History and the "Pre"

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History and the *Pre*

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Though coined in 1635, the word *modernity* trickled into the habits of English diction only toward the end of the nineteenth century (Fig. 1).* *Modern* itself is a word of venerable antiquity. In its original meaning, it did not denote an era so much as the front edge of the advancing wave of time. In the faintly derisory usage typical of ancient and medieval texts, *modern* gestured to institutions or patterns that were newfangled or gaudy, to kings and queens, princes, and popes who were forgetful of what they owed to the past. The understanding of modernity that is statistically noticeable by 1900 was very different, and not only because the derision had faded. In its more recent meanings, *modernity* represents a new way of thinking about time. The threshold of modernity is not located in the space around us; it is instead a point that lies on a receding horizon. Everything visible on this side of the horizon partakes of modernity, with the exceptions and anomalies we now take (and often mistake) for the residue of earlier times. Invisible over the horizon is the *pre*.

<Insert Figure 1 about here>

By 1980, the pace of usage of *modernity* began to accelerate. The quiet murmur that marked much of the twentieth century became a hum and then, by 2000, a roar. The new enthusiasm produced many studies of the modern and the postmodern, in history as in many other fields.[1] This turn of events is not without justification. Capitalism, the nation-state, secularism, the corporation, popular sovereignty, mass media, industrialism—these are all associated with modernity and each is worthy of careful study. But the attention that historians have lavished on this period and its forms has come with a price. When modernity became "the key concept of general history," as one historian has put it, a subsequent flattening of history was nearly inevitable.[2] A cursory survey of the book titles, dissertation topics, journal articles, faculty rosters, and conference panels that constitute academic history in North America shows the remarkable extent to which the core of the discipline has migrated into the twentieth century.[3] Perhaps more important is a related trend: the flattening of historical conversations into isolated time bands and the tendency to make arguments that look forward in time, toward the modern, at the expense of serious engagement with the scholarship of previous eras. However we might define this preoccupation with the modern, it would appear that a systematic neglect of the deep past has become one of its diagnostic signs.

There is no virtue in forgetfulness. We acknowledge it as a sin of omission that comes with its own political agendas. As Ernest Renan remarked in 1882, "forgetting, I

would even say historical error, is essential to the creation of a nation, which is why the advance of historical study often poses a threat to nationality."[4] The past is rife with traumas and divisive conflicts of the sort best passed over by any political community that hopes to imagine itself as a unified body. For much of the first half of the twentieth century, civic-minded historians facilitated the tactical amnesias of nationhood by papering over unpleasant facts. Today, the goal of the academic historian is often quite the opposite: to unsettle the complacent narratives of nation, civilization, and power. Even so, Renan's "advance of historical study" has managed only to reorder our amnesias, not to cure them. In place of a past distorted to suit the triumphal narrative of nation we have substituted an equally mythic past now subservient to the demands of modernity, whether our attitudes toward modernity are adulatory or insurgent. What we have created is a *pre*.

Like the nation-state, modernity generates its own oblivions. Whenever we invoke the term *modernity* as an explanatory concept, as a point of contrast that renders human experience distinct and unanswerable to the past, we are inventing a *pre* to go with it.[5] The necessity of the *pre* to the narrative of modernity is suggested by the fact that its usage has expanded in the English language alongside that of modernity itself (see Fig. 2). The *pre* is a shadow cast by modern things, a space of simplified contrasts that is noticeable yet encourages inattention. If we assume that conditions found in the present were not yet possible in the *pre*, then history-making—that is, the "rise" of the nation-state or the "birth" of capitalism—requires a decisive movement away from the *pre* and into the modern. The result is a center-periphery model of history that strips the past of its autonomy and renders it provincial. Elsewhere we have abandoned such models. We

have moved away from the nexus of nation; we have produced dynamic histories of global capitalism; we have even provincialized Europe.[6] But as Eurocentrism gradually fades, we are left with the insistent centrality of modernity, which grows heavier with each passing decade and creates the dilemma that bedevils this forum: how do we contemplate the *pre* without getting hopelessly entangled in the modern? Is it possible to write an autonomous history of the past?

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In popular modes of evolutionary thought, humanity's deep past conforms to a universal syntax borrowed from the anthropology and history of an earlier time. This syntax opposes raw and cooked, gift and commodity, country and city, oral and literate, nature and culture, them and us.[7] It is commonly assumed that these distinctions can be mapped out intelligibly in time, but the resulting cartography is messy. Even in the very remote past, the formative presence of the pre/modern distinction can lead us astray. Consider a shell bead from Europe around 40,000 years ago, a shell that was collected, drilled, strung with other beads onto a necklace, and then worn for some of the same reasons that anyone wears a necklace today: to partake of beauty and the pleasures of collecting; to communicate status, taste, and fashion; to signal belonging; to add value to an object; to generate power by giving or trading. These qualities are instantly recognizable to the archaeologists who interpret the beads. The sense of eerie familiarity they evoke encourages the observer to characterize Paleolithic beads as modern. Yet to

find the modern in a 40,000-year-old deposit, where it rests alongside artifacts that are utterly strange, is to create a kind of syntactic anomaly, a disturbance that triggers a storytelling response. It is hardly a coincidence that archaeologists have used these early beads to argue that the people who made them were "behaviorally modern," not just anatomically so.

This usage of "modern" is not simply metaphorical or suggestive. It is a narrative reflex that points to much deeper issues. Describing ancient beads, and their wearers, as modern is an act of retrieval through identification. It is a gift of welcome bestowed on a stranger who has entered a time/space *like* that of the modern. The ritual is essentially a moral one, and it is not undertaken lightly. Entire eras, peoples, and cultural practices are denied this act of incorporation, and inclusion is always provisional. A commitment to female genital cutting, or caste endogamy, or tribal law can jeopardize one's status as fully modern, no matter how many beads one wears, and rejection of these practices in favor of gender equality, social mobility, and civil law will prompt new acts of welcome. The modern world is filled with—one could say it is constituted by—things said to be primitive, traditional, and backward. Distinguishing these qualities and marginalizing them is endless, highly politicized work. Even if we argue, along with Walter Benjamin,[8] that every document of civilization is at the same time a document of barbarism, the claim makes sense, and has its subversive appeal, only to the extent that we acknowledge the semantic alignment of each term: civilization is assimilated to the modern, whereas barbarism is assimilated to the great Before.

As a by-product of relentless boundary maintenance, the *pre* does not constitute a historical era in its own right. Rather, it is a narrative space auto-populated by features

that define temporal Otherness for the self-consciously modern observer. The *pre* is the domain of tradition, nature, stasis, childhood, rawness, simplicity, enchantment, and superstition. To engage with it directly, as such, is to accept a language of moral superiority and political disablement that few scholars are now willing to speak or tolerate. The specific content of this time/space is problematic because the temporal frame it occupies is stigmatized or, in a reversal of moral polarities, romanticized. Avoidance is a common response. Historians who work on periods characterized as premodern make matters worse when they accept the syntax and claim historical relevance for their subject matter by the simple expedient of pushing the threshold of the *pre* to a point just over the horizon. The Middle Ages, classical antiquity, Neolithic farming villages, Paleolithic societies: each is awarded a modernity that, by the logic of the syntax, must be denied to the period that precedes it. This is a comedy routine: a bomb with a burning fuse passed hastily down the line to explode in someone else's face.[9] What is at stake in this tendency to link one's own period to modernity and to push the *pre* behind? Certainly it is not the same modernity from that point forward—or is it? Why is it so important to invent a moment at which we step over the threshold into "our world"?

