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Ecologizing Modernisms in Wartime China, 1931-1945

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Between Animal and Machine:

Ecologizing Modernisms in Wartime China, 1931-1945

A dissertation presented

by

Dingru Huang

to

The Department of East Asian Languages and Civilizations

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of
East Asian Languages and Civilizations

Harvard University
Cambridge, Massachusetts

May 2022

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Dissertation Advisor: David Der-wei Wang Dingru Huang

Between Animal and Machine:
Ecologizing Modernisms in Wartime China, 1931-1945

Abstract

How do we envision connections with human and nonhuman others in a time of destruction and division? This dissertation tackles the question in the context of the Second Sino-Japanese War (1937-1945) and its prelude by examining the cultural products of the time: from fiction to films, from popular science magazines to memoirs by engineers and scientists. These materials demonstrate how Chinese and international writers, filmmakers, and intellectuals in wartime China repositioned the human condition in relation to nonhuman figures. In dialogue with existing scholarship that emphasizes human factors, such as ideological divisions in wartime cultural production, I argue that ecological imaginations evoked by nonhuman figures also significantly shaped the landscape of twentieth-century Chinese literature and media.

This dissertation explores the roles played by a series of nonhuman figures in more-than-human wartime ecologies, from the frontlines to the hinterland. The first chapter examines the figure of the poison gas in prewar popular science media and its environmental and affective implications. The second chapter delves into mimeograph printing techniques and animal perspectives adopted by the leftist soldier writer Qiu Dongping. The third chapter reconstructs the poetics of infrastructure emerging from the tortuous history of the Burma Road, which is intertwined with the histories of the tropical environment and media technology. The fourth

chapter reflects on the promises and perils of posthuman kinship in a colonial world order by bringing the Japanese biologist-writer Nishimura Makoto into dialogue with the Chinese writer Lu Xun, via the figures of a pigeon and a robot. Finally, the epilogue offers a glimpse of the lasting entanglement between wartime discourses and ecological imaginations, as manifested by the figure of the elephant from the battlefield in socialist documentary cinema and contemporary Sinophone fiction.

In these case studies, I identify moments of “precarious connections” between human and nonhuman entities, which are generated by and contributing to wartime states of emergency, contingencies, and a shared sense of precarity. Beyond the historical scope of this dissertation, these precarious connections shed lights on how we imagine relational responsibilities for human and nonhuman others in the hot and cold wars at the present.

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Introduction

To know the "human" is not enough, we must learn again
the art of crushing it, assembled in a mechanic formation,
intelligence and bodily strength writhing like a pack of beasts

知道了"人"不夠，
我們再學習 蹂躪它的方法，排成機械的陣式，
智力體力蠕動著像一群野獸[1]

The poet Mu Dan (穆旦, 1918-1977), then a student at the National Southwest Associated University, composed the lines above for a poem called "Departure" (出發) in 1942 during the Second Sino-Japanese War, before setting out for Burma as an interpreter with the Chinese Expeditionary Force. Instead of joining the dominant choirs of frontline literature in expressing passion and determination for national defense, Mu Dan adopts a self-reflexive voice that is often associated with a "modernist" psyche and ponders on the alienation of human subjects involved in the war. The poem evokes nonhuman figures of the machine and the animal, between which the poet positions a human collectivity he refers to as "us." At the end of the poem, this human collectivity is placed under the spell of an unnamed "god" who "bequeaths abundance and the pain of abundance" (你給我們豐富，和豐富的痛苦).[2] This poem encapsulates the major issues examined in this dissertation: wartime modernism, technologies of destruction and discipline, and ecologies involving animalistic and mechanic bodies. It also poses the thorny questions that guide the the exploration of these issues: what does it mean to remain “human” in a dehumanizing technologized war? How does one envision connections with human and nonhuman others in a time of destruction and division when not only the national territories but also the self was facing disintegration? What could be the use of poetry writing and cultural production in general in creating and revealing such connections?

---

[1] Mu Dan 穆旦. "Chufa" 出發 [Departure]. *Mu Dan shi quanji* 穆旦诗全集 [Complete collection of Mu Dan's poems], Beijing: Zhongguo wenxue chubanshe, 1996, 150.

[2] Ibid, 151.

The Second Sino-Japanese War, which officially broke out in 1937, was the culmination of a decade-long Japanese invasion beginning with the 1931 Mukden Incident and the Japanese occupation of Manchuria in Northeast China. It is one of the most trauma historical events in twentieth-century China, whose ethical, geopolitical, and cultural legacies still exert lasting impacts. During the war, intellectuals, writers, and artists, who fled from major Northern and Eastern cities such as Beijing and Shanghai to Southwestern interiors, like Mu Dan, found themselves cast into a world of “abundance and the pain of abundance.” Their subjectivities were at the same time destabilized by the traumatic experience of exile and homogenized under the call of the national state. They rediscovered “China” and its people while realizing how their environments were defamiliarized by the national and personal crises. Under these circumstances, wartime media such as literature and cinema played a significant role in recreating, and even in Félix Guattari’s term, “resingularizing” their subjectivities with a sense of belonging *and* liberating heterogeneities.

As Mu Dan returned from the battlefield in Burma, the voice in his poem turned from singular to plural. In 1945, he composed “The Phantom in the Forest: An Elegy for the White Bones by the Hukang River” (森林之魅：祭胡康河上的白骨) in direct response to his experiences in Burma. [3] The poem opens with the “voice” of the primitive forest in Burma, which lures a solider mired in the jungle to join its circle of metabolism with his dead body. The poem then shifts to the perspective of the dying solider, who runs his eyes over the strange plants, insects, and beasts around him, leading to an epiphany that all these nonhuman species are disturbed by the war, or in the poem, a “disconcerted journey” (不和諧的旅程) of the human. At the end, a third voice joins the dialogue between the forest and the solider, chanting an elegy for the soldier, whose body has decomposed in earth, nurturing plants in the forest, and hence finally becomes synchronized with “the timeframe of the forest” (森林的週期). The boundary between the human and nonhuman questioned in “Departure” is thereby further dissolved in “The Phantom in the Forest.” The metabolic exchange with the environment turns into a horizon for envisioning ethical relationships.

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[3] Mu Dan 穆旦. “Senlin zhi mei: ji huanghe shang de baigu” 森林之魅: 祭胡康河上的白骨 [The Phantom in the Forest: An Elegy for the White Bones by the Hukang River]. *Mu Dan shi quanji* 穆旦诗全集 [Complete collection of Mu Dan’s poems], Beijing: Zhongguo wenxue chubanshe, 1996, 211-214.

This dissertation is intended to capture moments such as this: moments of recognition, confusion, and dissolution of human and nonhuman boundaries - moments of what I term “precarious connection” between the human and the nonhuman. It explores how Chinese and international writers, artists, and intellectuals in wartime China, by mobilizing various literary and artistic techniques and media technologies, repositioned themselves and the human condition in relation to nonhuman others such as animals and machines, all the while being reshaped by them. Taking an interdisciplinary and transnational approach, this dissertation aims to reveal previously neglected nexuses between cultural production, technological development, and ecological imaginations.

In the rest of this introduction, I will first examine the existing scholarship on wartime Chinese cultural production and modernisms as well as my own interventions. I will then move on to unpack the loaded concept of “ecology,” which will unfold a conceptual map for this dissertation to analyze wartime cultural production. This will be followed by an examination of the emerging technologies and "modernist" techniques, which were implemented upon and mobilized by wartime cultural agents in the Chinese literary and media scenes of the early 20th century. Finally, I will return to the nonhuman figures of the animal and the machine, which I treat as a recurrent theme and a critical method. In dialogue with existing scholarship that tends to focus on human factors in wartime cultural production, this dissertation argues that ecological imaginations evoked by nonhuman figures also significantly shaped the landscape of twentieth-century Chinese literature and media.

I. Wartime Cultural Production and Modernisms

The literary and artistic scene in 1930s and 1940s wartime China has been often mapped upon the split ideological topography. At that time, China's human geography was divided into the Japanese-occupied zones, the KMT or Nationalist party-governed areas, and the Communist bases. As a result, writers and artists are categorized by their left or right-leaning political stances and their collaboration, passivity, or resistance vis-à-vis the Japanese forces.

Following Edward Gunn's pioneering *Unwelcome Muse: Chinese Literature in Shanghai and Peking* (1980), English-language scholarship on wartime Chinese literature and media has succeeded in rediscovering the less heard voices and the "unwelcome muse" within and beyond the occupied areas. For example, building upon Leo Lee's *Shanghai Modern* (1999), which examines the intersections between literary modernism and print capitalism in Shanghai, and Shu-mei Shih's *The Lure of the Modern* (2001), which situating major modernist writers and their works from Shanghai and Beijing in semi-colonial power dynamics, Nicole Huang's *Women, War, Domesticity* (2005) examines the women writers and popular print media in occupied Shanghai, especially their use of quotidian themes and fluid and fragmentary forms as a subversive “aesthetics of liminality.” In *Resisting Manchukuo* (2007), Norman Smith offers similar observations concerning how women writers carved niches and found tactic agency during the occupation. While challenging the conventional perception of these women writers as “collaborationist,” Huang and Smith continue using the dichotomy between oppression and subversion, yet complicate the power dynamic by introducing the gendered dimension.

In recent years, scholars in both literary and media studies have endeavored to transcend the well-trodden topography of split ideologies by drawing generic, thematic, stylistic, and medial links between cultural production across geopolitical divisions. Charles A. Laughlin’s *Chinese Reportage* (2002), for example, devotes two chapters to wartime reportage literature across different regions, and demonstrates that the geopolitical regions can be simultaneously solid and fluid, being reshaped by highly mobile cultural agents. In the field of film studies, Poshek Fu’s research on the film industry in occupied Shanghai and postwar Hong Kong (2003) and Jie Li’s study of Manchukuo documentaries (2014) reveal the intricate negotiations among industrial, political, and intellectual forces flowing in and out the areas in focus. Weihong Bao’s *Fiery Cinema* (2015) sheds a new light on the entanglement between cinema and propaganda, their transregional traffic, and the jointed efforts of filmmakers to search for a “cinematic Esperanto” across the geopolitical division between Chongqing, Hong Kong, and Shanghai. Sharing her interest in the movements of wartime Chinese cultural agents, Carolyn FitzGerald’s *Fragmenting Modernisms* (2013) presents the dynamic formal experimentations in cross-media modernisms including literature, *manhua*, and cinema as shaped by a widespread dislocation and displacement. Compared with Chang-tai Hung’s 1994 groundbreaking work on wartime popular culture that highlights Chinese intellectuals’ heroic turn towards a popularized cultural form for resistance, FitzGerald provides an analysis of the dynamic negotiations taking place along the rise of "national forms" (民族形式), between global and local, between urban and rural, and between elite and grassroots, and hence expands the definition of Chinese modernism, which has generally been conceived of as a metropolitan aesthetic movement that developed in the semi-colonial cities of Shanghai and Beijing.

In this dissertation, I evoke the concept of "modernism" in a broad sense, referring to the cultural production that provide self-reflexive manifestations of and critical responses to wartime modernity, especially the social, cultural, and ecological impacts of the technologized war. Modernisms in different cultural contexts are often defined by their emphasis on formalistic innovation over content. Their stylistic newness is commonly attributed to the crisis of representation brought by the shock of modernity. In the context of 1930s-40s wartime China, the shock of modernity was materialized as the technologized destruction of living environments on an unprecedented scale. The crisis of representation was therefore inevitably entangled with national and individual crises of survival.

The technology of gas warfare in the first chapter, for example, compelled literary and media creators to develop their own strategies to make sense of the unprecedented ecological impacts of modern warfare on human and nonhuman beings. For instance, the designs of gas masks became part of these media creators' visual repertoire, which embodied both advanced technology and wartime alienation, containing informative values and exerting affective powers. In contrast to the destructive technology of gas warfare, the third chapter explores the constructive technology of road building in the case of the Burma Road. The ecological impacts of its construction and operation informed a poetics of infrastructure shared by the poems, stories, photographs, memoirs, and a documentary revolving around this international highway.

The discussion of wartime technologies is not always about progression. The second chapter, for example, examines a "low-tech" medium that is the mimeograph printing technique. This technique flourished in China as the print industry in major cities was largely damaged by the war. For a solider writer like Qiu Dongping (丘東平, 1910-1941), the technique both facilitated mechanic reproduction of propaganda and allowed space for creativity. In this chapter, this media technology is put in relation to wartime biopolitics, the technology of governance and mobilization. Similarly, in the fourth chapter, when the Japaense biologist Nishimura Makoto (西村真琴, 1883-1956) invented a robot that defied national and racial boundaries, he did not intend to showcase the advancement of technology, but rather took it as an opportunity to critique the materialistic culture in the sprawling Japan Empire driven by instrumentalism.

Wartime modernisms therefore were conditioned by and making use of modern technologies for destruction, construction, governance, mobilization, and creation. In the cultural products I examine in this dissertation and call "modernisms," the hope for progressive technological modernization and the fear of the unprecedented mental, social, and environmental disasters it may produce often co-exist.

Morevoer, on a geopolitical level, the modernist cultural production in wartime China was often self-consciously embedded in a colonial world order, particularly embedded in the triangular power dynamics between China, Japan, and "the West," [4] which will be demonstrated in this dissertation through transnational journeys of images, techniques, and cultural agents, direct contacts and exchanges across borders, and relational comparisons of shared themes in distinct contexts. In dialogue with Shu-mei Shih's "semi-colonial" model of interpreting early twentieth-century Chinese modernist literature, which takes colonial hierarchies as its central concern, this dissertation treats modernist cultural production as much a conscious response to the techno-scientific transformation witnessed in the first half of the twentieth century, as a manifestation of the political unconscious and consciousness regarding the geopolitical position of China.

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[4] Shu-mei Shih offers a detailed discussion on the multiple-way traffic of Western, Japanese, and Chinese modernisms embedded in an imperial world order in *The Lure of the Modern*. See Shih, *The Lure of the Modern,* 5-40.

Building on the existing scholarship on the dynamic cultural networks of wartime Chinese cultural production, this dissertation excavates underexplored cultural products across media, from popular science journals and mimeograph newspapers to memoirs by engineers and scientists. Following the border-crossing journeys of cultural agents, I also bring well-known writers and filmmakers, such as Lu Xun (魯迅, 1881-1936), Pearl S. Buck (1892-1973), and Zheng Junli (鄭君里, 1911-1969), in dialogue with understudied ones such as Xiaozhu (筱竹), Qiu Dongping, Sun Mingjing (孫明經, 1911-1992), and Nishimura Makoto. By unearthing previously unheard voices, I aim to present a more diverse picture of wartime Chinese mediasphere and a more complex topography of Chinse modernisms.

More importantly, I propose to revisit wartime cultural production and modernisms from an ecological perspective, shifting the focus from human-centric concerns such as ideological stances and political choices to more-than-human wartime ecologies. To take an ecological approach means to examine modernist experiments across media in relation to psychological, social, environmental, and media milieux that they attempt to portray while inevitably being impacted by. In the following section, I will elaborate on the (over)loaded implications of evoking the concept of “ecology.”

II. Ecology: What’s in a Name?

Instead of what is in the concept of "ecology," literary scholars seem to be more interested in what is not. Timothy Morton (2009) argues for "ecology without nature," whereas Christine L. Marran (2017) proposes "ecology without culture," leaving readers wondering what is left behind.

Morton challenges the taken-for-granted idea of "nature," which is often seen as a "natural" subject for ecological writings and ecocriticism. He points out that the concept of nature has been elevated and deified and valued as something "transcendental, unified, and independent."[5] It is seen as both divine and material, both essence and substance, providing intellectual authority and moral certainty. The notion of nature therefore becomes an ideological fixation that establishes a distance between human subjects- "us" and nonhuman objects - "them," and hence impedes a truly "ecological" thinking that embraces blurred boundaries and decentralized networks.

By contrast, following Karen Thornber's *Ecoambiguity* (2012), which examines shared ecological concerns in East Asian literatures beyond cultural differences, Marran's *Ecology without Culture* takes issue with cultural essentialism and exceptionalism in ecocriticism that reinforce the dichotomy between "the West and the rest." This is particularly salient when ecocritics and ecological writers celebrates East Asian cultures as more "intimate" and "harmonious" with nature. Marran targets such stereotypes that deploy *bios* to articulate *ethnos*. According to Marran, nonhuman figures, which she terms "biotropes," are often evoked for human interests, especially for the purpose of consolidating ethnic nationalism, but the agency of matter per se is denied "in the double gesture of foregrounding the biotic world while erasing its historicity." [6] Similarly, Morton also suggests historicization as a way to resist the lure of "nature." He even asserts that "the final word of the history of nature is that nature is history."[7]

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[5] Morton, Timothy. *Ecology without Nature: Rethinking Environmental Aesthetics*. (Cambridge: Harvard University Press 2007), 13.

As demonstrated by these two scholars, the nonhuman figures have their own historicity, both at material and semiotic levels. This dissertation therefore takes a historicizing approach to revisit ecological imaginations in 1930s and 1940s China and the wartime manifestations of "ecoambiguity," which Thornber defines as "the complex, contradictory interactions between people and environments with a significant nonhuman presence." [8] As Thornber points out, "[literature]'s regular and often blatant defiance of logic, precision, and unity…enables it to grapple more insistently and penetratingly than many other discourses with ambiguities in general and with those arising from interactions among people and ecosystems in particular."[9] The ambiguities of literary and media works therefore provide vantage points to observe the nuanced entanglement of human and nonhuman histories.

Focusing on ecological imaginations emerging from wartime cultural production, however, I am aware that I am still framing human and nonhuman interactions within the periodization of human history – and a significant period of modern world history at that. In most of the texts I am going to examine in this dissertation, the nonhuman actors and environments are objectified as research subjects or symbolic tokens and are often positioned in multiple "cultural" genealogies. That is to say, neither "nature" nor "culture" can be fully exorcized from this examination of wartime ecologies in 1930s and 1940s China. However, my goal is to evoke them in historically specific and non-essentializing ways and reveal how

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[6] Marran, Christine L. *Ecology without Culture: Aesthetics for a Toxic World*. (Minneapolis, Minnesota; London, [England] : University of Minnesota Press 2017), 24.
[7] Ibid, 21.
[8] Thornber, Karen Laura. *Ecoambiguity: Environmental Crises and East Asian Literatures*. (Ann Arbor : University of Michigan Press c2012), 2
[9] Ibid, 5.

"nature" and "culture," mutually binding and constitutive, interact, inflect, and challenge each other.

In recent years, ecocriticism has been a rising field in modern Chinese and Sinophone studies. Pioneering work in Chinese environmental humanities has been conducted by literary and media studies scholars such as Haiyan Lee (2019, 2018, 2014), Chia-ju Chang (2019), and Karen Thornber (2012). Recent developments of the field are also reflected by newly published edited volumes such as *Ecocriticism and Chinese Literature Imagined Landscapes and Real Lived Spaces* (2022), *Ecology and Chinese-Language Cinema: Reimagining a Field* (2020), and *Chinese Shock of the Anthropocene: Image, Music and Text in the Age of Climate Change* (2019). However, most of this scholarship tends to focus on either premodern or postsocialist contexts, with an explicit linkage being made between the two time periods. As Chia-ju Chang notes, a common narrative in Chinese ecocritism and ecological writings is that premodern Chinese philosophy can be revived as an antidote to postsocialist "growth mania" and its detrimental ecological and social impacts.[10]

By contrast, the ecological dimension in early twentieth-century Chinese cultural production, particularly its entanglement with wartime conditions, still remains understudied. Beyond the fields of literary, media and cultural studies, the environmental legacies of modern warfare in China have drawn attention from historians such as Micah S. Muscolino (2015) and Ruth Rogaski (2002). In particular, Muscolino's *The Ecology of War in China* is so far the only English monograph on the ecological impacts of the Second Sino-Japanese War. In this book, Muscolino examines the complex wartime ecologies through the lens of energy, and reveals the

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[10] Chang, Chia-Ju. "Introduction." Chang, Chia-Ju. ed. *Chinese Environmental Humanities: Practices of Environing at the Margins.* (Cham: Springer International Publishing AG, 2019), 5.

"vulnerability of human-engineered hydraulic infrastructure and agro-ecosystems." [11] As he points out, "[fighting] and preparing for war, like all work, requires appropriating and exploiting energy. Militaries consist of agglomerations of humans, animals, machines, raw materials, logistical networks, engineering works, and many other components."[12] Shifting the focus from ecology to energy, Muscolino discusses the Chinese concepts for energy such as "li" (力) and "shi" (势), which connect and drive the human and nonhuman agents in militaries and in environments impacted by military activities. He nevertheless does not pay much attention to the notion of "ecology" per se.

Before delving into the term "ecology" or *shengtai* (生態), I will first briefly examine the other two terms that often appear in discussions of Chinese environmental humanities: *huanjing* (环境) and *ziran* (自然), which can be roughly translated into English as environment and nature. The environmental humanist Chia-ju Chang proposes to recuperate the premodern use of *huanjing* as a verb, as active "environing" and "place-ma(r)king," emphasizing the tension in boundary-making between the inner and the outer, between the self (the place maker) and the other.[13] Chang differentiates *huanjing* from *ziran* by pointing out that they represent two contrasting modes of environmental-oriented discourse, the former political while the latter metaphysical. If as Morton reveals the notion of nature has been objectified and reified in the Western tradition of romanticism, *ziran,* according to Weiming Tu, is an "all-inclusive whole, the spontaneously self-generating life process."[14] If *huanjing* denotes a territorial mode of conceptualizing space, *ziran* points at the immanent and the inherent mechanism of life, *shengtai* “ecology,” as I will demonstrate soon, contains both dimensions of environmental-oriented thinking, indicating a unity with differences with an emphasis on interactions and intra-actions.

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[11] Muscolino, Micah S. *The Ecology of War in China: Henan Province, the Yellow River, and Beyond, 1938-1950*. (New York, NY, USA: Cambridge University Press, 2015), 4.
[12] Ibid, 5.
[13] Chang, 3-4.
[14] Tu, Weiming. 1989. "The Continuity of Being." J. Baird Callicott and Roger T. Ames ed. *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy*. (Albany: State University of New York Press, 1989), 71.

The term “ecology” was coined by the Darwinian biologist Ernst Haeckel (1834-1919) in 1866 and was defined as follows:

> By ecology we mean the body of knowledge concerning the economy of nature—the investigation of the total relations of the animal both to the inorganic and to its organic environment; including, above all, its friendly and inimical relations with those animals and plants with which it comes directly or indirectly into contact—in a word, ecology is the study of all those complex interrelations referred to by Darwin as the conditions of the struggle for existence. [15]

“Ecology” or “oecologie” in German shares its Greek root *oikos* with the word “economy,” which means household. With this root, Haeckel stresses the importance of understanding life forms in specific dwelling environments and their positions in a system of connection, distribution, and exchange. In this system, every individual organism’s identity and development is defined by its sociality and captured in relational terms. No one, not even humans, can claim absolute autonomy.

The Chinese term for ecology, *shengtai* (生態) or *shengtaixue* (生態學), came from its Japanese translation – *seitaigaku*. This term was translated from German into Japanese by the Japanese botanist Miyoshi Manabu (三好学, 1862–1939). Scholars such as G. Clinton Godart (2017) and Eiko Honda (2016) have dated this translation in 1908 the year when Miyoshi published his *Common Plant Ecology* (普通植物生態学), in which he evokes the concept of *seitaigaku* as an equivalence to the English term “ecology.” [16] However, the term had already appeared in his 1895 book *Recent Progress in European Botany* (欧州植物学輓近之進步) as the translation of the German term "Pflanzenbiologie" (plant biology). Miyoshi defines *seitaigaku* as the study of plants' living conditions, their distribution, and hereditary and evolutionary responses to different environments, not far from today's common understanding of "ecology." [17] According to Ueno Matsuzo's *A History of Japanese Natural Science* (日本博物学史), Miyoshi's translation was soon adopted by Japanese zoologists and became widely used in natural sciences.[18]

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[15] Allee, Warder Clyde. *Principles of Animal Ecology*. (Philadelphia, Saunders Co., 1949), v.

[16] Miyoshi, Manabu. *Futsu shokubutsu seiktaigaku* 普通植物生態学 [Common plant ecology]. (Tokyo: seibido, 1908), 1.

While the exact date of the term's introduction to China is lost to history, there is evidence to suggest that it was quickly brought over from Japan after its initial coining by Miyoshi. As early as in 1903, Society of Innovation (作新社), a society and publisher established mainly by overseas Chinese students in Japan, already introduced the concept of *shengtaixue* (生態學) as "the theory of animals' behaviors and interactive relationships" (論其習性與相交之關係者) in a zoology textbook titled *New Edition of Zoology Textbook* (新編動物學).[19] In 1904, an entrance exam of an industrial school in Beijing incorporated a question on the distinctions between taxonomy, anatomy, ecology, and the study of evolution, suggesting that the concept had become common knowledge, at least among students interested in the modern disciplines of science and technology.[20] In the following decades, the concept of "ecology" was continually being popularized through various channels. For example, in 1920, a textbook for boy scouts issued by the Education Society of Jiangsu Province introduced the concept of "ecological relations" (生態關係) to its young readers.[21]

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[17] See Miyoshi, Manabu. *Oshu shokubutsugaku bankin no shinpo* 欧州植物学輓近之進步 [Recent progress in European botany]. (Tokyo: keigyosha, 1895), 9. It is noteworthy that the two Chinese characters Miyoshi chose for the term, *sei* (生) and *tai* (態), when understood literally, seem to refer to the "appearances" (*tai*) of "living (things)" (*sei*). Miyoshi himself sometimes wavers between the ecological connotation of the term and its implications of appearance, as he uses the term to evoke the aesthetic values of plants in *Beauty of Plant Life* (植物生体美観) in 1902. The ambiguity of the translated term also manifested in its use in Chinese contexts.

[18] Japanese zoologists had been using *seikeigaku* (生計學) for zoological ecology, corresponding to Haeckel's emphasis on the "economy" of nature. See Ueno, Matsuzo 上野益三. *Nihon hakubutsugakushi* 日本博物学史 [A History of Japanese Natural History]. (Tokyo: Heibonsha, 1973), 119.

[19] Zuoxinshe 作新社 ed. *Xinbian dongwuxue* 新編動物學 [new edition of zoology textbook]. (Shanghai: zuoxinshe, 1903), 4.

In the 1930s, the concept of ecology as interconnected networks entered into the realm of social thinking in China, manifesting its connotation of sociality as shown in Haeckel's coinage of the term. In 1933, Duanmu Kai (端木愷), a Nationalist government official, called for an imagination of "urban ecology" (城市生態學) when giving a talk at a governmental meeting in Nanjing. Duanmu draws attention to the overlooked connection between the natural environment and social conditions in an urban space, evoking the concept of "ecology" to address correlations between public health, the psychology of citizens, social morality, and distribution of resources.[22] It is worth mentioning that Duanmu had studied law in the U.S in the 1920s. It is possible that he had been impacted by the Chicago school of sociologists, such as Robert Park, Ernest Burgess, and Roderick McKenzie, who, in their 1925 collection *The City*, had proposed to perceive urban environments as ecological communities. No matter whether Chinese thinkers like Duanmu had read these American sociologists at the time, they were part of the global emergence of ecologized social thinking.

Another case in point is Hui Diren (惠迪人). Starting from 1935, Hui, a graduate from the Agriculture Department of the National Labor University, penned a series of articles culminating in a monograph called *Behavioral Epistemology: An Ecological View of Human*

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[20] *Shenbao* (申報) reported this exam on August 11, 1904.

[21] Jiangsusheng jiaoyuhui 江蘇省教育會. *Tongzijun jiangyi* 童子軍講義 [Textbook for boy scouts]. (Shanghai: guoguang shudian, 1920), 254.

[22] Duanmu Kai. "Chengshi shengtaixue" 城市生態學 [Urban ecology]. *Nanjing zhengfu gongbao*. Issue 127, 1933, 126-128.

Knowledge (行為知識論：生態學的人類知識觀), which was published by the prestigious Commercial Press (商務印書館) in 1941. Echoing McKenzie's essay "The Ecological Approach to the Study of the Human Community," Hui elaborates on a holistic view of natural sciences and humanities under the name of "ecological sciences." In these writings, Hui proposes an "ecological human epistemology" (生態學的人類知識觀). He argues that all human consciousness and behaviors, individual or collective, can be seen as responses to organic and inorganic environments, as well as contributors to the transformation of these environments. Therefore, "ecology" should be understood not only as an object of knowledge but also a way of knowing, or a relational form of knowledge production that integrates "psychology, social sciences, and the humanities." [23] This holistic view of human epistemology is reminiscent of Félix Guattari's "three ecologies"- the mental, the social, and the environmental ecologies, which is an "ethico-political articulation" of interconnected contemporary crises caused by "integrated world capitalism" including environmental degradation and the diminishing singularities of human subjectivitie.[24] By contrast, Hui's theory was proposed in face of a wartime crisis that threatened to destroy the physical environments of the state and its citizens, rendering the search for connections ever more urgent.

Hui's "ecological" and integrative view of knowledge making connecting sciences and the humanities was shared by his contemporaneous biologist, especially the leading members of the Science Society of China (中國科學社), an organization of Chinese scientists which Hui himself joined in 1943. Since the 1920s, Chinese biologists, who had returned from their study in the U.S and Europe, had been mobilizing the rhetoric of "morality, education, and economic improvement to promote their research in plant taxonomy, genetics, and general zoology." [25] According to Lijing Jiang, this generation of Chinese biologists, keenly aware of the increasingly intense national crisis, paid particular attention to indigenous species as the embodiment of "the nation's sovereignty that needed to be protected from foreign intrusions."[26] In their writings, Jiang observes that "materials extracted from local, and often taken as traditional, brought with them a baggage of meanings and associations even if they were supposed to have already been separated from these complications."[27] By evoking traditional allusions while applying modern biological methods to study indigenous species, Chinese biologists envisioned an integrated ecology with both scientific and cultural implications.

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[23] Hui Diren. "Renlei shengtai kexue de jianli" 人類生態科學的建立 [The establishment of human ecological science]. Zhongshan wenhua jiaoyuguan jikan. Volume 4, Issue, 1937, 1193.

[24] Guattari, Félix. Ian Pindar and Paul Sutton trans. *The Three Ecologies*. London; New Brunswick, N.J.: Athlone Press, 2000, 28.

This expanded understanding of ecology or *shengtaixue*, while not always neatly spelt out as Hui's magnum opus, is echoed in many wartime literary and media texts. Not only did these texts recognize the interconnectedness between human and nonhuman entities, they also creatively responded to the newly emerging modern technologies that had constructed while threatening to destroy the environments they were embedded in. At the same time, the cultural agents who created these texts mobilized various media technologies, as well as textual and visual techniques, to illuminate and critique the potential impacts of the technologized war. These wartime modernist technologies and techniques formed a media ecology, which was simultaneously enmeshed in and reflecting upon the mental, the social, and the environmental ecologies. Although Guatarri does not include a "media ecology" in his three ecologies, his critical reflection on media looms large in the configuration of his "ecosophy." For Guatarri, one essential programmatic point for social ecology is to give rise to a "post-media era" in which "the media will be reappropriated by a multitude of subject-groups capable of directing its resingularization."[28] In other words, Guattari sees the media technology in the context of integrated world capitalism as a generally detrimental technology that imposes homogeneity and needs to be thoroughly transformed in order to redeem his three ecologies. This infilitrating and pervasive impact of media technology over the other dimensions of Guattari's "ecosophy" therefore requires an equally ecological approach to fully grasp.

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[25] Jiang, Lijing. "Retouching the Past with Living Things: Indigenous Species, Tradition, and Biological Research in Republican China, 1918–1937." *Historical Studies in the Natural Sciences,* Vol.46 (2), 2016, 157.

[26] Ibid, 157.

[27] Ibid, 159.

The term "media ecology," which first emerged from the intellectual conversations between media scholars Marshall McLuhan, Neil Postman, and Eric McLuhan in the late 1960s, typically describes the inteplay between human perceptual and cognitive realms and communication technologies. At a conference in 1968, Postman broadly defined media ecology as ''the study of media as environments."[29] Since its coinage, the term has adopted various, and sometimes contradictory connotations, largely due to the richness of the word "ecology." As Ursula Heise observes, "envisioning media as an environment leads different theorists to radically divergent conclusions: to an emphasis on the generality, systematicity, and autonomous logic of technological change, on one side, and to an emphasis on the local implantations, changeability, and social logic of technologies, on the other."[30] The tension between an all-encompassing systemic thinking and local specificities and contingency often stirred concerns and debates on technological determinism versus human agency, or more generally the agency of individual actors. Heise, however, sees the ruptures in the interpretation of media ecology as an opportunity to "bend the metaphor back to its literal context, and to investigate the interplay of technology and nature in a more broadly understood spatial ecology that encompasses both material and virtual habitats."[31] Jussi Parikka goes even further and suggests that we should bring the concept beyond metaphors and expand it towards the "regimes of perception, motility and circulation of non-human speeds and spatialities."[32] Inspired by Heise's and Parikka's proposals of "literalizing" ecology in media ecology, this dissertation excavates junctures where the sensorial and cognitive environments created by media technologies are connected to other types of material environments, and where media production is shaped by the human and nonhuman ecounters that generate new sense of time and space.

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[28] Guatarri, *The Three Ecologies*, 61.

[29] See Scolari, Carlos A. "Media Ecology: Exploring the Metaphor to Expand the Theory." *Communication Theory*. Vol.22 (2), 2012, 205.

[30] Heise, Ursula K. "Unnatural Ecologies: The Metaphor of the Environment in Media Theory." *Configurations* (Baltimore, Md.), Vol.10 (1), 2002, 161.

In sum, this dissertation aims to "ecologize" wartime Chinese modernisms through four interrelated ecologies: the mental, the social, the environmental, and media ecologies. If this sounds too ambitious, I hasten to add that I do not intend to offer an exhaustive examination of all ecological dimensions in wartime China, but will focus on junctures of precarious connection. By "precarious connection," I mean the connection between human and nonhuman entities, generated by and contributing to wartime emergency, continency, and a shared sense of precarity, for example, the affective connection between popular science writers and readers generated by the figure of the poison gas in Chapter One, and the chance connection between a soldier writer and a war mule via shared precarity imposed by wartime biopolitics as discussed in Chapter Two. In this dissertation, "precarious connections" will provide vantage points to take the two seemingly conflicting implications of ecology into consideration at the same time - the holistic and universal connectedness on the one hand, and local specificities and individual agency on the other.

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[31] Ibid, 152.
[32] Parikka, Jussi. "Media Ecologies and Imaginary Media: Transversal Expansions, Contractions, and Foldings." Fibreculture Journal, Issue 17, 2011, 35.

Instead of conducting a "taxonomy" of wartime cultural agents as previous scholarship have done in categorizing their styles and political stances, I emphasize more on connections and mutual transformations than conflicts and divisions, without losing the sight of concurrent wartime violence and destruction. As suggested by the title of this dissertation, I place emphasis on the nonhuman figures that are involved in precarious connenctions and animating them. I consider these nonhuman figures to be the keys to ecologizing wartime modernisms. In the following section, I will offer an outline of the rest of the dissertation by introducing the nonhuman figures I evoke in each chapter.

III. Ecologizing Modernisms via Nonhuman Figures

The interaction and intra-action between the human and the nonhuman are recurrent themes in wartime literary and visual texts examined in this dissertation. A close analysis of these texts and their paratexts reveals that nonhuman figures exerted agency in wartime ecologies through the combined effects of their symbolic, material, and historical presences, or, in Jiang's phrasing, through their "baggage of meanings and associations." I employ the term "nonhuman figure" following Donna Haraway's definition of "figures":

> Figures collect the people through their invitation to inhabit the corporeal story told in their lineaments. Figures are not representations or didactic illustrations, but rather material–semiotic nodes or knots in which diverse bodies and meanings coshape one another. … [Figures] have always been where the biological and literary or artistic come together with all of the force of lived reality.[33]

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[33] Haraway, Donna. *When Species Meet.* (Minneapolis/London: University of Minnesota Press, 2008), 4.

While on the surface it is the human writers, artists, and intellectuals who actively engage with or make use of nonhuman figures such as animals and machines, their ways of seeing, thinking, and composing a piece of craftmanship have always already been embedded in and shaped by the abovementioned "four ecologies" (the mental, the social, the environmental, and media ecologies). This embeddedness renders their existence inherently entangled with nonhuman others. This dissertation delves into their entanglement in a historical moment of crisis, the circumstances of which intensified the connections and tension between the human and the nonhuman, as well as their mutual influence and illumination.

The first chapter "Poison Gas as a Medium: Vernacular Modernism in the Chinese Scientization Movement" focuses on the figure of the poison gas through 1930s popular science stories, photomontages, and an educational film that mobilize scientific discourses to channel the anxiety of corporeal fragility, amidst the threat of chemical warfare. This chapter traces the global migration of images of the poison gas, as taken up by Chinese scientists in the context of the 1930s Chinese Scientization Movement, in comparison with the treatment of the same topic in the context of Japanese scientific nationalism. I argue that the literary and media texts evoking the figure of the poison gas provide an ecological form of "vernacular modernism" that questions the illusory transparency of scientific knowledge and the teleological myth of modernity.

Shifting from the destructive figure of the poison gas to more creative figures, the second chapter "Man, Mimeograph Machine, and Mule: Qiu Dongping and Three Bodies in Wartime Biopolitics" focuses on the leftist solider writer Qiu Dongping, and explores wartime print culture and biopolitics through his dual role as a propagandist working with a mimeograph machine, and as a story writer adopting the perspectives of animals in his fiction. Revisiting Qiu's legacy, I argue, sheds light not only on the violence of institutionalizing human and nonhuman bodies, but also the possibilities of envisioning an interconnected ecology in an alienating and disintegrating environment, not by reinforcing existent power relations, but by answering the call of the bodies in pain.

Moving from the frontline to the hinterland, the third chapter "(In)visible Encounters on the Burma Road: An Ecological Poetics of Infrastructure" examines the poetics of infrastructure that emerges from a cluster of literary and media texts revolving around the building and operation of the Burma Road, from the American novelist Pearl S. Buck's story to Chinese Malaysian poet Du Yunxie's poem, from the engineer Tan Pei-ying's memoir to the filmmaker Zheng Junli's documentary. I argue that in these texts, the coexistence of and competition between an "aerial" perspective and an "earthbound" perspective generate an ecological poetics of infrastructure involving the intricate dynamics of ethnicity, gender, and human-nonhuman relations.

Continuing the transnational theme, the fourth chapter "Pigeon and Robot: The Promises and Perils of Posthuman Kinship" examines the life and works of the Japanese biologist Nishimura Makoto, especially his journey in semi-colonized China under the sprawling Japanese Empire and his interactions with Chinese intellectuals such as Lu Xun and Zheng Xiaoxu. Through newly discovered writings and paintings by Nishimura, I illustrate his visions of inter-Asian and transpacific geopolitics and ecologies. I argue that Nishimura's vision for a "posthuman" kinship was generated by the experience of alterity provided by the expanding empire, and hence inevitably overshadowed by the empire's desire for totality. This chapter reveals the darker implications of ecological concepts such as "interconnection," which have been celebrated as noted in previous chapters but could also be co-opted by an imperialist scheme of domination.

The epilogue “Elephants from the Battlefields: Towards a Weak Anthropocentric Perspective for More-than-Human Wars” discusses the postwar continuations of the phenomena covered in the body chapters of the dissertation. It examines two postwar texts involving elephants - “An Elephant Capture” (捕象記), a documentary produced during the Cultural Revolution and *The Stolen Bicycle* (單車失竊記), a contemporary Sinophone novel partly set in colonial Taiwan and Asian battlefields of World War II. This epilogue will reveal how the compelling material presence and the lasting and accumulating symbolic weight of the elephant could expose and subvert the revolutionary ideologies and wartime biopolitics imposed upon them. Furthermore, it will provide possibilities of ecologizing the complex legacies of World War II in contemporary contexts and shed lights on our relational responsibilities for human and nonhuman others in the lasting present of hot and cold wars.

