The Rise of Complex Metal Industries in Anatolia*. Leiden: Brill.
- Yezerski, I. 2007. “Pottery of Stratum V.” In *En-Gedi Excavations I*, edited by Ephraim Stern, 86–129. Jerusalem: Israel Exploration Society.
- Young, Robb Andrew. 2012. *Hezekiah in History and Tradition*. Supplements to *Vetus Testamentum* 155. Leiden: Brill.
- Younger, K. Lawson. forthcoming. “The Assyrian Economic Impact on the West: The Assyriological Perspective”
- . 1990. *Ancient Conquest Accounts: A Study in Ancient Near Eastern and Biblical*

- History Writing*. Journal for the Study of the Old Testament Supplement Series 98. Sheffield: Sheffield Academic Press.
- . 2003. “Assyrian Involvement in the Southern Levant at the End of the Eighth Century BCE.” In *Jerusalem in Bible and Archaeology: The First Temple Period*, edited by Andrew G. Vaughn and Ann E. Killebrew, 235–63. Leiden: Brill.
- Zaccagnini, C. 1999. “The Assyrian Lion Weights from Nimrud and the ‘Mina of the Land.’” In *Michael: Historical, Epigraphical and Biblical Studies in Honor of Prof. Micheal Heltzer*, edited by Y. Avishur and Robert Deutsch, 259–65. Tel Aviv-Jaffa: Archaeological Center Publications.
- Ziderman, I. Irving. 1990. “BA’ Guide to Artifacts: Seashells and Ancient Purple Dyeing.” *The Biblical Archaeologist* 53 (2): 98–101.
- Zimhoni, Orna. 1983. “The Pottery.” In *Ergebnisse der Ausgrabungen auf der Hirbet El-Msas (Tel Masos) 1972-1975*, edited by V. Fritz and Aharon Kempinski, 127–30. Abhandlungen des Deutschen Palästina Vereins. Wiesbaden: Harassowitz.
- . 2004. “Pottery of Levels III and II.” In *The Renewed Excavations at Lachish (1973-1994)*, edited by David Ussishkin, IV:1789–1906. Tel Aviv: Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University.
- Zimmerli, Walter. 1979. *Ezekiel 1: A Commentary on the Book of the Prophet Ezekiel, Chapters 1-24*. Hermeneia: A Critical and Historical Commentary on the Bible. Philadelphia, PA: Fortress Press.
- . 1983. *Ezekiel 2: A Commentary on the Book of the Prophet Ezekiel, Chapters 25-48*. Hermeneia: A Critical and Historical Commentary on the Bible. Philadelphia, PA: Fortress Press.
- Zohary, Daniel, and Pinhas Spiegel-Roy. 1975. “Beginnings of Fruit Growing in the Old World.” *Science* 187 (4174): 319–27.
- Zorn, Jeffrey R. 1993a. “Mesopotamian-Style Ceramic ‘Bathtub’ Coffins from Tell En-Nasbeh.” *Tel Aviv* 20: 216–24.
- . 1993b. “Tell En-Nasbeh: A Re-Evaluation of the Architecture and Stratigraphy of the Early Bronze Age, Iron Age, and Later Periods. (Volumes I-IV).” Ph.D., Berkeley, CA: University of California.
- Zwickel, Wolfgang. 1990. *Räucher kult und Räu chgerä te: Exegetische und Archäologische Studien zum Räu cheropfer im Alten Testament*. Orbis Biblicus et Orientalis 97. Göttingen: Vandenhoeck & Ruprecht.