In this article, we expose the grammar of the *pre*. We have no wish to contribute to the vast literature on modernity itself, a literature that is already rich and thought-provoking and needs nothing that we can add.[10] Instead, we offer narrative therapies that will help us deprovincialize the deep past, which means provincializing modernity itself. The way forward has been pointed out by postcolonial theorists, who have pursued this agenda in the medium of space but have done so less avidly in the medium of time.[11]

Chronological provincialism persists, and its grip on critical theory is a sturdy barrier between historians and knowledge of the human past generated by philologists, archaeologists, genomicists, and paleoanthropologists. We see collaboration across this barrier not as a threat to epistemological purity but as an opportunity to strengthen the deprovincializing impulse history shares with other fields. Anthropologists, for instance, realized long ago that the syntax of self and other, near and remote, imposes serious constraints on the analysis of cultural forms; to produce new analytical insights, they have chosen to unsettle and even collapse the syntax. This methodology can be applied to the study of the deep past, but only if the intellectual fixations that draw anthropology and history into the present are rendered explicit then deliberately reworked.[12]

The principal therapies we propose rely heavily on disenchantment and interpretive criticism; that is, on showing how the illusion of pre/modernity works and why it so often misleads. We will consider several narrative commitments built into the modernity project, their effects on history writing, and what can happen when stories of the deep past are told using other narrative devices. By way of a case study, we will explore the life history of shell beads and their related forms, a story that involves exchange, kinship, obligation, and power as they interact over tens of thousands of years. The process is one of fractal articulations, coevolutionary spirals, sustained creativity, and inertia. It can be rendered intelligible by playing with scale, an analytical exercise in which distinctions of pre and post endlessly collapse into new frameworks of historical interpretation.[13] Before the therapy begins, however, we need a more thorough diagnosis of why the modernity syndrome so predictably generates the *pre.*

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For historians who think their discipline owns the modern, it is unsettling to realize how thoroughly the threshold of modernity, as a concept, has permeated the narrative structures of archaeology, paleoanthropology, human genetics, and other fields that study the deep past, not to mention all the historical fields in between. To experience this, all we need to do is travel backward along the pathways of historiography. The easiest way to start this journey is to ask the *wrong* question: at what moment did the people of the *pre* cross the threshold of modernity?

In European historiography, let us take by way of example a collection entitled *The French Revolution and the Birth of Modernity*, a volume that conveys in nearly undiluted form the hunt-and-peck quality of the modernity project. The shared core of the volume, according to its editor, "is the authors' recognition that after several crucial antecedents and preludes, modernity has been born out of the French Revolution; further, that modernity 'is here,' it has arrived; and, finally, that it has to be given a meaning."[14] The volume joined an existing body of work and spawned competitors of its own in the pursuit for the pole position. Some historians pointed to England, and emphasized the consumer revolution or coal. Others gestured to features of protoindustrialization, the public sphere, the Enlightenment, the shift in disciplinary regimes, the invention of inner subjectivity: the list is long.[15] Regardless of these disagreements, the eighteenth-century historians agree on one thing: their century is when it happened.[16]

Claims to modernity do not recede as we travel further back in time. Medieval historians used to claim their period as the point of modernity's origin, though the habit is fading.[17] More puzzling, to historians at least, is the unflagging enthusiasm for modernity

among archaeologists and paleoanthropologists. The archaeologists who study the Bronze

and Iron ages, roughly equivalent with ancient civilizations as defined by historians and

philologists, associate the birth of the modern with the rise of empires and the arrival of

complex political societies. Neolithic archaeologists, working thousands of years earlier,

point to the transition to agriculture. They have coined new revolutions, modeled on the

French Revolution, that bear labels such as the Neolithic Revolution, the Urban

Revolution, and the Secondary Products Revolution.[18] Those who study the later phases

of the Upper Paleolithic evoke the concept of a Broad Spectrum Revolution between

30,000 and 15,000 years ago.[19] Specialists on the earlier phase of the Upper Paleolithic

identify a dramatic shift to modernity around 43,000 years ago, in the context of the

Upper Paleolithic Revolution or the "Human Revolution."[20] In all these works, an

aggressive new modernity is here, it has arrived, and it too has meaning.

The further back we go, the more metaphorical and suppressed the claims for

modernity become. The word itself falls away almost entirely once anatomical

modernity, which emerged ca 190,000 years ago, is established as the near miss to

behavioral modernity. Beyond this, the threshold no longer sets off modernity; instead,

the threshold is one of humanity. Yet the arc of the narrative remains fundamentally the

same. To some, humanity emerges 1.8 million years ago with the arrival of the mating

system, dietary pattern, and emotional modernity of *Homo erectus*.[21] Others point to the

upright posture of *Australopithecus* and *Ardipithecus*, some 3.5 to 4.5 million years ago.[22]

As these examples illustrate, the threshold of modernity is not a moment fixed in

time. It is a catchy tune that can be produced anywhere on the keyboard. This flexibility

means that claims about the birth of modernity are robust and convincing not solely by

virtue of the evidence that they assemble, but because such claims presuppose the abrupt emergence of new kinds of autonomy, agency, and an ever-increasing control over the natural and social world. The imagery is that of a butterfly emerging from a chrysalis, or a phase change in a liquid. Although these are vivid storytelling motifs, our ability to apply them to such diverse settings reduces their analytical utility. After all, if modernity is to have any meaning at all, it cannot be a quality that is continually arriving for 2.6 million years. Yet it continues to arrive, and it always arrives as a discontinuity, its temporal distinctiveness asserted relentlessly against the *pre.*

Clearly, something is wrong with this narrative device. But wherein lies the error? One of the most compelling answers to this seemingly intractable problem has been offered by the paleoanthropologists Sally McBrearty and Alison Brooks in an article cogently entitled "The Revolution that Wasn't."[23] The revolution to which they refer is the Human Revolution or the Upper Paleolithic Revolution. The material factors pointing to such a revolution are significant. As summarized recently by Ofer Bar-Yosef, they include new kinds of stone tools and associated production technologies, abrupt transformations in personal ornamentation, the functional separation of camp spaces, and striking new evidence for long-distance trade.[24] In the face of the evidence, how are McBrearty and Brooks able to argue that the revolution "wasn't"?

One of the most important features of their argument arises from the fact that McBrearty and Brooks are Africanists, whereas the main proponents of the idea of the Upper Paleolithic Revolution are Europeanists. The cultural assemblage that appears so abruptly in Europe at the onset of the Upper Paleolithic around 40,000–50,000 years ago was, they argue, assembled more gradually in Africa. It appears to burst out in Europe

only because Africans, that is to say members of modern *Homo sapiens*, carried it with them when they migrated into Europe around 50,000 years ago. But their argument relies on an even subtler idea: the asynchronicity of revolutions. Human history is punctuated by crucial moments of transformation and invention. Using fossil and archaeological evidence, it is possible to mark the unique set of innovations associated with "the human revolution" on a timeline. When we do that, we discover a remarkable thing: "These items do not occur suddenly together as predicted by the 'human revolution' model, but at sites that are widely separated in space and time. This suggests a gradual assembling of the package of modern human behaviors in Africa, and its later export to other regions of the Old World."[25] From the paleoanthropological evidence, in other words, it is impossible to say when humans crossed a singular threshold of modernity.

This model has had considerable influence among paleoanthropologists, though more so in the United States than in Europe, where human-revolution orthodoxy remains entrenched.[26] It is not up to us to settle the matter. Our point, instead, is that McBrearty and Brooks offer a model of asynchronous revolution that can be fruitfully applied to any historical context. It suggests a series of step-wise transformations that continuously produce new logics and processes, an image similar to the model of punctuated equilibrium proposed by Stephen Jay Gould and Niles Eldredge.[27] As novel forms become entangled with already-existing practices, they generate unanticipated changes, the very stuff of contingency.[28]

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In an earlier historiographical mode, it was possible to imagine that the currents of history were constrained to flow in particular channels. These channels were laid out by divine providence, by geographically determining factors, or by the pseudo-evolutionism typical of the late-nineteenth-century European historical imagination. They were defined by laws governing the patterns of progress. As Henry Sumner Maine once suggested, the channel of progress itself was both shallow and obscure; it was easy for societies to miss the channel entirely, or to fall out once in.[29] One of the laws of progress, paradoxically, was that few societies were capable of being progressive. But for those that were, history had an inevitable outcome: the modern liberal state, whose citizens could live healthy, wealthy lives in the pursuit of happiness. Such benignity brought with it the moral duty to carry those same benefits to others, a mission that the French, who borrowed the idea from the Romans before them, called *la mission civilisatrice*.