Chapter One

Poison Gas as a Medium:

An Ecological Approach to Vernacular Modernism

“Gas! GAS! Quick, boys!—An ecstasy of fumbling
Fitting the clumsy helmets just in time,
But someone still was yelling out and stumbling,
And flound’ring like a man in fire or in lime…
Dim, through the misty panes and thick green light,
As under a green sea, I saw him drowning.”
Wilfred Owen “Dulce et Decorum Est” (1921) [34]

In 1936, a reader who opened the July issue of *The Scientific World* (科學世界), a popular science magazine based in Nanjing, would be struck by a photomontage titled “Virgin Mary from the Future” (未來的聖母) on its first page. (Fig. 1) The photograph of a woman holding a baby, both wearing gas masks covering the entirety of their faces, is superimposed onto a more conventional portrait of Virgin Mary holding the baby Jesus. The Christian imagery seems to imply at the European origin of gas warfare during the first world war, ironically linking together the “gospel” of modernity from the West and its disastrous echoes. This photomontage is also a montage of multiple temporalities: the fresh memory of World War I and a grim imminent future of another world war are conjured through the modern medium of photography; the traumatic memories and prospects of modernity are in turn contrasted with an idyllic remote past preserved via a traditional medium. The caption of the photomontage says, “[this image] predicts that during a great war, even the newborns on the home front have to wear gas masks." Here, the imagination of a possible future is not unlike evoking a recurrent nightmare.

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[34] Barlow, Adrian, ed. *Six poets of the Great War*. (Cambridge: Cambridge University Press, 2014), 40.

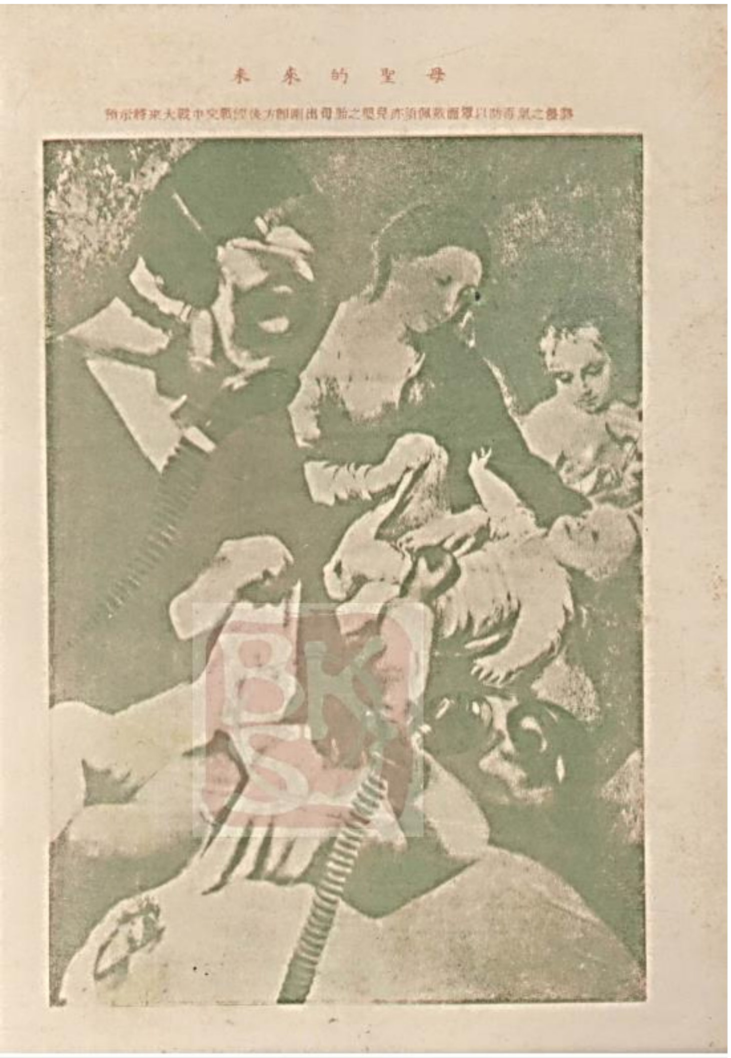

Fig. 1 "Virgin Mary from the Future" (未來的聖母), *The Scientific World* 科學世界 Vol. 5 Issue 7 n.p.

The oil painting in the background of "Virgin Mary from the Future" is *Virgen de la Faja* by the Spanish painter Bartolomé Esteban Murillo from the 17th century. (Fig. 2) An identical photomontage can be found in a Japanese popular magazine called "Crime Science" (犯罪科学)

in 1932 among other photographs from Europe, all of which invite the reader to imagine how an impending war, especially gas warfare, could fundamentally transform ordinary people's social life. The title for this photo series reads: "War turns the world of humanity upside down, including the romantic love, motherly love, and the paradise for children" (戦争は人間の世をひっくり返す、恋愛を母性愛を子供の天国を).[35] With no citations offered in either magazine, it is possible that the editors of *The Scientific World* took the photomontage from *Crime Science*, or, more likely, both magazines obtained the photomontage from a third source, possibly a Euro-American one. Despite the questionable originality of the photomontage, the decision of the editors of *The Scientific World* to enlarge the image and make it the first page of that issue still indicates its significance. The transnational migration of this photomontage also speaks to the nature of the literary and media texts that I am going to analyze in this chapter: that they are all embedded in a global media network through which the anxieties over impending gas warfare were spread and responded to locally.

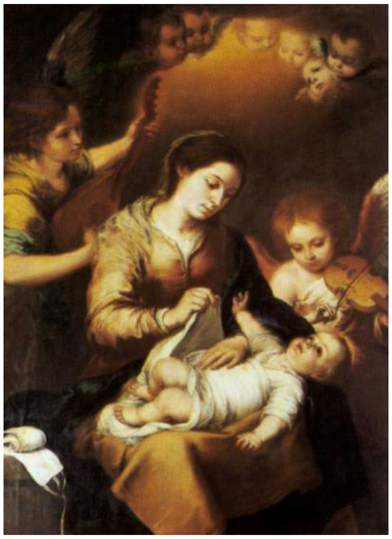

Fig. 2 *Virgen de la Faja* by Bartolomé Esteban Murillo (1618-1682)

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[35] *Hanzai kagaku* 犯罪科学 [crime science], special issue, March 1932, 184-185.

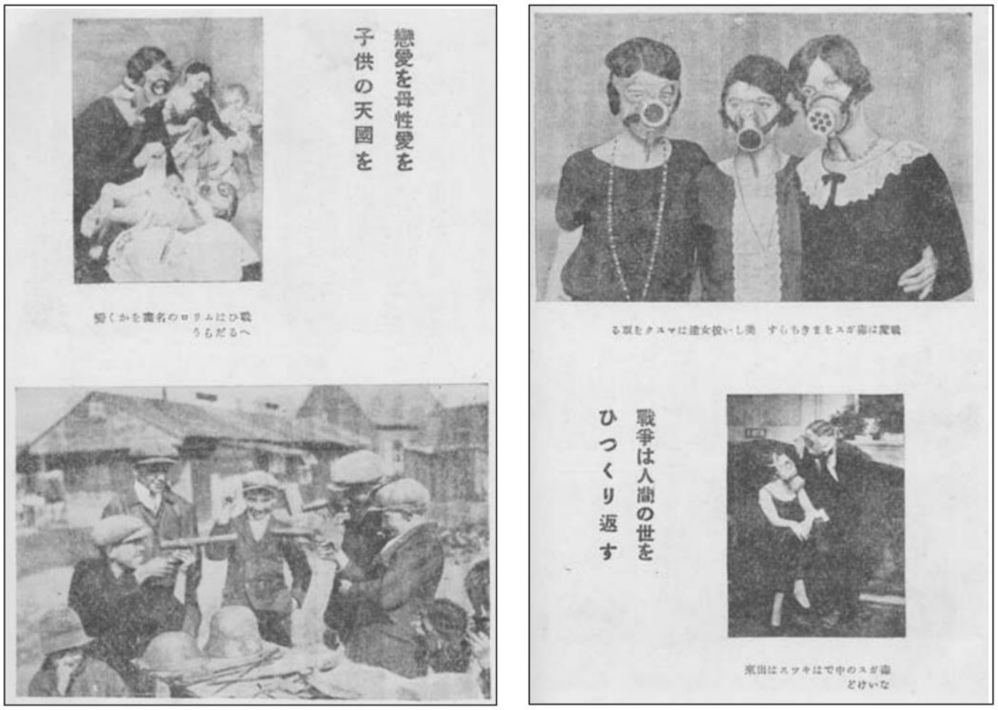
戀愛を母性愛を
子供の天國を
戰爭は人淌の世を
ひっくり返す
毒ガスの中ではキッスは出來ないけど

Fig. 3 *Crime Science* (犯罪科学), special issue, March 1932, 184-185.

The same issue of *The Scientific World* that opens with "Virgin Mary from the Future" also includes an article titled "The Power of Gas Warfare," (毒氣戰爭的權威) which elucidates the rise of gas warfare since the World War I, its social and ecological impacts, and methods of defense. The juxtaposition between a typical popular science writing like this and the enchanting image of "Virgin Mary from the Future" encapsulates some of the key inquiries of this chapter: How was gas warfare evoked in 1930s China as a political, scientific, and literary event? How did popular science media practitioners participate in informing and channeling popular anxieties over imminent national and ecological crisis? What forms did they employ and to what effects? In response to these questions, I will first give a brief introduction to the so-called "terror from the air" as a product of modern warfare, then examine the image of the poison gas in different forms of media, including photomontages, cartoons, and science fiction stories in popular science magazines as well as an educational film, and place them in a genealogy that goes back to the Late Qing era. I will contextualize these texts and their significance in the "Scientization Movement" in 1930s China and compare them with thematically similar texts in Japan in the context of rising scientific nationalism. Finally, I will engage with the discourse of "vernacular modernism" in media studies, and argue that the cultural production centered around poison gas provides an ecological form of vernacular modernism that challenges the progressive and teleological myth of modernity.

I. "Terror from the Air": The Atmospheric Legacy of World War I

The image of the poison gas holds special significance for modern warfare in the 20th century, when a specially formed German 'gas regiment' launched the first, large-scale operation against French-Canadian troops using chlorine gas in 1915 during World War I. In response to the traumatic impact of chemical warfare in World War I, the 1925 Geneva Protocol banned the wartime use of chemical weapons. However, developed countries including Japan continued producing chemical weapons, which received attention in the Chinese media and generated panic about the underdevelopment of chemical industry in China. [36] Their fear later proved to be valid. The historian Walter E. Grunden points out that while Japan prohibited the use of chemical weapons in the battles against the Allies, they permitted it in more than 2000 cases in China because the Chinese army did not have the capacity to retaliate in kind. [37]

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[36] For example, in 1930, *Military Affairs Magazine* (海事) reported an upcoming exercise of poison gas explosives in Fukuchiyama, Japan. See *Military Affairs Magazine*, 1930, issue 26, P180. In 1932, *Navy Affairs* reported the establishment of a poison gas factory in Okunoshima, Japan, which is interpreted as the Japanese army's secret efforts to prepare for a war. *See Navy Affairs*, 1932, Volume 2, Issue 3, p68. In 1936, *Military Affairs Magazine* reported Japan's production of "Yellow Cross" gas, which is highly corrosive and could render gas masks obsolete. *Military Affairs*, 1936, Issue 90, 235.

In "A Genealogy of the Chemical Weapons Taboo," Richard Price traces the rise of the taboo against the use of chemical weapons in interwar Euro-American contexts, and associate it with "the portrayal of [chemical weapon] as a weapon against which there is no defense, its symbolic connection with a notion of civilized conduct, the castigation of [chemical weapon] as a weapon of the weak akin to poison, the genealogical legacy of the institutionalized form of the taboo promoted and practiced by political leaders." [38] Besides the impact of the chemical weapons in World War I, all these discursive factors contribute to image of poison gas in interwar Europe and U.S. However, due to his exclusive focus on the Euro-American Theatre of World War II, Price excludes the threat of retaliation in his discussion, which proved to be a crucial factor in Japanese chemical warfare policy. Equally absent from his analysis, is the ecological impact of chemical warfare. According to *Terror from the Air* by the German philosopher Peter Sloterdijk, in a modern chemical war, the form of assaults shifts from a direct attack on the enemy's body to "an attack on the enemy's primary, ecologically-dependent vital functions: respiration, central nervous regulations, and sustainable temperature and radiation conditions." [39] Sloterdijk thus argues that environmental elements pertaining to human life that once had been taken for granted, such as soil, water, and air, were rendered "explicit" and problematized by modern war machine via negative conditioning.

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[37] Grunden, Walter E. "No Retaliation in Kind: Japanese Chemical Warfare Policy in World War II." Bretislav Friedrich, Dieter Hoffmann, Jürgen Renn, Florian Schmaltz, Martin Wolf ed. *One Hundred Years of Chemical Warfare: Research, Deployment, Consequences*. (Cham: Springer International Publishing, 2017), 259.

[38] Price, Richard. "A Genealogy of the Chemical Weapons Taboo." *International Organization*. Vol.49 (1), 1995, 102-103.

[39] Sloterdijk, Peter. Amy Patton and Steve Corcoran trans. *Terror from the Air*. (Los Angeles: Semiotext(e); Cambridge, Mass.: Distributed by the MIT Press, 2009), 16.

The mechanized destruction of the environment deprived the individual human beings of their agency. In their memoirs on First World War, former soldiers often identify with vulnerable animals. For example, after witnessing a poison gas attack and withdrawing to the trench, the hero of "In Parenthesis," a poem by David Jones, notices the transpositions between humans and rats in the trench: the rats become sophisticated observers while the soldiers turn into trembling embodiment of precarity. [40] The threat to the environment posed by chemical warfare foregrounds the corporeality of human bodies, which render them equal with other animals. Similarly, a reader of 1930s Chinese popular science magazines would often encounter images of gas masks specially designed for animals, such as military dogs, horses, and even pigeons. (Fig. 4)

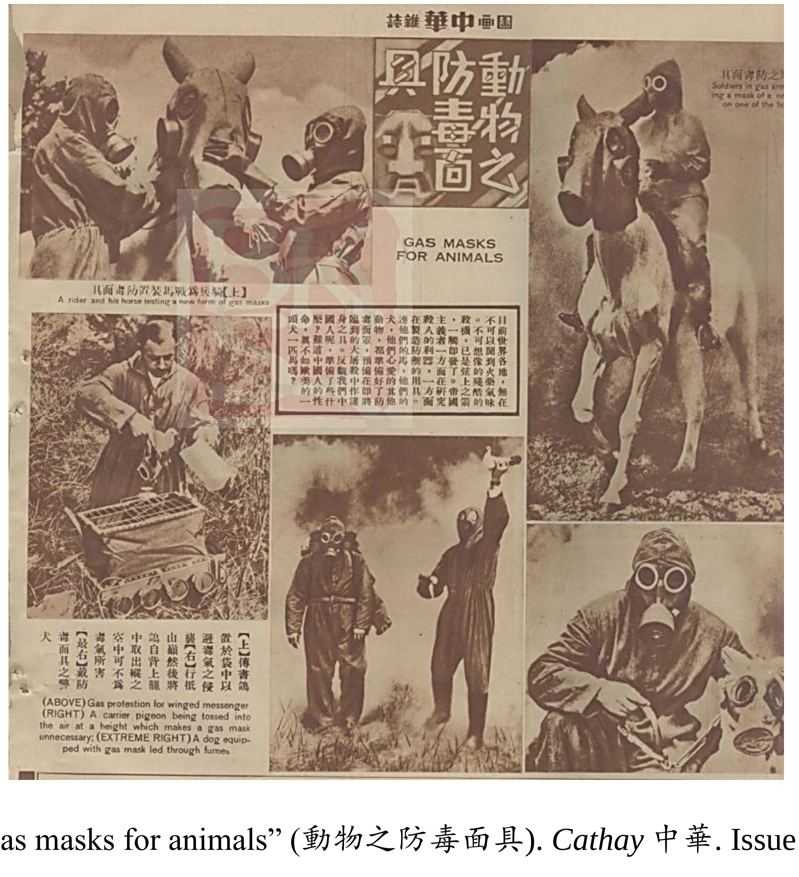
圖畫中華雜誌
動物之防毒面具
GAS MASKS FOR ANIMALS
【上】騎兵爲戰馬裝置防毒面具
A rider and his horse testing a new form of gas masks
【上】傳書鴿置於袋中以避毒氣之侵襲【右】行抵山巔然後將鴿自背上籠中取出縱之空中可不爲毒氣所害【最右】戴防毒面具之警犬
(ABOVE) Gas protestion for winged messenger (RIGHT) A carrier pigeon being tossed into the air at a height which makes a gas mask unnecessary; (EXTREME RIGHT) A dog equipped with gas mask led through fumes

Fig. 4 "Gas masks for animals" (動物之防毒面具). *Cathay* 中華. Issue 13, 1932, 27.

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[40] See Jones, David. *In Parenthesis*. (London: Faber, 1963), 54.

The all-encompassing effects of chemical warfare in turn created a crisis of representation among the artists who intended to capture the mass suffering of industrialized modern battles. Artists like Otto Dix who found representational portraits insufficient to capture the psychological horror caused by chemical warfare resorted to modernist techniques, such as cubism and futurism, which facilitated their depiction of "the butchery of the unknown by the unseen" as described by the *London Times.* [41] The art historian Doris Kaufmann contrasts modernist portrayal of the disintegration of wartime subjectivities with more conventional paintings portraying post-poison gas attack battlefields such as "The Ravine of Death at Verdun" by Ferdinand-Joseph Gueldry and "Hell" by George Leroux, which are "unable to depict human beings at all" and "only display a vast field, ruins, vapors, clouds, and sky." [42] (Fig. 5)

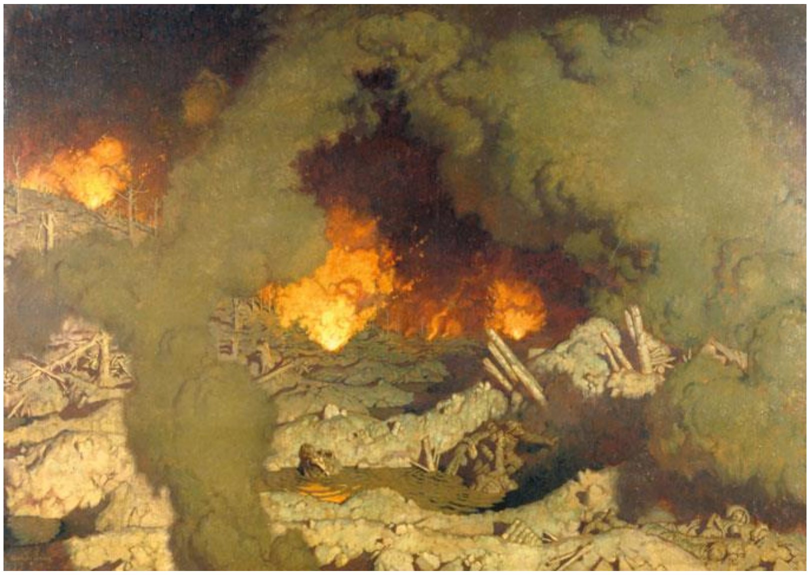

Fig.5 Georges Leroux. *Hell* (L'enfer), 1921, Imperial War Museum London

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41 See Bogacz, Ted. "A Tyranny of Words': Language, Poetry, and Anti-modernism in England in the First World War." *Journal of Modern History*. 1986. 58 (3): 643–668.

[42] Kaufmann, Doris. "'Gas, Gas, Gaas!' The Poison Gas War in the Literature and Visual Arts of Interwar Europe." Bretislav Friedrich, Dieter Hoffmann, Jürgen Renn, Florian Schmaltz, Martin Wolf ed. *One Hundred Years of Chemical Warfare: Research, Deployment, Consequences*. (Cham: Springer International Publishing, 2017), 170.

The ecological and psychological impacts of poison gas, however, cannot be simply separated. “A vast field, ruins, vapors, clouds, and sky” can also convey an uncanny threat to a larger scale of ecology beyond human control. Literary representations of chemical warfare often reflect the overwhelming terror rooted in the fear that a seemingly innocuous landscape could have been transformed into a fatal one. In Edlef Koeppen’s 1930 novel *Army Report* (*Heeresbericht*), Lieutenant Reisinger, one of the central figures, finds himself in an environment “Nature itself has become a weapon. The crossing turns into a problem. ‘For heaven’s sake, don’t bump into just any tree. Don’t touch any leaf. Hands in your pockets. Make yourself as tight and small as possible.’” [43] The warning was too late. Reisinger soon witnessed a soldier who took off his gas mask literally killed by the toxic environment. Koeppen was not alone. In the 1920s and 30s France, Germany, England, Italy, and the U.S, “pacifist writers, but also authors from military circles and authors of science fiction in postwar Europe, conducted a *Zukunftskrieg* (future-war fiction) in which the inhabitants of Paris, London, and Berlin as well as entire tracts of land were sometimes destroyed from the air by poison gas.” [44]

Among the numerous literary representations of poison gas, one of the most impactful poems is “Dulce et Decorum Est,” which is quoted at the beginning of this chapter. The poem is written by Wilfred Owen, a 24-year-old shell-shocked solider, based on his lived experience and unrelieved trauma. Through this poem, Santanu Das analyzes the visceral and affective impact of the poison gas or its mechanism of producing fear: “By poisoning the very air on which life depended and gradually, painfully corroding the body from within, it tested the limits of understanding and caused a breach in imagination: visceral reflexes – horror and panic – seemed the only response possible."[45] In particular, Das reveals how the shock of the poison gas is translated into a shackled sense of temporality: "the compulsive rhyme of the gerundive'-ing' suggests the eternal now of the trauma victim…is forced to relive the past experience as perpetual present."[46] The poem ends with an ironic quotation of Horace in Latin: "Dulce et decorum est pro patria mori" ("It is sweet and fitting to die for one's country").

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[43] Quoted and translated by Kaufmann. See Kaufmann, 174.
[44] Kaufmann, 184.

The horror of the "perpetual present" and the gesture towards the archaic would later find echoes among popular science writers in China, which will be introduce in the following sections. In fact, Owen's poetry had drawn the attention of Chinese critics as early as in the late 1920s. His name appeared in the most prominent literary journals including *Fiction Monthly* (小說月報), *Modern Literary Criticism* (現代文學評論), and *Les Contemporains* (現代).[47] The literary critic Gao Ming translated two Japanese articles on Anglo-American modern poetry, both touching upon Owen's poetry. One describes Owen as a "striking realist poet" (可驚的寫實主義詩人).[48] The other notes how he "intentionally uses dissonance to the horror of the war." ("故意用不諧音吟歎戰爭的恐怖.")[49] Similarly, in *A Brief History of Modern World Literature*(現代世界文學小史), Nauruse Kiyoshi (成瀨清, 1885-1958) praises the poem for its "cooling of the war fever" and its "gloomy thrill" (狂熱的冷卻與灰色的戰慄).[50] This book was translated by Hu Xue (胡雪) into Chinese and published by the small but prestigious Guanghua Bookstore in 1934 and reprinted by Daguang Bookstore in 1936.

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[45] Das, Santanu. 'An Ecstasy of Fumbling': Gas Warfare, 1914–18 and the Uses of Affect." *The Edinburgh Companion to Twentieth-Century British and American War Literature*, (Edinburgh: Edinburgh University Press, 2022), 396.

[46] Ibid.

47 See Fu, Donghua 傅東華. "Ershi nian lai de yingguo shitan."二十年來的英國詩壇. *Xiaoshuo yuebao*. Vol. 20, Issue 7, 1929, 1073-1089. Yokogawa, Yusaku. Gao Ming trans. "Yingguo wenyi sichao." *Xiandai wenxue pinglun*. Vol. 2 Issue 1-2, 1931. P1-21. Abe, Tomokazu. "Yingmei xinxing shipai." *Xiandai*. Vol. 2, Issue 4. 1933, 550-566.

[48] Abe, Tomokazu. Gao Ming trans. "Yingmei xinxing shipai." *Xiandai*. Vol. 2, Issue 4. 1933, 561.

[49] Yokogawa, Yusaku. Gao Ming trans. "Yingguo wenyi sichao." *Xiandai wenxue pinglun*. Vol. 2 Issue 1-2, 1931, 16.

[50] Naruse, Kiyoshi. Hu Xue trans. Xiandai shijie wenxue xiaoshi 現代世界文學小史 [A brief history of modern world literature]. (Shanghai: Guanghua shuju, 1934), 81.

Through visual and literary texts such as Owen's poetry, the "terror from the air" as part of the legacy of World War I became the material and symbolic figure of traumatic sensorial engagement with modernity. Through the circulation of these texts, the threat of poison gas could be vicariously experienced through visual, acoustic, haptic, and psychosomatic senses by Chinese audience, especially as Sino-Japanese military conflicts were escalating in the 1930s.

II. Twisted Temporalties of Enlightenment and National Salvation: Poison Gas in Chinese Media from the Late Qing to the 1930s

The impact of testimonial representations of poison gas attacks from Europe like Owen's poem is manifested in popular science media representations in China. However, it is important to note that even before the outbreak of World War I, the image of poison gas had already emerged in Chinese mass media and popular literature as early as in 1900.

On August 20, 1900, an article titled "Remaining Words on the Battle in Tianjin" (津戰餘談) appeared on the first page of *Shen Bao*, the most influential newspaper in Shanghai. This article accuses the Eight-Nation Alliance forces of using chlorine gas when invading Tianjin and causing numerous casualties of Chinese civilians in the name of quelling the Boxer Rebellion. The author of this article explains to the reader that chlorine is "used by physicians as an antidote, but is by nature intensely poisonous. It kills you once inhaled through mouth or nose. The Westerners mix it with their cannon balls. Even before being hit by a poisoned cannon ball, everyone who inhale the poisoned air it releases gets intoxicated and falls." (考氯氣一物，醫家

用之解毒，然其性實甚毒烈，入口鼻可立斃。西人取以實炮中，不待彈及其身，但使其氣吸入口鼻中，罔有不迷蒙而僕者) [51] The article notes that the use of poison gas is "outrageously cruel," (殘忍實出情理之外) and has been restricted in the West. Other records of the battle similarly recount witnesses of green smoke that causes immediate death. *1900 National Upheaval* (庚子國變記), for example, describes the overwhelming power of cannon balls mixed with chlorine gas:

> "There was no trace of the Chinese troops found in the city of Tianjin. All that remained were dead bodies. Mansions and Houses had been destroyed. Due to Western forces' use of lyddite cannons, most dead bodies lying on the ground were found without visible injuries. This was probably because the lyddite cannon balls were mixed with poison. When the cannon balls fell and exploded, there was green smoke rising, which once infiltrated into one's nostrils would cause immediate death without the person even noticing it. Moreover, as the city was taken over by the Western forces, they found Chinese soldiers still standing with their angry eyes open and holding their guns as if they were going to fire. Only as they approached the Chinese soldiers did they realize that the soldiers had already been killed by the poison gas released by the cannon balls. They did not fall because they were standing next to a wall before they were killed. The remaining poison of the lyddite cannon balls was as powerful as this."
>
> 津郡城廂內，已無華兵踪跡，城內唯死人滿地，各房屋無存，且因洋兵開放列低炮之故，死屍倒地者，身無傷痕居多。蓋列低炮系毒藥摻配，砲彈落地，即有綠氣冒出，鑽入鼻孔內者，即不自知其殉命。甚至城破之後，兵猶見有華兵等，擎搶倚牆，怒目而立，一若將欲開放者，然及牆近視之，始知已中炮氣而斃，只以其身倚站在牆，故未僕地，列低炮之殘毒，有如此者。[52]

A report in *A Review of the Times* (萬國公報) presents a chilling scene where a family gathering in a living room was killed by poison gas that penetrated into their house and sitting still as if they were still alive (死時家人婦女尚聚坐一堂也).[53] There has been no conclusive evidence showing that the Eight-Nation Alliance forces had employed poison gas in their invasion of Tianjin. It is possible that such accounts had confused chlorine with picric acid, which, like chlorine, is yellowish and was widely used in British lyddite cannon balls. The image of poison gas that surreptitiously infiltrated into familiar everyday space even before the colonizers themselves entered into the city was nevertheless impactful and effective as an embodiment of the atrocity and hypocrisy of the Western powers.

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[51] "Jinzhan yutan" 津戰餘談 [remaining words on the battle in Tianjin]. *Shenbao* 申報. August 20, 1900.

[52] Zhongguo lishi yanjiushe 中國歷史研究社 ed. Gengzi guobianji 庚子國變記 [1900 national upheaval]. (Shanghai: Shanghi shudian chubanshe, 1982), 48.

[53] Beijing shi zhengxie wenshi ziliao yanjiu weiyuanhui 北京市政協文史研究委員會 ed. *Jinjing Mengnanji* 京津蒙難記 [An account of the disasters in Beijing and Tianjin]. (Beijing: zhongguo wenshi chubanshe, 1990), 83.

It is therefore not surprising to find the image of chlorine gas in late Qing science fantasy novels, which often simultaneously embrace and question Euro-American models of modernization built upon scientific and technological advancement. *The New Story of the Stone* (新石頭記), first serialized in 1905 and published as a book in 1908, was one of such science fantasy novels. The protagonist Jia Baoyu, a character borrowed from the Chinese classic as suggested by the title, accidentally enters into the "Civilized World," a utopia where the Confucian principle of benevolence and advanced scientific technology coexist and complement each other. When a character called Zizhang introduces Baoyu to the benevolent weapons that are going to be invented in the "Civilized World," he cites the Westerners' "chlorine gas cannons" (氯氣砲) as a counter example:

> Recently, some cruel countries exhausted all their venomous schemes possible and made a chlorine gas cannon, hiding chlorine gas in shells. Once the shells are fired, the explosion can kill countless people. They hypocritically banned its use after its invention, which is ridiculous because when they realize they can't win a battle, they would use it anyway. And they came up with so many excuses, like it is just for a one-time expediency. After doing such a brutal thing, they are still talking about civilization!
>
> 近來那些殘忍之國，用盡了那種刻毒心思，做成了一重氯氣砲，把氯氣藏在砲彈裡，一彈放出來，炸開來不知要死多少人。可笑他做成之後，又裝出那假惺惺的面目，說是禁用的，等到見仗時，他不能取勝，又拿來用了，偏又有多少解說，什麼權時用一次罷了。做了這種殘忍之事，他還要說文明呢！[54]

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[54] Wu, Jianren 吳趼人. *Xin shitouji* 新石頭記 [the new story of the stone]. (Zhengzhou: Zhongzhou guji chubanshe, 1986), 298.

Similarly, Biheguan Zhuren (碧荷館主人)'s *New Era* (新紀元) envisions a clash between the European "white race" and the Eastern "yellow race" set in 1999. Fearing that they are about to lose the battle, the desperate European troops eventually decides to resort to "chlorine gas cannons." However, they hesitate before taking this final solution, since it was "banned at the Hague Peace Conference" (海牙平和會議所議禁). [55] The Hague Peace Conference in which participating states including Britain, the U.S, and China had agreed upon chemical disarmament took place in 1899, exactly 100 years before the fictional war outbreaks in the novel.

In both *The New Story of the Stone* and *New Era*, one can find the anachronistic coexistence of allusions to Chinese antiquity and futuristic imagination based on "Western" science and technology. As David Wang notes, "…science fantasy was a genre that could resurrect the past from its 'pastness' and pre-empt the future in the perfect mode. By recontexualizing the various manifestations of past and future, the emergence of late Qing science fantasy instantiates the contemporary desire of competing with Time."[56] Poison gas, the embodiment of advanced Western technology and cruelty, functions as a temporal device that anchors both novels in a particular historical moment - the immediate aftermath of the Boxer Rebellion and the invasion of the Eight-Nation Alliance. If in the *New Story of the Stone*, the benevolent weapons to be invented is a morally more legitimate replacement of the poison gas, the author of *New Era* comes up with a much more radical and brutal solution: to burn the enemy's battleships that are carrying chlorine gas cannons. Both can be read as responses to the national trauma caused by the aggression of foreign imperial powers. The mystic matter of "green smoke" thus paradoxically confers the anachronistic narratives with a concrete historicist sense.

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[55] Biheguan zhuren 碧荷館主人. *Xinjiyuan*. 新紀元 [New era]. (Guilin: Guangxi shifan daxue, 2008), 52.

[56] Wang, David. *Fin-de-Siècle Splendor: Repressed Modernities of Late Qing Fiction*, 1849–1911. (Stanford, Calif.: Stanford University Press, 1997), 255-256.

Compared to their late Qing predecessors who were mostly traditionally trained literati, writers who engaged with poison gas in the 1930s offer accounts with more valid scientific and historical bases. Li Xiufeng's "The Historical Evolution of Gas Warfare" (毒氣戰爭歷史的演進), for example, not only explained the development of chemical weapons in Europe quoting Euro-American scholarship, but also cited testimonies of World War I survivors, offering disconcerting sensory details of how poison gas is encountered and perceived in utter shock. For instance, he translated the following paragraph from *Gas and Flame in Modern Warfare* by Major S.J.M. Auld, describing the escalating psychological impact of witnessing the dissemination of the toxic cloud: "Try to imagine the feelings and the condition of the colored troops as they saw the vast cloud of greenish-yellow gas spring out of the ground and slowly move down wind toward them, the vapor clinging to the earth, seeking out every hole and hollow and filling. the trenches and shell holes as it came. First. wonder, then fear; then, as the first fringes, of the cloud enveloped them and left them choking and agonized in the fight for breath -- panic. Those who could move broke and ran, trying, generally in vain, to outstrip the cloud which followed inexorably after them." [57] The testimony of Owen S. Watkins, an army chaplain, first published in the *Methodist Recorder* (London), also attests to the terror coming from the environmental destruction caused by the gas: "The story they told we could not believe; we put it down to their terror-stricken imaginings- a greenish-gray cloud had swept down upon them, turning yellow as it traveled over the country, blasting everything it touched, shriveling up the up the vegetation. No human courage could face such a peril." [58]

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[57] Li, Xiufeng 李秀峰. "Duqi zhanzheng lishi de yanjin." 毒氣戰爭歷史的演進 [The Historical Evolution of Gas Warfare]. *Kexue shijie* 科學世界. Volume 1, Issue 1, 1932, 65.

Four years later, Li Xiufeng incorporated the foreign resources he acquired into his science fiction story "An Air Defense Exercise" (防空演習) which revolves around a boy's inquiries into an imaginary air defense exercise. The boy's name is Guochou (國仇), literally meaning "national enmity." Guochou's father is a teacher at a school of air defense, while his sister named "Guozhen" (國珍 or national treasure), participated in the exercise as a nurse rescuing gassed patients. Guochou's mother, on the other hand, stays at home as a housewife and takes the responsibility of raising and educating Guochou. Through dialogues between Guochou, Guozhen, and their parents, the story introduces knowledge about chemical warfare and air raid offense, highlighting the significance of national defense efforts joined by civilians. Under the influence of his father, Guochou is determined to become an air force officer when grows up. The story projects a future organization of civilian air defense centering around the family and conventional gender roles. It is also noteworthy that the story is illustrated by journalistic photos from World War I Europe and contemporary Japan where children are involved in military exercises. (Fig. 6) As implied by the protagonist's name, the story "An Air Defense Exercise" not only prepares the audience for modern warfare with an exercise in paper, but also establishes an example of affective mobilization that links familial bonding with national salvation. The prospect of national salvation, however, is not all optimistic. When Guochou's mother introduces the well-equipped basements that be used as air-raid shelters in major cities in Europe and the U.S, she also comments on the scarcity of such shelters in China. Coming back from the exercise, Guozhen also complains about the inaccessibility of gas masks. Their mother responds by saying that they will have to wait until mass production of gas masks is made possible in China by the joint efforts of public and private chemistry-related institutes. It remains ambiguous to what extent the scientific knowledge introduced in the story could actually be put in use.

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[58] Ibid, 66.

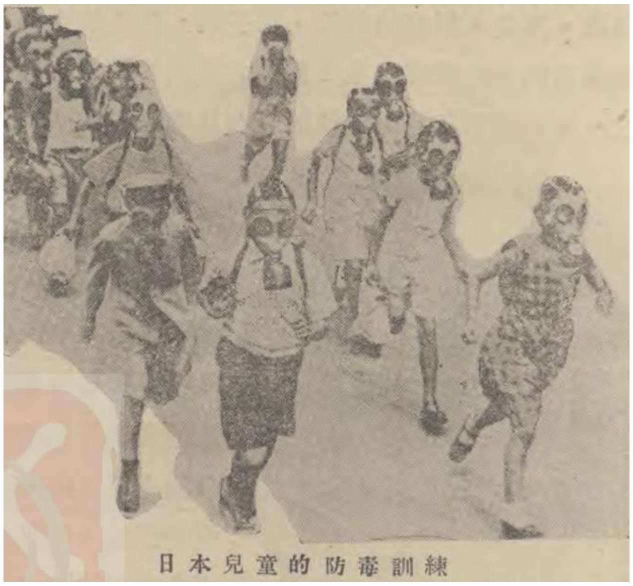

Fig. 6 "An Military Exercise for Children in Japan" (日本兒童的防毒訓練). An illustration of "An Air Defense Exercise" (防空演習). *The Scientific World* 科學世界 Vol. 5 Issue 2-3, 282

Besides intensifying the sense of urgency in the Chinese audience, images and writings from World War I and interwar Europe and U.S as well as the constructed memories of "chlorine gas" that was possibly still lingering also provided 1930s Chinese writers and artists with the materials to imagine a living environment thoroughly changed due to chemical warfare. For example, *Life Weekly* published a cartoon titled "Gas masks have transformed human beings," (毒氣罩改造了人類) in which everyone, including those in the family portraits, is wearing a gas mask. (Fig. 7) The image is both funny and bizarre due to the alienating effect of gas masks. The Russian German writer Fyodor Stepun, who first served in a Siberian regiment in World War I and later became an army commissar, recollects that in a gas poison attack, he experienced “the terrible unrecognizability of all the people all around, the loneliness of an accursed, tragic masquerade: white rubber skulls, quadratic glass eyes, long green snouts.” [59] In *Death of a Hero,* Aldington also compares the looks of soldiers wearing gas masks to “lost souls expiating some horrible sin in a new Inferno.” [60] 1930s popular science artists and writers in China, on the other hand, never saw a gas mask in a trench. Instead of associating it with death, they imagined its image in the context of everyday life. However, it does not mean that they were not aware of the daunting connotations of the image. The pictorial *Modern Miscellany* (時代), for example, published a photography by Zhu Cheng (朱誠), which depicts an elegant qipao-wearing mother helping her young son put on a gas mask in an everyday setting looking like a garden belonging to an affluent family. The photograph is solemnly captioned: “Sooner or later, this would not be a game” （遲早有一天，這不是遊戲）. (Fig. 8)

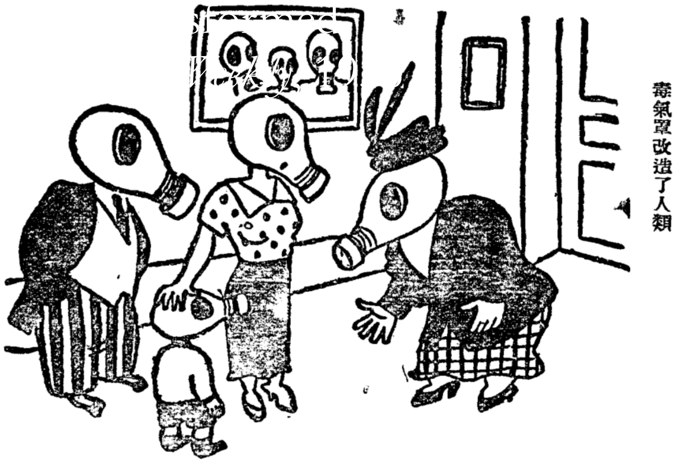

Fig. 7 “Gas Masks have Transformed Human Beings” (毒氣罩改造了人類), *Life Weekly* (生活星期刊). Vol. 1, Issue 12, 1936, 5.