The stationary societies imagined by Maine and others were the original *pre*, societies that could never find the right channel and instead turned and turned in a Sisyphean loop. We can trace Maine's visions back to the Hegelian paradigm that emerged earlier in the nineteenth century, wherein history itself was born at an originary moment when mankind escaped the grip of nature. Hegel was writing around the same time that the speculative idea of pre-Adamite humanity was giving way to the new field of archaeology. He was conscious of the thorny problem associated with the existence of ancient humans, but he quickly resolved this problem by fixating on the triumph of humanity over nature, a conclusion that joined the progressive evolutionary sensibility of his era with the belief that mankind was set apart from nature, a doctrine essential to the Abrahamic worldview that nineteenth-century philosophy and science were busy

dismantling.[30] In the same way that humans broke with nature, so too did European civilization break with the stationary societies.

The determinism of this scheme—the idea that very few channels can lead a progressive society out of the Sisyphean loop—is what critical theory from the 1980s onward set about to demolish, along with the grand narrative structures that attended that vision.[31] One of the concepts that emerged along the way was *contingency*: the idea, simply put, that events did not have to unfold the way they did (Fig. 3). Historical pathways have many forks. At critical junctures, the circumstances of the moment, scarcely more than feathery in their influence, gently lend coherence to emerging trends. As certain trends gather weight and inertia, they acquire the look of historical inevitability—but it is only an illusion. This interpretive stance was the antidote to master narratives of progress. The political message of contingency can be summed up in equally concise terms: there is nothing inherently right or inevitable about the world system as we know it today; it can be wrong, and it can be changed. At stake was the need to reject not just providence or the laws of progress but also the more immediate danger of genetic determinism. The idea of contingency was much favored by Stephen Jay Gould, who harnessed it to the task of rejecting sociobiology, pan-selectionism, and other lightly disguised versions of Victorian racialism.[32] Gould's usage fed back into historiography, where it fueled the indigenous appetite for indeterminacy.

<Insert Figure 3 about here>

<Insert Figure 4 about here>

Contingency soon became a convenient way to gesture rapidly to what is, in point of fact, a complex and difficult idea. In contemporary historical and anthropological writing, it tends to mean accidental, random, conditional, or unique to a particular social context. Used in this way, contingency has acquired a mandatory, almost talismanic quality. It is a word that some authors invoke to ward off the specter of reductionism. The current enthusiasm for contingency has temporarily swept aside the useful analytic purchase that can be gained by acknowledging, perhaps ruefully, that the sum of human actions, when seen from a distance, really do conform to law-like regularities characteristic of certain kinds of complex systems.[33] Among these are spectacular patterns of convergence that arise simply because given ecological circumstances can produce only a limited array of viable responses.[34] Also valuable, and in danger of being overlooked, are scaling laws such as the "tragedy of the commons."[35] These patterns have a beauty of their own. Because they are essential for interpreting how contingency actually works, they will be rediscovered by and by.

Leaving this aside, most historians would agree that contingency is an indispensable aspect of good historical analysis. Low contingency is essential for describing temporally deep histories. Evolutionary biology, whose *pre* is located a very long time ago and consists of a molten earth, is the science of low contingency *par excellence.* All life forms are marked by phylogenetic constraints in areas such as morphology and metabolism that limit, to some degree, possible evolutionary pathways. As time passes, organisms may acquire new constraints. At the same time, however, organisms adapt to unpredictable environmental changes or experience genetic drift, and

these contingencies have resulted in the wild diversity characteristic of existing life forms (not to mention human cultural traits).[36]

Contingency, in short, is an idea of great usefulness to evolutionary biologists and historians alike. The problem is that contingency, like Vitamin A, is not healthy in very large doses.[37] Imagine forking pathways that in turn lead to other forks, where history, if we must think of it in a linear way, ends up being no more than a tangle of crooked lines. As accidents accumulate, there is no longer any compelling reason to connect long stretches of history. Under a regime of high contingency, analysis can focus on no more than a single slice of time, a few crooks in the line. When the past becomes wholly discontinuous, when rupture, break, fragmentation, shattering, fracture, and trauma become the root metaphors for change, then history itself dissolves into a series of non-communicating temporal specialties, each with its own cascading set of *pres*.[38]

As a vision of how change works, high contingency can be enormously liberating. It has been used to undermine the idea that modernity is an inevitable historical outcome, and it is antithetical to any fixed notion of premodernity. After all, the *pre* was a time/space invented by progressivist historians of the Victorian era, and any thoughtful practitioner of critical theory should be allergic to it. Yet the growing use of the *pre* in English closely tracks the arc of both contingency and modernity (compare Figs. 1, 2, and 3). As this correlation suggests, modernity has come to be defined as any historical era that lies on this side of a postulated rupture or break. Thanks to a set of epistemological gimmicks particular to the pre/modernity project, the empty *pre* that looms on the other side of the rupture zone is not even untheorized. It is unknowable. It is unknowable because the desire to know it proceeds from a supposedly crippling dependency on the

intellectual technologies of modernity itself—science, archives, and abstract representations.[39] Similarly, the *pre* is irrelevant to the urgent task of explaining the contingencies of modernity, for nothing of enduring relevance could make its way through the thicket of forks and branches that produce history's non-linear timeline.

By what curious process did contingency come to be associated with the project of pre/modernity? If it was not inevitable, then how did it happen? In our view, the answer lies in moral assumptions intrinsic to modern political thought, a tradition that in its liberal guises values agency and choice, which together constitute freedom. The conceptual boundary between modernity and the *pre* can be maintained only when contingency, complexity, and emergence, as historical processes, are themselves historically contingent rather than universal. Imagine a world in which people simply act out and accurately reproduce traditions inherited from previous generations. In such a naturalized world, there is no opportunity for contingent processes to emerge, and change, to the extent that it occurs at all, will not be experienced as a social ideal or a sign of progress.[40] The threshold of modernity, in this view, is defined as the moment at which people are released from nature/tradition, the moment at which they become agents oriented toward change. Only here, in the putative birth of agency, can we begin to detect the ruptures, spiraling take-offs, revolutions, and transformations that students of modernity consider so distinctive.

If these claims are right—and we acknowledge their provisional nature— "highly contingent" is a synonym for complex, unpredictable, and beyond natural constraint. Squeezed into the role filled by progress in Maine's theory of history, it has become the quality that defines the history of the people-with-history. In keeping with

this trend, today's historians, in their efforts to historicize people, seek to demonstrate how cultural forms, even those considered traditional and stable, are in fact "invented."[41] To the extent that they are historical in the modern sense, nation-states, languages, gender dynamics, class structures, kinship systems, foodways, and modes of dress must always be new, endlessly recreated, and (of course) historically contingent.

"The tradition of all dead generations," Marx wrote, "weighs like a nightmare on the brains of the living."[42] When we invoke themes of agency and indeterminacy, we seem to be releasing ourselves from this nightmare. Tradition is no longer dead weight; it is alive, improvisational, and open to dispute. Yet by associating this emancipatory potential with modernity alone, and thereby segregating the *pre* in a time/space of its own, we have managed to outdo the Victorians in denying historicity to large swathes of the human past. We have also insured that the historicity we do bestow on the people of remote times and places will be unmistakably our own.[43] The fact that Maine has the last laugh is only one of the many pungent ironies of this situation. The casual use of contingency in contemporary historical writing provides therapy for Marx's bad dream by the simple expedient of ignoring it. If one is engaged in farcical reenactment, perhaps it is better not to know.