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[59] Stepun, Fedor. *Als ich russischer Offizier war*. (Munich: Kösel, 1963), 318-319.
[60] Aldington, Richard. *Death of a Hero*. (London: Penguin, 2013), 279.

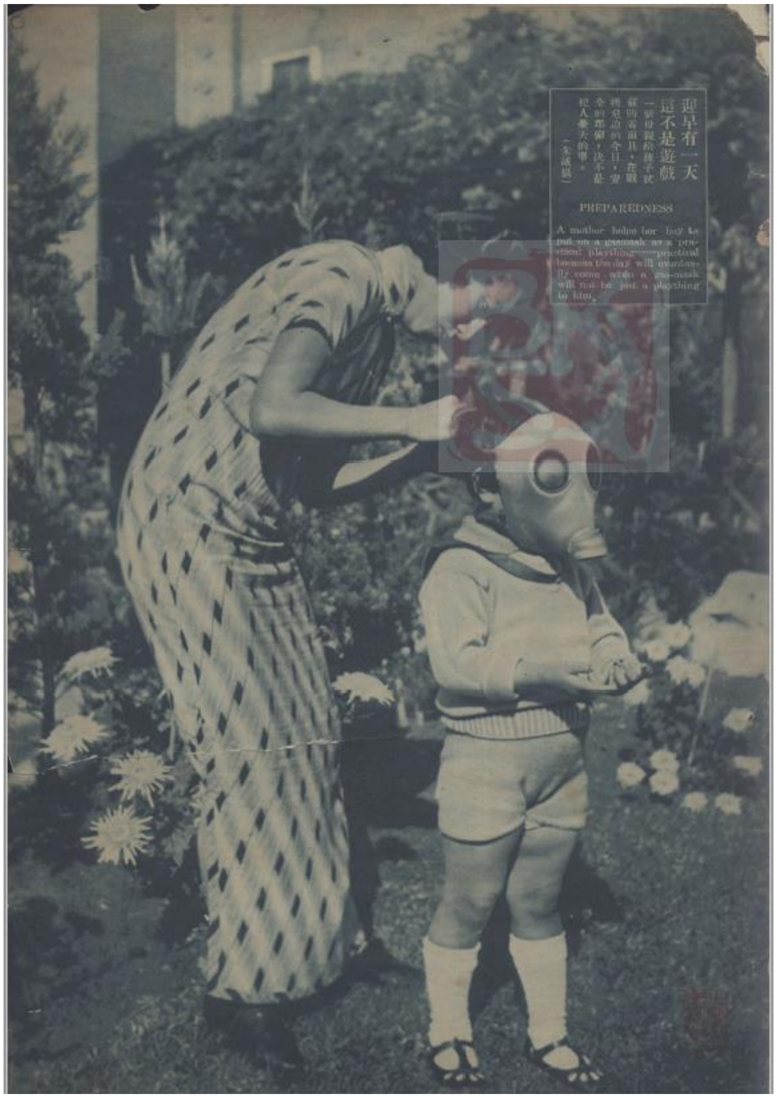
遲早有一天
這不是遊戲
PREPAREDNESS

Fig. 8 Zhu Cheng 朱誠. “Sooner or later, this would not be a game” （遲早有一天，這不是遊戲）, *Modern Miscellany* 時代. Issue 113, 1936, 2.

Sharing the anxiety that familiar environments would be turned into something alien and hostile, two other photomontages in *Pictorial of Air Defense* (防空畫刊) juxtapose seemingly peaceful sceneries with cautionary captions. (Fig. 8) Next to a photo of Qinhuai River enveloped by fog or cooking smoke is a caption suggesting that the smoke could be replaced with poison gas in a hypothetical scenario: “One day, the enemy’s gas bombs will explode over Qinhuai River that has enjoyed its glory since the six dynasties.” (總有一天，敵機的瓦斯彈，要在六朝

金粉的秦淮河畔爆發起來) “With poison gas dispersed in the once flourishing area, can dandy boys still enjoy themselves here?” （毒化瀰漫的繁華區域，豈能仍作公子哥兒們的娛樂場所嗎？）[61] Since the Six Dynasties, Qinhuai River has been associated with elegant courtesans, and the decadent but cultured lifestyle of prestigious literati. Evoking the poetic legacy of this site, the caption warns that the past glory can be easily destroyed by the impending crisis. Similarly, the caption of the deserted street view in a traditional town also implies that the poison gas could devastate this once bustling and flourishing street. This deserted street thus becomes a haunted stage where the past, present, and future converge. The image of the poison gas not only penetrates into the literary legacy of the past, dominates present imagination, but also block the vision for the future.

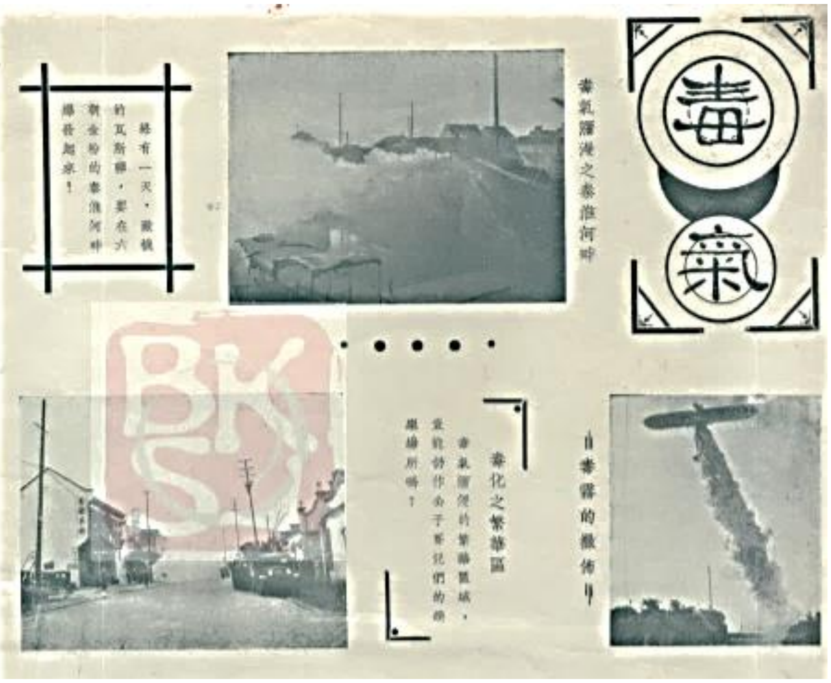
毒
氣
毒氣瀰漫之秦淮河畔
的瓦斯彈，要在六朝金粉的秦淮河畔爆發起來！
毒化之繁華區
毒氣瀰漫的繁華區域，豈能仍作公子哥兒們的娛樂場所嗎？
自毒霧的散佈！

Fig. 9 “Poison Gas”(毒氣) *Pictorial of Air Defense* (防空畫刊), Issue 1, 1936, n.p.

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[61] “Duqi” 毒氣 [poison gas]. *Fangkong huakan* 防空畫刊 [pictorial of air defense]. Issue 1, 1936, n.p.

The co-existence of modern and traditional literary resources can also be found in works by a chemistry professor called Gao Xingjian (高行健), who shares the same name as the Nobel Laureate, but who experimented with modernist pastiche before the more famous Gao Xingjian did. In his 1935 science fiction story titled “A Cold Dream of a Frozen Corpse” (冰屍冷夢記), which he published under the pen name “Xiaozhu” (筱竹), a desperate young man called Wu Cun (homonymic with “no village,” hinting at his “homelessness”) decides to freeze his body due to personal misfortune amidst a national economic recession, and waits to be awakened when things turn for the better. [62]However, when he is finally rescued two hundred years later, he wakes up only to realize the world war has not come to an end. To worsen the situation, the entire globe has been enveloped by unbreathable air due to the poison gas and everyone has to literally move underground. Wu Cun is amazed by the advanced technologies people enjoy in the 22nd century, such as the automatic temperature-controlled room and virtual conference with video images on TV, not unlike Zoom. However, when he turns on the radio, all he hears is old nationalist songs, including “La Marseillaise” from France, “Men of Harlech” from Wales, and “Inno di Garibaldi” from Italy, as well as an adaptation of the *ci* lyrics “Man Jiang Hong” attributed to the Song dynasty general Yue Fei. It is noteworthy that Gao cites the lyrics of the foreign songs in their original languages, creating a hybrid texture mimicking the busy traffic of words on the air. People’s cultural life does not seem to have progressed along with technology. Moreover, he soon realizes that agriculture is still taking place on the ground. Prisoners are assigned to this dangerous work along with livestock animals wearing gas masks. They are supervised by robots and exposed to the danger of air raids. Two hundred years have passed, yet the world remains split by nationalistic fervor, exploitations still exist. It is indeed a "cold dream."

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[62] Xiaozhu 筱竹. “Bingshi lengmeng ji” 冰屍冷夢記 [A Cold Dream of a Frozen Corpse], *Kexue shijie*. Volume 4, Issue 9, 1935. 905-910 and Volume 4, Issue 10, 1935, 1018-1022.

Gao Xingjian also wrote a series of *ci* lyrics in classical lyrical forms, each introducing a chemical element and its potential wartime use. He titled the series "Lyrics of the Infinitesimal" (微乎其微詞). The lyrics on chlorine, for example, are written to "Green Mood," a traditional tune, which acquires a sense of irony since an impure sample of Lewisite gas is usually murky green. He writes, "the fatal dew covering the sky, fishy-smelling mustard gas casting a shrouding cloud, the worst calamity in a battlefield" (死露橫天，腥芥籠雲，惡絕沙場塵劫) [63] Here the "fatal dew" refers to Lewisite gas that was used in world war; while the mustard gas would be put into use very soon in the Sino-Japanese War. Gao continues to elaborate on how other elements cause explosions and intense fire when met with chlorine gas: "When antimony is poured into gaseous chlorine, it explodes and scatters like perishing fireflies. When the chlorine gas is ignited by candles or turpentine, fire burns intensely, devouring cities and states" (鏞锑晶粉無端下，撲簌簌流螢圓寂；更偷將脂燭松油，火葬傾國傾城). [64] Ominous images of destruction and ruins pervade in the lyrics that are supposed to impart scientific knowledge.

The lyrical work alone, however, cannot fulfil the author's purpose of enlightenment. When "Lyrics of the Infinitesimal" was published in *The Scientific World*, half of the page was taken up by technical notes on the chemistry of these elements. The reader hence can perceive the dialogue between literature and science as complementary but also simultaneously vying for the reader's attention. Gao Xingjian attempts to stimulate interest in modern science among his readers through a traditional form. His endeavors of enlightenment were therefore paradoxically accomplished through the reenchanting of knowledge with lyricism.

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[63] Gao, Xingjian. "Weihuqiwei ci: luyi" 微乎其微詞 綠意 [lyrics of the infinitesimal: green mood], *Kexue shijie*. Volume 7, Issue 5, 1938, 216.

[64] Ibid.

The Scientific World, was launched in 1932 in the milieu of the Scientization Movement (科學化運動), a movement that was sponsored by Chen Guofu (陳果夫) and Chen Lifu (陳立夫), two important political leaders in the Nationalist government, and saw participation by leading scholars from different disciplines. The mission of the movement is to scientize society and popularize science knowledge. (Fan, 1302-1315) A series of popular science magazines were published under the calling of this movement, mobilizing forms and contents old and new, local and foreign, to prepare their audience for the impending crisis of national survival. In 1933, the Society of Chinese Scientization Movement published the first issue of *Scientific China* (科學的中國), which included "The Manifesto of the Society of Chinese Scientization Movement" (中國科學化運動協會發起旨趣書), The manifesto positions the scientization movement as a continuation of the May Fourth New Culture Movement. It suggests that intellectuals who played major role in the New Culture Movement mainly focused on the vernacular literature movement and overlooked the promotion of natural sciences. The same issue of *Scientific China* also published "Science and Scientization" by the geographer Zhang Qiyun (張其昀). Zhang proposes to "vernacularize" science and to introduce the powerful literary revolution into the field of science. In particular, he cites the German scientist Alexander von Humboldt who infused his poetry with scientific insights. Zhang encourages Chinese scientists to follow the example of von Humboldt and raise awareness among popular audience in a "very beautiful and very powerful" language.[65] It is noteworthy that Zhang not only promotes a lucid and accessible language for popular science writings or "scientization" of vernacular language, but also "vernacularization" of science, evoking vernacular literary resources to rejuvenate the existent scientific language. To some extent Zhang's proposal was realized by the popular science writers and visual artists examined above, who vernacularized science usually in a style combing enlightenment with lyricism.

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[65] Zhang, Qiyun 張其昀. "'Kexue' yu 'kexuehua'" 科學與科學化 [Science and Scientization]. *Kexue de zhongguo* 科學的中國[Scientific China]. Volume 1, Issue 1, 1933, 7.

The hybridized nature of *The Scientific World* is further echoed by Sun Mingjing (孫明經)'s film *Defense against Poison Gas* (防毒), which combines scientific explication of poison gas and lyrical patriotic calling. The film was funded by the department of air defense of the temporary government in Chongqing. In the film, Sun Mingjing, the filmmaker himself, demonstrates to a group of children how to wear a gas mask or make a makeshift version of a mask. (Fig. 9) He also plays a doctor giving first aid to victim of poison gas, taking up the roles of educator and caregiver.

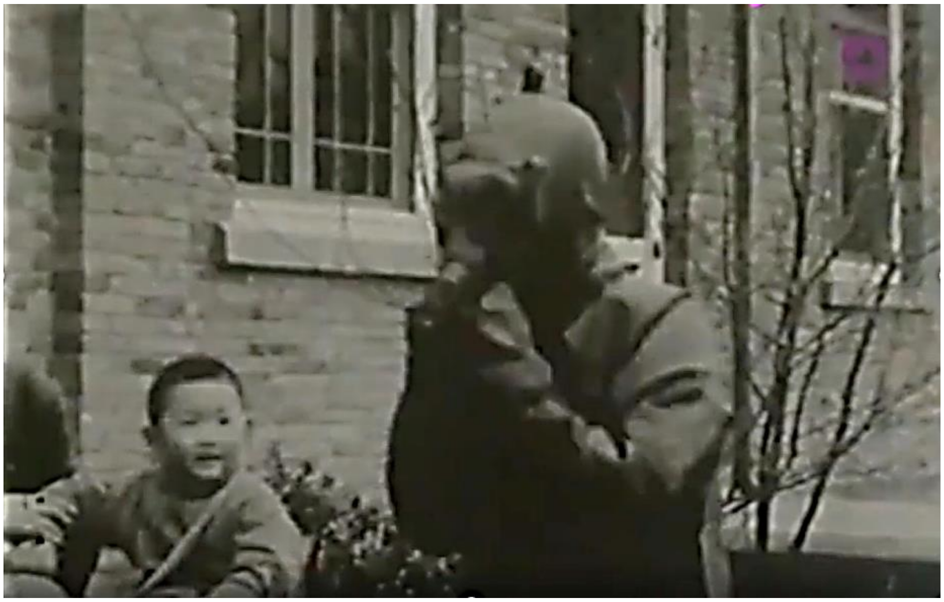

Fig. 10 A still from *Defense against Poison Gas* (防毒) (1936) : The filmmaker shows a group of children how to wear a gas mask.

In an article detailing the production process of the film, Sun discussed how the film crew used local materials such as firecrackers but added Magnesium powder to create a convincing scene of poison gas. Sun was the director of Audio-visual Education Department at Jinling University, and most of the actors in this film were students from the department. In the department, the students were not only trained as filmmakers and announcers, but also as projectionists. They brought education films including *Defense against Poison Gas* to more than 30 places including Shanghai, Chongqing, as well as cities in the provinces of Jiangxi, Shanxi, Hunan, Zhejiang, Guangdong, where they not only projected the film but also gave presentations to accompany this silent film. [66] At the sites of screening, they also sold brochures on the poison gas, edited by students and faculty members from the same department. The film was received well. A Shanghai viewer wrote to *Ta Kung Pao*, requesting more screenings of the film. [67] According to *Film and Broadcasting* (電影與播音), a journal run by the department, the film had been screened in Chongqing for at least 50 times in 1942 summer, each time attracting at least 3000 viewers.[68] By being both the producers, actors, distributors, and presenters of the film, the bodies of Sun Mingjing and students have become vehicles of knowledge and formed a media network in motion. The preface to the script of this film describes China as a nation defenseless against poison gas and the Chinese people as panicking due to their lack of knowledge. Interestingly, while the main body of the script introduces poison gas and methods of defense in a plain colloquial style, the opening and ending where the filmmakers appeal to the audience to raise their awareness of this poison gas crisis are written in a classical and lyrical style. The film ends with the following words projected on the screen:

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[66] For a detailed account of this journey, see Sun, Mingjing 孫明經. "Zhongguo wenhua dageming zhong de yige xiao shiyan: jinling daxue yingyin shiye gaishu." 中國文化大革命中的一個小實驗：金陵大學影音實驗概述 [a small experiment in the great Chinese cultural revolution: the audio-visual experiments of Jinling University]. *Yingyin yuekan* 影音月刊. Vol. 6, Issue 7-8, 1947, 91-101.

[67] "Kanle fangdu dianying, dique shi you yiyi de jiaohua yingpian."看了防毒電影，的確是有意義的教育影片[I've watched *Defense against Poison Gas*, it is indeed a meaningful film] *Ta Kung Pau* 大公報, September 1st, 1936.

[68] "Fangdu!" 防毒！ [Defense against poison gas!]. *Dianying yu boying* 電影與播音. Vol. 1, Issue 5, 1942, 24.

> To illuminate on the use of and defense against chemical gas is the painstaking enterprise of scientists from all over the world. If our country does not make the efforts in time, once the war breaks out, we will become the meat at the chopping block of other countries, helplessly waiting for our doomed fate to come.
> Alas, my compatriots! Can you really reside to the fact that we are all at the mercy of foreign powers? If not, let's follow their suit quickly and empower ourselves!
>
> 化學戰劑之施用與防禦，各國化學家莫不殫精竭智，以求發明，刀俎之下之我國，苟不及時努力，則戰神咆哮之時，維有坐以待斃耳！
> 國人乎國人！其果甘心為列強之魚肉而不知自救乎！不然，其速急起直追，以圖自成可也！[69]

The lyrical and impassioned call for audience to empower themselves with more knowledge about the poison gas is juxtaposed with the bleak reality of China's backwardness in the chemical weapons arms race with Japan.

Popular science writers did not stop producing works related to the poison gas after the outbreak of the second Sino-Japanese War. Gu Junzheng, for example, published a science fiction story titled "A Strange Plague in London" (倫敦奇疫) in 1939.[70] Despite being set in London, the space introduced in the story is nevertheless reminiscent of the recently bombed Shanghai. The story opens with a riot of refugees blocking the streets in London, panicking about a mysterious plague quietly taking over the entire city. Patients infected by the plague suffer from yellow blisters on the skin, corrosion of their muscles, blindness, and defected respiratory systems. These symptoms eerily resemble the effect of mustard gas. This strange

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[69] Kexue jiaoyu dianying weiyuanhui 科學教育電影委員會. "Fangdu yingpian shezhi jingguo ji shuoming" 防毒電影攝製經過及說明 [An account of the making of the film *Defense against Poison Gas*] *Kexue Jiaoyu* 科學教育. Vol. 3, Issue 1-2, 1936, 83.

[70] The story is largely based on "The Invisible Invasion" by Frederic Arnold Kummer, Jr. *Amazing Stories*, April 1939, 40-52.

"plague" also affected the buildings in the city, which collapse successively. London is turning into a purgatory on earth: "The streets become more and more bleak. Ambulances passed by one after another…What's more terrifying is the huge trucks full loaded with corpses heading straight towards the crematorium." [71] An American chemist, who is visiting London, volunteers to investigate and soon realizes it is not a plague, screaming: "It is not a plague, not a disease! It is destruction! It is ruining lives, plants, stones, and steel! An unknown force is turning the city into a lifeless wilderness!" [72] This observation spells out the ecological concern underneath the anxiety over poison gas attacks. The refugees blocking the streets at the beginning of the story are in fact environmental refugees. The whole disaster is in fact a political scheme plotted by a German spy-scientist in the disguise of a political refugee, who had been disseminating toxic chemicals in the city and using a refitted pipe as a filtering respirator to protect himself.

The story was serialized in a newly launched popular science magazine called *Scientific Taste* (科學趣味), which proposes to "make life scientific, and make science fun" (生活科學化，科學趣味化). The same issue that includes the part of the story where the true identity of the German chemist was about to revealed also published an article titled "The King of Poison Gas" (毒氣之王) which introduces the power of the mustard gas developed by German chemists. Resonating with the plot of Gu's story, it is said at the beginning of the article that a Professor Ralph H. Bullard from the U.S is developing an antidote to mustard gas.[73] Towards the end of "A Strange Plague in London," the American chemist finds the refitted pipe dropped by the German scientist, which leads him to single-handedly destroy the vicious chemical machine and bring

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[71] Zhenzhi 振之 (Gu, Junzheng 顧均正). "Lundun qiyi" 倫敦奇疫 [A Strange Plague in London]. *Kexue quwei* 科學趣味 [Scientific Taste]. Volume 1, Issue 2, 1939, 35-36.

[72] Ibid, 88-89.

[73] Guyin 谷音. "Duqi zhi wang" 毒氣之王 [the king of poison gas]. *Kexue quwei* 科學趣味[Scientific Taste]. Volume 1, Issue 2, 1939, 55.

London back to life. Gu wrote the story two years into the Sino-Japanese War, which by then had witnessed the Japanese's deployment of poison gas in China. Setting himself apart from his predecessors who used to project the past of Europe onto the present of China, Gu projected current domestic anxieties onto an international screen, conjuring up a foreign *deus ex machina* to solve the crisis. Ironically, as early as in 1937, Chinese government had officially presented its first complaints to the League of Nations about Japan's use of chemical weapons including mustard gas, phosgene, and tear gases against Chinese troops and civilians. However, no effective measure was taken. In the following years, the Japanese military used chemical weapons on more than 2000 occasions, with "estimates of casualties ranging from 36,968 to 80,000, including both military personnel and civilians." [74]

III. The Light and Shadow of Scientific Nationalism:

Ecological and Territorial Anxieties in Japanese Representations of Poison Gas

While the popular science writers and artists in China were worried about the threat of chemical weapons, especially those held by the Japanese, popular science writers in Japan also expressed their anxieties over chemical warfare and its ecological impact through media such as science fiction.

Scholars have traced the origin of science-fiction-type stories to the popular magazine *New Youth* (新青年), which was inaugurated in 1920. However, in this magazine, stories with science fiction elements were categorized as "deviant" (変格) detective stories. "Science fiction"

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[74] Gruden, 263.

(科学小説) as a category first emerged in 1927 when the magazine *Science Pictorial* (科学画報) held a "science fiction contest," aiming to "to seek revolutionary works of high literary quality which are purely scientific in their material and do not lapse into the detective style." [75] The story that won the second place in the contest was "The Wedding Shrouded in Grey" (灰色にぼかされた結婚) by Kizu Tora (木津登良), a story about poison gas.

In "The Wedding Shrouded in Grey," Kizu envisions a dystopian future where four-fifths of the world population have been eliminated by phosgene gas for eugenic purposes. The survivors, however, either suffer from respiratory defects or other kinds of injuries. The story revolves around the love triangle among Miss. Mikhalovitch, Mr. Kodaka, and Mr. Gross, whose surnames indicate their different national backgrounds to be potentially Russian, Japanese, and Euro-American. A research institute in Shanghai invents and supplies people with "the nutrient gas" to sustain their lives in place of food. The juxtaposition of poison gas and "nutrient gas" demonstrates the double-edged sword of science. National identities are rendered irrelevant in this story. All human beings are equally impacted by the poisoned atmosphere. Miss. Mikhalovitch abandons her ailing lover Mr. Kodaka for the seemingly healthier Mr. Gross only to realize in tears on their wedding night that his arms and feet are all prosthetics. The story ends with their room shrouded in the gun smoke of the wedding salute, implying the doomed fate of marriage. The story seems to suggest that the heroine's eugenic mindset, and more importantly the blind faith in science, can be more toxic than poison gas itself. Through the dystopia of poison gas, Kizu interrogates the hegemony of modern science that has infiltrated all aspects of life.

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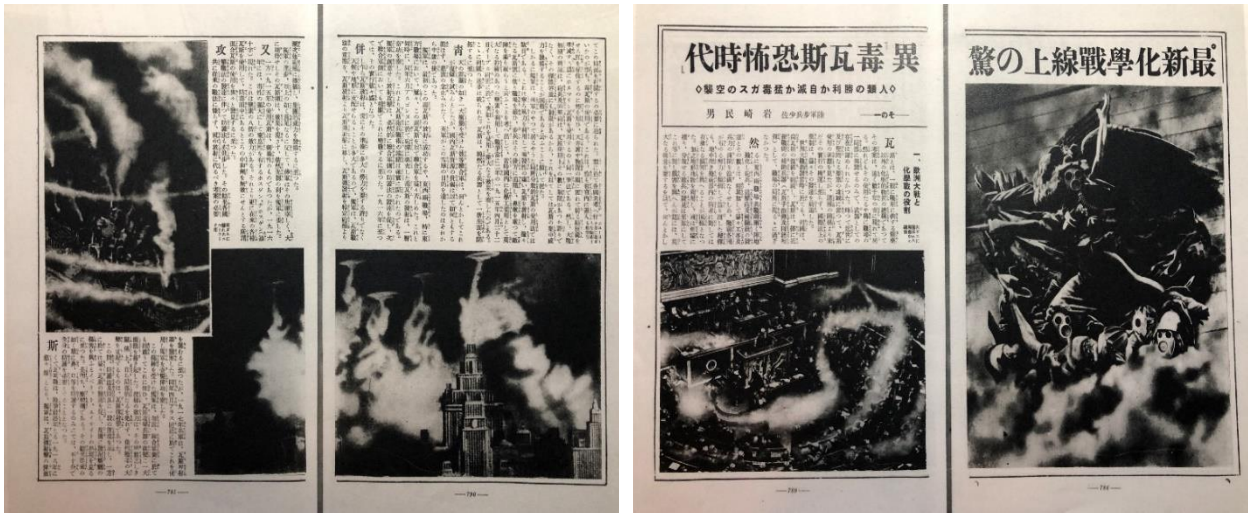
[75] Matthew, Robert. *Japanese Science Fiction: a View of a Changing Society*. (London; New York: Routledge; [Oxford, England]: Nissan Institute of Japanese Studies, University of Oxford, 1989), 13.

In May 1931, the same magazine published an article titled “The Shocking News from the Frontline of Chemical Warfare: The Terrorizing Age of Poison Gas” (最新化学戦線上の驚異　毒瓦斯恐怖時代) by Iwasaki Tamio(岩崎民男, 1894-1978), then an infantry major. In this article, Iwasaki asks if the invention of poison gas is the triumph of mankind or its self-destruction. The article is accompanied by images of battlefields and cities under the attack of poison gas represented by ghostlike white smoke, even including an imaginary scenario in which the poison gas infiltrates into an unidentified parliament hall, likely in Europe. (Fig. 10) Despite the questioning of the self-destructive effects of the poison gas at the beginning, Iwasaki’s explication of the terrorizing power of poison gas inevitably leads to the conclusion that to survive the Japanese army needs to be equipped with advanced chemical weapons as well. In the following years, Iwasaki would rise to the rank of captain of the 47th Infantry Regiment, and participate in battles including the Battle of Xuzhou, in which the Japanese army deployed poison gases against defenseless Chinese troops.



最新化學戰線上の驚

異「毒瓦斯恐怖時代」

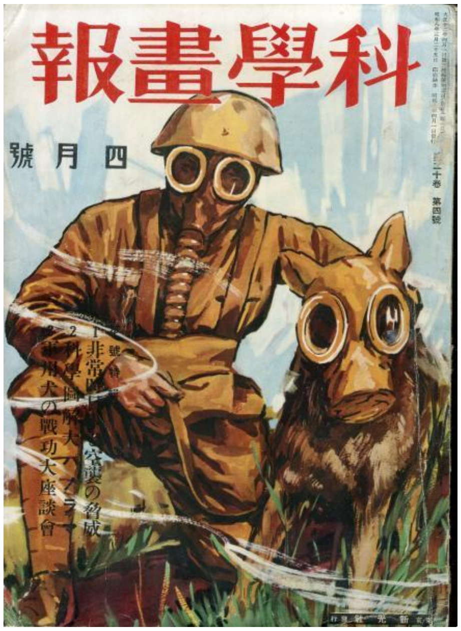
◇人類の勝利か自滅か猛毒ガスの空襲◇

その一　陸軍歩兵少佐　岩崎民男

一、歐洲大戰と化學戰の役割

Fig. 11 Iwasaki Tamio. “The Shocking News from the Frontline of Chemical Warfare: The Terrorizing Age of Poison Gas”(最新化学戦線上の驚異　毒瓦斯恐怖時代), *Science Pictorial* (科学画報) , May, 1931, 189-192.

The April 1933 issue of *Science Pictorial* published three articles on the threat of poison gas, including an army officer's urgent call for a gas mask association. It is noteworthy that the cover picture, although titled "Our Brave Military Dog Marching on amidst Swirling Poison Gas," (渦巻く毒ガスの中を進むわが勇敢な軍用犬) seems to be inspired by a photograph from a military exercise in Germany, which was published by the Chinese popular science magazine also called "Scientific Pictorial" in 1936. (Compare Fig. 12 and Fig. 13) The original photograph is said to be taken in Orainienburg, Germany, August, 1932. The resonances and even the recurrence of poison gas images circulated in Japanese and Chinese popular science media reveals the shared anxiety over its threat and potential impact on both the environment and human psyche.



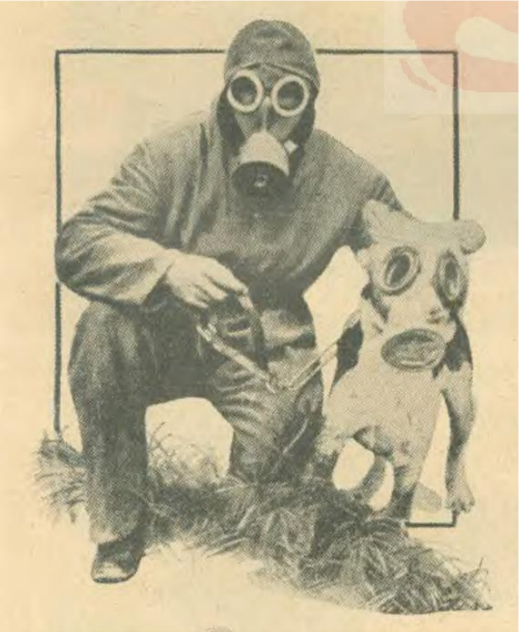


Fig. 12 The cover of the April 1933 issue of the Japanese *Science Pictorial* 科学画報
Fig. 13 The German photograph published on the Chinese *Science Pictoria* 科學畫報 *l*, Vol 3. Issue 17, 1936, 665.

Echoing Li Xiufeng's "An Air Defense Exercise," in 1932, Unno Juza (海野十三), one of the major contributors to *New Youth* and founding fathers of Japanese science fiction, serialized *The Imperial Capital under Air Bombings* (爆撃下の帝都) in Asahi Shinbun Newspaper. He himself categorized the novel as "air defense fiction." An alternative title to this novel is "The Funeral March of Air Raids." (空襲葬送曲) Like Li's story, the novel centers around a family's experience in the face of national crisis. It opens with a family dinner party celebrating the father's birthday. Genzo, one of the sons who works at a rubber factory, brings him a gas mask as a birthday gift. The whole family is shocked by this odd-looking gift. Genzo explains its use and warns against the threat of an impending air raid in the aftermath of the Shanghai Incident. Soon an air raid by the American, including poison gas attacks, takes place as Genzo predicts. Unno gives grotesquely vivid details of how corpses of poison gas decay and become unrecognizable due to the corrosive effect of poison gas. The air raid gradually escalates to a full-scale Pacific War. Unsurprisingly, Japan defeated the U.S in this war, but it is a bitter victory. All the family members appear in the gathering at the beginning of the novel die in the war except the youngest daughter.

When the novel was published as a book, it came with a cover with a menacing looking gas mask and a preface penned by Shima Shozo, a major general of the Japanese army who praised the novel for its enlightening details about gas warfare and air defense. Similar plot points can be found in Unno's 1933 short story "Japan under an Air Raid," published in *Sunrise* (日の出) magazine's special issue called "A National Crisis is Coming. What could Happen to Japan?" (國難來る 日本はどうなるか) In this story, he depicts in detail the misery of civilians under a phosgene gas attack: "It was as loud as hundreds of thunderstorms, poisonous looking flames were flaring up… In narrow alleys, refugees who were too late to escape, were lying on their backs here and there. Everyone was holding their throats with two hands, struggling and dying. Next to them, shepherd dogs were tortured to death in the same manner.” [76] A mother, in the middle of her panicked state and fearful for her own life, forgot about her child, who was running after her, crying. Eventually they both died with “phosgene gas expanded within their lungs.” [77] Human beings and animals suffer equally. With the terror coming from without and within, no space is left for humanity as conventionally understood. Like *The Imperial Capital under Air Bombings,* this story is also wrapped up abruptly with Japan’s pyrrhic victory.

One thing that stands out in *The Imperial Capital under Air Bombing* is that amidst the chaos of the air raid, Genzo hears Chopin's famous Funeral March played by Radio Japan. He soon realizes that the radio station has been taken over by the Americans. The depressing music, like the all-pervasive poison gas, affects the listeners both psychologically and somatically. As an engineer at the Ministry of Communication (逓信省) by day, Unno is interested in the power of media like broadcasting in connecting users’ minds and bodies. In his 1937 story “Soaking in Music at 18:00pm” (十八時の音楽浴), Unno imagines an authoritarian regime that would broadcast patriotic music at 6pm every day to brainwash their subjects. This music is revealed to be a kind electric signal that goes through the listeners’ bodies and minds, redirecting their desire for leisure to work. *The Imperial Capital under Air Bombing,* Unno parallels affective power of the radio wave with that of poison gas, both of which capture their recipients/victims by surprise, impacting their consciousness and unconscious.

The fictional and nonfictional writings involving the poison gas discussed above emerged in the context of the rise of scientific nationalism in Japan since the 1920s, which is defined by

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[76] Unno, Juza 海野十三. “Kukyuka no nihon”空襲下の日本 [Japan under an air raid]. *Hinode* 日の出. April 1933, 13.
[77] Ibid, 14.

Hiromi Mizuno as "a kind of nationalism that believes that science and technology are the most urgent and important assets for the integrity, survival, and progress of the nation." [78] When discussing Unno's stance in relation to this brand of nationalism, Sari Kawana argues that "the cover of a willing collaborative author allowed him to continue writing and publishing during the war in order to warn his readers against the perils of science without conscience, a concern he had long held before Japan's serious involvement in affairs on the continent and war against the United States."[79] However, to suggest that Unno is wholeheartedly promoting science with conscience would be an overstatement, if not a misstatement. The "conscience" he demonstrates in his writings is only reserved for his Japanese compatriots. While Unno is cautious of the consequences of scientific advancement going unchecked, his major concern is still the backwardness of Japan's science and technology. In the two pieces of "air defense fiction," he seems to suggest, despite his pessimistic vision, that the gap of scientific advancement between the U.S and Japan can only be made up for by the purity and intensity of the so-called Yamamoto spirit of dedication.

In sum, the popular science writings from Japan tend to be more concerned with the corrosive effects of poison gas on its victims' minds and bodies, which can be extended to the national territories. Furthermore, through the medium of poison gas, the material urban ecology in Tokyo is fused with the virtual information ecology on the air. The terror from the air thus acquires double meaning and can be channeled to fuel the interwar scientific nationalism towards wartime techno-imperialism.

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[78] Mizuno, Hiromi. *Science for the Empire: Scientific Nationalism in Modern Japan*. (Stanford University Press, 2008), 11.

[79] Kawana, Sari. "Science without Conscience: Unno Juza and *Tenko* of Convenience." Dennis Washburn and A. Kevin Reinhart ed. *Converting Cultures: Religion, Ideology and Transformations of Modernity*. (Leiden; Boston: Brill, 2007), 184.

IV. Conclusion: Ecologizing “Vernacular Modernism” through Poison Gas

With both Chinese and Japanese cases in mind, I propose to interpret these multi-media texts revolving around poison gas in an ecologized theoretical framework of “vernacular modernism.” The term was famously coined by Miriam Hansen in “The Mass Production of the Senses: Classical Cinema as Vernacular Modernism.” Hansen perceives classical Hollywood films up to the 1950s as a form of vernacular modernism that functions both as “a provincial response to modernization and a vernacular for different, diverse, yet also comparable experiences.” [80] She evokes the term “vernacular,” combining “the dimension of the quotidian, of everyday usage, with connotations of discourse, idiom, and dialect, with circulation, promiscuity, and translatability.”[81] “Translatability” is crucial here. In a following essay, she examines how early Shanghai cinema “translates” and localizes the vernacular of Hollywood films through the figure of woman that embodies the polyvalent promises of modernity. In *An Amorous History of the Silver Screen*, Zhang Zhen takes up where Hansen has left off. She treats “the vernacular” as “both ‘language’ and physical structures the cinema manifests the dynamic transactions between the cosmopolitan and the local, the high and the low, the decline of aura and the retooling of the archaic.” [82] With the concept of vernacular modernism, she revisits the tension ridden process of negotiation between national film industry and the hegemony of Hollywood, between the locally specific and globally significant. In *Developmental Fairy Tales*, Andrew Jones evokes the concept when tracking the diffusion of evolutionary thinking in the popular media and everyday discourses in early twentieth-century China. Jumping off from Jones' expansion of vernacular modernism to all realms of cultural production, this chapter has examined how different types of media participated in the vernacular circulation of scientific information and imagination of poison gas on a global scale.

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[80] Hansen, Miriam. "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism." *Modernism/modernity*, vol. 6 no. 2, 1999, 71.
[81] Ibid, 60.
[82] Zhang, Zhen. *An Amorous History of the Silver Screen: Shanghai Cinema, 1896-1937*. (Chicago: University of Chicago Press, 2005), 20

The theoretical framework of vernacular modernism, however, has attracted some criticisms in terms of its lack of deeper political reading, as well as its ignorance of historical and textual specificities. For example, Zhang Yingjin argues that by grouping all early cinemas under the umbrella term "vernacular modernism," previous scholars might have neglected their vastly divergent ideological stances and hence fails to highlight the truly progressive among them. [83] Calling it a "problem of criticism," Daniel Morgan also contends that "vernacular modernism" only shows its critical edge when applied in interpretations of specific films rather than a sweeping term describing films' capability of responding to modernity. [84]

In a similar vein, Weihong Bao proposes to complement Hansen's vernacular modernism with political modernism to engage with more ideologically loaded objects: "Unlike vernacular modernism's emphasis on the agency of media and the automatic, unconscious reflexivity of spectatorial engagement, political modernism registered an anxiety and crisis of the modern subject in its negotiation with the power of media to master and manage reality just as reality became increasingly hard to pin down; whereas vernacular modernism focused on commercial cinema, political modernism tried to maintain a distance from it yet continued to operate in relation to it in symbiotic proximity."[85] According to Bao, the cultural practices of political modernism, such as left-wing cinema in interwar China, demonstrates a fusion of political and vernacular modernism that is reflexive of its context of colonial modernity. They bear "a reflexive relationship with Western high modernism and popular genres in the form of a mimetic mediation that registers and negotiates with the colonial hierarchy of knowledge and power." [86] In this way, her discussion lays bare the power structure underpinning the global circulation that Hansen seems to perceive as neutrally predicated upon the free market.