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The synergy of modernist thought and models of choice and change that depend heavily on contingency has produced a field of analytical attention that is densely compressed in time. When contemporary historians imagine the *pre*, they are likely to think of chronologically recent eras: the precolonial, the premodern, the medieval, and

the world of classical antiquity. Lying beyond these is the master *pre*: the prehistorical, the terrain on which written history does not exist and writing history is (supposedly) no longer possible. When pressed, some historians will say that a lack of textual evidence stands between their discipline and prehistory, but this claim can hardly withstand a moment's scrutiny. If, as R. G. Collingwood argued, the historian's most essential data are physical traces, then any residue from the past will suffice to construct historical accounts.[44] Indeed, there is nothing to prevent historians from sifting through potsherds or haplogroups, just as nothing has prevented archaeologists of the Paleolithic from describing ancient human behaviors and anatomies as "modern."

To work in the distant past, we must shift our focus, break a few well-entrenched analytical habits, and familiarize ourselves with new literatures and methods. As difficult as this retooling itself might be, working outside the narrative arc of modernity is an even greater challenge. What would this move entail? First, it would require that we analyze trends and events in ways that do not preconfigure them as moments of origin or points of culmination. Every developmental sequence would have to be connected to preceding conditions that generate an explanatory present, and this cascade of connectivity would reduce our narrative recourse to high contingency (or rupture) and increase the utility of comparison. Second, working outside the arc of modernity would mean that storylines could privilege neither themes of mastery over nature, nor a growing capacity for freedom or agency, notions of moral progress, or attempts to associate these trends with increasing social complexity. It would be wrong to dismiss these tropes as misleading ideological commitments—they are often indispensable to social movements and

political action—but they should not be treated as essential elements of historical storytelling.

Consider, by way of example, the deceptively simple career of beads and the deceptively complex career of inscriptions.

<Insert Figure 5 about here>

Around 43,000 years ago, people living in the circum-Mediterranean zone began to produce beads at a remarkable pace.[45] That marine shells, ostrich eggshells, and the pearl teeth of red deer could be collected, drilled, and strung on fibers to create beautiful necklaces or clothing sequins was not a new discovery to the peoples of the Upper Paleolithic. Perforated beads have been found in sites around 110,000 years old, when the human populations making them lived solely in Africa. But something happened around 43,000 years ago that increased the pace of production. The shift is associated with the movement of new populations of *Homo sapiens* into Europe. These newcomers, unlike the indigenous Neanderthals, hunted not only the biggest of big game but also a diverse array of smaller species. They were better at adjusting to the risks associated with hunting, and archaeological evidence suggests that they were developing more expansive social networks that were held together by food sharing and gift exchange. As an emerging medium for sharing and exchange, beads were themselves coming to bear new meanings for the people who made them. If we allow ourselves to imagine beads and other symbolic objects of the Upper Paleolithic as entities with their own capacity to inspire social action, we can postulate a fertile zone, a kind of "middle ground," where

beads and people as two independent lineages came together and creatively began to manipulate each other.[46]

Faced with this evidence for takeoff, and the presumed selective competition between populations of Neanderthals and *Homo sapiens*, it is tempting to evoke a concept of revolution: in this case, the so-called Human Revolution. But there is another way to understand this change. First, change was slow, developing over thousands of years, and using component parts—cooperative behaviors, hunting technologies, body decoration, adornment, and specific materials of exchange—that had existed separately for even longer periods of time. Indeed, there was something fragile and tentative about the earliest human experiments with ornaments and durable art objects: until about 50,000 years ago, production of these artifacts would flare up, then stop, as if people had suddenly lost interest or had fallen out of the networks of exchange sustained by carved bones and beadwork.[47] The "new" and predictable social relations that emerged after this apparently revolutionary advance took millennia to stabilize in Eurasia, but beads were everywhere part of this trend, and their material qualities—as bearers of memory and sites of distributed cognition, as physical traces of human activity in the past—make them invaluable to contemporary historians. We can use beads much as Upper Paleolithic populations did: to create and keep track of relationships across time and space. The beads themselves, like other belongings, were arguably becoming part of the growing web of human relations.

Beads are good for making both history and kinship because they have physical qualities that other items of exchange do not. They are durable over long periods of time, whereas skins, woven fabrics, stone and wooden tools wear out quickly and are used up

as they are exchanged.[48] Perhaps most importantly, the durability of shells made them early candidates for inscription. Red deer canines, which have been discovered in Upper Paleolithic sites in quantities rivaling that of shell beads, were harvested in pairs, drilled, and strung on necklaces or on clothing, occasionally finding their way into graves.[49]

<Insert Figure 6 about here>

Many of them were further elaborated with distinctive score marks; these appear to have been made in a single sitting, probably right after butchering or harvesting. A striking number are found without their pairs. The archaeologists who study them suggest that one of the canines might have been given away as a sign of an enduring relationship.

Because shell and bone are durable, they were used to tie larger Upper Paleolithic populations together. Current theories suggest that extensive networks of marriage, friendship, and exchange grew up along chains of bead giving and receiving. Beads also triggered patterns of intensification and competition. Some Upper Paleolithic groups seemed to have few or no beads—Neanderthals were relatively bead-less—and insofar as beads created and extended social relationships, it was clearly advantageous to have beads and give them away. Finally, if beads had additive value; if kinship and marriage required beads; if the exchange of beads prompted the exchange of persons and things; then even rarer and more valuable objects—large shells, shell bracelets, bodies or body parts adorned with shells—could be used to enhance the power and durability of exchange networks. In the contemporary shell currencies of Melanesia, all of these patterns have been amply documented by ethnographers, and the durability of shell

artifacts is most strikingly seen in their ability to accumulate histories, to function as mnemonic devices on a par with place names and kin terms.[50]

In considering the shift from a bead-less to a bead-laden world, it is tempting to embark on a quest for the first bead. Yet we can tell the story without being drawn to what Marc Bloch called the idol of origins.[51] We can focus instead on the qualities of shell and teeth as exchangeable objects that play a continuously changing role in history. In this way, a transition that has been cast as a powerful example of discontinuity ("The Upper Paleolithic Revolution") can be recast as a deep historical narrative. Against a larger comparative backdrop, we can move, beads in hand, from the Upper Paleolithic to the Trobriand Islands, circa 1918, where Malinowski, describing the local *kula* trade in red shell necklaces and white shell bracelets, likened the most valuable of these objects to the Crown Jewels of the English monarchs.[52] The realm of associations can be widened even further. What we are contemplating in the case of early shell bead and red-deer canine cultures is a pattern similar to the mass production normally equated with historical modernity. Relative to population size, after all, shell beads were perhaps being produced in the Upper Paleolithic at the rate iPhones are being manufactured today. But the point is *not* to claim that modernity, or mass production, began earlier than we once thought. Instead, it is more interesting to realize that the language of beads was linked to social conditions that, 43,000 years ago, were already ancient—for instance, the need to signal one's status to others and to create obligations through the exchange of material objects. Once the language of beads was fluently spoken by humans it opened up space for other kinds of messages, but the shell bead idiom has never disappeared. All humans

speak it, or can learn to speak it, just as surely as they can exchange greetings or identify their kin.

Embedded in the bead cultures of the Upper Paleolithic is a capacity for amplitude, for scaling up and down. By virtue of their nearly identical qualities, shells or teeth can be counted; being counted, they can become measures or stores of value, a value made explicit at moments of exchange.[53] This quality of amplitude was not foreordained. It emerged instead from the qualities that small hard things just happen to have. In the process of enabling amplitude, beads *became* vehicles for a kind of social distinction marked not by the human phenotype alone—by height, facial hair, or the beauty of subcutaneous fat—but also by the extended phenotype; that is to say, by ochre, ornaments, clothing, and other signs that dress the body.[54] Two Upper Paleolithic inhumations (ca 24,000BP) at Sunghir, in Russia, containing thousands of mammoth ivory beads, each of which required at least an hour to manufacture, reveal in a spectacular way how beads could be adapted to serve as prestige goods.[55]

<Insert Figure 7 about here>

The Sunghir bodies might also have been painted, their hair tied or removed in distinctive ways; but the human effort pooled in the form of beadwork could be measured in new ways, on a scale that included, and created, the social obligations that enabled so many identically shaped bits of ivory to accumulate in one place.[56]

Prestige is an age-old concept that resists incorporation into historical arguments for the simple reason that history, for the time being, has lost the conceptual ability to

think comparatively, using categories, objects, or relations that are broadly present among humans. These shared frames of reference need not be thought of as universals, or even as uniform. They develop over time and vary across space, and this quality makes them useful as tools for comparison. The belief that different historical periods are essentially distinctive—because they are the product of highly contingent events—produces a mindset in which enduring patterns or comparisons across time are intellectually suspect. If a pattern transcends the divide between *pre* and *post*, it becomes invisible to analysts who are intent on identifying transition moments. But when analysis shifts from the conventional to-from or before-after models to the spiraling patterns typical of deep historical arguments, human patterning becomes visible again—not because the patterns are unchanging, but because they so readily become sites of innovation.