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[83] Zhang, 71.
[84] Morgan, Daniel. "'Play with Danger': Vernacular Modernism and the Problem of Criticism." *New German Critique*. No. 122, Summer 2014, 69.
[85] Bao, 22.

The interpenetration of the old and the new in vernacular modernism as described by Hansen and Zhang also happens in the popular science media texts I have examined. Globally circulated images of poison gas are recycled and superimposed with local experiences for local audiences with an acute and painful consciousness of the colonial hierarchy of knowledge and power, which is highlighted by Bao's political modernism. While Hollywood films facilitates their audience to prepare for an exciting urban life with both more liberty and alienation, the popular science media articulate and mediate the emerging anxiety over the fundamental change of the living environment brought by the impending war, especially by the "terror from the air." The images from the metropole of modernity in these cases no longer promises progress, but bring news about looming disasters. No one has captured the suffocating sensation of waiting for unknowable destruction better than Eileen Chang: "the times rush impatiently forward-already in the midst of destruction, with a still-greater destruction yet to come." [87] Hansen believes that early cinema in Shanghai must have "allowed its viewers to come away from the film and imagine their own strategies of survival, performance, and sociality, to make sense of living in the interstices of radically unequal times, places, and conditions." [88] The media texts on the poison gas, while facilitating such formation of strategies, also provide more concrete materials for the viewers to imagine irrevocable destruction.

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[86] Bao, 23.
[87] Chang, 199.
[88] Hansen, Miriam. "Fallen Women, Rising Stars: New Horizons: Shanghai Silent Film as Vernacular Modernism." *Film Quarterly*, Vol. 54, No. 1 Autumn, 2000, 20.

Peter Sloterdijk has noted that poison gas as negative air conditioning "sheds light on modernity as a process of atmosphere-explication." [89] The media texts participated in the process of explication demonstrate a potential to ecologize the critical field of vernacular modernism. For Hansen and Zhang, vernacular modernism might be an unintended effect of commercial cinema. Yet in the media texts revolving around the poison gas, it is a strategy that popular science media creators consciously adopted to an ecology where human and nonhuman factors are entangled. In response to personal and national crises, they were prompted to imagine a "different organization of the daily world," by mobilizing resources traditional and modern, indigenous and cosmopolitan, evoking a twisted sense of temporality. They demonstrate the power of science, but in a negative condition, which they counter or complement with the affective power of lyricism. The poison gas not only functions as material matter but also as an allegory that questions the "transparency" of scientific knowledge and the myth of linear progression of modernity. It is simultaneously an agent and a medium, a material-semiotic knot that connects political, psychological, and environmental ecologies. If in early cinema, the figure of woman has served as an embodiment of sensorial engagement with modernity, in these texts, the figure of poison gas provides a disembodied site that stages the negotiations between the imperative of enlightenment and the awareness of its limit, between rational speculations for the sake of national defense and the visceral fear that refuses to be eased by reason.

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[89] Sloterdijk, 47.

Chapter Two

Man, Mimeograph Machine, and Mule:

Three Bodies in Wartime Biopolitics

On October 10th, 1939, along the New Fourth Army, the soldier writer Qiu Dongping arrived in Liyang, Jiangsu Province. There he wrote a letter to his mentor Hu Feng, contemplating the impact of war on soldiers' life:

> The war has purified our life, as if there is nothing more than that. Every now and then I get a bizarre feeling: the most standard specimen of a soldier is supposed to be naked, without a shred of clothing on; what we call a 'soldier' is merely a hard and firm composite of will power, iron, and steel. This feeling is obviously perverted and defective. I myself am cautious against the purification of life. The over purification is no doubt an infectious disease caught from the war.
>
> 戰爭使我們的生活單純化了，彷彿再沒有多餘的東西了，我不時的有一種奇異的感覺，以為最標本的戰士應該是赤條條的一絲不掛，所謂戰士就是意志與鐵的堅凝的結合體。這顯然是一種畸形的有缺憾的感覺，而我自己正在防備著這生命的單純化，這過分的單純化無疑的是從戰爭中傳染到的疾病。[90]

Qiu Dongping was 29 years old when writing this letter. Two years later, he died an untimely death. Qiu had started participating in peasant activism in 1925 when he was 15 years old, joined the Communist Party in 1927, and fought numerous battles in the Second Sino-Japanese War. He was a revolutionary and fighter through and through, but always searching for something "more than that." How does a soldier writer like Qiu Dongping come to terms with alienating wartime conditions? How do we interpret the pathological or self-pathologizing bodily discourse he employs? Where does he locate the potential counterbalance to the "perverted and defective" feeling, or the cure to the "infectious disease" imposed by the war?

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[90] Qiu, Dongping 丘東平. "Qiu Dongping zhi Hu Feng de xin" 丘東平致胡風的信 [Qiu Dongping's letter to Hu Feng]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [The complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 707.

To answer these questions, one needs to first unravel the wartime biopolitics that threatens to overly "purifies" his life. In *The History of Sexuality,* one of the definitive works that gives rise to the concept of biopolitics, Michel Foucault reveals the two forms in which biopolitics operates: one centered on the body as a machine, "its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls"; the other focuses on the "species body", "the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary." [91] Biopolitics hence differentiates and disciplines the mechanic body and the animalistic body as "independent, objective, and measurable" factors, and treats them as "a collective reality that can be epistemologically and practically separated from concrete living beings and the singularity of individual experience." [92] Qiu Dongping is wary that the wartime conditions are mechanizing and "purifying" his body through military discipline and collective doctrine. On the other hand, his animalistic body as a soldier is deployed and disposed as a logistical resource. This chapter will reveal a wartime ecology evoked by Qiu Dongping's literary and media practices, which respond to and problematize these two aspects of wartime biopolitics through the body of the dead, the bodily medium of mimeograph machine, and the bodies of nonhuman animals in his stories.

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[91] Foucault, Michel. Robert Hurley trans. *The History of Sexuality*. (New York: Pantheon Books, 1978), 139.
[92] Lemke, Thomas. *Biopolitics: An Advanced Introduction*. (New York, NY : New York University Press, 2011), 5.

I will begin, however, by revisiting how Qiu Dongping's own body was recollected, imagined, and diagnosed along with the body of his writing in the 1980s when his literary legacy was rediscovered and reevaluated. The pathological discourse that emerges in the debate will then bring us back to Qiu's 1930s writings that precisely foresees and disturbs the hegemonic discourse of health presumed by the 1980s critics. I will then move from his reflections on the necropolitics of war, or the politics of death, to his twofold creative engagement with the living: making mimeograph tabloids and writing stories from animals' perspectives. As noted by Qiu in his letter, a soldier's body is simultaneously corporeal and symbolic, functioning as a vessel for wartime discourses that celebrate masculinity, will power, and sacrifice. Instead of surrendering his body to these discourses of "purification," Qiu Dongping expands his body by connecting to another "mechanic" body that is the mimeograph machine and to the nonhuman "animalistic" bodies that are equally exploited but resist to be incorporated into the same symbolic system. These endeavors, I argue, place Qiu in a wartime ecology of mechanic and animalistic bodies that are precarious and interdependent, and hence enables him to challenge wartime biopolitics by identifying its inoperative moments.

I. The Courier of Death: Soldier's Body and the Necropolitics of War

During his lifetime, the literary and revolutionary value of Qiu Dongping work had been recognized by established leftist writers including Lu Xun, Hu Feng, Guo Moruo, and Maodun. However, due to his close connection with Hu Feng, his literary mentor, Qiu's literary legacy was relegated to oblivion following the founding of the People's Republic of China in 1949, especially after the sweeping campaign against "Hu Feng's counterrevolutionary clique" in the

1950s when Hu and his followers were prosecuted for their critique of the doctrinaire political ideology dictating literature. It was not until the early 1980s following Hu Feng's rehabilitation that Qiu Dongping's literary legacy was rediscovered and to some extent reinvented. As critics came to terms with Qiu's literary legacy, the first challenge, however, was how to remember his death.

In 1984, a reportage literature writer Pang Ruigen, published a semi-biographical novella titled "The Death of Dongping" (東平之死). The novella opens with an epigraph quoted from Qiu Dongping's letter to Guo Moruo: "I am a sword that should be discarded once notched. I am a piece of jade that should be abandoned once blemished. Therefore, I am constantly desperate…and always preparing myself for a suicide." (我是一把劍，一有殘缺便應該抛棄；我是一塊玉，一有瑕疵便應該自毀。因此，我時時陷在絕望中... …我幾乎刻刻在準備著自殺。) [93] As if proving this ominous presage, at the end of the novella, Qiu Dongping, the semi-fictional protagonist of the novella shots himself. According to the novella, Qiu is designated with the task to transport a group of students from Lu Xun Academy of Arts in Huazhong to a safe place. In the process of this retreat, however, they are ambushed by the enemy and many students died. Qiu himself is shot in one of his legs and is severely injured. His suicide is thus driven by his sense of guilt for failing to protect the students and his judgement that his now disabled body would not be useful for the army anymore. Of course, the suicide is portrayed as a passionate and heroic act, based on the belief that the value of a soldier's life is measured by his usefulness, namely the value of life as a machine.

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[93] Pang, Ruigen 龐瑞根. "Dongping zhi si" 東平之死 [the death of Dongping]. *Dangdai* 當代. Issue 5, 1984, 178.

This first effort to transform Qiu Dongping's last moment into literature, however, was not well received by Qiu's comrades, who believe that Qiu was in fact killed by the Japanese. For instance, a fellow soldier Cao Ming who once co-authored a reportage novel with Qiu, wrote to one of the magazines that published this novella, protesting against the fictionalization of her friend's death. She writes, "For a piece of reportage literature, some crucial points are not for fictionalization, especially when it comes to the nature of one's death. Dongping died a sublime and heroic death, but the novella turns it into a suicide out of his guilt for 'an incomplete mission.' It is nothing but a defamation of the dead." [94] Cao Ming supports her point by citing a letter from Meng Bo, who participated in the same mission of transporting students but did not directly witness Qiu's death. Pang Ruigen, the author of the novella, defends himself by citing the same letter from Meng Bo and pointing out its ambiguity that allows the possibility to speculate Qiu's suicide. He concedes the historical inaccuracy in his work but insists that the insufficiency of remaining historical records indeed leaves the space for his artistic creation. He ends his reply, again, with an imagery of death: "To this letter, I am attaching two photographs of Dongping's grave. Underneath the yellow earth in Northern Jiangsu quietly lies Dongping. He should have no regret."[95] By concluding his rebuttal with the silence of image, Pang seems to suggest that even if Qiu had committed suicide, it would not harm his integrity and dignity as a soldier.

The debate between Cao Ming and Pang Ruigen in turn stimulated a collective recollection of the very last day of Qiu Dongping among his comrades with conflicting yet vividly sensual details: It was a rainy day with fog. Qiu Dongping was wearing a bright yellow shirt or a gray uniform with a gun wrapped in a piece of red cloth. He was shot twice or even more (in his nose or temple or both?). Many remembered his dead body covered in blood. No one witnessed the final and fatal gunshot that took his life, but all agreed that it would be a slander to even imply it could be a suicide. This judgment, or more accurately the faith, is based on their understanding of Qiu's personality and mental health. For example, in "An Investigation into the Martyrdom of the Writer Qiu Dongping" (關於作家丘東平殉國情況的調查), Chen Xinren writes, "Old friends of Dongping like myself, all know that he went through the frustration of the Soviet revolution in Hailufeng, the white terror of the Nationalist Party, the compromise in the Shanghai Incident in 1932, the failure of founding people's government in Fujian, and the defeat of the Chahar People's Anti-Japanese Army. Having been tested and trained by all these frustrations, he valued perseverance and would not give up until the last breath. It is unimaginable that he would commit suicide for the loss in the transportation at the Lu Xun Academy of Arts in Huazhong." [96] Chen's recollection punctuates Qiu Dongping's life from 1926 to 1941 with revolutionary actions and frustrations, which represents the dominant way of remembering and narrativizing Qiu's life.

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[94] Cao Ming 草明. Cao Ming gei <xiaoshuo xuankan> bianjibu de xin 草明給《小說選刊》編輯部的信 [Cao Ming's letter to the editors of *Xiaoshuo xuankan*]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 108-109.

[95] "Pang ruigen gei<xiaoshuo xuankan>bianjibu de xin." 龐瑞根給《小說選刊》編輯部的信 [Pang Ruigen's letter to the editors of *Xiaoshuo xuankan*]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 111.

The purpose of citing these competing narratives revolving around Qiu's death is of course not to solve the mystery whether or not he committed suicide. In addition to once again proving the difficulty of recovering "truth" from historical relics and the ethical burden of remembering, these narratives also testify a shared impulse to psychologize Qiu Dongping in the attempt to make sense his life and death. After all, Pang's literary imagination of Qiu's fatalistic suicide due to his troubled psyche, despite being in diagonal opposition to the more popular belief in Qiu's revolutionary optimism represented by Chen Xinren's investigation, is indeed the flip side of Chen's psychologization. Similar psychological diagnosis and defense of Qiu's mental health in turn find their way into textual analyses of Qiu's works in the following years.

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[96] Chen Xinren 陳辛仁. "Guanyu zuojia Qiu Dongping xunguo qingkuang de diaocha" 關於作家丘東平殉國情況的調查 [An Investigation into the Martyrdom of the Writer Qiu Dongping]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 117.

Yan Jiayan, a pioneering scholar who remarkably contributed to the reevaluation of modernist literature in the postrevolutionary era, cites Qiu Dongping's debatable suicide as a symptomatic manifestation of the pathos shared by the July school fiction writers led by Hu Feng. According to Yan, fictional characters created by the July school writers often share an extreme stubbornness that drives them "insane and spasmodic" (瘋狂和痙攣) and a neurotic trait that renders them inscrutable. He attributes this commonality to something "not quite healthy" in the writers' "intellectual disposition" (思想氣質). This unhealthy disposition, he believes, often deviates the July school writers from a coherent narrative and taints their supposedly realist representation of the world with excessive "subjective color." [97] In a following up article, he takes Lu Ling, another mentee of Hu Feng, as an example, to demonstrate how the "spasmodic" style of the July School, isomorphic with a convoluted psyche, could harm the coherency of narrative. Accusing Yan of conflating fiction with reality, the critic Luo Fei debunks Yan's diagnosis of Qiu's "intellectual disposition" by reaffirming Qiu's toughness and impossibility of committing suicide. He nevertheless does not or could not deny the excessive and "spasmodic" style Qiu shares with other July school writers. [98] Despite their disagreement on Qiu's disposition, Yan and Luo both reinforce the hegemonic significance of "health" in a realist writer, which should be translated into lucidity and coherency in their writings. Their debate inevitably reminds us of Qiu Dongping's caution against "purification." Here I propose to beyond biographical psychologization and understand Qiu's stylistic "spasm" as opposed to the wartime malaise he describes as "purification." Gilles Deleuze's "Literature and Life" offers an approach towards such reading. In this article, Deleuze differentiates the "delicate health" of literature from a "dominant and substantial health":

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[97] Yan, Jiayan 嚴家炎. "Zhongguo xiandai xiaoshuo liupai niaokan" 中國現代小說流派鳥瞰 [an overview of modern styles of fiction in China]. *Xiandai xiaoshuo yu wenyi sichao* 現代小說與文藝思潮. (Changsha: hunan renmin chubanshe, 1987), 21-40.

[98] Luo, Fei 羅飛. "Xianjiu Dongping wenti da Yan Jiayan xiansheng" 先就東平問題答嚴家炎先生 [Response to Mr. Yan Jiayan on the issue of Dongping]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 131-136.

> The writer as such is not a patient but rather a physician, the physician of himself and of the world. The world is the set of symptoms whose illness merges with man. Literature then appears as an enterprise of health; not that the writer would necessarily be in good health (there would be the same ambiguity here as with athleticism), but he possesses irresistible and delicate health that stems from what he has seen and heard of things too big for him, too strong for him, suffocating things whose passage exhausts him while nonetheless giving him the becomings that dominant and substantial health would render impossible. The writer returns from what he has seen and heard with red eyes and pierced eardrums. What health would be sufficient to liberate life wherever it is imprisoned by and within man, by and within organisms and genera? It is like Spinoza's delicate health, while it lasted, bearing witness until the end to a new vision whose passage it remains open to. [99]

The health of literature comes from its openness to the unbearable world of illness. In Qiu Dongping's case, it is his openness to the complexity of wartime conditions and refusion to be subjected to "purification." The dialectics of health and illness is best epitomized by Qiu's 1932 short story "The Courier," (通訊員) [100] a story Yan Jiayan cites as evidence of Qiu's "unhealthy" disposition. "The Courier" sheds light on the difficulties of remembering the dead when death becomes commonplace in war. The titular courier Lin Ji is an experienced solider who reluctantly takes a boy to be his apprentice. On their first mission together, the boy is killed for his lack of experience and caution. As Lin Ji reports the boy's death to the superiors, he realizes that he has not learned the boy's name. Lin thus turns to his fellow soldiers for an answer, only to find that they cannot care less about this nameless boy. For them, death is an ordinary sequel to the dangers all of them run into daily. One of them even comments frivolously, "It's just a comrade met with his doomed fate, not a big deal! After all his whole life is a preparation for this death as its final way out." [101] Lin Ji obsessively shares with everyone he runs into the only fragment of knowledge about the boy's life he possesses, which is the boy's death. His tireless confessions first attract curious listeners but gradually lose its gruesome attraction. He eventually realizes that an individual's life is now exclusively measured by his use to the war, and his own pain and regret is unspeakable in the language of war. As a result, he takes his own life. Without resorting to sentimentalism, Qiu Dongping tells Lin Ji's tragedy in a terse language, sometimes even tinted with apathy and detachment. Commenting on the protagonist's fixation on the boy's death, the narrator observes, "He is ill indeed." This is how Lin's obsession is seen from a normative view. Lin Ji's illness is deemed incompatible with the "dominant and substantial health" commanded by the war, but nevertheless provides a delicate health for literature.

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[99] Deleuze, Gilles. "Literature and Life". Daniel W. Smith and Michael A. G trans. *Critical Inquiry*, Vol. 23, No. 2, Winter, 1997, 228.

100 Two years following its publication, Lu Xun recommended the story along with his own "Diary of a Madman" to the American journalist Harold Issacs, who was compiling an anthology of Chinese new fiction for English translation titled "Straw Sandals."

For Qiu Dongping, the difficulty of remembering the dead lies in the institutionalization and quantification of death, which may honor the dead with a badge of martyrdom yet does not allow any room for individuality. In 1934, two years following the Shanghai Incident, Qiu published a striking prose poem titled "Appeal" (申訴) which assumes an unusual perspective of the dead. The speaker of this poem is the spirit of a sacrificed solider who casts a doubtful gaze at the glorification of his own death:

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[101] Qiu, Dongping. "Tongxunyuan" 通訊員 [the courier]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 68.

> Instead of acknowledging that death leads to pain, we have to claim that the reasons to die are inspirations, bravery, and the exhilaration of Chinese people's great souls!
> However, this is not a solace, but a lie.
> Indeed, there is no solace that is not a lie. Lies are now a necessity to us, not unlike sustenance to the hungry…
>
> 我們不要說死亡的結果是痛苦的，我們要說死亡的緣由是振奮，是義勇，是偉大的中華民族的靈魂之跳盪！
> 然而，不是慰解，這是欺騙。
> 是的，沒有慰解不是欺騙，然而欺騙在我們的需要正如飢餓之於食糧……[102]

Instead of seeking meaning in the sublime discourse of nationalism, the speaker urges the reader to bear witness to the bare and grotesque reality of death that foregrounds the corporeality of his body. He imagines his remains turning into to a feast for maggots, buried underground, or thrown into the sea. He audaciously celebrates this moment when the organic is taking over the mechanic. The haunting spirit of the dead thus transforms into the "sensorium within death" (死亡中之感覺):

> I am the sensorium within death, the death within sensorium! Experiencing death is like a tongue tasting flavors, like a finger touching boiling water. Death resides in the sharpest senses. I find its texture so clear, so distinct. Death is not muted. God, with your mighty arms, please create a death within death! Do not alleviate the pain of death, I would rather die a death that intensifies death!
>
> 我是死亡中之感覺，感覺中之死亡！有如舌之嚐味，指之探湯；死亡寓於最靈敏的感覺，死亡於我的感覺竟是這麼清晰，明顯，一絲也不默然！神之巨靈：願你以權威的臂膀開創死亡中之死亡；不要減輕死亡的痛苦，寧以死亡加重死亡！[103]

At the end of the poem, the speaker returns to the moment when he was killed: when his was exposed to the enemy's tanks, warplanes, and poison gas, when all he had was a "broken rifle," with which his body has become one. The disparity of armed force has determined that he is doomed to be killed before he could catch a glimpse of what the enemy really looks like. In writing this poem, Qiu Dongping acts as a "medium" in the mythical sense of this term: He conjures up the haunting spirit of his dead comrades, mediating between the dead and the living.

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[102] Qiu, Dongping. "Shensu" 申訴 [Appeal]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 493.
[103] Ibid, 494.

Through the "medium" of the poet, "Appeal" reveals the necropolitics of the war: despite being an integral part to the war machine, the life of an individual soldier is devoured, crushed, and rendered to be disposable by the same apparatus. When faced with the enormous war machine, the weight of an individual death can be easily and ruthlessly annihilated. Looking back at "The Courier" with "Appeal" in mind, the title of the former seems more profound that it seen at the first glance. Lin Ji the courier not only carries intelligence for the army he serves, but also carries the message of the dead, bearing the weight and weightlessness of death, and reenacting the death of the boy with his words. The message, however, finds no receiver, so the courier has to respond to the dead with his own death. His passionate self-destruction, which Yan Jiayan describes as "spasmodic," turns him into the "sensorium within death" as well as the sensorium of literature.

The contemplation on death in Qiu's writing creates a moment of "inoperativity," a term Giorgio Agamben uses to describe as an antidote to modern biopolitics that separates bare life from its political possibilities and makes it the primary object of governance. According to Agamben, "a living being can never be defined by its work but only by its inoperativity, which is to say, by the mode in which it maintains itself in relation with a pure potential in a work and constitutes-itself as form-of-life, in which *zoe* and *bios*, life and form, private and public enter into a threshold of indifference and what is in question is no longer life or work, but happiness."[104] Both "The Courier" and "Appeal" foreground unintelligible death that refuses to be subsumed and defined by grand narratives. By confronting the bare reality of death, Qiu momentarily exposes and suspends the propaganda apparatus of the war that commands it subjects to imagine death only in heroic terms. Restoration of life's potentialities is also made possible by a direct contact with death. In this context, the "happiness" described by Agamben should not be taken simply as joy, but a weighty bliss brought by the delicate health of literature. This also explains the unnerving ecstasy one can discern in Qiu's writings on death. Here the ecstasy is understood through its etymological root as explained by Judith Butler: "To be ec-static means, literally, to be outside oneself, and this can have several meanings: to be transported beyond oneself by a passion, but also to be beside oneself with rage or grief."[105] Lin Ji is thrown out of himself by the grief over the boy's death. Likewise, by writing and contemplating on the stubbornly inscrutable deaths of Lin Ji and the nameless speaker of "Appeal," Qiu Dongping throws himself outside of his mechanic body as a soldier, and, more importantly, his self as a propogandist soldier.

Like Lin Ji, Qiu Dongping also played the role of courier in his military life. The body of Qiu as a soldier was not only tied to his "broken rifle" but also to his mimeograph machine, with which he produced and circulated messages about war and expanded his "sensorium" by connecting his body into a wartime media network. The following section will examine how Qiu employed the low-tech medium of mimeograph printing to carve out a space to express himself within the institution of war and reflect on his body that is at once mechanic and animalistic.

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[104] Agamben, Giorgio. *The Use of Bodies*. (Stanford, California: Stanford University Press, 2016), 247.
[105] Butler, Judith. *Undoing Gender*. (New York: Routledge, 2004), 20.

II. Uncomfortable Connections: Mimeograph Machine as a Bodily Medium

The mimeograph techniques had been popularized in China since the beginning of the twentieth century, widely applied to copy lecture notes, official documents, and propaganda flyers. During the war, this medium flourished again among armies and art producers on the frontlines due to the accessibility and portability of mimeograph machines. Mimeograph journals often published self-referential articles introducing the mechanism and necessity of the medium, which and offered technical guidelines for their readers to create makeshift mimeograph device and make their own prints. For example, in 1939, *Biweekly Journal of Warzone Mobilization*(戰地動員半月刊), a mimeograph journal circulated in Shanxi, published an article titled "A Technical Research- On Mimeograph Techniques" (技術研究——關於油印術) which highlights the significance of the techniques to the warzone in Shanxi: as the Japanese forces occupied more and more former cultural centers in China, the print industry had been largely damaged. This adversary situation, however, also generated the possibility of democratizing media via the popularization of the mimeograph technique. In the author's own words, the mimeograph technique has "crashed the prestigious throne [of the printing industry] and allowed democracy to bear blossoms" (粉碎了御用的寶座，開放出民主的鮮花). He emphasizes that "especially in economically impoverished and culturally backward Northwest Shanxi where traffic is inconvenient, the mimeograph machine has become the only tool for printing." [106]

The flourishing mimeograph culture is also an international phenomenon. During the second world war, the A.B. Dick Company, the biggest manufacture of mimeograph machine, released a series of advertisements showcasing how the machine facilitates the transmission of intelligence and propaganda in the war. On the other hand, in a Civilian Public Service work camp for conscientious objectors, the American poet William Everson (1912-1994) started his poetry magazine *Untide* with a mimeograph machine in the camp. The mimeograph technique demonstrates its two-fold potential for both mechanical reproduction by institutional forces and resistant voices of repressed undercurrents.

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[106] Bofeng 博風. "Jishu yanjiu: guanyu youyinshu" 技術研究——關於油印術 [a technical research- on mimeograph techniques]. *Zhandi dongyuan banyuekan*. 戰地動員半月刊, Issue 7, 1939. 38.

The mimeograph technique was introduced into China through Japan, together with its progressive and democratic implications. In 1929, Xia Yan (夏衍) translated “A Miracle of the Mimeograph Machine” (油印機的奇跡) by the Japanese leftist writer Hayashi Fusao (林房雄), a short story about how the mimeograph technique helps liberate the proletarian. With a mimeograph machine, the workers in this story organize a secret press, making flyers promoting unionization as well as anti-imperialist slogans.[107] The story highlights the strenuous manual labor required by the technique. To produce a mimeograph print, one needs to carve the words onto the stencil and roll the machine and make copies by hand. In the story, two workers collapse when making flyers for the worker’s party: “Their hands are quivering. It feels like the roller is turning into a handcuff… They collapsed for three times but stood back on their feet again. When there are still three hundred copies to make, neither of them could move anymore.” [108] It is noteworthy that at the end of the story, what eventually moves the secret agent who has been spying on the activists’ activities and miraculously convinces him to give up arresting them is not the content of the flyers they are making, but the sight of their working hard to produce the flyers and the “austere and pure sound” made by the mimeograph machine. The “miracle” of the mimeograph machine is not only derived from its function of publicity. Rather it is the austerity of the technique per se, as well as the heavy labor involved, that seems to generate an affective power.

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[107] Ironically, two years later, Hayashi declared his conversion to imperialism, while the mimeograph technique spread in China and became a weapon for resistance.

[108] Hayashi, Fusao 林房雄. Xia Yan trans. “Youyinji de qiji” 油印機的奇跡 [the miracle of mimeograph machines]. *Xinliuyuekan* 新流月刊. Issue 3, 1929, 402

When Chen Linggu (陳靈谷), a comrade of Qiu Dongping, recollects Qiu’s work as a mimeograph print maker, he also emphasizes how demanding the work is both mentally and physical. Sometimes he had to destroy the stencils and prints that he had spent a large amount of time making only because they did not come out satisfactory enough. [109] In 1925, Qiu Dongping joined the Hailufeng Soviet Movement when he was only 15 years old. He was recruited to make mimeograph prints for his handsome penmanship. For *The Youth of Haifeng* （海豐青年）*,* a local revolutionary journal, Qiu designed the lay-out, carved the contents as well as the illustrations. He was also in charge of making copies and distributing the journal. In 1931, Qiu Dongping joined the19th Route Army led by Weng Zhaoyuan and fought the January 28 battle with the Japanese in the following year. During his time under Weng, he was again assigned to edit *Waves of Blood*, a frontline journal, to “report domestic and international news, mobilize the soldiers, and raise their consciousness for national salvation.” [110] With sufficient stencil, ink, and paper offered by the army’s supply department, Qiu Dongping was commanded to make 1000 copies for each issue. According to Chen, Qiu soon showed his impressive capacity for this job with the experience he had gained when making *The Youth of Haifeng.*

A poem titled “Old Tong and his Mimeograph Machine” (老佟和他的油印機) published in 1944 can help us visualize how a propogandist solider like Qiu Dongping single-handedly creates and distributes a frontline tabloid like *The Youth of Haifeng* and *Waves of Blood.* The poem can be read as an introduction to the production process, distribution, as well as political and emotional values of mimeograph tabloids. More importantly, it reveals the close bond between a mimeograph print maker and their machine, which becomes an extension of their body, a prothesis. The poem opens with the following line: "Old Tong, living in a shabby temple, with a mimeograph machine." The propogandist Old Tong tirelessly writes and carves until his face is covered by ink, his limbs stiffen by the cold. He then brings the tabloids he has made to the people living under Japanese occupation.

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[109] Chen, Linggu 陳靈谷. “Yi dongping” 憶東平 [reminiscences about Dongping]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 16.
[110] Ibid.

> Old Tong,
> is the earphone of the army,
> the mentor of the mass.
> He is like a star,
> glistening in a moonless night.
> He is a chain of emotions,
> connecting hearts of tens million people
> closely and tightly
>
> 老佟
> 是軍隊的耳機
> 是群眾的導師
> 如一顆明亮的星星
> 閃耀在沒有月亮的夜裡
> 他是一條情感的鍊子
> 把千萬顆群眾的心
> 緊緊地串在一起 [111]

It is not hard to imagine that Old Tong's work would be recognized for its informative and affective values, as a star that shows the revolutionary directions for the oppressed masses and as an affective chain that connects their hearts, minds, and souls. The metaphor that compares him to "the earphone of the army," however, might seem puzzling for a reader today. In fact, to produce a mimeograph tabloid in a timely manner, propogandist soldiers like Qiu Dongping and Old Tong needs not only to mobilize their eyes and hands, but also their ears to listen to the wireless in order to acquire first-hand information. That is to say, the process of making mimeograph tabloids involves tactile, optical, and audial experience, a creative labor that requires the participation of the entirety of one's sensory apparatus. Through the mimeograph machine, as well as the wireless, as its prothesis, the body of a propogandist solider is hence expanded by being fully mobilized and connected to the wartime information network.

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[111] Dike 蒂克. "Laotong he tade youyinji" 老佟和他的油印機 [Old Tong and his mimeograph machine]. *Shicong* 詩叢, Issue 3-4, 1944, 8-9.

Waves of Blood (血潮), the frontline mimeograph tabloid edited and produced by Qiu Dongping, published not only news and lectures given by the military superiors, but also poems, essays, and correspondences written by ordinary soldiers. Through the photographs published in the recompiled collection of *Waves of Blood,* we can have a glimpse of the way this tabloid was circulated and read. One photograph captures a propagandist soldier handing the newly come out tabloid to his comrades, whereas another shows a group of soldiers squeeze together to share one piece of tabloid in a trench. (Fig. 14) Through these images one can imagine the ideal affective and informative network *Waves of Blood* was meant to create.

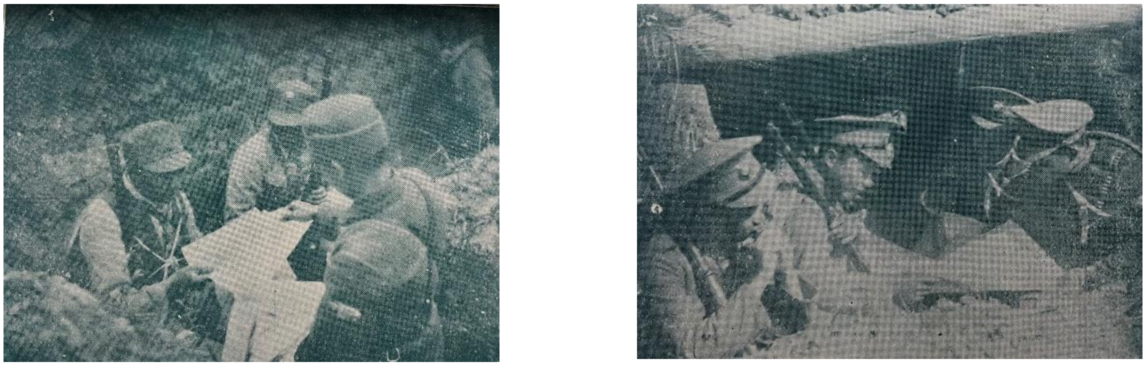

Fig 14. Photographs in *Waves of Blood* 血潮 showing how the tabloid was issued and read.

A young solider reader of *Waves of Blood* wrote to the editor, and complained about the awkward intimacy he was forced to experience when other soldiers insist to read the tabloid with him: “Usually these papers are just lying on the ground, with no one paying attention to them. However, once I picked up a piece of them, all my brothers crowded me, some pressing my back with both hands, some breathing into my ears, some even reading the words printed in the paper out loud.” [112] Like the process of making the tabloid, the process of reading equally involves vision, hearing, and touch. The reading environment of mimeograph tabloids evokes a sense of community that is not imagined but bodily experienced.

Although *Waves of Blood* was warmly welcomed by his comrades, Qiu himself, however, had doubts concerning the effects and implications of his work as a propogandist. On the one hand, he is wholeheartedly committed to producing a good read for his comrades, on the other, he could not help but wonder if he has participated in fabricating the “lies” about death and contributing to the necropolitics of war, a fear he betrays in “Appeal.” In “The Most Eloquent History: in Memory of the January 28th Battle” (一個最雄辯的史實——紀念一·二八) an article published 1937, Qiu reflects on the propogandist function of *Waves of Blood*: “We strove to present battle scenes to our soldiers, frantically making empty and baseless prognoses: ‘Use our blood and flesh! There is nothing dreadful about the enemy’s warplanes and tanks! Victory will eventually be ours.’ We printed these words in our newspapers. When feeling the lack of ground for such judgment, we just used the word ‘determination.’ We printed these words in our newspaper every day, sending them to soldiers in every corps. Doesn’t that make us no different than liars?"[113] Despite the disadvantage of the Chinese army, it nevertheless managed to defend Shanghai with the interventions of other international forces. More than 4000 Chinese soldiers were killed in the battle. In retrospect, Qiu Dongping believes propagandists like himself should take no credit in this bitter victory: "Indeed, [the victory] is the most eloquent historical fact. However, when we attempt to extrapolate a theory from this historical fact, it always shows us a gloomy and fragile face and cannot bear with our inquiries, as if it will burst into tears if we insist asking. Please accept its valuable lesson only through your purest emotions!" [114] There is something unspeakable captured by the "gloomy and fragile" face of history, which can only be experienced on an affective level. He suggests that the combative "determination" that resides in every soldier can be "abstruse and incomprehensible," (玄妙而難以捉摸) which led to the difficulty of collective mobilization. Instead of evoking the glorifying discourse of nationalism, Qiu recalls that his comrades were rather encouraged by the material and emotional support from the civilians in Shanghai. Qiu Dongping was invited to write this article to inspire his comrades in the wake of the full-scale outbreak of the Second Sino-Japanese War. This supposedly propogandist article nevertheless questions the very act of producing propaganda by revealing the ruptures between words and actions, between history and its participants and interpreters.

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[112] Qiu, Dongping 丘東平 and Chen, Linggu 陳靈谷 ed. Xuechao huikan 血潮匯刊 [Proceedings of *Waves of Blood*]. (Guangzhou: Nanxing baoshe, 1932), 139.

How can a propogandist, who is fully aware of the existence of these ruptures, justify his own positionality? How can he turn himself into a "chain of emotions" and put himself in touch with the "abstruse and incomprehensible"? The answer, again, brings us back to the soldier's body and bodily experience. In *Waves of Blood*, under a column called "Soldier's Life," Qiu

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[113] Qiu, Dongping. "Yige zui xiongbian de shishi: jinian yi'er ba" 一個最雄辯的史實——紀念一·二八 [the most eloquent history: in memory of the January 28th Battle]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 670.

[114] Ibid, 671.

Dongping published an essay titled “A Vow” (盟約). This essay purports to be a faithful representation of a slice of a soldier’s everyday life. The narrator and his friend vowed to abstain from masturbation in order to preserve stamina for real combats, but both ended up failing the vow. This essay closely recounts the painstaking efforts they make to repress their desires and discipline their bodies. Ironically, when they review the vow, they are inevitably also reminded of the “sinful” pleasure they have vowed against.[115] Soon after the publication of “A Vow,” an indignant reader wrote to the editors of the tabloid, protesting against this “disgraceful” portrayal of soldiers. This reader, pen named “a little soldier from the foxhole,” reminds the contributors and editors of this tabloid that their mission is “to guide us towards spiritual comfort, enlighten us for intellectual progression, and inspire us to take action with courage.” “A Vow” is therefore not only inappropriate but also threatening to “disturb our pure spiritual life” (意亂我們的純潔精神) in the context of a national crisis when soldiers and civilians across the country are getting prepared to “shed their blood into waves.” (濺血成潮) Here this reader is alluding to the title of this tabloid, *Waves of Blood*, evoking a sense of emergency and a more ideal way to direct one’s libido and bodily fluid towards its sacred use. Paradoxically, for the sake of spiritual discipline and sublimation, the practice of physical discipline needs to be silenced.

In response, Qiu Dongping published the entirety of this letter and his own reply. According to Qiu, the essay was not intended to encourage its reader to indulge in their erotic desire, but rather to capture the constant struggle between a healthy body and its “unhealthy” desires. He contends that the mind-body conflict is an eternal and significant theme in literature and should not be taken as something “filthy.”[116] That is to say, what is perceived as “unhealthy” from the perspective of war may generate something “healthy” and even illuminating from the perspective of literature.

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[115] Qiu, Dongping. “Mengyue” 盟約 [a vow]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 142.

The exchange between Qiu Dongping and his reader reminds us of the distinction Foucault makes between “a society of blood” and “a society of sex.” The former “owed its high value at the same time to its instrumental role (the ability to shed blood), to the way it functioned in the order of signs (to have a certain blood, to be of the same blood, to be prepared to risk one's blood), and also to its precariousness (easily spilled, subject to drying up, too readily mixed, capable of being quickly corrupted).”[117] In a society of sex, on the other hand, “the mechanisms of power are addressed to the body, to life, to what causes it to proliferate, to what reinforces the species, its stamina, its ability to dominate, or its capacity for being used.”[118] In the exchange concerning “A Vow,” we observe the coexistence of both the blood “as a reality with a symbolic function” and sexuality “as an effect with a meaning-value.”[119] While the reader desires to elevate the reality of blood, which is a reality of precariousness, with its symbolic function culminating in honorable blood shedding and patriotic martyrdom, the writer foregrounds the quotidian practice of self-discipline and registers the crisis in everyday reality.