Some 6,500 years ago, at a Black Sea site now called Varna, high-status individuals were buried with an astonishing array of gold objects, for all intents and purposes the first of their kind—and also the last, as it happens, for Varna is an archaeological anomaly, containing artifacts of a sort that would not appear again for another two thousand years.[57]

<Insert Figure 8a-b about here>

<Insert Figure 9 about here>

Among the finds are recognizably bead-like objects that were worn much like shell beads, as the perforations indicate. Like pseudo-red-deer canines carved from mammoth ivory or soapstone found in the Upper Paleolithic, these were expensive copies of inexpensive objects, a strange inversion of the pattern of luxury knock-offs. The advent of gold beads—and an elaborate assemblage of other goods made of, bearing, or encased in gold—is linked archaeologically with new forms of social stratification. Gold, which becomes much more common a few thousand years later, was not for everyone. It accumulated in graves associated with individuals and groups who were clearly set apart, in space and in bodily adornment, from people who did not have access to gold. Shell beads were still available to everyone, but gold beads (along with gold animal figurines, bracelets, scepters, torcs, and penis sheaths) belong to a distinct register of social privilege that is immediately intelligible to contemporary observers. As Colin Renfrew puts it:

> Copper and gold clearly afford in each case a new vehicle for the expression of ranking.... Indeed, it may be suggested that they are not merely reflecting or documenting a degree of ranking in society that would have existed in any case without them. On the contrary, the ownership and display of these valuable objects may have constituted an essential part of the prominence of their owner.[58]

In other words, high-status men, women, and children did not have gold fashioned to reflect their status. Gold, once fashioned, created their prestige.

The introduction of the word *prestige* signals the rarity and unusual quality of these goods when compared to the ubiquitous bead. It also suggests that possession of

these goods marks out a different sphere of exchange, a register of communicative power available to influential people who were connected across great distances, and who set themselves apart, in life and death, from people who did not have access to prestige goods. The accelerated production and circulation of prestige goods has traditionally been associated with the emergence of chiefdoms,[59] but the beads are still in circulation. In the leap from beads to prestige goods, we see the emergence of high and low social registers that did not exist, or could not be sustained, in earlier times. Yet this scalar shift did not entail a clean break from the past, much less a revolution. Prestige goods moved alongside and fueled exchanges in ordinary things, like staples, beads, and fabric.

We know these changes were part of transformations in food production and the management of the surpluses made possible by the gradual domestication of plants and animals. The owners of prestige, whose decayed and mummified bodies we now find in the company of gold, copper plates, rare stones, fabrics, and feathers, were often the people who controlled key "bottlenecks" in local and regional exchange systems.[60] In pre-contact Hawai'i, they monopolized rich alluvial soils, controlled the irrigation systems that watered them, and distributed the bountiful taro and yam crops that grew in them. In Bronze Age Europe, they controlled strategic sites along trade routes, which gave them the ability to tax the flow of prestige goods and the more prosaic forms of wealth that traveled alongside them. What is fascinating about the systems of rank and stratification that materialized around bottlenecks is that, despite their evolutionary novelty, their function was utterly dependent on older technologies of exchange. The ancient habit of gift-giving, expressed in marital payments or in newer forms of "tribute," was the infrastructure of political economy in societies that developed after Varna. The

political networks held together by surplus food production and the exchange of prestige goods were everywhere subject to the interests of newly subordinate populations, whose participation in social inequality was not guaranteed by the fact that their leaders decked themselves in metal or wore impressive headdresses.

Almost as soon as they were discernible as social types, members of higher and lower social registers were caught in a process of mutual definition that proceeded by way of inscription and unequal sharing. The gold bearers did not simply stockpile prestige objects; they also gave them away to ensure loyalty, or create it. Again, the extensive networks of mutual obligation built into prestige goods enabled their owners to pool and manage social effort, creating larger political stages on which to act. As the number of followers and friends grew, however, it became difficult (and unwise) to give away all of one's tripods, cups, bracelets, and scepters. Coinage was a practical solution to this problem. The earliest gold coins, minted in Asia Minor in the seventh century BCE, were not coins at all in a traditional monetary sense. They were tokens given by the heads of prominent families to their supporters.[61] In most cases, coins were embossed with the personal seal of the family head.

<Insert Figure 10 about here>

These tokens were more a badge of loyalty than a medium of exchange. They circulated as gifts and were taken as plunder. Their novelty as a solution to problems of political scale was dependent on a bifurcation in the scalar logic of shell bead exchange. The breaking up and doling out of prestige materials in the form of tokens (a scaling

down of sorts) enabled leaders and followers to build larger, more cohesive regional

alliances (a clear case of scaling up). From an evolutionary perspective, it is hard to say

what is distinctively old or new, progressive or inertial, in these developments. The

circulation of gold pieces embossed with the heads, names, or seals of local notables

would not have made sense, and would not have been possible, without the precedent of

bead exchange, just as the emergence of elite houses would have made no sense without

the systems of kinship and marriage that predated them.

The emergence of market-oriented currencies is related to the rise of city-states

and empires, a process too intricate to explore here.[62] It is obvious, however, that

problems of political and economic scale continued to be addressed in the medium of

metal currency, and the early habit of inscribing telltale images on coins was never

abandoned. As coinage became increasingly important, patterns that flourished in the

world of shell beads and red deer canines were amplified and modified in the medium of

coin. First, coinage was used to convey social distinctions and group belonging, but the

power to mint and guarantee the value of coin signaled hierarchy in ways shell-making

originally could not. Second, coinage served as a historical marker, revealing its point of

origin, its political or divine guarantors, and the outer limits of its own exchangeability.

Complex technologies of inscription have given coinage a mnemonic capacity unrivaled

by the scored cowrie shell. Because coins diffuse value across socioeconomic strata—as

opposed to prestige goods, which concentrate value among elites—the advent of coinage

can be seen as a reassertion of the integrative potential of bead exchange. It is hardly

coincidence that some of the oldest coin-like objects found in China, dating to 900 BCE,

are replicas of cowrie shells cast in bronze or carved from bone, jade, and stone.[63]

<Insert Figure 11 about here>

<Insert Figure 12 about here>

For centuries, Chinese coins had holes in them and were stored and worn on ropes—a habit that brings to mind the bead necklace.

<Insert Figure 13 about here>

The scalar capacity of currency as a medium of political and economic control was increased by the powers of inscription. It is telling that all well-developed coin traditions place words or images on the face of the coin, to authenticate it and establish its worth. The availability of paper, a material developed in China in the second century BCE, triggered even more daring experiments in scale.