The discussion revolving around the use and misuse of a soldier’s body was produced and circulated through the tactile medium of mimeograph tabloid, hence foregrounds the bodily dimension of war and propaganda on both formal and content levels. The body politics in wartime context is lay bare through a bodily performance. As a propagandist, Qiu Dongping carved and copied the correspondences between his reader and himself by hand. In this process, he not only voices his own opinion, but also embodies and reproduces the perspective of his interlocutor and critic. To some extent, Qiu became the "servo-mechanism" of media technology as described by Marshall McLuhan. However, unlike those McLuhanian media users who, for their ignorance of how technology works, simply embrace it as "gods or minor religions," Qiu Dongping is fully aware of the working of wartime media network and cautions against its potential numbing effect.[120] As a dutiful propagandist solider, he sustained the working of propaganda machine by channeling multifarious voices, but from time to time also creates a short circuit with a polemical piece like "A Vow," revealing the fissure and friction within the apparatus of war. He participated in mobilizing the soldier's bodies with words, but did not forget to interrogate the consequences of such mobilization. This is his way to negotiate with the mechanism of propaganda, which in his words is inevitably "deceptive" by nature.

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[116] Qiu, Dongping. “Women de dafu” 我們的回復 [our response]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 151.
[117] Foucault, 147.
[118] Ibid.
[119] Ibid.

The purpose of the mimeograph tabloid is therefore not limited to unilaterally transmitting information. It became a way to envision and reshape the relationships between the editor, the writer, and the reader, who is also the potential writer. These agents are also reshaped as they participate in the creation and circulation of the medium. In his often cited "The Work of Art in the Age of Its Technological Reproducibility," Walter Benjamin defines the aura of the work of art as "a strange tissue of space and time: the unique apparition of a distance."[121] The mimeograph tabloid is a medium of immediacy, of here and now. Its contributors do not assume the "aura" of the author for the boundary between the author and the reader is always porous. It is also a medium of transience and fragility, difficult to archive and easily discarded by its audience. Yet it is these qualities that enable the mimeograph tabloid to be an organic tissue within the collective body of the army, an appropriate way to communicate precariousness.

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[120] McLuhan, Marshall. *Understanding Media: The Extensions of Man*. (Corte Madera, CA: Gingko Press, 2003), 57.
[121] Benjamin, Walter. *The Work of Art in the Age of its Technological Reproducibility, and Other Writings on Media*. (Cambridge, Mass. : Belknap Press of Harvard University Press, 2008), 23.

Through the mimeograph machine, a creative and reproductive device, the propagandist is able to extend his body, to expand his “sensorium,” and to be connected to his comrades. A mimeograph tabloid in the army was supposed to disseminates and explicates the orders and policies issued from the center of authorities and offer guidelines for its readers to take noble actions. Qiu Dongping nevertheless managed to deploy it to decentralize the power of discourse, transforming it into a mediator between grand narratives and individual experiences as well as an intimate and dialogic platform for his comrades to bodily experience the forming of a community.

Nie Gannu (聶紺弩), a leftist poet and Qiu’s comrade, wrote an emotional essay recollecting the good old days when both he and Qiu “wrote fiction the horseback.” According to Nie, Qiu once compared this shared experience of frontline writers to “opening up a post office.” (開郵局) [122] The wartime conditions force one to constantly encounter the other and experience affinity and alterity. Such experience propelled Qiu to imagine the body of a frontline writer as a transitional site, a medium through which messages were produced and circulated, a mediator between self and other. Moreover, in his military and literary journey, Qiu Dongping discovered the nonhuman the other, a rare topic in frontline literature: the animal. The shift from Qiu’s making of mimeograph tabloids to his writing about animals may seem abrupt. As the discussion unravels, however, I will show that animal characters, like his mimeograph machine, act as significant media for him to expand his “sensorium” as a writer and envision a community premised on shared precariousness amidst wartime divisions and chaos.

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[122] Nie. Gannu 聶紺弩. “Gei zhansizhe” 給戰死者 [to the martyr]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu Dongping yanjiu ziliao* 丘東平研究資料. (Shanghai: Fudan chubanshe, 2011), 4.

III. Mediating Precariousness: Bodies of Animals in Qiu Dongping’s Stories

> “Wind, please die down!
>
> Alas, my hometown that nurtured my life, the forests and fields that used to keep me company day and night. Am I not allowed to see you again? Please clear up this irritating dust in the air! Is that cloud? The light of sunset? The milky way? Or the white face of the moon? Alienated, everything is so alienated! those ordinary-looking things covered by verdant and luxuriant green, are they mountains far away? Ah, where can I find the way home? Will I miss it forever?
>
> ….
>
> I’m not dead yet. My eyes are telling me: you are dead, only your eyes remain alive!”

> “風，你平靜了一點吧！
>
> 哎，我養身的故土，我朝夕常見的樹林與原野啊，你們都不許再會了麼？天呀，把這椒辣的灰塵撥開一點吧！然而，那是雲呢？還是落日的光呢？那是星河呢？還是月亮的白臉呢？——生疏，生疏得很！那蒼鬱的，平淡的，是遠遠的山麼？啊，我的歸路在那裡？那永遠也無從尋獲的麼？
>
> ……我的眼睛告訴我說：你全身都死了，僅僅死剩一副眼睛!”[123]

Cited above is the opening of Qiu Dongping’s story “Mule,” published in the first issue of a literary journal called *Spring Scenery* (春光) in 1934. At the first glance, one may mistake it for a monologue of an exhausted and desperate traveler. The reader is invited to enter the narrator’s psyche and sensorium, which is gradually turning numb. Only when the narrator recognizes its “owner” does the reader realize that the “I” narrator has always been the mule in the title. The story is indeed told from the perspective of a dying mule.

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[123] Qiu, Dongping. “Luozi” 騾子. *Chunguang* 春光. Issue 1, Volume 1, 1934, 121.

Up to the 1934 when Qiu Dongping published this story, modern Chinese literature since the New Culture Movement had rediscovered the human (人的發現), women (婦女的發現), and children (兒童的發現) as the subject matters for its humanistic concerns, advocating for their autonomy from hegemonic and oppressive socio-ideological institutions. With the multivalent legacy of zoological and zoomorphic imaginations in premodern Chinese literature, one may wonder if the animal underwent similar "rediscovery" in modern times. According to Andrew Jones, the use of animal tropes at the turn of the twentieth century was "inextricably tied to developmentalist thinking," either associated with evolutionary progress or "a fear of atavism, and the perils of China's struggle for existence in a brutal world order." [124] (Jones, 25) Can animal imagery be evoked outside of the frameworks of evolutionary biology or national allegory? In the present section, I venture to argue that Qiu Dongping's stories present an alternative way of "discovering" animals, a discovery based on an engagement with corporeal specificities of animals and a kinship based upon shared precariousness.

Violence and death are the most salient themes recurrent in Qiu Dongping's stories involving animals. The necropolitics we find in his writings about soldiers' life reemerge in these stories about the nonhuman other. The narrator and protagonist of "Mule" is a mule abandoned by a Chinese army because it has been worn out. On its hopeless way home or more accurately its path towards death, the mule encounters human passers-by who either mock its suffering or attempt to exhaust its remaining value as a draft animal. Waking up from a faint, the mule narrator realizes it is surrounded by a group of children, who show curiosity but not sympathy towards its pain. They closely observe the mule's disfigured hooves, which are now as thin as a piece of paper for walking too far and being overly burdened. Adults of various professions pass by as well. They dismiss the children's observation of the mule's "miserable tears," and do not believe that a mule can be "miserable" like a human being. The adults' only concern is how the mule can be further exploited with its present condition. One of them explained to the children: "The mule must be ill. The most bizarre illness in the world…A mule with such illness enjoys running more than anything, because it wants to rub its hooves with sand and gravel on the road, which can cure its illness."[125] This hypocritical explanation (or explaining away) of the mule's suffering twists the origin of the mule's pain to its cure as if the excessive exploitation is for the mule's own benefit. As the story unfolds, the reader will realize that the real "illness" of the mule indeed comes from the war.

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[124] Jones, *Developmental Tales*,

Most of these human passers-by in the story are unidentified with one exception, a violent man who hits the mule with a stick. The reader is introduced to this abuser through the mule's eyes: "He is extremely tall and slim. He does not look like those Chinese soldiers I saw in the south or their enemies. Is he a serpent crawling out from a swamp?" [126] This abusive man turns out to be the mayor of Miyun district, who is defecting from the Chinese army. Like the abused mule, who is neither a donkey nor a horse, the abuser is characterized by his in-betweenness on his way of defection. He plans to flee to a Japanese-occupied region on the mule's back and is so furious when he realizes that the mule is of no use that he is determined to beat it to death.

Struggling until the last breath, the mule screams in its own language: "Oh, men! Mules!...Japanese! Chinese!" [127]A sensitive reader may discern a threatening risk here of confusing comrades and enemies when the world is seen from the mule's perspective, a risk that has already presented itself through the abuser's ambiguous identity. Here Qiu Dongping adds a footnote, clarifying that "'Japanese' here refers to those who are killing Chinese people today, those running dogs of Japanese imperialism. Whereas 'Chinese' refers to the slaves, the lower-class Chinese, not those high-class Chinese aristocrats." [128] This footnote, however, fails to demarcate a clear-cut line between the friends and the enemies. It differentiates the "Chinese aristocrats" who are well protected from those who are fighting at the frontline, revealing the inequality amongst the Chinese. Are we supposed to read the mule as a metaphor for the lowest ranking soldiers like the boy in "The Courier," whose lives are first to be sacrificed and the quickest to be forgotten? Or should we read it from the mule's perspective and speculate that the mule is simply and naturally addressing those who it used to be in direct contact with: the lower-class Chinese people and the Japanese soldiers they fight against? At this moment of confusion, the mule narrator nevertheless reminds us that its words can never be comprehended by those who it addresses: "Although these Chinese people are turning into the Japanese's mules, they don't have the ears of mules." [129] Here the incommunicability between the mule and the men presents a challenge to the possibility of the story and its (allegorical) meaning making. If it is impossible for a man without a mule's ears to decipher its words, how does the author expect the reader to understand this story told by a mule? This comment thus seems to betray a sense of hopelessness in both the mule narrator and the human author. A reader who is eager to pinpoint the allegorical implications in the story would of course suggest otherwise and take this as a hint from the author to interpret the mule as the oppressed yet unenlightened Chinese people whereas the abusers as the Japanese. There are, however, two features of the story resisting a reductive allegorical reading: its historical specificity and the density of its corporeal and sensory details.

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[125] Qiu, "Luozi," 124.
[126] Qiu, "Luozi," 124.
[127] Ibid.

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[128] Ibid.

[129] Ibid, 127.

Besides the specificity of the abuser's identity-a Chinese defector, "Mule" also offers specific details about the mule's quotidian labor as a draft animal. It is noteworthy that the story does not end with the mule's cautionary death. Through a trance of the mule before its death, the reader is brought back to the mule's days in the Chinese army. In a seemingly endless marching, the mule is loaded with guns, barded wires, wireless devices, and other war supplies. It is weary and strained by the labor but has no idea of the meaning of the journey or what is waiting ahead. The story concludes with a dialogue in which a more experienced mule explains military life to the protagonist at a loss. This dialogue and the whole story end with the mule protagonist asking "So the Chinese are fighting against the Japanese?", which is dismissed by its fellow mule, who replied "No doubt." The passages describing the mule's labor in the Chinese army including this dialogue fraught with confusion and doubt are omitted when the story is collected in an anthology in 1937. This later version of the story ends with the more allegorical last words of the mule: "Indeed, obedience would eventually become a footnote for cruelty. A mule is doomed to be killed by a man!" (是的，馴服終竟是殘暴的解說者；騾子終竟也必至於為人所擊死的!)[130] Compared to the confused dialogue between two mules in the 1934 version that threatens to trivialize human beings' war efforts, this ending can be more easily interpreted as a calling for resistance to Chinese people.

An unfinished version of the same story was published in 1933, titled "A Mule's Account" (骡子的自述). This version is opened with a brief biography of the mule written in the voice of the author, which cannot be found in other versions.

> This mule was born to a Zhang family in Yanjiao County, Hebei Province. It used to transport passengers from Yanjiao to Gaolou, Sanhe, Junbang, Bieshan, and other places, earning some transportation fee to support the family of its owner. It was then drafted by

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[130] Qiu, Dongping. "Luozi" 騾子 [Mule]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 87.

> the Chinese army to fight against the Japanese. It dragged heavily loaded carts in the Chinese army, went through all kinds of ordeals, and was eventually strained to death. However, the mule never understood the true meaning of the resistance war. It was constantly suspicious of what exactly is the great endeavor of the Chinese army. When the Chinese soldiers forced the mule to drag carts without a moment of rest, what was the taxing trek for? When they finally arrived at the frontline, those Chinese soldiers simply discarded what the mule had carried all along. Those supplies remained untouched and were burnt once the Japanese army came. Things like that was incomprehensible to it till its death.
>
> 這只驢子，產在河北燕郊鎮張姓的人家，每日從燕郊鎮承載客人至高樓，三河，邦均，別山等地方，賺一點腳力幫助它的主人維持全家的生活。後來它給中國軍拖去抗日。它在中國軍的行伍中拉重車，嘗盡了千辛萬苦，直至勞悴而死；但是它終竟也不明白抗日是什麼事情，它無日不在疑心中國軍所干的到底是什麼大事！中國軍叫它拉重車，絕不許它停息片時，那到底是為要幹什麼大事兒至於這樣跋涉的呢？但是，一到前線，中國軍卻把它所運載的東西，完全白丢，重車上的物品，從也不會被人用過，日本軍一來，連手也不摩它們一下，放一把火就給焚毀了！這樣的事情，直到它死了，還是不了解的。[131]

This biography reveals the historical setting of the story, which was the Battle of Rehe in Northeast China. The battle ended with the defeat of the Chinese army. As a result, Rehe Province was annexed to Manchukuo controlled by the Japanese army. Judging from this preface, Qiu’s initial motivation to write this story might derive from his indignance at his comrades who retreated without fighting and who rendered the mule’s miserable death futile and absurd. The rest of the biography goes on to describe the Chinese villagers in Rehe who were “weary, fatigued, depressed, and miserable” and without the capability to grasp the meaning of the war.[132] The commonalities between the villagers and the mule in the main body of the story are hard to ignore. One of the functions of this preface is thus to establish the mutual signification of the villagers and the mule, offering space for an allegorical reading.

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[131] Qiu, Dongping. “Luozi de zishu” 騾子的自述 [a mule’s account]. *Wanma zhoukan* 萬馬周刊. Issue 2, 1933, 20.

[132] Ibid.

When the complete story published in 1934, however, the preface was removed by the author. This decision leads to the ambiguity of the identity of the "I" narrator at the beginning of the story as noted above. More importantly, the semiotic hierarchy between humans and the mule is cancelled in this way. The mule is not seen as a tool for production and transportation, a marker of its owner's social class, or a poignant caricature of inferior "national character." Rather it is taken as a peer who is equally involved in and afflicted by the war and who has a voice unheard. As the war among humans is pushed to the background while the suffering of the mule is foregrounded, the mule is no longer thought of merely through its instrumental value as a draft animal.

The abundant sensory details in the story further add to the difficulty of reading the mule simply of a symbol. For example, Qiu Dongping meticulously and passionately depicts the sensory experience of the mule as it is dying:

> There are flames erupting out of my eyes. My neck is twitching like a spring. I am dying, really dying at this moment! I exhaust my whole body to bear with the pain of death. Oh , the pain! I clench my teeth so hard that they are always shattered.
>
> However, death is nothing like numbness, it has the clearest and sharpest sense. The pain of death is so distinct, not murky at all.
>
> 我的眼睛冒出火焰，我的頸項顫抖得好像彈簧；死了，這下真的死了！我竭盡全身的力來忍受死亡的痛苦，——痛苦啊！我忍受痛苦的牙齒交碰得幾乎碎裂了。
>
> 然而，死亡絕對不是暈沉，死亡寓有最清楚最靈敏的感覺，——死亡的痛苦於我的感覺竟是這麼顯明而不模糊。[133]

The slow yet intense violence of death here is reminiscent of the "sensorium within death" described in "Appeal." Both pieces share the perspectives of the dead and the nonhuman and are saturated with overflowing sensory details, demonstrating the entanglements between corporeality and textuality. In his discussion of *Hungry Guo Su'e* by Lu Ling, another July school writer, David Wang notes the paradox of his "wasteful" and excessive style: "he interprets material and spiritual destitution using a linguistic extravaganza." [134] This observation applies to Qiu's "Mule" as well: the depiction of death is paradoxically fraught with painful yet powerful corporeal evidence of life. [135]

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[133] Qiu, "Luozi," 1934, 127.

Similar expenditure of sensory details can be observed in "The Philanthropist" (慈善家), a story published in 1936 at the eve of the full-scale outbreak of the Second Sino-Japanese War. The narrative revolves around birds: a group of children arrange a deal with a philanthropist in the town, who would pay them for birds to set free in order to accumulate meritorious karma. These children are compared to a military troop who have no mercy when handling the birds, many of which die as the children try to capture them alive. Like his treatment of "Mule," Qiu pays close attention to the physical features of birds, from the light in their eyes to the texture of their feathers, from the way they flutter wings for life to the final shiver before they die. In particular, he captures the moment when death is looming: "The more elegant is [the bird's] demeanor, the more inevitable is its doomed fate. This is helpless. The process is extremely transient, as the instant within which a fire is started. This brief instant cannot be grabbed by hand, neither can it be stopped by any tender sentiments." (它的神態越發美麗，而它的必將到臨的厄運，就越發無從挽救。這是一種火的燃燒的，極端短暫的過程，手也不能把捉，情

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[134] Wang, David Der-Wei. *The Monster That Is History: History, Violence, and Fictional Writing in Twentieth-Century China*. (Berkeley, CA : University of California Press, 2004), 129.

[135] The story of the mule also evokes the images of draft animals in Xiao Hong's novel *The Field of Life and Death,* the first half of which was published in the same year as "Mule." Like Qiu Dongping, Xiao also delineates a Northeastern village where "men and beasts were occupied in the busines of living and dying." (Xiao, 47) Furthermore, the two pieces resonate in their grotesque depictions of the violence inflicted on draft animals. The resonance between Xiao Hong and Qiu Dongping thereby illustrates how wartime conditions propelled writers to reflect on the animalistic aspects of human life.

意也不能叫它多做停留。) [136] The shivering fear of the birds is blurred with the thrilling excitement of killing on the part of the children. Rather than an appeal to sympathy, what is more immediately conveyed to the reader is a ruthless malice, implicating the reader as an onlooker of the children's violence. The massacre of birds is a dark secret of the forest, which nourishes the birds but also disguises the children's crime. The ecology of the forest turns into an ecology of complicity, implicating every creature involved.

This dark consciousness of wartime ecology is also manifest in Qiu Dongping's other stories where the animals are not the focus. In "A Story of Rabbits," (兔子的故事) a solider discovered his martyr friend's corpse, which has been dug out and torn up by wolves because he was not properly buried. He then realizes that it is their platoon leader who embezzles the money allocated for soldiers' burial. To punish him for exposing the corruption, the platoon leader sends the soldier to catch a "rabbit" (a deserter) and kills him together with the rabbit. The soldier and the deserter are then both shallowly buried, exposed to the danger of being eaten by wolves. Qiu offers an uncompromising portrayal of their grotesque dead bodies that are "naked and rotten," barely covered by mud that is saturated with blood. The martyr, the deserter, and the innocent solider are all "rabbits" in the food chain of wartime ecology. The figurative "rabbits" are exposed to the danger of being eaten by real wolves. The analogy between rabbits and soldiers thus points to the affinity of the weak established upon precariousness when the boundaries between the realms of human and nonhuman animals are blurred, the same affinity as we have found between the dead solider from "Appeal" and the titular animal from "A Mule." "A Story of Rabbits" is both opened and closed with sceneries of wild forests where the bodies are found.

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[136] Qiu, Dongping. "Cishanjia." 慈善家 [the philanthropist]. Xu, Yixing 許翼心 Jie Yingli 揭英麗 ed. *Qiu dongping zuopin quanji* 丘東平作品全集 [the complete works of Qiu Dongping]. (Shanghai: Fudan chubanshe, 2011), 98.

Due to the thickness of the description, the dark forests are more than a metaphor for the corruption of the army, the story is more than an exposé.

By reiterating the specificity of corporeal details in Qiu Dongping's stories, however, I am not denying the possibility of allegorical reading once and for all. These details resist arbitrary interpretations that see the animals as transparent ciphers for author's "intended" message, yet do not completely exclude potential symbolic meanings from Qiu's animal imagery. Neither is it possible to speak of "real" animals free from the human gaze in a literary text. The significance of these literary animals does not derive from how real they are, but rather the entanglement between their corporeal bodies and the textual bodies. As Donna Haraway suggests, it would be more productive to consider them to be "material-semiotic" knots.[137] The corporeality of these literary animals in Qiu's stories turn these nonhuman actors into a unsubstitutable means to his poetic ends without depriving them of agency.

In *The Animal That Therefore I Am,* Derrida contends that Western philosophical tradition tends to forget the gaze of the animal. People following this line of thinking have "seen, observed, analyzed, reflected on the animal, but who have never been *seen seen* by the animal."[138] According to Derrida, only through a "poetic thinking" can one realize that the animal can not only gaze back but even "address" humans without a word. The one-sided scientific gaze directed at animals as described by Derrida can also be found in modern China. Premodern Chinese thinkers, however, as noted by animal studies scholars, "time and time again, concluded that the same fundamental principles governed all 'things' – which included animals, the heavens, and people. Differences between people and animals therefore could only be a matter of the degree to which such principles became apparent or were brought into effect."[139] In the context of wartime China, the most fundamental principle shared by human and nonanimal animals is no longer the cosmological order defined by Confucian scholars, but rather the disorder and precariousness of their life. In all three stories examined in this section, Qiu Dongping evokes a nonhuman gaze, that is either cast by a nonhuman animal or an ecology that includes but exceeds humans. More importantly, Qiu captures the moments when human and nonhuman gazes intersect with each other. These moments are manifestations of his "zoopoetics," which is based on reciprocal recognition of shared vulnerability and finitude and allows him to reflect on the finitude of representation via the nonhuman gaze.

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[137] Haraway, Donna. *When Species Meet.* (Minneapolis/London: University of Minnesota Press, 2008), 4.
[138] Derrida, Jacques. Mallet, Marie-Louise. Wills, David. *The Animal That Therefore I Am*. (New York: Fordham University Press, 2008), 13.

The recalcitrant gaze of the mule in Qiu Dongping's story, from which "erupts a flame," just like Guo Su'e, the iconic figure of July School literature, embodies a subjectivity wounded by both physical and spiritual servitude yet cannot be easily subsumed into a collective (human) narrative of victimhood. To some extent, Qiu Dongping's works anticipate his mentor Hu Feng's theory of "subjective fighting spirit" in literary realism. In the early 1940s, against both "formulism" in contemporaneous literature that forces political doctrines onto and thus distorted reality and "objectivism" that passively observes reality without dialectical participation of one's own subjective spirit, Hu Feng proposed a mode of literary creation that involves "subjective fighting spirit" and intense struggles between the subject and the object: "While embracing and bringing in the object, the subjectivity of the writer will actively express at once the functions of assimilation, discrimination, and resistance, and the object will actively use its realness to transform and even overturn the writer's functions of assimilation, discrimination, and resistance." [140] An ideal literary "object" for Hu Feng is the subaltern who preserve a primal life force despite being repressed. The imperative for a writer's subject is to engage and struggle with the subaltern reality, in which process the object will be "overcome" (克服) whereas the subject reshaped by the sensibility of the object that it "embraces." (拥入) As a result, such literature will uncover the "unconscious revolutionary vitalism of the people." [141] Instead of the "overcoming" his nonhuman objects, Qiu Dongping allows his own sensibility to be displaced and overcome. Instead of discovering the revolutionary promises within their "primal forces," what he discovered is a common language called precariousness, which can be heard only against the silence of death.

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[139] Sterckx, Roel. Siebert, Martina. Schäfer, Dagmar. *Animals through Chinese History: Earliest Times to 1911*. (Cambridge: Cambridge University Press, 2019), 6.

IV. Conclusion: Wartime Ecologies of Bodies in Pain

This chapter has examined the three bodies in Qiu Dongping's wartime ecology: the body of martyr and martyr to be, the mimeograph machine that re-presents and enlivens the human, and the nonhuman animal whose gaze reaffirms and disturbs the precarious ontology of the human. These three bodies open up a horizon where humanity is interconnected with mechanical mediality and reproducibility on the one hand, and animalistic vulnerability and finitude on the other.

The mimeograph machine and the animal are both what Qiu Dong writes with and thinks through. These "means" should not be simply forgotten when the poetic end is reached. Rather, the “end” cannot be fully apprehended without acknowledging the material specificity of the means. Only through the low-tech mimeograph printing, which involves strenuous manual labor, could Qiu Dongping connect the mechanic body of a soldier into a fluid and intimate media ecology and hence trouble the mechanized state of the soldier’s life. Only through the unreducible animalistic sensibility could he resituate the soldier’s species body in the material-semiotic ecology of war and question it from within.

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[140] Hu, Feng 胡風. *Hufeng pinglunji* 胡風評論集 [a collection of Hu Feng's literary criticisms]. Vol 3. (Beijing: Renmin wenxue chuban she, 1984), 20.

[141] Denton, Kirk A. *The Problematic of Self in Modern Chinese Literature: Hu Feng and Lu Ling*. (Stanford, Calif.: Stanford University Press 1998), 134.

This brings us back to Qiu’s letter cited at the beginning of this chapter, in which he describes to the dominant wartime discourse celebrating the soldier’s “iron-like” will power and capacity to fight, which continued to dominate even after the war ended and determine the way in which Qiu’s own legacy is remembered. If Maoist wartime ecology, as exemplified by Mao’s “On Protracted War” and Yan’an talk, projects the immense possibility of human will and capacity to fight and create, Qiu Dongping’s vision of wartime ecologies, where the human, inhuman, and nonhuman co-exist, nevertheless leads to a recognition of human beings’ fragility and finitude. This acknowledgement of limitation, however, should not be equated with defeatism. Qiu’s refusal to triumphant discourses of heroism and his openness to the “impure” in the wartime ecology grant his works a potential to repoliticize the leftist discourses from within. This potential manifests itself in the moments of “imoperativity" of the discourse of martyrdom, the propaganda machine, and the deployment and exploitation of animalistic bodies in the army, all of which constitute the wartime biopolitics that reifies and exploits the human and nonhuman bodies as capital and tools. The potential found in Qiu’s work is not a productive or constituent potential that leads to promises of a revolution and establishment of a new order, but rather, in Agamben’s word, a “destituent” potential. For Agamben, thinking a destituent potential means “engaging in a decisive hand-to-hand confrontation with the weakest of beings that is language.”

[142] Qiu Dongping demonstrates such a potential by contemplating the unspeakable death of a soldier that is not martyrdom, the use of the propaganda machine that is not propagandist, and the "words" of a nonhuman other that is not supposed to be comprehensible. This is of course a dangerous potential as has been proved by the fate of his mentor and colleagues from the July School in socialist China. Revisiting Qiu's legacy, however, sheds light not only on the violence of institutionalization of bodies, but also the possibilities of envisioning an interconnected ecology in an age of alienation and division not by reinforcing existent power relations but by answering the call of the bodies in pain.

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[142] Agamben, 271.

Chapter Three

(In)visible Encounters: The Burma Road and an Ecological Poetics of Infrastructure

In August 1940, Pearl S. Buck, the American writer who had just won the Nobel Prize for literature in 1938, published a short story titled "The Face of Gold." The American protagonist Timothy Stayne is a missionary-turned guerrilla sympathizer living in a Buddhist temple in Dali, Yunnan Province of China. He takes it on himself to transport ten thousand American rifles from Lashio, Burma to Yunnan, in support of the anti-Japanese resistance efforts of a Chinese guerrilla leader. This mission requires Stayne to traverse the Burma Road that is still under construction. Stayne finds himself struggling in a precarious environment along the Road with unbearable humidity and heat and the threat of wild beasts. Following a long trek, he encounters a bog that obstructs the passage of humans and vehicles. Coming to his rescue, a group of mysterious Chinese women miraculously fix the road overnight.

The "face of gold" in the title, later retitled as "The Face of the Buddha" in Buck's short story collection *Today and Forever: Stories of China*, refers to the face of a magnificent statute of Buddha in the temple where Stayne lives at the beginning of the story, and to the faces of the women at the end. However, when the story was translated into Chinese by Yizheng in the following year, its title was changed to "The Story of the Burma Road" (滇緬公路的故事). From the "face" to the "road," the translator clearly had a different interpretation of what was the true focus of the story. What does it mean to tell a story from the perspective of a road? Can we perceive the Burma Road as something more than a static object and a means for transportation? Can we read the Road as an active character, a dynamic event, or even an interwoven and transformative ecology of the human and nonhuman?

From the longstanding arch-image of the “way” (*dao*) to the immediate historical imperative of seeking a “way out” (*chulu*) for the nation state, from paths of revolutionary pilgrimage to routes of wartime exile, the image of the road proliferated the cultural imaginations of 1930s and 40s China. [143] The narratives framed by the road tend to focus on the sojourners on the road, whose cultural genealogy speaks to the formation of and challenges to individual and collective subjectivities in modern China. The material realities of the road itself and its building, however, are often overlooked. One exception is Sun Yu’s 1935 fictional film *The Big Road* (大路), which depicts a group of road workers who built connections in early 1930s China facing national division. In *The Big Road*, the road not only serves as a stage and a symbol for displacement, mobility, connection, and faith, but also unfolds as a material object to be constructed, destructed, and rebuilt. This film serves as a prelude to the epic convergence between the symbolic road and the material road in the building of the Burma Road, a transnational lifeline created for and shaped by the outbreak of the Second Sino-Japanese War in 1937. This chapter hence foregrounds the Burma Road as a spectacle and a narrative in its own right, departing from the previous use of the road as merely a storytelling or symbolic device.

Like other forms of infrastructure, a road is both a vehicle and an effect of power. It exerts its own agency not only through facilitating connections but also by making interruptions. Historically the agency of the Burma Road is derived from both of its building and destruction, its closing and reopening. Such agency can be explicated through a wide range of media objects involving the Burma Road examined in this chapter, from the photographic journalism to state-sponsored documentary, from a modernist poem to a classical verse, from a realist memoir to a fantastic story. Through this cluster of texts, I will reveal how the bodily experience and media engagement with the Road make visible the human conditions in-between animal and machine, and place the road, its builders, and users in a complex ecology.

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[143] Laughlin, Charles. A. *Chinese Reportage: The Aesthetics of Historical Experience*. (Durham: Duke University Press, 2002), 136.

Recent infrastructure studies have drawn attention to the symbolic implications of infrastructures beyond their technical functions. According to Brian Larkin's much cited article on the politics and poetics of infrastructure, "(infrastructures) are matter that enable the movement of other matter. Their peculiar ontology lies in the facts that they are things and also the relation between things…infrastructures also exist as forms separate from their purely technical functioning, and they need to be analyzed as concrete semiotic and aesthetic vehicles oriented to addressees. They emerge out of and store within them forms of desire and fantasy and can take on fetish-like aspects that sometimes can be wholly autonomous from their technical function." [144] A road not only facilitates or suspends motion of people and things, and mediates exchanges over distance, but also functions as an expression of aspirations for modernity, development, and (inter)national solidarity.

In the same article, Larkin refutes the commonplace assertion in infrastructure studies that infrastructures are "by definition invisible, taken for granted, and only become visible on breakdown."[145] Instead, he points at "a range of visibilities that move from unseen to grand spectacles and everything in between" which operate in both technical and symbolic terms. Moreover, different parties' unequal access to and creative alteration and repurposing of infrastructure by heterogenous practices also make the issue of visibility more complicated in terms of who are the "seers" and what can be seen. As Appel, Anand, and Gupta note, "while privileging the circulation of people and things, infrastructures also served to permit states to separate politics from nature, the technical from the political, and the human from the nonhuman."[146] What can and cannot be seen can be part of the engineering of infrastructures.

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[144] Larkin, Brian. "The Politics and Poetics of Infrastructure." *Annual review of anthropology,* Vol.42 (1), 2013, 329.
[145] Ibid.

As a product of wartime emergency and national crisis and a project of international collaboration, the Burma Road involves more complex issues of visibility. The building of the road began in 1937 after the outbreak of the Sino-Japanese War when existing coastal supply lines were blocked by the Japanese. While completed in just a span of two years, the road's exposure to Japanese air bombings means that it required constant repair and maintenance. The Burma Road functioned as a vital supply route carrying war goods from the outside world to the interior of China, and eventually became the sole lifeline when the French Indo-China Railway was cut off in 1940. The construction and the function of the road thus attracted attention of both domestic and international media. Furthermore, people from various ethnic groups living in Yunnan participated in building the Road, which provided the Road with extra symbolic value as an embodiment of both international solidarity and multi-ethnic nationalism. The road connects Kunming, the capital of Yunnan with the important border town of Lashio in Burma, where the Road would eventually connect with the railway to Yangon. While the geographical distance between Kunming and Lashio is 320 miles, the actual length of the road with its roundabout curves is as long as 717 miles. All but 16 percent of the road lies within China's borders. The Chinese were responsible for building the segment from Kunming to Wanting, on the Burma-China border, which contained the most of geographical and geological obstacles. It is therefore not hard to imagine that the Road would be perceived as a miracle of epic human endeavor in adversity. What remains invisible from this aloof point of view, however, were the entanglements and tensions between the things and people involved in the making and using of the road, as well as its ecological consequences.

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[146] Anand, Nikhil. Gupta, Akhil. Appel, Hannah ed. *The Promise of Infrastructure*. Durham: Duke University Press, 2018, 4

Inspired by the discourse of visibility and invisibility in infrastructure studies, this chapter will explore the complex poetics of the Burma Road with a focus on the politics of visibility in the representations of the road's building and operation across various media, which reveal an often overlooked ecology with both human and nonhuman actors, interconnected and in constant competition with each other. Out of these media representations of the Burma Road emerges a pair of perspectives in tension: an "aerial" perspective that tends to glorify the project for its symbolic value, and an "earthbound" perspective that focuses on specific human and nonhuman encounters taking place on the road and indigenous techniques adopted by road builders, which bring them into close contact with the non-human environment. These two perspectives, while coexisting in the media objects I examine, take on different proportions and dynamics. The combination and competition between these two perspectives, I argue, generate an ecological poetics of infrastructure, involving the intricate dynamics of ethnicity, gender, and human-nonhuman relations.

I. Aerial Perspective and its Space and Time: Looking at the Burma Road

From 1940 to 1941, *The Young Companion*, one of the most popular pictorial magazines in Shanghai, released three photo series on the Burma Road. All of them open with a bird's-eye-view shot of the road running through mountains of Yunnan, which serves as the most representative example of what I describe as an "aerial perspective."

The first series, titled “From Kunming to Rangoon” (從昆明到仰光). written by Zhang Jiwen (張繼志) with photographs taken by Kuang Guang (鄺光) and Xiao Qian (蕭乾), was published in May 1940, when the road had been completed and functioning for a year. The caption to the leading photo reads: “Running like a snake on lofty mountains, the Yunnan-Burma Highway, a new exit from China’s back door to the outside world, is an engineering feat.” (Fig. 15) Printed on the same page are photos of scenic landscapes in the towns connected by the Road and a photograph of Tibetans in ethnic costumes dancing in one such town, also presented as part of the ethnographic landscape. The aerial perspective allows the photographers and the audience to perceive the Road as a tremendous engineering success and a symbolic link that connects lands and peoples with various geographical and cultural characteristics. It also functions as a window to the sublime landscapes in China’s frontier, which invite awe and identification with the nation state.

Published in November 1940 following the close and reopening of the Burma Road, the photo series by Wang Xiaoting, also known as H. S. Wong, similarly opens with a photograph of the road taken from afar, emphasizing its scale and spectacular turnabouts. The caption to the leading photo explains the significance of the road in a time of crisis and the geopolitical context for its reopening:

> “The Burma Road, China’s only remaining back-door to the sea, which had been closed for three months by Britain as a result of her acquiescence to the Japanese demand to close the Yunnan border, was re-opened to traffic on the 18th of October. The reopening of the road reflects the end of Britain’s appeasement policy in the Far East and her closer cooperation with the United States of America. To the Chinese, the reopening of the road gives the renewed confidence in their war of resistance and brings them into closer relationship with Great Britain.” [147]

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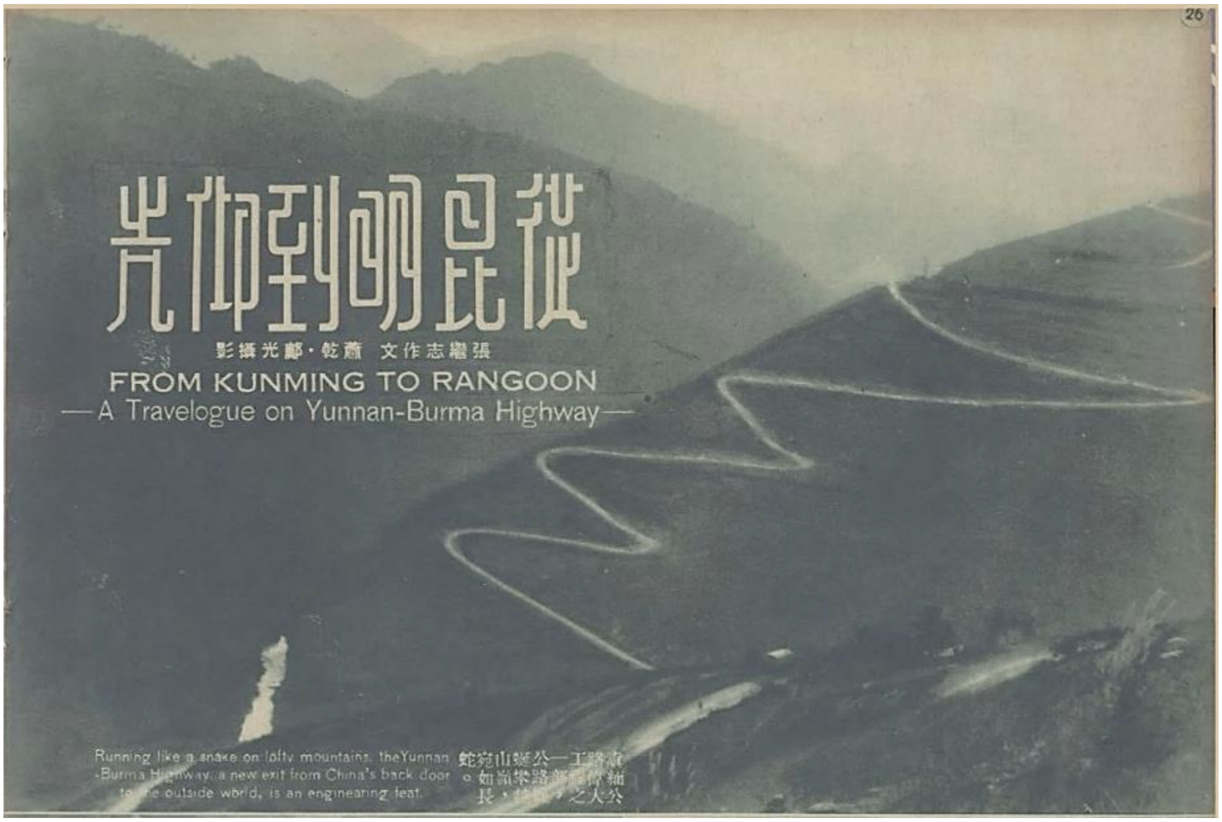
[147] Wang, Xiaoting 王小亭. “Dianmina gonglu chongxing kaifang” 滇緬公路重行開放 [Burma Road Reopened]. *Liangyou* 良友. Issue 160, November,1940, n.p.

The photographic report continues to elaborate on the strategic and economic function of the road, with photos showing trucks swarming into China with urgently needed war supplies and huge quantities of tung oil waiting to be exported, on which American loans were to be made. The aerial perspective allows the journalist to delineate a macro-narrative of political significance in which human agents as well as non-human matter are reduced to functional elements that constitute the logistical system.


26
從昆明到仰光
張繼志作文　蕭乾・鄭光攝影
FROM KUNMING TO RANGOON
—A Travelogue on Yunnan-Burma Highway—

Running like a snake on lofty mountains, the Yunnan-Burma Highway, a new exit from China's back door to the outside world, is an engineering feat.

滇緬公路偉大工程之一新，公路[illegible]蜒縈[illegible]山崗，宛如長蛇。

Fig. 15 "From Kunming to Rangoon" 從昆明到仰光. *The Young Companion* 良友, Issue 154, 1940, n.p.

At the same time, both of the abovementioned photo series incorporates photographs of laborers. The former includes a distant shot of a steep slope on which workers cannot be differentiated from rocks and earth. (Fig. 16) These workers working under precarious conditions are perceived as a replaceable man-power as the caption tellingly captures: “The biggest engineering feat in war-time China, the highway was completed in the most speedy manner. Thousands of workers took part in the building, indicating the inexhaustible supply of man-power in China.” Similarly, the series celebrating the reopening of the Road includes photographs of “thousands of Chinese laborers” doing maintenance work for the Burma Road while it was closed by Britain. There are also photographs of workers constructing branch roads while risking being bombed and workers fixing dynamite into the rocks in order to remove dangerous precipices. In all these photographs, one can only recognize the worker’ silhouettes and the stark contrast between their ant-like bodies and the mountain rocks on which they work. In a photograph showing “sharp turns and contours eliminated by explosive,” workers are masked by the smoke generated in the explosion. The scale of this engineering project and the difficulties and risks of its operation are indeed compelling, which nevertheless ends up obfuscating the existence and labor of individual workers. For the readers of the magazine, the precarity of their working conditions can be easily consumed as a spectacle.

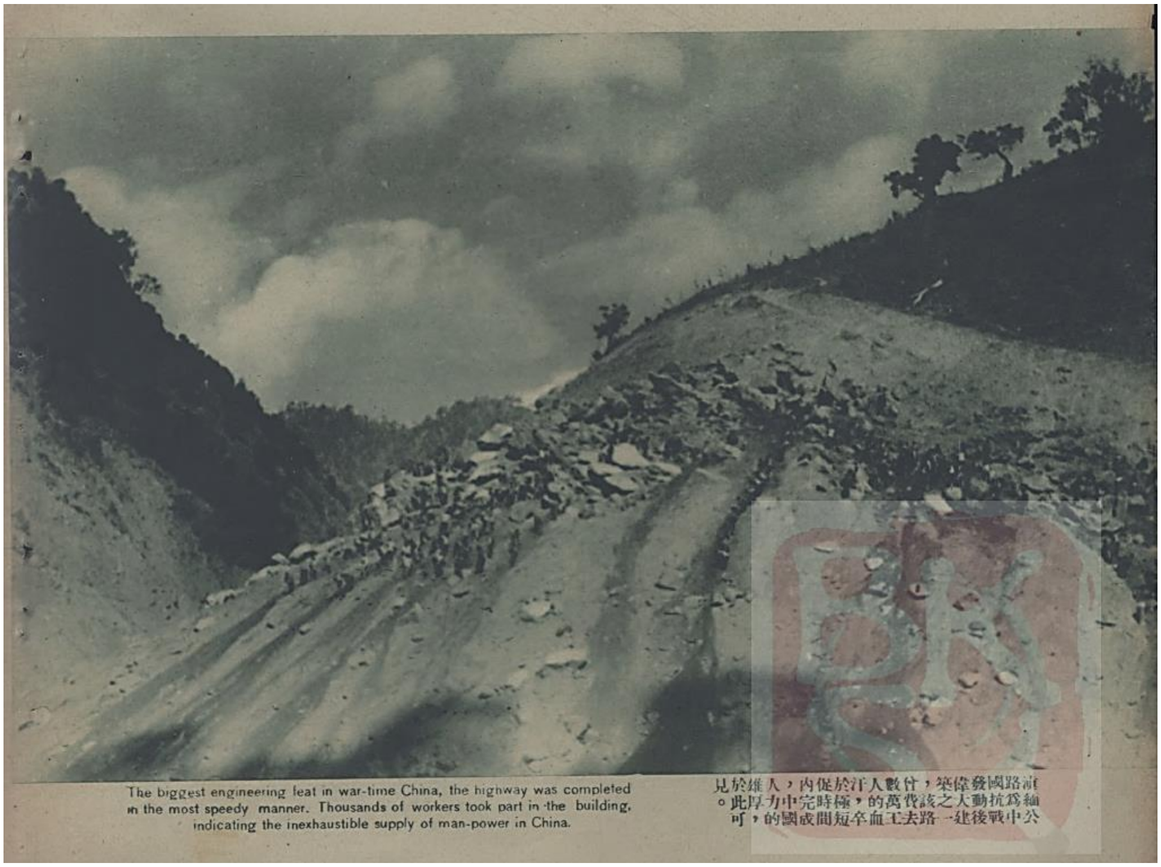

The biggest engineering feat in war-time China, the highway was completed in the most speedy manner. Thousands of workers took part in the building, indicating the inexhaustible supply of man-power in China.
滇緬公路為中國抗戰發動後偉大建築之一，該路計費去數萬工人的血汗，卒於極短促時間內完成，中國人力的雄厚，於此可見。

Fig. 16 Road builders seen on a steep slope. “From Kunming to Rangoon” 從昆明到仰光. *The Young Companion* 良友, Issue 154, May,1940, n.p.

In January 1941, three months following the reopening of the road, *The Young Companion* published another photo series titled “News from the Burma Road.” (Fig. 17) In this series, a large photograph of the road on a menacing slope with trucks driving through is juxtaposed with smaller ones of goods being loaded onto trucks and an array of imported gasoline cans. Printed on the next page are the photographs of young ethnic Dai women “friendly to the Chinese through constant contact” and “the Anti-Malaria Institute [that] has been established on the Yunnan Border where malicious malaria prevails.” The Road promises a prospect of high mobility of goods, multi-ethnic unity, and modernization of medicine. Echoing the aerial perspective in the leading photo, the photo series includes images of a newly bought

American-made pursuit-plane for the Chinese Air Force being assembled under the cover of a thicket and a new aircraft plant built on the Southern Section of the road in Yunnan, manifesting an aspiration for the air. The aerial perspective therefore does not only indicate an up-to-down angle of perception, but also embodies a macro-scale of thinking, a flexibility to zoom in and zoom out, and a forward-looking linear temporality.

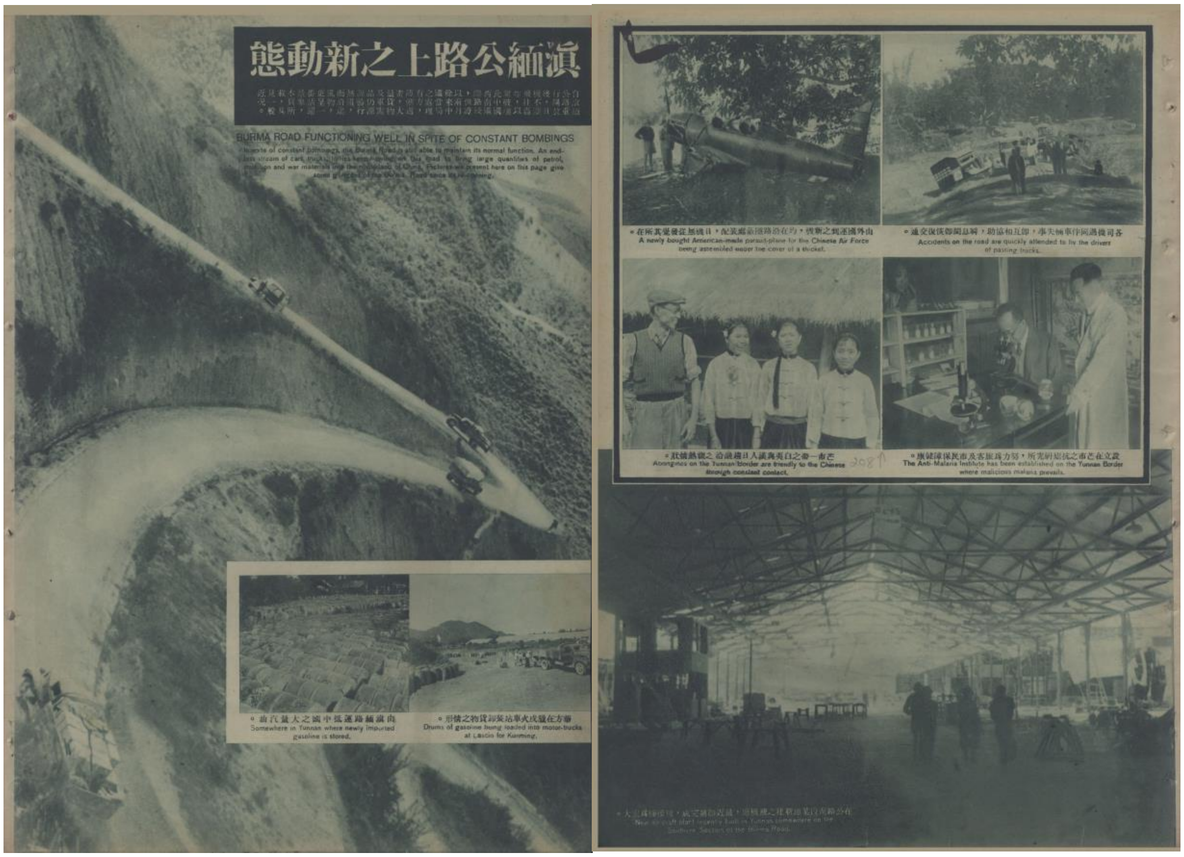

滇緬公路上之新動態
BURMA ROAD FUNCTIONING WELL IN SPITE OF CONSTANT BOMBINGS
A newly bought American-made pursuit-plane for the Chinese Air Force being assembled under the cover of a thicket.
Accidents on the road are quickly attended to by the drivers of passing trucks.
Aborigines on the Yunnan Border are friendly to the Chinese through constant contact.
The Anti-Malaria Institute has been established on the Yunnan Border where malicious malaria prevails.
Somewhere in Yunnan where newly imported gasoline is stored.
Drums of gasoline being loaded into motor-trucks at Lashio for Kunming.

Fig. 17 "News from the Burma Road" 滇緬公路上之新動態. *The Young Companion* 良友, Issue 162, January 1941, n.p.

Moreover, the aerial perspective can turn into a frame of narrative. Zheng Junli (鄭君里)'s 1943 documentary *Long Live the Nation* (民族萬歲) can be viewed as an example of how the aerial perspective functions in organizing a narrative weaving together ideological authority and poetic fluidity148. Produced by the China Motion Picture Corporation (中國電影製片廠) under the directions of the Political Department of the Nationalist Government's Military Affairs Commission, *Long Live the Nation* was shot over four years across China. It demonstrates how non-Han ethnic groups participated in the anti-Japanese war efforts and includes a sequence on the building of the Burma Road. Weihong Bao accurately describes the film as an "epic documentary" that "[cuts] across fiction and documentary film to combine poetic narration with the authority and authenticity of documentary image serving the state-building project of mass enlightenment, military defense, and political mobilization." [149] Bao also situates the film in a historical context where commercial film industry was overtaken by state-sponsored propaganda. Luo Jingyu, the vice president of the China Motion Picture Corporation, even argues that cinema should be seen as part of state-own infrastructures not unlike "railways, the telegraph, grain, and the water supply." [150] Thorn Chen, in his "Cinemas, Highways, and the Making of Provincial Space," also reveals that state-sponsored media projects in 1930s China, in his case, educational film screenings, were both facilitated by and participating in the construction of the nation's "superimposed grids of mobility," especially a newly developed infrastructural system including highways. [151] The infrastructural concerns of connection, transportation, and transmission are also manifested in *Long Live the Nation*. As Bao observes, there are various means of transportation showcased in the film, "underscoring the miraculous reach of mobility rather than

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[148] *Long Live the Nation* was Zheng's directorial debut. He had been a well-known film actor before making this film. Interesting to note, Zheng had played a road worker in the film *The Big Road* (1935), which is mentioned at the beginning of this chapter.

[149] Bao, Weihong. "Documentary in the Age of Mass Mobility: Minzu wansui and the Epic Gesture of Ethnographic Propaganda." Joshua Malitsky ed. *A Companion to Documentary Film history*. （Hoboken, NJ: Wiley Blackwell, 2020）, 316.

[150] Luo, Jingyu 羅靜玉. "Lun Dianying de guoce" 論電影的國策 [On the National Policy of Film]. *Zhongguo dianying* 中國電影. (Chongqing: Chinese Film, 1941), 78.

[151] Chen, Thorn. "Cinemas, Highways, and the Making of Provincial Space: Mobile Screenings in Jiangsu, China, 1933-1937." *Wide Screen*. Vol. 7, No.1, 2018, 25.

its physical challenges.” [152] This seemingly facile mobility is facilitated by the aerial perspective that covers and organizes vast time and space into a coherent narrative in an elevated style.

The film opens with a montage of natural and cultural landscapes and monuments from the Great Wall to the tomb of the Yellow Emperor, evoking associations with territorial integrity and cultural continuity of the Chinese state. Following this opening sequence are shots of patriotic demonstrations and modern factories producing war goods, showing the war efforts in Han-dominant urban areas. The film then moves to four independent sections respectively attributing on the Tibetan, Mongolian, Miao, Yao, and the Luoluo (today’s Yi) peoples. These sections all begin with an ethnographic examination of the living environments, farming and religious customs of the ethnic groups, and then move on to the scenes where they are mobilized and trained to join the army.

The section on the Luoluo or Yi people exclusively focuses on their contribution to the building of the Burma Road. The section begins with the topographic map of southwest China, which is then superimposed with sceneries of their quarters. (Fig. 18) Yi men are seen leaving their homes to build the road while the women are waving goodbye. This scene is accompanied by a quote of the Han Chinese writer Lu Xun, a reference probably unknown to the filmed subject: “There was no path before, but as more people walked it, it became a path.” According to the director’s diary, this scene was difficultly reenacted. It took him three hours to shoot an Yi man waving goodbye to his wife because the man was not used to the camera. [153]

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[152] Bao, 323.

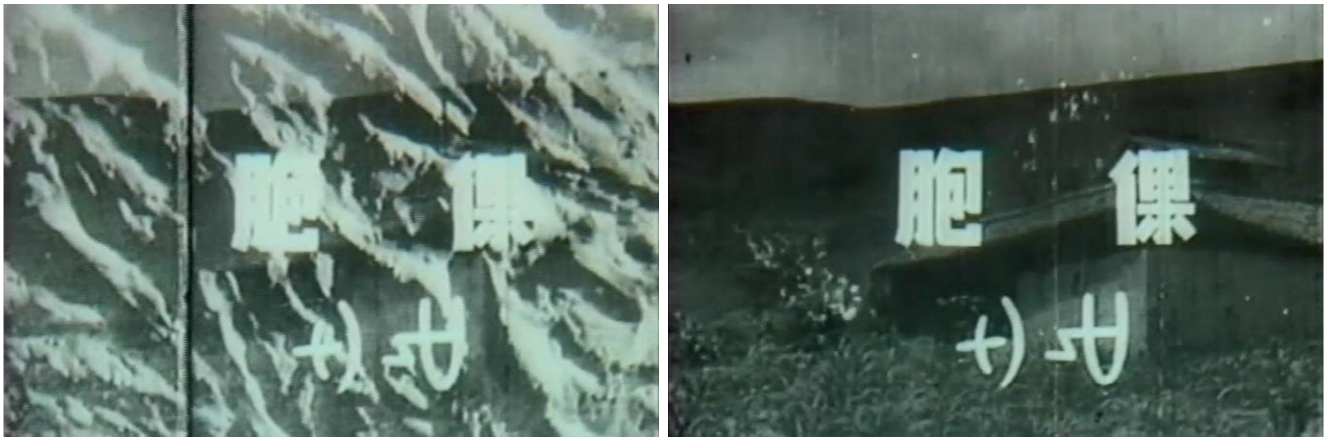

Fig. 18 The topographic map of southwest China superimposed onto the sceneries of the Yi (Luoluo) people’s quarters.

As implied by the staged departure scene, the description of Yi people’s roles in road building is explicitly gendered. The narration, assuming the perspective of the Yi men, says emotionally, “Girls, you don’t have to see us off too far. Wait until we’ve built the road, and we’ll take you to see that beautiful world.” Although there are clearly women working on the construction site, the shots of the road building scene remain focused on the men and the narration employs a highly masculine discourse: “We’ve never seen anyone with stronger arms, or anyone who can walk these slopes faster than we can.” The muscular laboring bodies of men from the Yi community are shot at a low angle with some close-ups on their sweating chests. The narration highlights the strength and power of the ethnic Yi men as something both to be admired and to be tamed. According to the narration, the Yi men used to have the inclination towards physical violence in the past, but have channeled their excessive stamina towards "opening the mountains," "filling in the water," and "building the road" after the outbreak of the war.

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[153] Zheng, Junli 鄭君里. *Minzu wansui: Zheng Junli riji, 1939–1940* 民族萬歲：鄭君里日記1939-1940 [Long Live the Nation: Zheng Junli Diary, 1939–1940]. (Shanghai: Shanghai wenhua, 2013), 359.

The masculine discourse parallels the logic of conquest embedded in a central narrative of the section: how the road building project transforms the natural environment. In the narration for the previous section focused on the Miao and Yao people, there is a poem addressed to the trees that are cut down to construct roads, railways, and bridges, as if they are men to be drafted into the army:

> "Tree, you enjoy the sunlight of the motherland just as I do.
> Grow as I do on the land of our ancestors.
> You and I are the owners of this country,
> And our responsibilities are the same.
> Today our country needs your contribution,
> And so I toss the axe to you.
> Don't cling to this utopia,
> But be a pillar to prop up the country."

Other nonhuman beings are politicized and militarized in the film as well. Similar lyrical lines addressing yaks and sheep with an endearing gaze appear in previous sections, in which the intimate relationship between the ethnic groups and the environment is first presented as part of the underdeveloped indigenous landscape and then made useful for a nationalist course. In the section on the Mongolians, for example, the loving interaction between sheep and shepherds is accompanied by a narration assuming the voice of the shepherds and addressing the sheep as "my dear." In the next scene, however, we see the pelts of the sheep are gifted to the soldiers on the front. Both Weihong Bao and Ling Zhang have noted the peculiar use of voice-over in this film. As Zhang summarizes, "[these] voice-overs alternate between third-person (omniscient), first-person, and second-person narration that at turns serve a conventional expository function, formulate a dialogue between ethnic minority subjects, and converse with flora and fauna with animistic spirituality and the lyricism of poetry." [154] These voice-overs, balancing between authority and authenticity, are also paralleled with the points of view of the camera shifting between ethnographic observation and subjective perspectives. It is impossible not to discern the rupture between the voice-overs assuming the first-person perspectives of the ethnic minorities in Mandarin and silent smiling faces of its recorded subjects whose native languages are not being spoken. The instrumental view of the environmental ecology presented by the narration thus also becomes questionable. This rupture cannot be easily explained away by the ethnic equality policy promoted in the film and the shifting positions of the intellectual and the masses at the time as Ling Zhang argues. Rather it suggests that the first-person narration addressing the non-human others has turned into a disembodied voice that works perfectly with the flexible aerial perspective, which weaves imagined interiorities of individuals into a cohesive picture of ethnic solidarity and environmental transformation for national defense.

Returning to the section on the Yi people, the construction sequence is followed by a lecture scene, in which a Nationalist official is preaching on the thought of Sun Yat-sen, the founder of the Republic of China who the narration refers to as "a sage." While the lecturer wrote on a blackboard in Chinese, the audience are taking notes in the language of Yi. According to the narration, the Yi audience are learning about ethnic equality, which they do not enjoy among themselves. In the Yi or Luoluo community, there is a hierarchy between the "Black Luoluo" and "White Luoluo," the latter of which are oppressed and enslaved by the former. The narration declares, "The Han and the Luoluo are brothers, the white Luoluo and the black Luoluo are brothers as well. We're all one family, all part of the Chinese nation. We're going to finish this road as fast as we can, and from here we can step into a free and equal land." The building of the Burma Road is therefore more than an engineering project transforming the environment, but also portrayed as a transformative social project for ethnic equality.

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[154] Zhang, Ling. "Sounding Travel Documentary in Wartime China: the Dual Journey of *Long Live the Nation*." Cahill, James Leo, Caminati, Luca, ed. *Cinema of Exploration: Essays in Adventurous Film Practice.* (Abingdon, Oxon; New York: Routledge, 2021), 159.

The lecture scene then cuts to a bird's-eye-view shot of a procession of Yi workers on a mountain road, symbolically heading towards a "free and equal" future. This shot in turn cuts to an even more distant shot of workers on a mountain slope contrasting the size of their bodies to the mountain they are going to "conquer," which is reminiscent of the journalistic photographs in *The Young Companion*.

To conclude the four relatively independent sections on different ethnic groups, *Long Live the Nation* ends with a sequence in which armed men from all these ethnic groups across China join the army to fight against the Japanese. With their ethnic consumes changed to military uniforms, these men plunge into modern war vehicles such as tanks, trucks, and pursuit-planes. The aerial perspective in this film thus allows geographical challenges and cultural differences to be first represented, and then to be overcome and subsumed into a forward-moving timeline of modernization and a hegemonic and integrative narrative for the consolidation of a nationalist community.

II. Between Earth and Air: Du Yunxie's Burma Road

In 1939, as the Burma Road was just completed, *The China Pictorial* published a photographic report on anti-Japanese efforts in Northwest and Southwest China. Included in this report is a photograph of a section of the Burma Road as seen from the campus of National

Southwestern Associated University.[155] Shot from above to show the abrupt twists and small human figures on the road, this photograph is reminiscent of the images published in *The Young Companion* as discussed above, yet distinguished by its embodied perspective. The audience are made aware that they are looking at the Road from the perspective of the teachers and students from the National Southwestern Associated University, a photograph of whom is displayed next to this quasi-aerial shot. Among the students who were living and studying next to the road was Du Yunxie (杜運燮), a Chinese Malaysian student who established himself as a promising young poet with a poem precisely titled "The Burma Road" (滇緬公路) in 1942.

In Du's "The Burma Road," one can discern the coexistence and competition between an aerial perspective and an earthbound one. The poem opens with an earthbound image, reminding the reader not to forget the arduous labor of the road builders when celebrating the grand accomplishment of the Road:

> Do not take this as a simple matter of fact;
> Imagine a body without vessels,
> a machine without oil tubes. You should rise up and praise them: it is them
> (who are undernourished, half-naked, struggling at the border of death)
> It is them, who, despite the attacks of hunger, cold, and mosquitoes with malaria,
> always wake up before the sunrise, and come out from their hastily built huts,
> wielding their primitive shovels, lavishing their last sweat and toil, a bit by a bit
> struggling to smooth road for the nation, fighting for a breath of freedom.
>
> 不要說這只是簡單的現實；
> 試想沒有血脈的軀體，沒有油管的
> 機器；你們該起來歌頌：就是他們
> （營養不足，半裸體，掙扎在死亡的邊沿）
> 就是他們，冒著飢寒與瘧蚊的襲擊，
> 每天不讓太陽佔先，從匆促搭蓋的
> 土穴草寮裡出來，揮動起原始的
> 鍬鏟，不惜僅有的血汗，一厘一分地

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[155] Jiao, Chao 焦超. "Xibei yu xinan" 西北與西南 [Northwest and Southwest]. *Zhonghua* 中華 [The China Pictorial].Issue 77, 1939, 25.

為民族爭取平坦，爭取自由的呼吸。[156]

It is noteworthy that the poet brackets the mal-nourished, half-naked and struggling bodies of the road builders, which indicates what the reader may have overlooked when they are amazed by the glorious accomplishment of the Road. These suffering and laboring bodies are likened to the vessels in a larger body and oil tubes in a machine, invisible parts that can be easily forgotten when the body or machine functions normally. While acknowledging the significance of this “machine” supporting the nation state, the poet is nevertheless aware of the cruelty and the inevitable oppression involved in its building. This awareness becomes even more salient in the following stanza:

Please sing, you, the people who are about to be liberated,
The road bestows hope and happiness on us, but it is them
(who are still chained by heavy shackles and at the disposal of others)
who bring us bright faith, glistening in front of us.
We all remember their ignorant yet brave sacrifice,
and those who are constantly plotting, exploiting, seeking pleasures.
Remember there is a new sound, a new word is coming,
Just like we would never forget how ruthless the epoch can be,
Every wave, every gear of it, is a lucid lesson.

歌唱呵，你們，就要自由的人民，
路給我們希望與幸福，而就是他們
（還帶著沉重的枷鎖而任人撥弄）
給我們明朗的信念，光明閃爍在眼前。
我們都記得無知而勇敢的犧牲，
永在陰謀剝削而支持享受的一群，
與一種新聲音在響，一個新世界在到來，
如同不會忘記時代是怎樣無情，
一個浪頭，一個輪齒都是清楚的教訓。[157]

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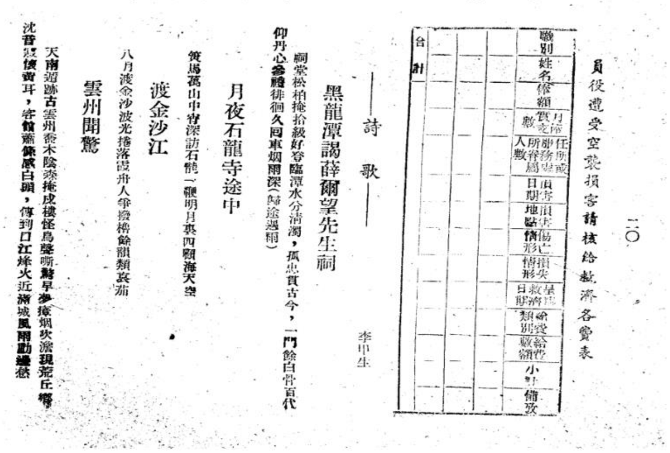
[156] Du, Yunxie 杜運燮. “Dianmian gonglu” 滇緬公路 [The Burma Road]. Wen Yiduo 聞一多 ed. *Xiandai shichao* 現代詩鈔 [An Anthology of Modern Poems]. *Wen Yiduo quanji* 聞一多全集. (Beijing: shenghuo dushu xinzhi sanlian shudian, 1982), 527-528.
[157] Ibid, 528.

The speaker then evokes images of a hostile ecology with “torrents as savage as beasts,” and the “camp for mosquitoes with malaria as mysterious as the hell,” in which laborers are struggling and working. These dreadful images are reminiscent of lines from “Hearing Startled Birds in Yunnan” (雲州聞驚), a classical verse composed by Li Jiasheng (李甲生), who worked as a clerk at the Burma Road Public Works Bureau: “The south end of the firmament vanishes in ancient Yunzhou, where gruesome thick bushes crawl over the watchtower. The screams of strange birds startle me awake from an early dream, as the miasma fades away emerge the bleak hills.” (天南遁跡古云州，喬木陰森掩戍樓。怪鳥聲嘶驚早夢，瘴煙吹淡現荒丘) [158] The bleak landscape with strange creatures and atmosphere evokes images from premodern frontier poetry and a sense of timelessness. Li’s poem was published in *The Burma Road,* a journal released by the Public Works Bureau, and was displayed next to a survey form for clerks who suffer from air raids and intend to apply for financial compensation. (Fig. 19) This layout creates an even more bizarre and disorienting effect when the readers realize that the “strange bird” that disturbs the poet’s dream can be an enemy’s airplane.



二〇

員役遭受空襲損害請核給救濟各費表

職別	姓名	俸額	月薪實支數	任所或服務處所眷屬人數	遭害日期	遭害地點	傷亡情形	損失情形	呈報救濟日期	請發類別	給費數額	小計	備攷
合計													

——詩歌——

李甲生

黑龍潭謁薛爾望先生祠

祠堂松柏掩拾級好登臨潭水分清濁，孤忠貫古今，一門餘白骨百代仰丹心參禮徘徊久回車烟雨深（歸途遇雨）

月夜石龍寺途中

策馬萬山中宵深訪石龍，聽明月裏四顧海天空

渡金沙江

八月渡金沙波光捲落霞舟人爭撥棹餘韻類哀笳

雲州聞驚

天南遐跡古雲州喬木陰森掩戍樓怪鳥聲嘶驚早夢瘴烟吹淡現荒丘嚮沈音疑懷貫耳，客館蕭條感白頭，傳到口江烽火近滿城風雨動邊愁

Fig. 19 Li Jiasheng. “Hearing Startled Birds in Yunnan,” *The Burma Road*, June, 1944, 20.

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[158] Li, Jiasheng 李甲生. “Yunzhou wenjing” 雲州聞驚 [Hearing Startled Birds in Yunnan]. *Dianmian gonglu* 滇緬公路. June, 1944, 20.

The ambiguous sense of time in Du’s “The Burma Road,” however, is soon replaced with a clear-cut and future-oriented utopian vision that is supposed to be brought about by the Burma Road. According to this vision, the Road will conquer the beast-like torrents and the hell of malaria, turning the hostile ecology into soothing and idyllic landscapes with panoramic framing. The speaker even imagines a walk on the Road would feel like “writhing over the ridges of high mountains, floating through the flow of clouds, / just like sitting in the cabin of an airplane, discovering a new world.” (盤上高山的背脊，飄行在雲流中/ 儼然在飛機的坐艙裡，發現新的世界) [159]

Once the speaker of “The Burma Road” enters into the comfortable position with an aerial perspective, he starts to imagine the Road itself as an unstoppable galloping animal: “And it leads shadows of all shapes, / darting through forests and grass:/ everything is flying ahead, not allowing anyone to stop.” (而它，就引著成群各種形狀的影子/在荒廢久年的森林草叢間飛奔：/一切在飛奔，不准許任何人停留) [160] As the Road is now perceived as a whole from an aerial perspective, the laboring bodies whose agony has been bracketed are now turned into invisible organs of this running beast. They are then compared to the stones that constitute the Road: “The excited pulse of the people, every stone/equally feels proud for their loyal contribution to the victory.” (人民興奮的脈搏，每一塊石子/一樣覺得是為勝利盡忠而驕傲) [161] The bodily experience of the road builders is now truly “bracketed” by the poet and subsumed by a triumphant and future-oriented narrative of road building.

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[159] Du, 528.
[160] Du, 530.
[161] Du, 529.

From an earthbound perspective to an aerial one, one can observe the latter's suppression of the former in Du's poem. The tension and conflict between the two perspectives continue to trouble the poet even after the poem was first published in 1942 and acknowledged by Du's mentors at National Southwestern Associated University such as Wen Yiduo (聞一多) and Zhu Ziqing (朱自清). As the scholar Yi Bin has revealed, in a later version of the poem, which is included in most of Du's poetry anthologies, Du revises the poem by adding phrases that glorify the Road and the road builders' labor in order to alleviate the tension between a collective agenda and heterogenous individual experiences. [162] For example, between "You should rise up and praise them: it is them" and "(who are undernourished, half-naked, struggling at the border of death)," the poet adds "this is an exceptional Road, these are exceptional people." The original two lines that end the poem, which reads "Yet the Road, it cannot stop. It has to go, has to go./ The entire nation is waiting, for the Road to shoulder its weight" (可是它，不能停，還要走，還要走, /整個民族在等待，需要它的負載) are now changed into "Yet the Road, is not permitted to stop, for it is a glorious epoch, / The entire nation is waiting, for the Road to shoulder its weight" (可是它，不許停， 這是光榮的時代/整個民族在等待，需要它的負載). The agonizing historical reality that compels the Road to carry out its mission is reframed into a glorified higher calling for the Road to answer. Yi Bin laments that Du's sharp observation of the suffering and exploitations taking place on the Road is subordinated to the sublime discourse of nationalism. What Yi does not mention, however, is that the anthologies comprising the revised version of the poem were all published in the 1990s. The temporal distance probably also adds to the expansion of Du's aerial vision and tints it with his nostalgia for the turbulent age.

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[162] Yi, Bin 易彬. "Dianmian gonglu jiqi wenxue xiangxiang" 滇緬公路及其文學想象 [The Burma Road and its Literary Evocation]. *Zhongguo xiandai wenxue yanjiu* 中國現代文學研究. Issue 4, 2007, 228.

Yuan Kejia (袁可嘉), a contemporaneous poetry critic and Du's classmate, attributes the aerial perspective in this poem to the influence of Anglo-American modernist poets, particularly the filmic techniques they often adopt. Du's bird's-eye-view images of the Burma Road and its mountainous environment reminds Yuan of W.H. Auden's lines from the play *The Dog beneath the Skin*: "The Summer holds: upon its glittering lake/ Lie Europe and the islands; many rivers / Wrinkling its surface like a ploughman's palm." [163] Here the aerial perspective allows both poets the flexibility of shifting between different scales of vision while exploring the connections and fissures between geographical, territorial and existential conceptualizations of one's situation in a nation state and in the world.

Besides this modernist genealogy, Du Yunxie's employment of an aerial perspective could be related to his personal experience of the air as well. Du wrote "The Burma Road" while he was serving as an interpreter for the American Volunteer Group (AVG) of the Republic of China Air Force, or the "flying tigers." He was selected for this job in September 1941. In 1942, the same year when Du published "The Burma Road," he also started working on a poem series called "Newsletters from the Airport," (機場通訊) which was published in *Ta Kung Pao* in the following year. The airport in the title refers to the Wujiaba Military Airport, one of the oldest airports in China that had become the base for the "flying tigers" in 1941. Reminiscent of the theme and structure of "The Burma Road," the poem "Building a Runaway" (筑跑道) from the airport series recounts how the earth literally gives way to the air. Farmers in Yunnan not only gave away their fields to build the airport but also participated in its construction. Their sacrifice is translated into a healing power for the nation: "It is their locally-made/shovels, and baskets, that have cured the nation’s scar/ the bright future of the human has been guaranteed.” (就是這樣土製的/鋤頭，土箕，已使民族的傷痕/癒合，人類的光明得到保障) [164] “The First Flight” (第一次飛), another poem from the same series, on the other hand, reveals the lure and lurking danger of the aerial perspective that the poet experiences as he takes his first flight. The speaker of the poem realizes that seeing from above in the sky, everything on the ground looks equally nice but vague: “Cunning and unaffected people all look the same, just like beans” (狡猾與質樸的人都一樣/如豆).[165] As the speaker returns to the ground, he finds the surroundings strange and alienated as if he were born into the world once again. Reentering the world after landing from the sky, the speaker feels the need to embrace the world on the ground even after the disorientation of the suddenly shortened distance. The poem about his first flight nevertheless ends with a line of uncertainty: “occupation, can be a loss in reality” (佔有，實在失落). [166] The perception and knowledge acquired from an aerial perspective is thus deemed insufficient and therefore can be challenged by an earthbound experience through contacts with real people and concrete environments.

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[163] Yuan, Kejia 袁可嘉. "Xifang xiandaipaishi yu jiuye shiren" 西方現代派詩與九葉詩人[Western Modernist Poetry and the "Nine Leaves" Poets]. Chen Guangwei ed. *Waiguo wenxue yijie yanjiu ziliao* 外國文學譯介研究資料. Nanchang: Baihuazhou wenyi chubanshe, 2018, 200.

From “The Burma Road” to “Newsletters from the Airport,” Du Yunxie seems to be developing his own “poetics of infrastructure” for an age of crisis, in which he contemplates on infrastructures’ practical necessity, symbolic implications, social and cultural promises, as well as the planned violence involved in their construction and operation. Zhu Ziqing, in his “Poetry and State Building,” (詩與建國) acutely notices the potential of Du’s “poetics of infrastructure.” Zhu refers to “The Burma Road” a rare “Modern Epic” (English in the original). According to him, the major goal of state building is “modernization, namely, industrialization.” [167] Therefore, responding to the historical imperative, poets should produce more odes to infrastructures such as railways and highways, which can be seen as the new “heroes” in modern epics. More than praising the road builders, Zhu suggests, Du Yunxie should have spent more length on praising the Burma Road, “the true hero” in a modern time of crisis. He even suggests that the poet should change the phrase “it cannot stop” in the last two lines of the poem to “it is not permitted to stop,” so that the reader would not misunderstand the true subject of the poem – the epic time for state building. As cited above, Du eventually took Zhu Ziqing’s suggestion when he revised the poem a few decades later.

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[164] Du, Yunxie 杜運燮. Li, Guangrong 李光榮 ed. “Jichang tongxun” 機場通訊 [Newsletters from the Airport]. Xiandai zhongguo wenhua yu wenxue 現代中國文化與文學. August, 2018, 160.
[165] Ibid, 162.
[166] Ibid. 163.

Zhu’s vision of a “modern epic” on infrastructures contributing to the modernization of the nation state is in fact closer to “poetry as infrastructure” if we borrow Luo Jingyu’s idea of “cinema as infrastructure,” which is touched upon in the previous section. “The Burma Road,” as well as Du’s poem series on the airport, however, generates a more complex “poetics of infrastructure,” more complex than “poetry as infrastructure” that transmits gospels of modernization and development. Instead of maintaining an aerial perspective that potentially equates those who labor and suffer and those who exploit and enjoy, as differentiated in “The Burma Road,” Du Yunxie, returning from his “first flight,” was determined to embrace all the heterogeneities that refuse to be subsumed into a linear and triumphant narrative promised by the Road.

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[167] Zhu, Ziqing 朱自清. “Shi yu jianguo” 詩與建國 [Poetry and State Building]. *Xinshi zahua* 新詩雜話. (Beijing: shenghuo dushu xinzhi sanlian shudian, 1984), 44.

III. Earthbound Perspective and More-than-Human Networks: Tan Pei-ying and *The Building of the Burma Road*

What is on the ground then, that one risks getting lost once entering and risks missing when attempting to occupy as Du writes at the end of “The First Flight”? *The Building of the Burma Road,* a memoir by Tan Pei-ying (譚伯英), the managing director of the Yunnan-Burma Highway Engineering Administration of the Ministry of Communications, offers a glimpse of the complexity of the human and non-human ecologies that emerges in process of the Road’s construction and operation. The memoir, first published in 1945, is written in English while the author was stationed in New York as a Nationalist government attaché at the Logistical Supplies Committee.