<Insert Figure 14 about here>

Paper developed in conditions oddly parallel to those favoring the development of coinage. Originally a specialty fabric used to wrap prestige goods (notably, bronze mirrors), paper was an attractive surface for inscriptions of all sorts, and as recipes for paper-making improved, it was far cheaper than writing on silk panels or white deerskins, materials essential to tributary gift exchange in early Chinese polities.[64] As a medium of

communication and recognition between rulers and subjects, paper was eventually

brought into the logic of obligation and exchange that had already incorporated beads,

coinage, prestige goods, and the modes of inscription associated with each. The idea of

turning paper into a new kind of money took hold in the Song and Yuan Dynasties (ca

960-1368), and the ability of monetary notes to carry ever-higher values (turning them

from heavy masses of metal into thin, almost weightless units of wealth), introduced new

levels of speed, mobility, and liquidity to political economies.[65] The look of revolution,

however, is misleading. The value of paper money, in Song China and in contemporary

financial markets, is secured by coalitions of high-ranking individuals (now called banks)

and rulers of state.[66] Paper money is available to everyone, but the power to make it and

the ability to guarantee its value is as much a marker of prestige as a gold penis sheath

was to a village notable in Varna. Like the gold token or the bronze cowrie, the bank note

still signals (or is an attempt to manage) loyalty and belonging; it marks off a political

domain. Paper currency, like metal coinage before it, has never escaped the logic of the

gift economy. In New Guinea, colonial authorities punched holes in their coinage so it

could be strung and worn about the neck in the manner of shell beads used for

exchange.[67] Paper money, too, is easily assimilated to the world of ceremonial

exchange—often enough, it arrives wrapped in yet more paper, as the content of greeting

cards, gift cards, and wedding gifts.

This 43,000-year history of humans, their beads, and the new social forms that

have grown out of this relationship could easily be extended into the age of plastic and

credit, then into the realm of digital economies. Our point is not to suggest that mass

markets, national monetary policies, or the emergence of social inequality can be reduced

to the logic of bead exchange, or to the durability of shell, bone, or metal. Even daily life in Upper Paleolithic societies was too complex to be explained so simply. Instead, what beadwork shows us is how a series of changes, each bearing the signs of progress and culminating in substantial leaps in social complexity, is in fact a steady reworking, at both smaller and larger scales, of a discrete set of ideas, materials, and practices. The analyst who insists on the essential modernity of money—in its paper, plastic, or electronic forms—must scrupulously ignore the historical ties and operative similarities that make bank notes, gold coins, bronze cowries, and shell bead necklaces part of a single genealogy. Indeed, it is hard to understand what money is, why it works, and the problems it creates and solves for us today, without tracing its deep history, or indeed without understanding how money itself is a distant cousin to buttons, bangles, and pearl necklaces. Our ability to understand what the exchange of shell beads meant to our human ancestors is likewise dependent on our appreciation of the bead's place in this larger genealogy, an awareness that enables us to move backward and forward across large, connected territories of analytical space and time. Writing history on this scale requires that we pay attention to the deep past and find links to it. It also requires that we abandon the *pre* and the peculiar notions of modernity that produce it and are produced by it.

<Section Break>

The phylogeny of the bead offers a model for writing history that can work in many other domains. Food, kinship, ecosystems, language, migration, goods, religion, sex, energy use, and the body can all be treated using similar ideas and frames. When

these topics are studied in the context of deep history, fascinating patterns become visible, in much the way that modernity itself has been enriched through the realization that it came as a global package, not as the brainchild of the West. Exchange, connection, the maintenance of human relationships across distance, the use of the body and its phases of growth and demise to organize social life: these trends emerge as technologies humans use to resolve problems of scale, problems that arise when population densities increase and networks expand, when information travels more rapidly, when the amount of things in use grows exponentially, and when these trends move in the opposite direction.

In the case of beads and their descendent forms, each solution to a problem of scale generated a cascade of new problems and possibilities. There was nothing inevitable in this, nothing inevitable to the world of paper, or the world of plastic, or the world of digital information that now envelops the work of inscription. The development of each was rife with accident and unintended consequences. It is possible, however, to find historical linkages between these media, to show how they emerged from each other, as phylogenies that transcend simple ontogenies. For the historian who is drawn to the idea of contingency, the fact that choice, agency, and unpredictability were already part of life in the Upper Paleolithic should come as welcome news. And the centrality of durable materials to these historically contingent processes, whether they unfold in Neolithic villages or in the elite quarters of colonial cities, should help dissolve the assumption that meaningful accounts of the past can be based only on written records. In short, there is no real need for the idea of prehistory, and as it dissolves, other forms of the *pre* will necessarily crumble with it.

Our focus on the bead, moreover, reminds us of what we can learn by paying attention to broad contexts of comparison, to things and ideas widely shared among humans. The concepts we have explored here, such as costly signaling, prestige, and exchange, are nothing like the cognitive universals posited by some fields of evolutionary psychology or by the dwindling number of people who believe in strict genetic determinism. Instead, they are persistent features of the ecological niches that humans occupy, the social systems we partake in, and the performance characteristics of the goods we use. As such, these concepts can be universal in form without being uniform in substance, a condition that allows both for the fractal quality of change and for its unpredictability at the level of content. Where recuperation of agency is concerned, the most significant point to emerge from this discussion is that the peoples of the Upper Paleolithic were deeply involved in the construction of their own niches.[68] Far from being passive with respect to their environment, far from being creatures of the eternal standstill, they were present at and had a hand in their own making.

As we remove key elements of the grammar of modernity from our analysis, it becomes easier to see how those grammatical rules are supposed to work and, more importantly, how almost none of the work they do is essential or even helpful for the writing of history. The grammar of modernity functions as a temporally provincializing logic just as powerful, and as misguided, as the provincializing logic associated with Eurocentrism. The latter is now being avidly and rightly demolished by global historians and postcolonial and postsocialist scholars of diverse sorts. That this act of renovation has also produced new histories that are temporally shallow and confined to the cultural time/space created by European expansion is unfortunate—but at the same time, it is

clearly a contingent feature of historiographical practice over the last thirty years, and therefore one that we can repair. By adding deep historical perspectives to the critical impulses of postcolonial historiography, perhaps we can decisively break free of the self-justifying myopia that is the hallmark of modern historical consciousness. As the *pre* and the modern fall away, the potential for speaking new languages of past and present will flourish in their place.

Endnotes

[1] David Harvey, *The Condition of Postmodernity* (New York, 1991); Anthony Giddens, *The Consequences of Modernity* (Stanford, 1991); Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis, 1996); Jürgen Habermas, *The Philosophical Discourse of Modernity: Twelve Lectures*, trans. Frederick Lawrence (Boston, 1987); Fredric Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Durham, N.C., 1990).

[2] Thomas Nipperdey, "Probleme der Modernisierung in Deutschland," in idem, *Nachdenken über die deutsche Geschichte: Essays* (Munich, 1986), 44-64; cited in Geoff Eley, *Society, Culture, and the State in Germany, 1870-1930* (Ann Arbor, Mich., 1996), 74.

[3] Judith M. Bennett, *History Matters: Patriarchy and the Challenge of Feminism* (Philadelphia, 2006); Daniel Lord Smail, *On Deep History and the Brain* (Berkeley, 2008); Andrew Shryock, Editorial Foreword, *Comparative Studies in Society and History* 50 (2008): 8; Daniel Lord Smail, Clare Haru Crowston, Kristen B. Neuschel, and Carol Symes, "History and the Telescoping of Time: A Disciplinary Forum," *French Historical Studies* 34 (2011): 1–55. See also the cogent analysis offered in Kathleen Davis, *Periodization and Sovereignty: How Ideas of Feudalism and Secularization Govern the Politics of Time* (Philadelphia, 2008).

[4] Ernest Renan, *Qu'est-ce qu'une nation? What is a Nation?*, trans. Wanda Romer Taylor (Toronto, 1996), 18-19: "L'oubli, et je dirai même l'erreur historique, sont un

facteur essentiel de la création d'une nation, et c'est ainsi que le progrès des études historiques est souvent pour la nationalité un danger."

[5] In his critique of scholarship that treats modernity as distinct and discontinuous, Fred Cooper notes that modernity itself is a representation that generates its own starting point in the form of tradition; see *Colonialism in Question: Theory, Knowledge, History* (Berkeley, 2005), 126.

[6] Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton, 2000).

[7] Michel-Rolf Trouillot, "Anthropology and the Savage Slot: The Poetics and Politics of Otherness," in Richard G. Fox, ed., *Recapturing Anthropology: Working in the Present* (Santa Fe, N.M., 1991), 17-44.