Tan attributes *The Building of the Burma Road* to his “colleagues and workers who gave their lives in building and maintaining the Burma Road.” However, a chapter from this memoir, titled “The People Who Built the Road,” opens not with a description of the people but an examination of the stone and earth removed for the building of the road:

> “For the entire distance of 600 miles from Kunming to Wanting, in a strip 23 feet wide and varying from 7 to I0 inches in depth, depending on the condition of the ground, the Burma Road was laid with crushed stones. All the stones were either broken down from boulders or blasted from the hillside and cut to specified sizes, big ones for the foundation, then a layer of small ones, and finally a top layer of 1-inch stones for the wearing course, constituting the so-called ‘water-bound macadam.’ The earth removed totaled 36,000,000 cubic yards, and the amount of rock cut was 3,860,000 yards.” [168]

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[168] Tan, Pei-ying. *The Building of the Burma Road*. New York, London: Whittlesey house, McGraw-Hill book company, inc. 1945, 37

If from an aerial perspective as in *Long Live the Nation*, the stones and earth are something to be conquered, or serve as a metaphor for the arduous and self-sacrificing laborers, in Tan's earthbound accounts, they are concrete and often an overwhelming presence in the workers' everyday life. Without modern equipment, workers had to drill, blast, carry, pile up and tamp down stones and earth with indigenous and often tedious methods. The workers' daily interactions with stones and earth also shape the rhythm of their life and even develops a language that denotes the integrated and synchronized movements of the human and nonhuman. In order to tamp down the loose earth and stones to a suitable firmness, for example, the workers develop a method called "hang" (夯): "The top and bottom are full sections of round timber, but they are joined together by four strips by which the two men who operate it can get a solid hand grasp. The two men on the same 'hang' must of necessity be from the same district, for this work, too, is synchronized by singing. First one sings, then the other-little, simple phrases, spurring each other on, something like this: 'work hard [hang] ... Grit your teeth [hang] ... Pull now [hang] ... Fear nothing [hang] …'" [169] "Hang" here refers to their two-man working unit, the instrument they use, the sound they make when hitting the earth, and part of their labor cadence.

The expedient methods they employed, however, can be hazardous. According to Tan, "there were many horrifying accidents in which workers who were unable to get out of the way of these rollers were flattened to death. This also occasionally happened to the little children who delighted in running downhill ahead of the great unleashed beasts; for, childlike, they like to play while working." [170] The tool that is supposed to make the future may as well kill the children who embody the future.

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[169] Ibid, 52.
[170] Ibid, 11.

The impact exerted on the mountain rocks by the road building project also raises the risk of landslides, a threat that all engineers, workers, and drivers were exposed to. Sometimes it takes place silently: "the fragments [of stones] falling down from hundreds of feet above were as deadly as snipers' bullets. No one knew when or where to look for them. They struck silently, and sometimes fatally, right out of the air." [171] Sometimes the danger of shaken and fractured rocks takes another form. For example, a tree with its roots in already fractured rocks could fall upon a truck passing by, whose vibrations give the final strike to its roots, and end up killing the driver.

Besides stones and earth that constitute the material environments and threats in the workers' life, Tan also delineates a larger and even darker ecology with incessant rain, unbearable heat, and fatal threats of malaria carried by mosquitoes, which has both physical and affective impacts on the road builders. For example, Tan goes in details to describe the "miasmic vapors hovering over the jungles and the swamps, strangely colored in the hot sunshine between rains", which by its sight is enough to fill the heart with dread. [172] Although the vapors themselves are not necessarily poisonous, they often appear at the time when the malaria-poisoned mosquitoes are most active, and therefore evoke the association with the disease. According to the author, there was no way of knowing whether a person had been bitten by an infected mosquito. The disease often hits rapidly and hard, spreading an infectious fear among all engineers and workers. "Those were trying times. We never knew who would be the next to go, whether a cold was really a cold or some manifestation of fatal malaria. …. No matter how anxious we were to get on with the work, we always took the time for a simple ceremony for those who had died far from their homes." [173] Death is equal to all and peculiarly forms a bond among the engineers and workers.

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[171] Ibid, 88.

[172] Ibid, 74.

Some deaths are accountable, some are not. At the beginning of the memoir, Tan recalls the inexplicable death of an Indian driver. The driver "came down the gorge of the Salween for the first time. He was in no trouble, but he suddenly cried out in terror at the sight and sound, completely lost control, and plunged over the cliff to his death. I came along right afterward. It took me several minutes to see anything at all. At last I detected the shattered frame that was all that was left of his truck. It looked about as big as a child's toy dog." [174] In this memoir, Tan often gives disturbingly accurate descriptions to deaths like this. They are often incomprehensible, grotesque and dreadful, and more importantly, difficult to be perceived as a narrative of inevitable individual sacrifices for a collective agenda.

In a later chapter, Tan further elaborates on the "eerie spell" of the gorge of the Salween that has emerged in this episode. The affective influence of the gorge is "so intangible as to elude analysis but so real it fills one with an uncontrollable impulse to leap from the cliffs into the swift waters." [175] He remembers standing on the banks of the Salween and could scarcely been able to resist the desire to hurl himself to destruction. He finds that the "spell" affects other workers as well. Although he finds the cause of such phenomenon elusive, Tan still attempts to offer a rational explanation for the mechanism of this impulse of self-destruction when faced with the gorge. What he manages to deliver, however, is closer to a poetic evocation of rich sensory experiences and delicate psychological reactions:

> The spell of the Salween is compounded of sight and sound and atmosphere. Strangest of all is the sound. The roar of the river in itself grates on the nerves. It comes not in a

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[173] Ibid, 77.
[174] Ibid, 17.
[175] Ibid, 105.

> soothing monotone like Niagara Falls; but, owing to the bends and turns and the unevenness of the river bed, it rises and drops, ever changing in tempo and intensity, until it resembles the threatening snarl of some aroused beast…At the same time, because of some curious acoustical quality of the gorge, one can hear from far away the tiniest sound, a bird singing in a distant treetop, or the snapping of a twig. By the time those noises reach the ear, they have been magnified out of all proportion and are no longer familiar, comforting, and natural but have been transmuted into such unnatural echoes that one grows tense, with all senses alert, feeling the impulse to cry out, "Listen! What was that?" [176]

Instead of seeing the challenging environment as something to conquer and transform, Tan recognizes how small and humble human beings are: "Whether a man believes in God or not, in such surroundings he cannot help coming to full realization of the overpowering mystery and magnificence of nature." [177] Such recognition also draws Tan's attention to non-human labor involved in the building of the Road. He closely observes mules and horses in a caravan and the men who accompany but never ride these animals. The men leading the caravan develop a language or a "slightest grunt, unintelligible to a human being" to communicate with their non-human coworkers.[178] Tan also writes about the pack animals who carry materials too heavy for humans to carry on rough and steep trails. He notes that "many of the poor animals, seasoned though they were, slipped and fell to their death. Accidents befell the men as well as the animals." [179] Animals, like humans, worked under challenging material conditions, exposed to uncertainties and threats lurking in the surrounding. The shared fragility of human and animal bodies becomes the basis for empathy.

The human and nonhuman ecologies that Tan engages with are entangled with a complex media ecology, which was developed in response to and embedded in military and ecological emergencies. The Burma Road is a media event, not only in the sense that it attracted media coverage, but also in the sense that it materially facilitates other forms of media and communications. In addition to building the Road, the Burma Road Administration was charged with transporting equipment for telegraph and telephone lines, as well as the fuel for Diesel-powered radio stations, expanding a media network as the Road was extended. Moreover, the road building project was itself sustained by a media system, including "interdepartmental telephones throughout the building, and a system of radiogram and radio-telephone communication by which the administrative staff was able to maintain the closest contact with section engineers at even the most isolated points on the Road." [180] These devices enable the engineers at the headquarter to respond to emergencies timely.

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[176] Ibid, 106.
[177] Ibid, 107.
[178] Ibid, 27.
[179] Ibid, 109.

For instance, the engineering administration was asked to establish an air raid alarm system in Xiaguan. They had erected a radio station for the purpose, but still needed to work out an alarm signal. They had compressed air and electricity, but no powerful siren. They first hanged different numbers of large black bamboo balls from a flagpole to indicate the distance of the approaching Japanese planes, which was a method used in the provisional wartime capital of Chongqing. But they soon realized that the people in Yunnan were not used to paying attention to such signals. The engineers then turned to an antiquated cannon in the town as the signal. The howling gales in Xiaguan, however, reduced the transmission of sound and it took too long to reload the cannon in between explosions. After failing to obtain more effective shot guns, they had to settle with the old cannons and acquired more. This compromised method nevertheless saved hundred of lives in Xiaguan when a flight of twenty-one bombers blasted in the town.[181]

Due to logistical limitations, engineer and workers often had to improvise with local resources and indigenous methods, which bring modern media devices and local people into an interconnected network. When a landslide struck, an alarm system would notify the engineers at headquarters. The real challenge, however, was to enlist a crew of villagers to help remove the landslide. Landslides often took place on rainy nights when the villagers often had to watch and repair the dams they build for their fields. The engineers had considered using a bronze gong and thumping on five-gallon tins to summon potential laborers in the middle of night, but eventually decided on employing a number of whistles used by air raid wardens. "Whenever a landslide struck, our engineers went out to the villages and hamlets nearest the Road, accompanied by the magistrate or village chief. Then the engineer would blow his whistle, and the magistrate or chief would sing out, 'How many workers from this village? How many from this village?'" [182] Human voices thus became an extension of the locally devised alarm system, whereas human bodies are connected into the infrastructures for emergency.

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[180] Ibid, 20.
[181] Ibid, 66.

In Tan's earthbound accounts, stones, earth, wind, human and non-human bodies are intertwined with each other, the expertise of engineers from the political center coordinates with contingent and improvised local practices on the frontier, spontaneous actions negotiate with planned violence embedded in engineered operations, which constitute interconnected and dynamic media, social, and environmental ecologies.

Despite the thickness of Tan's description, however, the memoir in general still follows a triumphant narrative of development and enlightenment. Tan believes that while minority ethnic groups made their contribution to the building of the Road, the road building project also brought modern ideas such as democracy and equality to them. "The building of the Road thus became more than an engineering achievement. Here was a human laboratory, demonstrating that, through methods of honesty and fair dealing, the constricting traditions and prejudices of thousands of years' standing can be dissipated almost overnight and a firm foundation laid for future social as well as technological progress." [183] The disturbing phrasing of "human laboratory" resonates with the transformative story that has been told by the documentary *Long Live the Nation*. After all, the memoir is written for an American audience, aiming to present an image of China with diligent and united citizens inclined towards democracy and on a promising track of modernization. China is thus presented as an exotic place with cultural diversity but also as an identifiable collective ally. The tension between these two images of China is most salient when Tan alternates between two terms when referring to the ethnic minorities in Yunnan, "border races" and "Chinese people." He tends to use the former as he selectively delineates the characteristics of each ethnic minority group, in order to differentiate one from another and from the Han narrator himself. When emphasizing the unity and collaboration among different ethnic groups or celebrating the resilience of all the workers, however, he often groups them under the monolithic umbrella of "Chinese people."

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[182] Ibid, 90.

These two terms therefore allow Tan to oscillate between exoticizing ethnographic observations and evocations of an imagined community. The intricate politics of othering and identification manifested in Tan's memoir becomes even more complicated in Pearl S. Buck's story "The Face of Gold," which has been touched upon at the beginning of the chapter and will be further explored in next section.

IV. The Faces in the Dark: Encountering the Others on the Road

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[183] Ibid, 86.

The plot of "The Face of Gold" also involves a narrative of transformation, but the transformation takes place in a privileged white man rather than the indigenous people. Before the protagonist Timothy Stayne sets out for his journey, the Burma Road "stung his imagination, but his thought led nowhere yet." [184] He observes the "growing" of the Burma Road from afar:

> "The new road now swept over the countryside like the wake of a storm, missing [Dali] by a few miles. People had never seen such a road. It grew leagues, or so it seemed, in a few days. Actually there were thousands of small dust-colored creatures who worked upon it like mites, ragged men and women without machinery. Their hoes and little baskets on bamboo poles were no more than toys, but somehow they pushed the road open before them steadily and swiftly. It was finished enough, indeed, for trucks." [185]

His perspective here resembles an "aerial" one as seen in journalistic photographs, which highlights the impressive scale of the project while condescendingly perceiving the road builders with primitive tools as "small dust-colored creatures" of a mite's size. It is not until Stayne sets his own feet onto the Road that he truly experiences what those "small dust-colored creatures" experience and acquires an earthbound perspective: "The dancing torrid heat clung like slime about his body. He saw or thought he saw snakes hanging from trees, snakes crawling under his feet, snakes writhing around rocks. But if there had not been so many snakes, he would have had to sleep even though he remembered that sleep was death… The air was solid. It packed itself about them, wet, immobile. He had to force his way as though he were walking through water."[186] Like the road builders, he is threatened by the fatal disease of malaria. He starts to grow empathy for the road builders for their mortal sufferings are equal.

However, the most striking and transformative encounter for him takes place over a bog in the middle of the road, which has interrupted his journey. Stayne is warned by his Chinese friends that a group of women bandits, who the villagers refer to as “The Women,” will be attacking the inn he stays in. Stayne finds the warning ridiculous. Eager to prove his white masculinity to the cowardly Chinese men, he goes out to confront the “bandits” only to realize their true identities as the secret road builders. Buck stages their encounter in an alienating and threatening environment, replete with sensual details:

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[184] Buck, Pearl S. "The Face of Gold." *The Saturday Evening Post*, August 24, 1940, 16.
[185] Ibid, 50.
[186] Ibid.

> Tim, crouching in that jungle midnight which is so full of evil noise, felt his skin stir and his hairs move. In the moonlight he saw at last people, gathering at the further edge of the bog. He saw a moving darkness broken by wavering and flickering light. He watched until it seemed to him the bog was half full of people.
>
> They drew together in a black mass, and he felt them there waiting. But he went on, dragging one leg and then the other out of the sucking black mud.
>
> When he drew near enough to speak, he stopped; then he lifted his flashlight. The circle of its light framed The Face, a strong, handsome face. It was the face of a woman! He played the light upon one face after another. They were women, all of them.
>
> He brought the light back to the one in the front. He studied her face again- granite, smooth, the great eyes black as onyx, comprehending nothing or everything, he could not tell which.
>
> She had no gun, no weapon indeed of any kind, for in her hands was a farm hoe.
>
> And then he saw what they were doing. They were working on the road, the road which had felled so many men. They had come for this and for nothing else. He stood watching them, their strong, oxlike figures moving steadily, swiftly.[187]

As a result of their arduous efforts, “the bog which has swallowed into itself the bodies of so many men grew within a few days to a strong belt of firm land. Stone was thrown into its depths, rocks and boulders crushed and smoothed over stone, and earth beaten into that.” [188] Rather than observing the Chinese women from a distance as he used to do while living in the town, here Stayne has an opportunity to scrutinize their faces. This face-to-face encounter generates an ethical bond. Instead of “gentle and childlike” creatures, they become his “strong and handsome” saviors. However, the otherness of these women remains. Stayne finds them “oxlike” even as he admires their movements. His perception of their eyes is especially telling.

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[187] Ibid, 52-53.

[188] Ibid, 53.

For him, the women's eyes are "black as onyx, comprehending nothing or everything." It is striking how towards the end of the story Buck employs exactly the same phrasing when describing the statue of Buddha in the temple Stayne lives in: "Surely the golden eyelids lifted and surely the onyx eyes gazed at him, comprehending nothing or everything, he could not tell which."[189] When first introducing the powerful and inscrutable presence of the Buddha, Buck also notes that the statue is created by an almost miraculous chance encounter between yellow clay and the skilled hands of a sculpting master: "Buddha was made of yellow [Dali] clay covered with gold leaf. That the huge statue was so beautiful was merely the chance of the yellow clay having fallen to the hands of an unknown great sculptor instead of to an ordinary idol maker."[190] When these observations and contemplations of the women and the Buddha are juxtaposed, it seems that the women, the Buddha, and earth become one, all exerting an overwhelming primitive force beyond the protagonist's comprehension. The title of "The Face of Gold" thus also refers to the face of each one of these women. "The Women" are hence depicted as both godlike and oxlike, both transcendental and earthbound, a combination of the superhuman, human, and nonhuman.

Unlike her earlier and more successful works with Chinese protagonists, in "The Face of Gold," Buck made a seemingly jarring decision to place a white man at the center of the story and give him the most character development within the short length of the story, while assigning the role of true heroines to anonymous Chinese women who demonstrated a mixture of divinity and animality. One may easily dismiss this legendary story as yet another case of American orientalism in which the image of China is feminized and mystified. As Karen Leong cautions, such narrative may contribute to a "Chinese mystique," "a romanticized, progressive, and highly gendered image of China."[191] However, before rushing to a judgment, it is worth keeping in mind that the story of Chinese women fixing the Burma Road at night is not simply an exotic fabrication but is indeed based on historical reality.

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[189] Ibid, 53.
[190] Ibid, 16.

In Tan Pei-ying's memoir, for example, it is recorded that the ethnic Yi (Luoluo) women who participated in building the Burma Road preferred to work at night. His description of the Yi women is strikingly reminiscent of the strong and handsome "Women" in Buck's story:

> "The [Luoluo] women are very strong. They are short and stocky and so sturdily built that any one of them could easily lift a 150-pound rock by means of a thong across the forehead. Making a fetish of cleanliness, they wore snowy white singlets with beautiful native embroidery on the sleeves and collars. All of them also wore elaborately wrought native jewelry trimmed with silver. No matter how thick the mud and muck in which they had worked, they would always appear next time spotlessly clean.
>
> They preferred to work on the Road at night, for in the daytime they had to be at home looking after their households. It was a beautiful sight to see them toiling in the moonlight in their clean white clothes, singing their old traditional songs as they worked. These were mostly nature songs, verses to the sun, the moon, and the river; but they sang some simple little love songs, too."[192]

Tan is no less struck by the seemingly miraculous power of these women than the protagonist of Buck's story. In his account, one can equally discern an exoticizing and fetishizing view of women from minority ethnic groups. While admiring their capability, Tan casts a curious gaze on the Yi women's "fetish of cleanliness." Their labor is thus turned into an enjoyable spectacle. Tan also adds an ethnographical note on the folk songs these women sing, emphasizing their closer affinity with the nature as Buck does. Both of Tan and Buck foreground women laborers, who are invisible in the masculine construction scenes in Zheng Junli's *Long Live the Nation*. While Tan turns the Yi women into objects of ethnographical knowledge, Buck acknowledges that Stayne and “the Women” only have limited knowledge and understanding of each other. From the strange face-to-face encounter, in which faces are scrutinized and gazes are exchanged, derives a sense of ethical responsibility that motivates Stayne’s following action.

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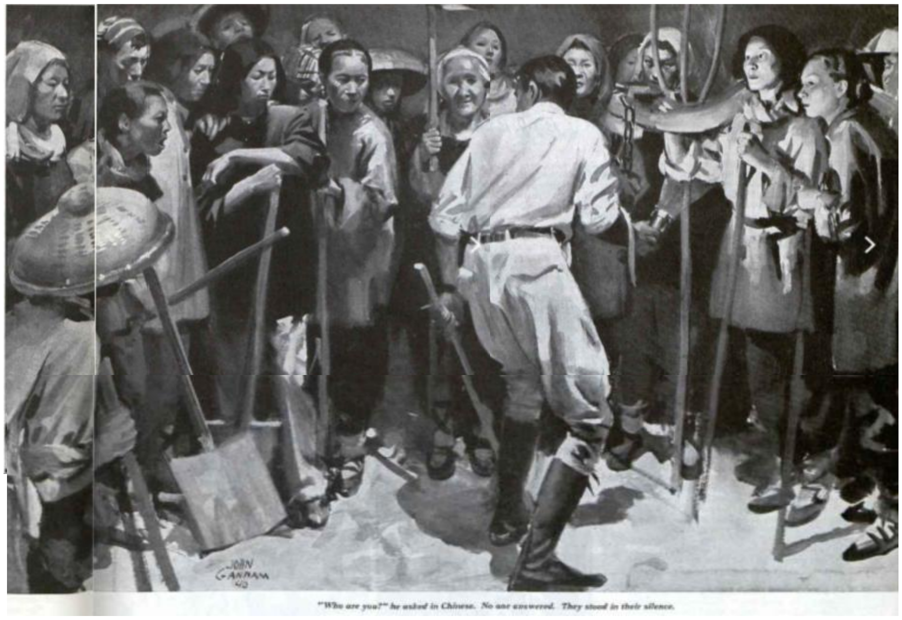
[191] Leong, Karen J. *The China Mystique: Pearl S. Buck, Anna May Wong, Mayling Soong, and the Transformation of American Orientalism*. Berkeley: University of California Press, 2005, 1.

[192] Tan, 57.

When the story was published in *The Saturday Evening Post*, the illustrator John Gannam finds the encounter scene crucial and hence attributes the largest piece of illustration to it. (Fig. 20) In this illustration, Gannam delineates each of the women’s faces, thus giving them individualities they do not enjoy in the story. “The Women” are looking at Stayne with hope and concerns. The reader can only see the back of Stayne, who is placed at the center of the illustration, and hence naturally takes his position as being observed by the women. It is later revealed in the story that “the Women” had learned the purpose of Stayne’s journey beforehand and came to his rescue with the hope that he could bring back arms for defense. The desire to know and a trust that is still being established are therefore reciprocal.



“Who are you?” he asked in Chinese. No one answered. They stood in their silence.

Fig. 20 John Gannam’s illustration of the encounter scene in “The Face of Gold,” *The Saturday Evening Post*, August 24, 1940, 51.

To understand the complex implications of the story, one needs to look into the publishing context of *The Saturday Evening Post*, a very popular commercial magazine whose circulation had reached 3 million in the 1930s. [193] According to New York Times, this magazine "probably had more influence on the cultural life of America than any other," by appealing to the public with its "values of ordinary men—cozy domesticity, a sense of humor, a belief in decency and common sense, a faith in free enterprise." [194] To achieve this comfortably average effect, "potentially disruptive cultural and social differences" must be smoothed over. [195] In other words, this magazine can be seen as a product and a tastemaker of American bourgeois cultural lifestyle, sustained by capitalism and rising nationalism at the time. Stories published in the magazine were expected to conform to its conservative values. As Benjamin Stolberg states in his "Portrait of George Horace Lorimer" in 1930, "the stories in the *Post* are at bottom really grown-up bedtime stories, putting to sleep the critical faculties": "Analysis of conventional values is never skeptical. Real criticism is taboo. Good, clean hope springs eternal and is never polluted by despair. The perennial trinity of goodness, truth and beauty is never at grips with tragedy."[196]

In this context, Buck's story can be considered rather subversive. "Hope" is offered in the story, but not "good, clean hope" as Stolberg describes, but a fragile one built upon Chinese characters' lasting arduous ordeal, a white man's newly discovered conscience and "good fortune" as a guilty inheritor, and finally the incredible power of "the Women." It is clear that the victory achieved at the end of the story is of a very limited scale. Suffering and treks of the characters still weigh over their stroke of luck.

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[193] Stolberg, Benjamin "Merchant in Letters: Portrait of George Horace Lorimer," *Outlook and Independent,* May 21, 1930, 88.
[194] Greenhill, Jennifer A. "The View from Outside: Rockwell and Race in 1950," *American Art* 21, no. 2, Summer 2007, 75.
[195] Ibid.
[196] Stolberg, 87.

As Peter Conn, Pearl Buck's biography writer, points out, the story can be read as Buck's poignant protest against the "bloodstained profiteering of American industrialists."[197] By the time when the story was published, Buck had on various occasions critiqued the U.S hypocritical "neutral" attitude towards the Sino-Japanese War and argued that the American supplies indeed made the U.S complicit with the Japanese aggression. Instead of offering a soothing narrative, "The Face of Gold" unsettles its American readers and questions their comfortable non-action. It takes moral courage and ethical imagination for Buck to produce such a story. Peter Conn describes Buck's situation at the time when she wrote the story as "ideologically homeless": "She was rejected by the left because of her anti-communism and her distance from the left-wing cultural circles. At the same time, she was abandoned by the right because of her unfashionable proletarian sympathies and her tireless advocacy of civil rights for women and African Americans. Finally, at the moment of intense American nationalism Pearl quixotically embraced an international point of view." [198] Therefore "The Face of Gold" can be seen as her attempt to negotiate between her critical view of American foreign policy and a comparatively conservative readership.

In the story, the guilt of America's complicity is partially redeemed through an ironic poetic justice. The protagonist Stayne's father is an American munitions merchant who sells weapons to the Japanese and indirectly facilitates their atrocities in China. Troubled by a sense of guilt, Stayne uses the profits his father has made from arms trade with Japan to support the Chinese guerrilla's resistant efforts. It is suggested in the story that this karmic circle of transaction will continue to exist as long as the U.S keeps its suspicious "neutral" stance. The complicity between imperialism and capitalism at the root of the struggle of Chinese people, however, remains unquestioned in the story. The protagonist has to transform himself into a guerrilla within the capitalist system in order to achieve a modest subversion. A similar issue has been identified in her earlier and more famous work *The Good Earth,* which, according to its contemporaneous leftist Hu Feng, elides structural problems of imperialism or landlordism by emploting accidental events as causes of crucial turning points in the novel. [199] Not structuring her narratives with typical power struggles, however, may allow Buck more flexibility to elaborate on the everyday details of peasants' life. As noted by the scholar Kang Liao, *The Good Earth,* published in 1931 before Mao Dun's countryside trilogy (1932–33), Wang Tongzhao's *Mountain Rain* (1933), Xiao Jun's *Village in August* (1935), and Xiao Hong's *The Field of Life and Death* (1935), was among the earliest novels, either in Chinese or English, that truly focus on the everyday lives of Chinese peasants. [200]

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[197] Conn, Peter. *Pearl S. Buck: A Cultural Biography*. Cambridge: Cambridge University Press, 1998, 223.
[198] Conn, 240.

According to Richard So, Pearl Buck identifies a tendency of "natural democracy" in Chinese people, manifested in "their devotion to kinship and rural life," which "modeled a proto-Jeffersonian, Oriental mode of social collectivity."[201] As clarified in So's later examination of the same concept, Buck "deprives the term [democracy] of its historical genealogy by making of it mere semantics, a word in search of a form. But she does so merely to create a commensurable space between American and Chinese conceptions of social equality and human freedom." [202]

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[199] Hu, 311.

[200] Liao, Kang. "China's Recent Realization: The Real Peasant Life Portrayed by Pearl S. Buck." Jay Cole and John R. Haddad ed. *Beyond* the Good Earth*: Transnational Perspectives on Pearl S. Buck*. West Virginia University Press, 2019, 130.

[201] So, Richard Jean. *Transpacific Community: America, China, and the Rise and Fall of a Cultural Network.* New York, NY : Columbia University Press, 2016, 87.

[202] So, 57.

This view of Chinese people in general and her fictional Chinese characters is both reductionist and strategic. Seen in this vein, “The Face of Gold,” written to evoke American audience’s sympathy with Chinese war efforts, can be understood as part of the cultural project to present Chinese people in a favorable light commensurable with American values. However, if we delve into the mechanism of empathy as provided by Buck’s fiction, the “natural” in “natural democracy” may not only denotes something essential in human nature, but can also refer to material and concrete connections between human beings and their natural environments. Pearl Buck delineates an intimate relation between the protagonist Wang Lung and his land throughout *The Good Earth*, which *“*paralleled a prominent concept in Depression America, that of returning to the land.” [203] Her detailed depiction of the characters’ sensory experience with elements such as earth, wind, and rain, further opens up possibilities for relatability.

Likewise, in “The Face of Gold,” “the Women” and the white protagonist are only momentarily equal at a time of crisis and situated in an alienating environment where they are all exposed to the danger of being engulfed by the bog or contracting the fatal disease of malaria. Although their encounter is facilitated by the Road, the embodiment of modernization and civilization, the encounter is not enabled by the Road’s connection but by its interruption. It is significant that the crucial scene of encounter takes place on an unfinished section of the road over a bog. Like the Road, the mutual understanding of the two parties is still in the making. When Stayne asks the women who they are in Chinese, they do not answer but stand in silence. The suspension and tension remain unsolved even to the end of the story. The Road in the making thus not only offers an uncertain promise of modernization and democracy, but also stages an earthbound encounter replete with potentiality for friendship and empathy.

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[203] Leong, 29.

When Stayne returns from the journey, leaving the hazardous ecology behind, however, he resumes the aerial perspective as described at the beginning of the story. As he gazes out over Dali, he finds it exactly as it had been for centuries, "except for the new road, flat and white beside it. Upon the road where shining sparks, weaving back and forth. They were cars and trucks of every sort. Tim watched them as each caught the sun for an instant and went on between the mountains, east and west." [204] The bustling view is reminiscent of Du Yunxie's poem. The road, now completed, becomes a facile symbol for the connection between the East and the West.

Like *The Good Earth,* "The Face of Gold" experienced a coeval readership in the U.S and China. Within three months of its first publication in *The Saturday Evening Post,* a Chinese translation by Zhao Zefeng appeared in *Chinese American Weekly Review*. In 1941, it was retranslated by Yizheng and published as a thin volume of book under the title "The Story of the Burma Road." As Richard So points out, the transmission of Buck's works, as well as her exchanges with her Chinese correspondents, were facilitated by a dynamic transpacific book infrastructure which had accelerated with the advent of telegraphy. [205] In the story, Stayne also needs to go to the telegraph office in order to contact his father, the embodiment of American capitalism and imperialism and the invisible villain in the story, who nevertheless funds the protagonist's egalitarian acts to support Chinese guerrillas. Buck pays special attention to Stayne's two trips to the telegraph office in the town and writes about his interaction with a clerk there who reads his cable out loud. The transaction or compromised redemption in the story, therefore, can only take place when the Road is connected to a larger transpacific network of telecommunication.

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[204] Buck, 53.
[205] So, 81.

The Burma Road in Buck's story is a road of rebellion and redemption, and a stage for strange encounters, encounters with threatening and alienating nonhuman environments and human beings of different races, ethnicities, and genders. The story about a subversively cosmopolitan American man and powerful Chinese women who save him from a predicament enables Buck to negotiate with the male-dominant institutions of power and resist discourses of absolute nationalism and racism rising in the U.S. The potential of connection across racial and gender boundaries contained in the encounter scene, however, has yet to be fully realized.

V. Conclusion: Ecological Poetics of Infrastructure

The Burma Road was constructed while being damaged by natural disasters, the enemy's air bombings, or painfully by the engineers and workers themselves for self-defense. Similarly, its functioning was interrupted and resumed along with ever shifting geopolitical situations. Like a resilient creature that went through environmental and human-caused uncertainties, the Road was constantly disturbed and reshaped by the wartime ecologies of crisis.

From journalistic photographs in *The Young Companion* to Zheng Junli's documentary *Long Live the Nation*, from Du Yunxie's modernist poem to Li Jiasheng's classical verse, from Tan Pei-ying's memoir to Pearl S. Buck's fiction story, the media representations of the Burma Road not only reveal a range of (in)visibilities involved in the building and operation of infrastructures, but also exemplify a range of perspectives to perceive the Road. Celebrated as an engineering miracle and spectacle from an aerial perspective, the Road, when observed and experienced from an earthbound perspective, proves to be embedded in complex social and environmental ecologies, and sustained by while sustaining itself a media ecology beyond Chinese borders.

To some extent, the Road can be seen as a “human laboratory” as termed by Tan Pei-ying, not in the sense of transforming ethnic others, but in terms of testing the boundary between human and nonhuman elements. Nonhuman elements shape human existence on the Road while human bodies literally become part of the infrastructure. Western-trained expertise and planned engineering had to negotiate with specific local conditions and from time to time yield to indigenous methods and spontaneous practices. The Road created connections as well as distinctions. Not all the bodies involved are bodies in alliance. While extreme ecological and geological conditions can make all human and nonhuman labor involved temporarily equal, hierarchies remain and become salient when heterogenous experiences are smoothed over and subsumed by homogenizing discourses of multi-ethnic unity and linear progress towards modernization and liberation.

It is noteworthy that Du Yunxie, Tan Pei-ying, and Pearl S. Buck, who provide earthbound accounts of the Road, all went through some sort of displacement as they composed their works. Du Yunxie was an overseas Malaysian student who served as an interpreter for the American Volunteer Group. Tan Pei-ying was working in the U.S as he recollected his life as a road engineer. Pearl S. Buck, who self-identifies as more Chinese than American, was experiencing intellectual and political isolation in the U.S as she wrote the story about the Burma Road. The Road, as somewhere in-between, offers promises of mobility, prosperity and freedom while allowing space for critical reflections on how the promises can be fulfilled and at what cost. Unlike the photographic journalists and Zheng Junli’s film crew, who worked with limited budgets and film supplies on the missions designated by magazines and the government, these writers enjoyed more temporal and geological distance and the liberty to explore what cannot be incorporated into the sublime narratives of enlightenment, development, and national defense.

Between aerial and earthbound perspectives, between the visual representations and the written prose and verse, the Road itself becomes an active character with concrete material characteristics beyond the capture of symbolic frameworks, and develops its own language with stones and earth, vapors and rains, plants and animals, telegraph and telephone lines and interconnected human bodies.

Chapter Four

Pigeon and Robot: The Promises and Perils of Posthuman Kinship

On February 6, 1932, the Sino-Japanese battle known as the Shanghai incident in Japan and the January twenty-eighth battle in China had lasted for more than a week. The gun fires and intermittent bombings were so fierce that the writer and Chinese cultural leader Lu Xun, according to his diary, had to bright his entire family to a branch of Uchiyama bookstore in the British Concession. On the same day, Nishimura Makoto (西村真琴), a Japanese biologist writer who had been sent to Shanghai as the leader of a humanitarian medical service team, was also walking through war-ruined city. As he passed the Three Fidelities Lane (三義里) in the Zhabei district, the main battleground of the combat, Nishimura spotted a startled pigeon in the ruins. He named the pigeon Sanyi (三義) and brought it with him as the medical service team operated in Qingdao and Dalian, and, through colonial Korea, eventually back to his home in Osaka. He kept Sanyi the Chinese pigeon with a Japanese partner, hoping that they could breed a hybrid pigeon as an embodiment of Sino-Japanese amity. In Osaka, Nishimura sometimes brought Sanyi to his lectures on the Shanghai Incident as a piece of living evidence and a silent witness to the brutality of the battle. Unfortunately, in the following year, the pigeon was killed by a marten before it could give birth to the symbol of international friendship. Saddened by its ominous death, Nishimura built a burial mound and erected a memorial stupa for the pigeon. He sent a letter to Lu Xun, the Chinese writer he admired, and shared the story of Sanyi the pigeon via a sketch and a poem. In return, Lu Xun wrote him back with a classical Chinese poem. The poem ends with a famous couplet, which is often cited by Chinese national leaders when commenting on international relations: “We remain brothers when the calamitous waves all abate, on reuniting, with one smile, we wash away the hate." (度盡劫波兄弟在，相逢一笑泯恩仇) The story behind the couplet, however, has been relegated to oblivion.[206]

How does the figure of the pigeon generate an imagination of wartime kinship between the two writers and between human and nonhuman beings? In this chapter, I will revisit the legacies of Nishimura Makoto, whose literary and media practices have not been fully explored in either Japanese or English scholarship. The nonhuman figures emerging from his works, I contend, demonstrate visions of posthuman kinship that can shed new lights on the entanglement between human and nonhuman actors in wartime China and beyond.

What is a posthuman kinship? The sound of "posthuman" can be misleading. If we associate the posthuman with contemporary buzz words such as biotechnology, artificial intelligence, and virtual reality, then evoking it in the context of 1930s China may sound anachronistic. However, "posthuman" is not a mark of time, rather it represents a mode of world-making. As Katherine Hayles argues, "the posthuman does not really mean the end of humanity. It signals instead the end of a certain conception of the human, a conception that may have applied to that fraction of humanity who had the wealth, power, and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice."[207] Such conception of humanity has underpinned a system of othering and discrimination, in which minoritized and marginalized communities are rendered less human while the nonhuman others are merely objects to be conquered and mastered. If we move beyond the anthropocentric and often Eurocentric visions of humanism, and instead reimagine the world in terms of assemblages of human and nonhuman actors, we may realize that we have always been posthuman. As for kinship, instead of something passively passed on through a patriarchal lineage, a "kinship" can be the result of "unexpected collaborations and combinations" between human and nonhuman critters as proposed by Donna Haraway or a mode of intimate yet breakable alliance as suggested by Judith Butler.[208] A posthuman kinship therefore is a network of border-crossing affinities that needs to be actively searched for and created outside of patriarchal lineages.

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[206] For a detailed account on this exchange, see Hatanaka, Keiichi. *Chikyū wa ningen dakeno mono dewa nai: Ekorojisuto nishimura makoto no shōgai* 地球は人間だけのものではない—エコロジスト西村真琴の生涯 [The Earth is not for people only: The life of ecologist Nishimura Makoto]. Nagoya: Yuipooto, 2008. 89-94

[207] Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. (Chicago: University of Chicago Press, 1999), 286.

In the rest of the chapter, I will tease out the manifestations and envisioning of posthuman kinship in literary and media texts revolving around the pigeon and its contrapuntal figure- the robot. I will begin with Nishimura's prewar scientific and literary forays, which explore the parallels and entanglements between human and nonhuman worlds and give rise to his posthuman poetics. These explorations led to Nishimura's most famous technological and media endeavor – the design of the first Japanese robot in the context of rising imperialism. In this design, I observe the imagination of a vertical posthuman kinship, based on a linear and progressive understanding of evolution, which also extended into his wartime childcare projects implemented in both wartime Japan and China. To further reflect on this "vertical kinship," I will introduce Lu Xun's ambivalent perception of evolution and reproduction to provide a relational comparison. Finally, I will return to Nishimura wartime poetry exchanges with Chinese writers on the topic of the dead pigeon, which will be placed in juxtaposition with the media history of war pigeons in China. I argue that these poems evoke a horizontal kinship based on affective experience of precarity and a "sympathetic pessimism." Situated at the intersection of histories of literature, science, and religion, this examination of the nonhuman figures of the pigeon and the robot will reveal the promises and perils of envisioning a posthuman kinship in the uneven power dynamics within a colonial world order.

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[208] Haraway, Donna Jeanne. *Staying with the Trouble: Making Kin in the Chthulucene*. (Durham: Duke University Press, 2016), 4. Butler, Judith. Lecture "Breaks in the Bond. Reflections on Kinship Trouble" at University College London, Department of Greek and Latin, 2017.

I. Marimo and the Pacific Ocean: The Poetics of Nonhuman Worlds

In 1909, after graduating from a normal school in Nagashima, Japan, Nishimura Makoto was appointed the headmaster of an elementary school in Liaoyang, South Manchuria in northeast China. He then became a biology professor at the Japanese-run South Manchuria Medical School in 1911. During his time in Manchuria, Nishimura conducted multiple botanical expeditions there and in Colonial Korea. He was then inspired to study botany abroad and found a chance to travel to the U.S. He started as a researcher for the American Natural History Museum in New York, and eventually acquired a Ph.D. degree in botany from Columbia University.

Our story begins when Nishimura returned to Japan and became a professor of Marine biology at the Hokkaido Imperial University in 1921. In the same year, the Marimo algae (毬藻), a rare species in Hokkaido was designated a "natural monument" (天然記念物).[209] In July 1922, Hirohito, the crown prince who later became the Showa emperor, came to visit Hokkaido Imperial University. Nishimura was commissioned by the university to collect samples of the Marimo algae balls in the Akan Lake in the deep mountains of Hokkaido and present them to the crown prince.[210] This expedition led to Nishimura's long-term obsession with the algae, which later earned him another Ph.D. degree from Tokyo Imperial University.

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[209] Nishimura, Makoto. *Midoriokoku* 緑王国 [The Green Kingdom]. (Kushiro: Fujita, 2017), 27.

[210] Hatanaka, 47.