[8] Walter Benjamin, "Theses on the Philosophy of History," in Hannah Arendt, ed., Harry Zohn, trans., *Illuminations: Essays and Reflections* (1955; repr., New York, 2007), 253-64.

[9] The "denial of coevalness" would be the more respectful gesture in these cases. Placing the analyst and the subject within a shared time-space was once considered a corrective to exoticism—see Johannes Fabian's famous development of this position in *Time and the Other: How Anthropology Makes Its Object* (New York, 1983)—but it is equally possible to see "the granting of coevalness" as another example of the imperial inclusion so typical of modern political and intellectual styles.

[10] See the AHR Roundtable, "Historians and the Question of 'Modernity',"
American Historical Review 116 (2011): 631-751.

[11] In our introduction to Andrew Shryock, Daniel Lord Smail, et al., *Deep
History: The Architecture of Past and Present* (Berkeley, 2011), we try to explain why
the critical potential of postcolonial theory has been contained almost entirely within the
study of societies described as modern, early modern, or postmodern. A similar case is
made by Thomas Trautmann in *The Clash of Chronologies: Ancient India in the Modern
World* (New Delhi, 2009).

[12] The extent to which modern time/space dominates the convergence of
anthropology and history is on vibrant display in David Cohen et al., eds., *Anthrohistory:
Unsettling Knowledge, Questioning Discipline* (Ann Arbor, Mich., 2011). The volume
celebrates fifteen years of groundbreaking research in the University of Michigan's
Anthropology and History Program. Of its twenty-two essays, most are situated within
the nineteenth and twentieth centuries, and only one engages closely with an "early
modern" context: namely, E. Natalie Rothman's "Genealogies of Mediation: 'Culture
Broker' and Imperial Governmentality" (pp. 67-80), which addresses Venetian-Ottoman
interactions in the sixteenth century. Given the temporal depth of anthropology and
history in their more standard, disciplinary forms, it is interesting that the contributors to
the volume seem generally unperplexed by the relentless modernity of their project.

[13] We explore other therapies in Shryock, Smail, et al., *Deep History*.

[14] Ferenc Fehér, ed., *The French Revolution and the Birth of Modernity* (Berkeley, 1990), 3.

[15] Important precursors include Neil McKendrick, John Brewer, and J. H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-century England* (London, 1982); Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger with Frederick Lawrence (Cambridge, Mass., 1989); and Charles Taylor, *The Sources of the Self: The Making of the Modern Identity* (Cambridge, Mass., 1989). A sampling of recent works includes Daniel Roche, *A History of Everyday Things: The Birth of Consumption in France, 1600-1800*, trans. Brian Pierce (Cambridge, 2000); Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, 2000), Dror Wahrman, *The Making of the Modern Self: Identity and Culture in Eighteenth-century England* (New Haven, 2004); Lynn Avery Hunt, *Inventing Human Rights: A History* (New York, 2007).

[16] See Clare Haru Crowston, "Credit and the Metanarrative of Modernity," *French Historical Studies* 34 (2011): 7-19.

[17] Classic works include Joseph Reese Strayer, *On the Medieval Origins of the Modern* State (Princeton, 1970); Robert S. Lopez, *The Commercial Revolution of the Middle Ages* (Englewood Cliffs, N.J., 1971); Colin Morris, *The Discovery of the Individual, 1050-1200* (New York, 1972). On the fading of the habit, see Paul Freedman

and Gabrielle Spiegel, "Medievalisms Old and New: The Rediscovery of Alterity in North American Medieval Studies," *American Historical Review* 103 (1998): 677-704.

[18] V. Gordon Childe, *Man Makes Himself* (London, 1936); Andrew Sherratt, "Plough and Pastoralism: Aspects of the Secondary Products Revolution," in I. Hodder, G. Issac, and N. Hammond, eds., *Pattern of the Past* (Cambridge, 1981), 261-305.

[19] The term was first proposed in Kent V. Flannery, "Origins and Ecological Effects of Early Domestication in Iran and the Near East," in P. J. Ucko and G. W. Dimbleby, eds., *The Domestication and Exploitation of Plants and Animals* (Chicago, 1969), 73-100; see also Mary C. Stiner, "Thirty Years on the 'Broad Spectrum Revolution' and Paleolithic Demography," *Proceedings of the National Academy of Sciences* 98 (2001): 6,993-96.

[20] Paul Mellars and Chris Stringer, eds., *The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans* (Princeton, 1989).

[21] Sarah Blaffer Hrdy, *Mothers and Others: The Evolutionary Origins of Mutual Understanding* (Cambridge, Mass., 2009); Richard W. Wrangham, *Catching Fire: How Cooking Made Us Human* (New York, 2009).

[22] See Ann Gibbons, "A New Kind of Ancestor: Ardipithecus Unveiled," *Science* 326, no. 5949 (2009): 36-40.

[23] Sally McBrearty and Alison Brooks, "The Revolution that Wasn't: A New Interpretation of the Origin of Modern Human Behavior," *Journal of Human Evolution*

39 (2000): 453–563. A complementary argument has been proposed by Clive Gamble in his *Origins and Revolutions: Human Identity in Earliest Prehistory* (New York, 2007).

[24] Ofer Bar-Yosef, "The Upper Paleolithic Revolution," *American Review of Anthropology* 31 (2002): 363-93.

[25] McBrearty and Brooks, "Revolution that Wasn't," 453.

[26] John J. Shea, "The Human Revolution Rethought," *Evolutionary Anthropology* 15 (2006): 42-43.

[27] Stephen Jay Gould and Niles Eldredge, "Punctuated Equilibria: The Tempo and Mode of Evolution Reconsidered," *Paleobiology* 3 (1977): 115-51.

[28] See Nicholas Thomas, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific* (Cambridge, Mass., 1991); Ian Hodder, *Entangled: An Archaeology of the Relationships Between Humans and Things* (Malden, MA: Wiley-Blackwell, 2012). For an example of how this model works in action, see Michael Dietler, *Archaeologies of Colonialism: Consumption, Entanglement, and Violence in Ancient Mediterranean France* (Berkeley, 2010).

[29] Henry Sumner Maine, *Ancient Law: Its Connection with the Early History of Society, and Its Relation to Modern Ideas* (1861; reprint ed., Tucson, N.M., 1986). See Alan Diamond, ed., *The Victorian Achievement of Sir Henry Maine: A Centennial Reappraisal* (Cambridge, 1991).

[30] For a fuller discussion of these themes, see Shryock and Smail, "Introduction," in *Deep History*, 3-20.

[31] The agenda was a re-enactment of earlier contests, not all of them conducted on the disciplinary turf of historians. For anthropologists, the battle lines were clearly drawn by the early years of the twentieth century, when Franz Boas and his students were dismantling the grandiose claims of Victorian evolutionism; see George Stocking, *Race, Culture, and Evolution: Essays in the History of Anthropology* (Chicago, 1982).

[32] See, in particular, Stephen Jay Gould, *Wonderful Life: The Burgess Shale and the Nature of History* (New York, 1989); idem, *The Structure of Evolutionary Theory* (Cambridge, Mass., 2002), esp. 688 and following and 1338 and following. For discussion, see John Beatty, "Chance Variation and Evolutionary Contingency: Darwin, Simpson, *The Simpsons*, and Gould," in Michael Ruse, ed., *The Oxford Handbook of the Philosophy of Biology* (Oxford, 2008)., 189-210.

[33] See the special issue of *Cliodynamics: The Journal of Theoretical and Mathematical History* 2 (2011), David Krakauer, John L. Gaddis, and Kenneth L. Pomeranz, eds., http://escholarship.ucop.edu/uc/irows_cliodynamics.

[34] Simon Conway Morris, *Life's Solution: Inevitable Humans in a Lonely Universe* (Cambridge, 2003); Geerat J. Vermeij, "Historical Contingency and the Purported Uniqueness of Evolutionary Innovations," *Publications of the National Academy of Sciences* 103 (2006): 1804-9.

[35] Garret Hardin, "The Tragedy of the Commons," *Science* 162, no. 3859 (1968): 1243-48.

[36] Tina Young Choi argues that Darwin's theory of evolution, because it moved away from belief in providential design, provided Victorian intellectuals with a new idiom in which to stress ideas of contingency in their accounts of natural systems and human affairs. Choi's observation suggests that contingency motifs are useful in destabilizing any strong explanatory framework; see "Natural History's Hypothetical Moments: Narratives of Contingency in Victorian Culture," *Victorian Studies* 51 (2009): 275-96.

[37] Dissatisfaction with high contingency—with the idea that almost anything could happen—is often the driving force behind critiques of counterfactual histories. In objecting to fanciful accounts of what the present would look like if the Confederacy had won the American Civil War, Catherine Gallagher makes a strong case for systemic constraints on the flow of historical events. The events in question are entirely imaginary, but their (un)likelihood forces us to consider the factors that limit the range of "real" historical events; see "When Did the Confederate States of American Free the Slaves?", *Representations* 98 (2007): 53-61.

[38] Helmut Walser Smith, *The Continuities of German History: Nation, Religion, and Race Across the Long Nineteenth Century* (Cambridge, 2008), esp. p. 3.

[39] Timothy Mitchell offers a classic example of this stance in *Colonising Egypt* (Berkeley, 1991).

[40] The image brings to mind Levi-Strauss's famous opposition of hot and cold societies. According to this scheme, so-called primitive cultures are cold, slow to change,

and the subject matter of anthropologists, whereas modern cultures are hot, endlessly changing, and a fitting subject for historians. Levi-Strauss assumed that hot societies developed only after the Neolithic Revolution; see *Structural Anthropology,* vol. 2, trans. Monique Layton (Chicago, 1983), 28-30.

[41] The trend is routinely traced to Eric Hobsbawm and Terence Ranger, *The Invention of Tradition* (Cambridge, 1983), but it was already full-blown in Benedict Anderson's *Imagined Communities* (London, 1983) and Ernest Gellner's *Nations and Nationalism* (Ithaca, N.Y., 1983), which appeared in the same year.

[42] "The Eighteenth Brumaire of Louis Bonaparte," in David McClellan, ed. *Karl Marx: Selected Writings* (Oxford, 1978), 300.

[43] For a discussion of how this normalization occurs in the analysis of oral tradition, see Andrew Shryock, *Nationalism and the Genealogical Imagination: Oral History and Textual Authority in Tribal Jordan* (Berkeley, 1997), 25-37.

[44] *The Idea of History* (Oxford, 1956).

[45] The analysis that follows weaves together some themes developed more fully in Shryock, Smail, et al., *Deep History*, specifically ch. 4, "Energy and Ecosystems," ch. 9, "Goods," and ch. 10, "Scale."

[46] Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*, 2nd ed. (Cambridge, 2011).

[47] S. Kuhn, M. C. Stiner, D. Reese, and E. Güleç, "Ornaments in the Earliest Upper Palaeolithic: New Perspectives from the Levant," *Proceedings of the National*

Academy of Sciences of the United States 98 (2001): 7641-46; McBrearty and Brooks, "The Revolution that Wasn't."

[48] See, inter alia, Steven L. Kuhn and Mary C. Stiner, "Body Ornamentation as Information Technology: Towards an Understanding of the Significance of Early Beads," in Paul Mellars, Katie Boyle, Ofer Bar-Yosef, and Chris Stringer, eds., *Rethinking the Human Revolution: New Behavioral and Biological Perspectives on the Origin and Dispersal of Modern Humans* (Cambridge, 2007), 45-54.

[49] Francesco d'Errico and Marian Vanhaeren, "Criteria for Identifying Red Deer (Cervus elaphus) Age and Sex from Their Canines. Application to the Study of Upper Palaeolithic and Mesolithic Ornaments," *Journal of Archaeological Science* 29 (2002): 211-32.

[50] See the essays in David Akin and Joel Robbins, eds., *Money and Modernity: State and Local Currencies in Melanesia* (Pittsburgh, Penn., 1999).

[51] See Carol Symes, "When We Talk about Modernity," *American Historical Review* 116 (2011): 715-26.

[52] *Argonauts of the Western Pacific* (London, 1922).

[53] Georg Simmel, *The Philosophy of Money* (London, 1978); Arjun Appadurai, "Introduction: Commodities and the Politics of Value," in Arjun Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge, 1986), 3-63.

[54] The principle of the extended phenotype was developed by Richard Dawkins in *The Extended Phenotype* (Oxford, 1982); see also our chapter "Body," in *Deep History*, 55-77.

[55] Vincenzo Formicola and Alexandra P. Buzhilova, "Double Child Burial from Sunghir (Russia): Pathology and Inferences for Upper Paleolithic Funerary Practices," *American Journal of Physical Anthropology* 124 (2004): 189-98; Vincenzo Formicola, "From the Sunghir Children to the Romito Dwarf: Aspects of the Upper Paleolithic Funerary Landscape," *Current Anthropology* 48 (2007): 446-53.

[56] The concentration of beads found at Sunghir, as it happens, was somewhat unusual in its day. In this regard the history of beads is like the history of technology or the history of prestige goods; it is littered with diversions and innovations that do not catch.

[57] The Eneolithic Necropolis was discovered in Varna in 1972; some of its objects can be visited at http://www.amvarna.com/. We thank John Robb for pointing out to us Varna's anomalous place in the archaeological record.

[58] "Varna and the Emergence of Wealth in Prehistoric Europe," in Appadurai, ed., *The Social Life of Things*, 141-68, here 156.

[59] Timothy Earle, *How Chiefs Come to Power* (Stanford, 1997).

[60] The idea of bottlenecks is developed in Timothy Earle, "Redistribution and the Political Economy: The Evolution of an Idea," *American Journal of Archaeology* 115 (2011): 237-44.

[61] S. Von Raden, *Exchange in Ancient Greece* (London, 2003), 177-78; L. Kurke, *Coins, Bodies, Games, and Gold: The Politics of Meaning in Archaic Greece* (Princeton, 1999).

[62] For an analysis that links the evolution of coinage and markets to patterns of state warfare, see Erica Schoenberger, "The Origins of the Market Economy: State Power, Territorial Control, and Modes of War Fighting," *Comparative Studies in Society and History* 50: 663-91.

[63] Xinwei Peng, *A Monetary History of China*, trans. Edward H. Kaplan, 2 vols. (Bellingham, Wash., 1993), 1: 8-22. Li Yung-ti offers a critique of the common assumption that these tokens were coins in his "On the Function of Cowries in Shang and Western Zhou China," *Journal of East Asian Archaeology* 5 (2006): 1-26. See also Walter Scheidel, *Rome and China: Comparative Perspectives on Ancient World Empires* (New York, 2009), 139.

[64] On paper's early function as a wrapping material, see Tsuen-Hsuin Tsien, *Paper and Printing*, vol. 5, part 1 of Joseph Needham, ed., *Science and Civilisation in China* (Cambridge, 1986), 85 and 122. Later, paper was also used for fans, umbrellas, clothing, furnishings, visiting-cards, kits, lanterns, napkins, and toilet paper, in addition to its function as a surface for writing. On white deerskin money, see Denis Twitchett and Michael Loewe, ed., *The Cambridge History of China,* vol. 1, *The Ch'in and Han Empires, 221 BC-AD 220* (Cambridge, 1986), 587.

[65] Richard Von Glahn, *Fountain of Fortune: Money and Monetary Policy in China, 1000-1700* (Berkeley, 1996), 43, 56-70.

[66] For a study of the evolution of modern bank notes and their relationship to cultural capital and elite social status, see Albert Schrauwers, "Money Bound You— Money Will Loose You: Micro-Credit, Social Capital, and the Meaning of Money in Upper Canada," *Comparative Studies in Society and History* 53 (2011): 314-43.

[67] David Akin, personal communication.

[68] See F. John Oding-Smee, Kevin N. Laland, and Marcus W. Feldman, *Niche Construction: The Neglected Process in Evolution* (Princeton, 2003).