Marimo algae are “large spherical colonies of live photosynthetic filaments, formed by rolling water currents in freshwater lakes. Photosynthesis therein produces gas bubbles that can attach to the Marimo, consequently changing its buoyancy. This property allows them to float in the presence of light and sink in its absence.”[211] These unique qualities of Marimo fascinated Nishimura. In an essay titled “The Green Kingdom” (緑の王国), Nishimura reminisces his first encounter with Marimo and refers to this expedition as “a tremendous cultivation of the cognitive realm.” (認識界の一大開拓)[212] It is noteworthy that the word “cultivation” or *kaitaku* is often used to describe the development of Japanese colonies and hence evokes the association with Japanese settler colonialism in Hokkaido. In this context, however, Nishimura found himself to be “cultivated” by the Marimo. He was intrigued not only by Marimo’s otherworldly look, but also its self-sustaining structure. Each Marimo algae ball is an assemblage of entangled filaments, consisting of numerous cells, which can survive on their own yet are interconnected for some unknown reason. This assemblage allows each part of it to develop evenly: every time when a Marimo ball emerges to the surface of water, its lightest side, namely the least developed side, will face the sun and acquire more nutrition.[213] In other words, each assemblage is a system of distinction without division. The “green kingdom” in the title can be referring to both the Marimo colony in the Akan Lake as well as to individual Marimo balls. In his biological research of the Marimo, Nishimura also took special interest in the self-sustainable filaments that constitute a Marimo ball. (Fig. 21)

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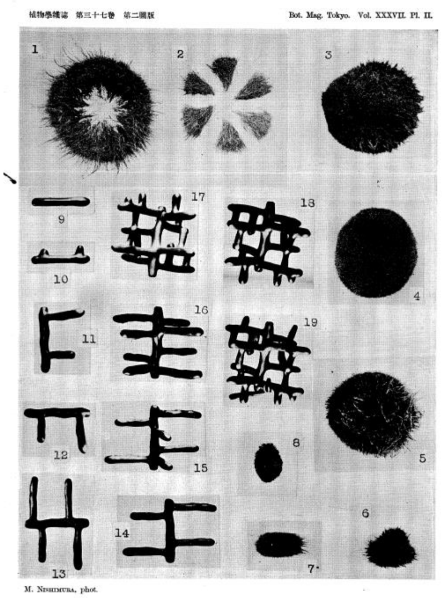
[211] Phillips, N., Draper, T. C., Mayne, R., & Adamatzky, “A Marimo Machines: Oscillators, Biosensors and Actuators.” *Journal of Biological Engineering*, 13(1), 2019, 72.

[212] Nishimura, Makoto. *Midoriokoku*, 29.

[213] Nishimura, Makoto. *Midoriokoku*, 62.


植物學雜誌　第三十七卷　第二圖版
Bot. Mag. Tokyo. Vol. XXXVII. Pl. II.
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M. Nishimura, phot.

Fig. 21. Nishimura Makoto 西村真琴's illustration of the filaments constituting a Marimo ball

The structure of the "green kingdom" lends itself to various political allegories. For example, Nishimura sees them as self-sufficient entities and compares the parasitic diatom attached to Marimo balls to the threat of invasive foreign culture to the "historical color" and "traditional characteristics" (歴史的色彩と伝統的特色) of a country.[214] In a different version of the essay, Nishimura blames the ""heartless bipod beasts" (心なき二脚獸), namely the human beings or more accurately the Japanese settlers, for contaminate the habitat of Marimo.[215]

Reading in this context, the comment on the diatom's threat to Marimo's prosperity can be read as an analogy of the living conditions of the indigenous Ainu people under the governance of Japanese settlers. Throughout the essay, Nishimura refers to the Wajin, his own people, as "Syamo," (倭人) which means "the neighbor" in the Ainu language, sometimes with a pejorative connotation when used to refer to Japanese settlers. He was self-aware as a stranger in this area and confesses in the essay his surprise and fear when he ran into the indigenous people for the first time.[216] During the expedition, he was introduced to Kumagoro, an Ainu guide who told him about the prevalent discontent with the Wajin. According to Kumagoro, the Wajin people came to reclaim the land that used to belong to the Ainu community and forced Japanese names on them for the convenience of governance. Due to the Wajin's reclamation activities, it became more and more difficult for the Ainu people to hunt and maintain their socio-cultural customs. The conversation between Nishimura and Kumagoro, however, was taken out when the essay was included in an official brochure introducing the Akan Lake area, edited in 1931 as an application for national park status. Unwittingly, Nishimura's expedition to the Akan Lake, which allowed him to hear to voice of the Ainu people for the first time, also contributed to the process of incorporating the area as a state property. Following this expedition, Nishimura held an exhibition of his paintings and donated the income from this event to the Ainu people. [217]

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[214] Nishimura, Makoto. *Midoriokoku*, 54
[215] Hatanaka, 51

Beyond the tension between the Wajin and Ainu, Nishimura's essay on his expedition to the Akan Lake also contains a cosmopolitan dimension. He was amazed at the fact that while Marimo only existed on a very small scale in Japan, the species can be found in distinct environments across the world, such as in the U.S, Switzerland, and Russia. It seems that the world defined by eco-systems is much more fluid than the world defined by national boundaries. He speculates that there must be a long history of the Marimo's transnational journey waiting to be uncovered.[218] During his expedition, Nishimura ran into two travelers from Switzerland and the U.S – two other countries where Marimo can be found. Both of them shared Nishimura's avid interest in the Marimo. This encounter, however, reminds Nishimura of his humiliating experience previously traveling in the Alps. On a bus with dominantly European travelers, Nishimura was asked to leave the vehicle for carrying a small package and was addressed by the Caucasian driver and other passengers as the “small Japanese.”[219] In a stark contrast to this humiliating experience, Nishimura’s interaction with the two Western travelers in the Akan mountains was lighthearted and egalitarian. Now it is the Japanese who owns the car, the emblem of modernity and power. Ironically, this symbolic vehicle broke down halfway, forcing all of them to take shelter in a cabin owned by the Ainu people, who offered them grilled millets and saved them from hunger. The hierarchies underpinned by the colonial world order, between the Westerners and the Japanese, between the Japanese and the indigenous people, are therefore temporarily but also lightheartedly subverted.

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[216] Nishimura, Makoto. *Midoriokoku*, 16.
[217] Hatanaka, 70.
[218] Nishimura, Makoto. *Midoriokoku*, 30.

This episode may explain why Nishimura refers to himself as “a neighbor.” Inspired by the distinction without division that he observed in the “green kingdom,” as well as by his interactions with Kumagoro and Western travelers on this expedition, Nishimura envisions an ethics of the neighbor, an ethics that celebrates sharing, affinity, and co-existence, a kinship beyond ethnic boundaries or even beyond the division between the human and non-human. Although Nishimura describes Ainu culture as “superstitious and uncivilized” (迷信である未開蒙昧), he attempts to see the world from their perspectives and subtly questions the power relations underpinned the binary of the “primitive” and the “civilized.”[220] His biological and poetic explorations of the nonhuman figure of the Marimo, therefore, demonstrate the ambiguity of his engagement with the human-nonhuman entanglement, which can be mobilized to support various ideological discourses, including ecocriticism, nationalist/imperialist propaganda, a subtle plead for indigenous autonomy, and a utopian cosmopolitanism.

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[219] Nishimura, Makoto. *Midoriokoku*, 39-42.
[220] Nishimura, Makoto. *Midoriokoku*, 50.

If "The Green Kingdom" already demonstrates Nishimura's reflection on the ecological impacts of modernization in Hokkaido, Nishimura's critique of modernity shows more of an edge in his science fiction essay "The Pacific Ocean Fifty Years Later" (五十年後の太平洋) This essay is his contribution to a thesis contest held by Osaka Mainichi Shimbu Newspaper in 1927, the prizes of which were sponsored trips to Europe, China, and the Japanese colonies.[221] Compared to other scientific and political theses submitted to the contest, Nishimura's piece is more lyrical in its tone. He himself describes the essay as an "dramatic apocalypse with acute sensation" (鋭い感覚の飛躍的表現のアポカリプス) inspired by German Expressionism. [222] According to Nishimura, he composed the piece in a primary forest in Hokkaido, imagining how the ancient trees would silently witness and judge the past and future of Japan. In other words, a dialogue between the human and nonhuman worlds take place in the composing of the essay from the beginning. This speculative essay then covers "the development of oceanology, international relations, military affairs, and religionists' enterprises," as well as their ecological consequences.[223]

The essay opens with a promising blueprint of the development of marine technology for more efficient fishing and farming under the sea, which would potentially provide food for all mankind. Though this topic is not surprising given his background as a marine biologist, Nishimura's attitude towards the exploration of the Pacific Ocean is nevertheless ambivalent. He imagines an advanced submarine for deep-sea investigation, which he compares to a dagger stubbing into the body of the ocean and a sinful man sinking in the *Avīci* hell. He foresees the disastrous consequence of overfishing and titles that section of the essay "The Ocean Wearing a Mourning Dress" (喪服を着けた海). [224] The essay reveals Nishimura's dark vision of environmental history tinted with determinism. While being critical of anthropocentric developmentalism and expansionism, he also pessimistically predicts that human beings would continue pursuing their material desire until conflicts, disasters, and the ultimate destruction inevitably take place.

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[221] See the introduction to Osaka Mainichi Shimbun ed. *Goju nen go no taiheiyo* 五十年後の太平洋 [The Pacific Ocean Fifty Years Later]. (Osaka: Osaka Mainichi Shimbun sha, 1927).
[222] Nishimura, Makoto. "Goju nen go no taiheiyo" 五十年後の太平洋 [The Pacific Ocean Fifty Years Later]. Osaka Mainichi Shimbun ed. *Goju nen go no taiheiyo.* (Osaka: Osaka Mainichi Shimbun sha, 1927), 612.
[223] Nishimura, "Goju nen go no taiheiyo," 613.

The tension between cosmopolitanism and racism in "The Green Kingdom" is further manifested in "The Pacific Ocean Fifty Years Later." Nishimura envisions a pan-pacific academia transcending national boundaries as well as a Pacific war between two races, the Anglo-Saxon white and the Asian "yellow."[225] He wishfully denies the possibility that Japan would practice an aggressive imperialism, and instead blames the imaginary war on the "Asianphobia" (恐亜病) of the Westerners, who he ironically refers to as the "White Peril." (白禍) This can be read as Nishimura's response to the Asian Exclusion Act released in 1924 in the U.S as well as to the racial hierarchy Nishimura personally experienced in both the U.S and Europe. Nishimura expresses how he envies fish and birds whose freedom would not be bounded by national boundaries, but he doubts human beings could transcend such man-made boundaries. [226] The trauma caused by the upcoming racial war and the lingering antagonism between the two races, he hopes, will be eventually dissolved through the cooperation between Christianity and Buddhism, which could cure the toxic human egoism. Towards the end of the essay, Nishimura compares the cosmos to a rolling wheel, under which even the most intelligent human beings could only play a humble role of clearing up the gravels beneath the wheel.[227]

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[224] Nishimura, "Goju nen go no taiheiyo," 620.
[225] Nishimura, "Goju nen go no taiheiyo," 629.
[226] Nishimura, "Goju nen go no taiheiyo," 626.

Buddhist references are prevalent in Nishimura's writings. His belief in evolution and suspicion of developmentalism resonates with other Japanese Buddhist biologists and ecologists who embrace impermanence and non-essentialism implied by the evolutionary theory while questioning its potential materialist reduction.[228] According to G. Clinton Godart, these evolutionary-minded ecologists and biologists "attempted to overcome reductionist interpretations of evolution, thereby reenchanting nature, i.e., reimagining nature not as a distant and cold place of matter and strife, but as one harboring meaning, goodness, and the divine." [229] In both "The Green Kingdom" and "The Pacific Ocean after 50 Years," Nishimura reenchant the nonhuman environments he encounters with lavish depictions, metaphors and a lyrical tone, aiming to evoke an ecology defined co-existence rather than "struggle for survival." He portrays the Pacific Ocean as a living body that constantly speaks to human beings on land, who fails to thoroughly grasp its messages. It seems that only through a poetic style, rather than a rigidly scientific discourse, could Nishimura reconnect and reverberate with the incomprehensible vocabulary of the ocean.

The Pacific Ocean has always been a popular site for scientific imagination in Japan. In "Has the Empire Sunk Yet?" Thomas Schnellbacher traces the changing image of the Pacific Ocean in Japanese science fiction from early twentieth century to the postwar era. According to him, the Pacific Ocean often functions as a vessel for anxieties over the (lost) territories and national identity. Due to Japan's victories in Russo-Japanese War and the first Sino-Japanese War, the Imperial Navy as a guarantor of Japan's national autonomy is often placed at the center of imaginations revolving around the Pacific Ocean. One exception Schnellbacher identifies is the post-war masterpiece *Inter Ice Age 4* (第四間氷期) by Abe Kobo, which is "reminiscent of works from a transnational socialist canon depicting a postnational and posthuman (though not postorganic) world."[230]

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[227] Nishimura, "Goju nen go no taiheiyo," 698.
[228] A genealogy of such ecologists, including Oka Asajiro and Minakata Kumagusu, can be found in G. Clinton Godart's *Darwin, the Dharma, and the Divine: Evolutionary Theory and Religion in Modern Japan,* University of Hawaii Press, 2017.
[229] Godart, *Darwin, the Dharma, and the Divine*, 117.

To some extent, Nishimura had foreseen Abe's postwar transnational or cosmopolitan visions and share his concern with environmental issues over geopolitics. Among all the competing theses selected and included in a collection published by the *Osaka Mainichi Shimbun*, Nishimura's is the only one that perceives the Pacific Ocean as a complex eco-system more than a contested territory for human beings. Resonating with Abe's imagination of genetically designed gilled children, Nishimura also evokes an undersea kingdom, whose residents "are not fish, but beings with pulses and hearts like us" (彼らは魚ではなくて、吾等と一緒に脈搏つ心臓の主であった).[231] It is not clear if the citizens in this kingdom belong to a new species. The narrator of this claims that he finds a book on the undersea kingdom, which is written in Esperanto, indicating the cosmopolitan promise embedded in the blueprint of this kingdom. This undersea kingdom in the Pacific Ocean may imply an alternative way to transcend geopolitical conflicts – through becoming animals.

Representing Nishimura's prewar scientific and literary forays, "The Green Kingdom" and "The Pacific Ocean Fifty Years Later" evoke nonhuman figures such as the Marimo algae and the Pacific Ocean, which not only challenge ethnic, national, and racial divisions but even blur the boundary between the human and nonhuman. Nishimura's prewar ruminations of the human and nonhuman worlds, wavering between the utopian and the apocalyptic, between scientific nationalism and cosmopolitanism, between faith in evolution and critique of developmentalism, prepare us to understand his design of the first Japanese robot in the context of rising imperialism. In this project, a posthuman kinship that had been implied in his prewar literary practices would be further articulated and elaborated.

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[230] Schnellbacher, Thomas."Has the Empire Sunk Yet? The Pacific in Japanese Science Fiction." Christopher Bolton, Istvan Csicsery-Ronay, Jr., Takayuki Tatsumi ed. *Robot Ghosts and Wired Dreams: Japanese Science Fiction from Origins to Anime*, (Minneapolis: University of Minnesota Press, 2007), 38.
[231] Nishimura, "Goju nen go no taiheiyo," 646.

II. Robot: Vertical Posthuman Kinship and Evolutionary Thinking

In 1928, Nishimura was commissioned by Osaka Mainichi Shimbun Newspaper to lead a team and design Japan's first robot for the Kyoto Grand Exposition in commemoration of the enthronement of Emperor Showa (大禮記念京都大博覽會). Nishimura named his creation "Gakutensoku" (学天則), or "learning from natural law," suggesting his ambition to blur the boundary between the mechanical and the biological. Following its invention, Gakutensoku was displayed in Hiroshima Showa Exposition (広島昭和博覧会) and Choson Grand Exposition (朝鮮大博覧会) in colonial Korea. It was also said to be taken to Manchuria, at the time semi-colonized by the Japanese, and was eventually lost on its way to Germany.

Gakutensoku wears a toga with a flower badge on his chest symbolizing the cosmos. Its right hand holds a signal arrow-shaped pen, which indicates creativity and the beginning of everything whereas its left hand holds an "inspiration torch." There is also a machine bird perching over its head. When the torch is lit, Gakutensoku would smile and start writing; when the bird sings, Gakutensoku would close its eyes, looking deep in thought. (Figure 22) This human-height torso is placed on a two-meter-high altar, which is inscribed with images constituting a biosphere. [232] (Fig. 23)

According to Nishimura, the design of Gakutensoku is a direct response to the popular image of the robot, and the mechanical materialist culture it embodied in Taisho-era Japan. The word “robot” and its Japanese counterparts only came into being in the early 1920s. In 1923, Czech playwright Karel Capek’s 1920 play, *R.U.R,* was translated into Japanese. Capek was the first person to refer to human-like androids as “robota,” which means labor in ancient Slavonic. Robots in Capek’s play work for human beings as industrial slaves. One day they realize that they have exceeded the power of their masters and start a revolution, which eventually leads to the extinction of mankind. *R.U.R* stirred a robot boom in Taisho Japan. It was especially well received by left-leaning avant-garde artists as an allegory of a proletarian revolution.[233]

As Capek’s play was translated into Japanese in the 1920s, two ways of translating the word “robot” emerged: one is “ロボット,” which is a transliteration, the other is “人造人間,” literally meaning artificial human. In Nishimura’s 1930 essay “The Life of the Artificial Human” (人造人間の生命) on his invention of Japan’s first robot, he deliberately uses the latter term. In this essay, he refers to the robot as “the grandchild of nature,” highlighting its kinship with the human- the child of nature. (人間を自然の子とすれば人造人間はその子の手によって産れ出でたもので自然からは孫というべきであろう)[234]

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[232] Nishimura explains the rationale behind the design of the robot in articles such as “Jinzō Ningen: Gakutensoku no umareru made 人造人間：学天則の生まれまで [Artificial Humans: Towards the Birth of Gakutensoku].” *Sunday Mainich* サンデー毎日, November 4. 1928; “Jinzo ningen no seimei” 人造人間の生命, *Daichi No Harawata* 大地のはらわた [The Belly of the Earth]. Tokyo: Tōeshoin, 1930, 568-578; and “Hyōjō jinzō ningen: Gakutensoku no sōsaku” 表情人造人間：学天則の創作 [Expressive artificial human: Building Gakutensoku].” Kagaku Chishki 科学知識 9, no. 6, 1931, 14–17.

[233] For the impact of *R.U.R* in Taisho Japan, see Nakamura, Miri. “Marking bodily differences: mechanized bodies in Hirabayashi Hatsunosuke's ‘Robot’ and early Showa robot literature,” *Japan Forum*, 19:2, 2007, 172-173.

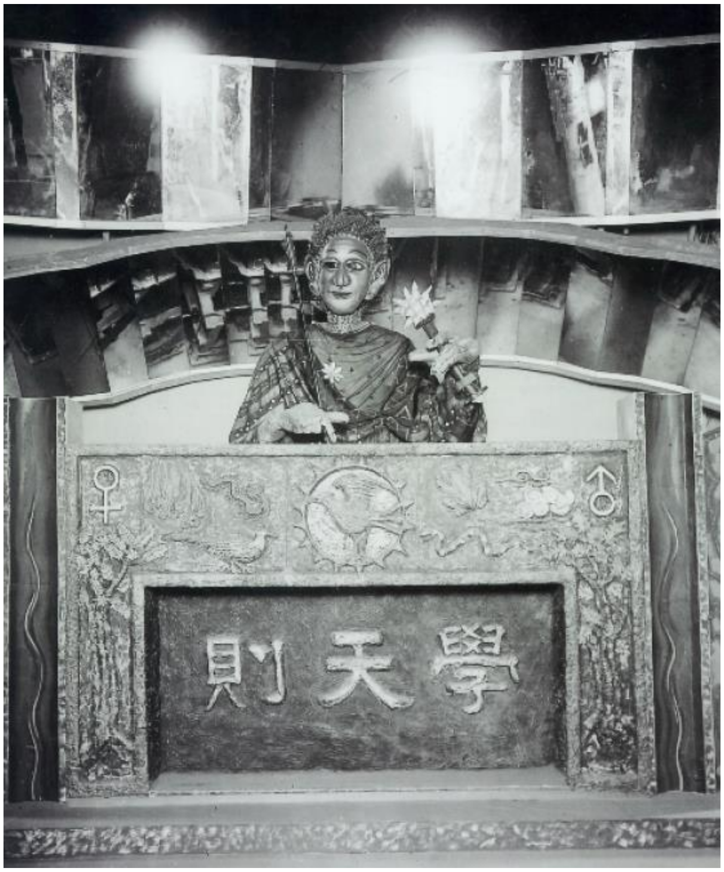

Fig. 22 A close-up photograph of Gakutensoku 学天則

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[234] Nishimura,"Jinzo ningen no seimei," 571.

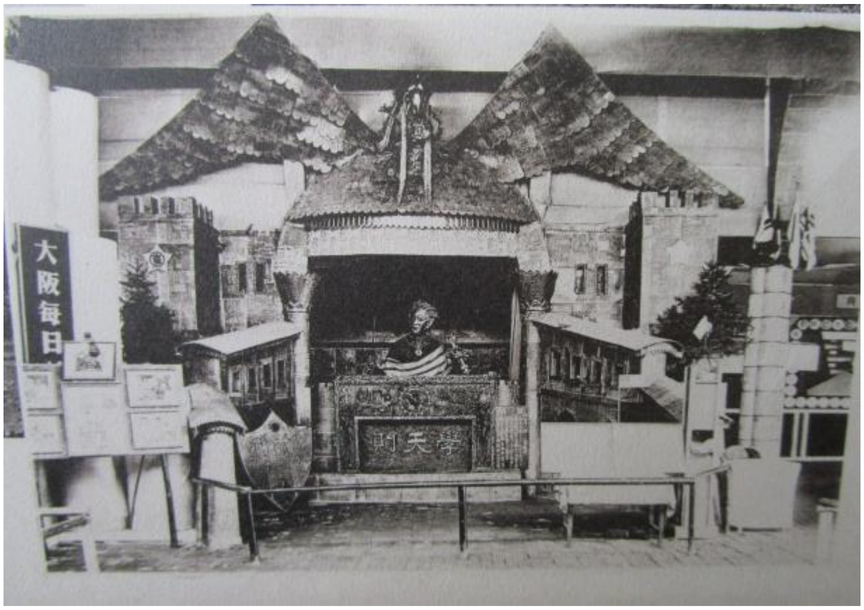

Fig. 23 The castle-like setting of Gakutensoku at the Kyoto Grand Exposition

Among all the fascinating traits of Gakutensoku, Nishimura emphasizes four things in a series of writings on the robot: first, as opposed to the instrumental perception of robots as industrial slaves serving capitalism, Gakutensoku was designed to be an artistic subject with scientific, religious, and philosophical implications.[235] Second, unlike electronic robots from the West, Gakutensoku is powered by compressed air, resembling a breathing human being. In other words, it is both mechanical and organic; third, along the same line as Gakutensoku's "breath," its facial expressions were designed to be natural and accurate. The goal was to make the movements of its facial "muscles" less like mechanical movement.[236] This made the project as much an aesthetic one as it was technological. Or in Nishimura's own words, the design itself was a dialogue between "arts and sciences."[237] Instead of a robot, Nishimura wanted

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[235] Nishimura, "Hyōjō Jinzō Ningen: Gakutensoku no sōsaku," 616.
[236] Nishimura, "Jinzo ningen no seimei," 573.
[237] Nishimura, "Jinzo ningen no seimei," 573.

Gakutensoku to be seen as “a breathing giant with warm blood” (温い血と息との通う巨人).[238] He even hoped that viewers would enter into a “hypnotized mode (催眠状態) and imitate Gakutensoku’s movements and facial expressions. Rather than evoking an uncanny effect, from this loop of imitations emerged a posthuman affinity between the nonhuman robot and its human audience.

Finally, Nishimura claims that the design of Gakutensoku incorporates characteristics of different races and thus fulfil the urgent need of “transcending racial boundaries” (人種の差別を超越すべきだ). [239](575) The ambiguous racial identity of Gakutensoku differentiates it from popular imagination of robots in 1930s-40s Japan, when science fiction often portrayed robots as secret agents designed by foreign enemies. As Miri Nakamura points out, “their bodily borders overlap with national borders, and these stories end by clearly demarcating between the mechanical and the natural, or the foreign and the Japanese.”[240] These demarcations are exactly what Gakutensoku was designed to defy. When stating his motivation to create this artificial human, Nishimura attributes his inspiration to his knowledge of cellular biology and vision that biologists will be able to create humans from cells in their laboratories one day.[241] The design of Gakutensoku, therefore, was meant to be a combination of the visual and the visionary, a transition from mechanical emulation to biological simulation of human beings.

What further differentiates Gakutensoku is the fact that it kept evolving, or in Nishimura’s own word “demonstrate evolutionary traits.” According to Nishimura’s 1931 essay “An Expressive Artificial Human” (表情人造人間), Gakutensoku acquired new characteristics as it traveled from Osaka to Colonial Korea, from Hiroshima to Nagoya.[242] In the workshop where Gakutensoku was created and developed, Nishimura hanged a motto: “Follow the Genesis and Evolution of Living Beings- from simple to complex” (生物の発生と進化にならへ——簡単から複雑へ——), which was inspired by the German biologist Ernst Haeckel’s evolutionary theory. [243]

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[238] Nishimura, “Jinzo ningen no seimei,” 577.
[239] Nishimura, “Jinzo ningen no seimei,” 579.
[240] Nakamura, “Marking bodily differences,” 178.
[241] Nishimura, “Jinzo ningen no seimei,” 573.

As revealed by historians such as James Pusey (2020) and G. Clinton Godart (2017), evolutionary theories of different brands played an important role in shaping the scientific, cultural, and even spiritual scenes in East Asia. Haeckel’s thought in particular is crucial for us to understand Gakutensoku as a “child of human” *and* a model for human evolution. One of Haeckel’s most famous theories that has been proved false is his “recapitulation theory,” which assumes the embryonic development of the individual is completely parallel to the evolutionary development of the whole species to which it belongs. The theory lends a convenient analogy to twentieth-century East Asian intellectuals who were eager to witness the evolution of their peoples and nations, and eager to find hope in the next generation. In their eyes, one of the implications of this theory is the development of children “recapitulates” the development of the nation, and the entire human species.

The evolutionary thinking in his design of Gakutensoku also manifests in Nishimura’s childcare initiatives following the 1937 outbreak of the Second Sino-Japanese War. In 1937, Nishimura launched a magazine called “Hoiku” (保育) literally meaning preserving and fostering, but more commonly understood as childcare. In his articles for the magazine, Nishimura argues that modern Japan has been misguided by a materialist culture towards environmental pollution and alienation from nature, which is a self-destructive path. To put the Japanese people back on a right track of evolution, he suggests that the connection between man and nature should be recuperated by immersing children in natural environments. This idea is best illustrated by the “Hoiku Mandala” (保育曼荼羅) in which he places a human infant, posing a worshiping gesture on its knees, amongst images of other species. A mandala is a geometric configuration of spiritual symbols, often associated with Buddhist cosmology. Through this image, Nishimura further illustrates the idea of co-existence that had already appeared in his prewar works, arguing that the universe is for all living beings and preserving offspring is the most sacred enterprise for all of them. (Fig. 24)

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[242] Nishimura, ““Hyōjō jinzō ningen,” 41

[243] Nishimura, “Jinzo ningen no seimei,” 573.

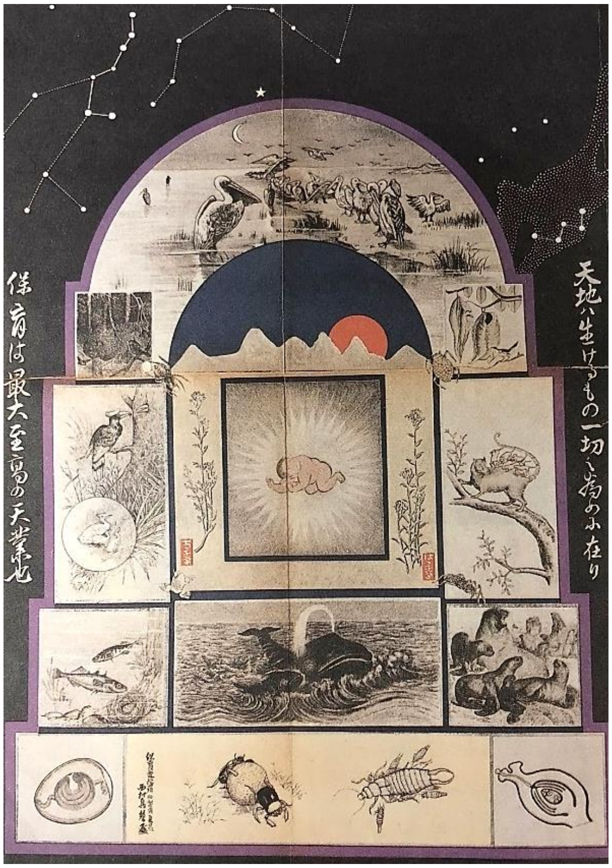
天地ハ生けるもの一切ゝ為めに在り
保育は最大至高の天業也

Fig. 24 Nishimura Makoto’s “Hoiku Mandala” (1939)

As part of his "hoiku" agenda, in 1938, Nishimura launched a program to rescue war orphans in China, which he described as an "international social work." (国際的社会事業)[244] Working with the "Pacification Brigade" in wartime China, Nishimura personally located Chinese war orphans in provinces including Hebei, Shandong, and Shanxi, with the assistance of Japanese soldiers. These orphans were brought to an orphanage in Osaka set up by the Shiten-nōji Buddhist Temple. Instead of being assimilated as subjects of the Japanese empire, these war orphans were expected to retain their mother tongue Chinese while learning Japanese as a foreign language. As Mariko Asano Tamanoi points out, they were cultivated to become "'the future human ligaments and building blocks' of the New Order of East Asia as *Chinese*." [245] According to Doi and Itahara, however, they were still trained with the "Yamato Sprit" or the spirit of Japan, leading to the ambiguity of their identities. [246]

For this project, Nishimura received help from social workers, philanthropists, and members of religious organizations, and even accepted donations from the Imperial Family. [247] In this humanitarian project inherently tainted by imperialism, one can also discern the ideology of eugenics – only healthy Chinese orphans would be recruited and sent to Japan. These healthy children were seen as the embodiment of hope that would eventually bring peace back to East Asia. In the same essay Nishimura expresses his compassion to these orphans, he also states that "I cannot but admit that the actions of war often build the road to lead humans to the surprisingly advanced world." [248] In 1942, he wrote an essay on "the reproduction of Yamato people," once again emphasizing the importance of "hoiku" or childcare to the number and the strength of Japanese population. This new generation of Japanese children, he suggests, should transcend "narrow patriotism" to Japan, much like his call for overcoming racism in the design of Gakutensoku. However, in contrast to the non-instrumentalist message conveyed by Gakutensoku, he contends that only be overcoming Japanese chauvinism could Japanese children become qualified as the leaders of a new world. In other words, both Chinese and Japanese children were seen as an evolving new species in the making. Here Nishimura's utopian vision of transcending racial boundaries as embodied by Gakutensoku is conveniently subsumed by the endorsement of imperialist invasion. His "hoiku" agenda, despite its environmentalist vision seemingly ahead of time, was rendered susceptible to the cooptation of imperialism for its underpinning logic of reproduction and paternalistic caretaking (for both human children and the environment).

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[244] Nishimura, Makoto. "Senka no unda Shina koji no ai'iku." 戦禍の生んだ支那孤児の愛育 [Love and Care for Chinese War Orphans]. *Shakai Jigyō* 23, 1939, 21.
[245] Tamanoi, Mariko Asano. "War and Compassion: the Plight of War Orphans in East Asia, 1867-1945 and Beyond." *International Journal of Asian studies*, 2022, 12.
[246] Doi, Yōichi and Kazuko, Itahara 土井洋一 , 板原和子. "Shokubutsu gakusha Nishimura Makoto no shisō to jissen: Senji-ka no hoiku, shakai jigyō katsudō o chūshin ni." 植物学者 西村真琴の思想と実践: 戦時下の保育, 社会事業を中心に [Thought and Practices of the Botanist Nishimura Makoto with a Focus on His Wartime Childcare and Social Work]. *Kyōiku mondai kenkyū* 46, 1996, 44-49
[247] Tamanoi, 10.

To further explore the implications of vertical kinship materialized by the design of Gakutensoku and Nishimura's "hoiku" projects, I will offer a relational comparison between Nishimura and Lu Xun, who displays a more ambiguous attitude towards evolution and kinship sustained by reproduction. If Nishimura's vision of a vertical kinship across national borders and even the boundary between the human and the nonhuman is based on an optimism of progression and unity, Lu Xun demonstrates a darker understanding of kinship beyond bloodlines, which can be only evoked by pain and death.

Although the two men had never met, Nishimura and Lu Xun shared more commonalities than they were probably aware of. Lu Xun and Nishimura were born two years apart towards the turn of twentieth century and witnessed the drastic change in East Asia, still grasping with the ideas of enlightenment, modernization, revolution, and rising nationalism and imperialism. They both spent their formative years overseas. Lu Xun studied medicine in Japan whereas Nishimura received his PhD in biology from Columbia University, before which he worked as an instructor at a medical school in Manchuria, Northeast China. Both men took a surprising turn in their career trajectories: Lu Xun famously turned from medicine to literature as his lifelong vocation. Nishimura, while teaching at Hokkaido Imperial University, found a new career at the Osaka Mainichi Shimbun Newspaper and became a prolific popular science and travel writer. Intellectually, both men were impacted by evolutionary biology and Buddhist philosophy, a significant yet not uncommon combination at the time.

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[248] Nishimura, "Senka no unda Shina koji no ai'iku," 21.

Like Nishimura, Lu Xun was significantly impacted by Haeckel's theory. As early as in 1907, he wrote an entire article titled "Human Evolution" (人的歷史) introducing Haeckel's theory to the Chinese audience. In 1905, Lu Xun translated an American sci-fi story by Louise J. Strong ironically titled as "An Unscientific Story," which also involves "artificial humans," but a kind different from Gakutensoku. He follows the story's Japanese translation and retitles the story "Technique for Creating Humans." (造人術) The original story reads like a biotechnological version of Frankenstein: a scientist successfully creates an artificial human from a stem-cell, only to realize that he could not stop it from rapid self-reproduction. To prevent the disastrous overflow of artificial humans, he ended up killing them all. Lu Xun's translation, following the Japanese version, was truncated and ends at the moment when the artificial human was first successfully created. Lu Xun's translation ends with a mixed senses of gratitude and uncertainty: "the cold tears of crawl down the face of this new creator." (感謝之冷淚累累然循

新造物主頫).[249] This translation appeared in a magazine called *Women's World* (女子世界). In its afternote, Lu Xun's brother Zhou Zuoren celebrates the story was an optimistic allegory of the self-regeneration of Chinese people through eugenics. Ding Chuwo, on the other hand, acutely discerns the ambiguity in the suspenseful ending. According to Ding, after reading the story, he was "gratified but also horrified," worrying that the "life-germ" may end up spreading "deviant seeds."[250] This association of "seeds" comes from the term "human seedling," which Lu Xun uses to translate "life-germ" or "stem-cell." As Lydia Liu points out, these vegetal terms contain Buddhist implications of karmic causality.[251]

Lu Xun continues to use these terms to describe the evolution and development of human beings. His 1918 essay on education, for example, refers to children as the "seedling" of human beings (人的萌芽). His 1925 story "The Misanthrope" (孤獨者) further drives home the point on unreliable evolution through vertical kinship. This story has been interpreted by scholars from the perspective of evolutionary thinking and from the perspective of Buddhist philosophy.[252] Building my observation on their insights, however, I would contend that the story is more about kinship created outside of human bloodlines.

The story is structured around two funerals: the funeral of the protagonist Wei Lianshu's grandmother and Wei's own funeral. Wei is a former zoology student and a history teacher, whose double identity again suggests the parallel between natural and human histories. He is alienated from his family, who treats him as if he belongs to a different species. At first, he has a lot of hope in children, seeing them as innocent creatures and the only hope for China, but gradually he becomes disappointed realizing that the children around him are growing into the same corrupt adults as their parents. Lu Xun evokes the same vegetal analogy to spell out the doubt: “if there was nothing wrong with children at root, how could they grow up to produce bad flowers and fruits?” (如果孩子中沒有壞根苗，大起來怎麼會有壞花果?)[253] This question, founded or not, defies the kind of optimism we see in Nishimura that by placing the parent-child kinship at the center of a culture and through rebuilding the connection between human and nature, human beings will evolve into a better species, as embodied by the awe-inspiring “artificial human.”

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[249] Strong, Louise J. Suozi (Lu Xun) trans. "Zaorenshu" 造人術 [Techniques for Creating Humans], *Nuzi Shijie* 女子世界, Volume 2 Issue 4-5, 1907, 80.

[250] For Zhou's and Ding's commentaries, see Strong, Louise J. Suozi (Lu Xun) trans. "Zaorenshu," 81-82

[251] Liu, Lydia H. "Life as Form: How Biomimesis Encountered Buddhism in Lu Xun," *The Journal of Asian Studies*, 2009, Vol.68 (1), 37-38.

[252] See Jones, Andrew. *Developmental Fairy Tales: Evolutionary Thinking and Modern Chinese Culture*. Cambridge: Harvard University Press 2011 and Ying, Lei. "Lu Xun, the Critical Buddhist: A Monstrous Ekayāna," *Journal of Chinese Literature and Culture*. Vol.3 (2), 2016, 400-428.

In “The Misanthrope,” the only person the protagonist Wei feels close to is his grandmother, the stepmother of his father. Although Wei does not share her bloodline, he feels connected to her through a shared sense of loneliness and similarly marginalized situations in the family and in society. Moreover, the narrator-character Shen Fei also feels drawn to Wei for his peculiar personality and isolation. Shen Fei first met Wei at his grandmother’s funeral. Mourning his grandmother’s death, Wei’s sobbing turned into howling, “like a wounded wolf in the wilderness in the deep of night, his pain mingled with anger and sorrow” (像一匹受傷的狼，當深夜在曠野中嗥叫，慘傷裡夾雜著憤怒和悲哀).[254] Strikingly, after attending Wei’s own funeral, the narrator-character also lets out a wolf-like howl. Here Lu Xun uses exactly the same phrasing to describe the narrator’s howling as he depicts Wei. Both characters momentarily metamorphosize into wolves in the face of death.

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[253] Lu Xun. “Guduzhe” 孤獨者 [The Misanthrope], *Lu Xun quanji* 魯迅全集[Complete works of Lu Xun]. Volume 2, (Beijing: Renmin wenxue chubanshe, 2005), 93.

[254] Lu Xun. “Guduzhe,” 88.

The howling of the two characters is shocking, because it almost suggests an atavistic or devolutionary tendency in both of them. An unusual kinship is formed between the protagonist and his grandmother, as well as between the protagonist and the narrator. This kinship is not evoked through the continuity maintained by reproduction and the promise of evolution, but rather, is evoked in the presence of death, imagined through a shared and inarticulate pain.

III. Pigeon: Horizontal Kinship and "Sympathetic Pessimism"

The themes of kinship, death, and animalistic metamorphosis also found their ways into Nishimura and Lu Xun's poetry exchange over the dead pigeon, which has been introduced at the beginning of this chapter. In Nishimura's letter to Lu Xun, he included a sketch of Sanyi, which is accompanied by a Japanese waka poem. (Fig. 25) The poem depicts an endearing scene of two pigeons sharing one nest:

> Although they are from two countries,
> One in the West, one in the East.
> The little pigeons become intimate with each other,
> Sharing one nest.
>
> 西東国こそ異へ
> 小鳩等は
> 親善あへり
> 一つ巣箱に

In contrast to the heartwarming poem on an imagined pigeon romance, there is only one pigeon in the sketch. In the accompanying inscription, Nishimura captures the moment when he first saw the pigeon in the wartime chaos. He uses an uncommon Buddhist term "meimon" (迷

悶) to describe the lost and miserable look of the pigeon, which seems jarring when juxtaposed to the heartwarming poem.

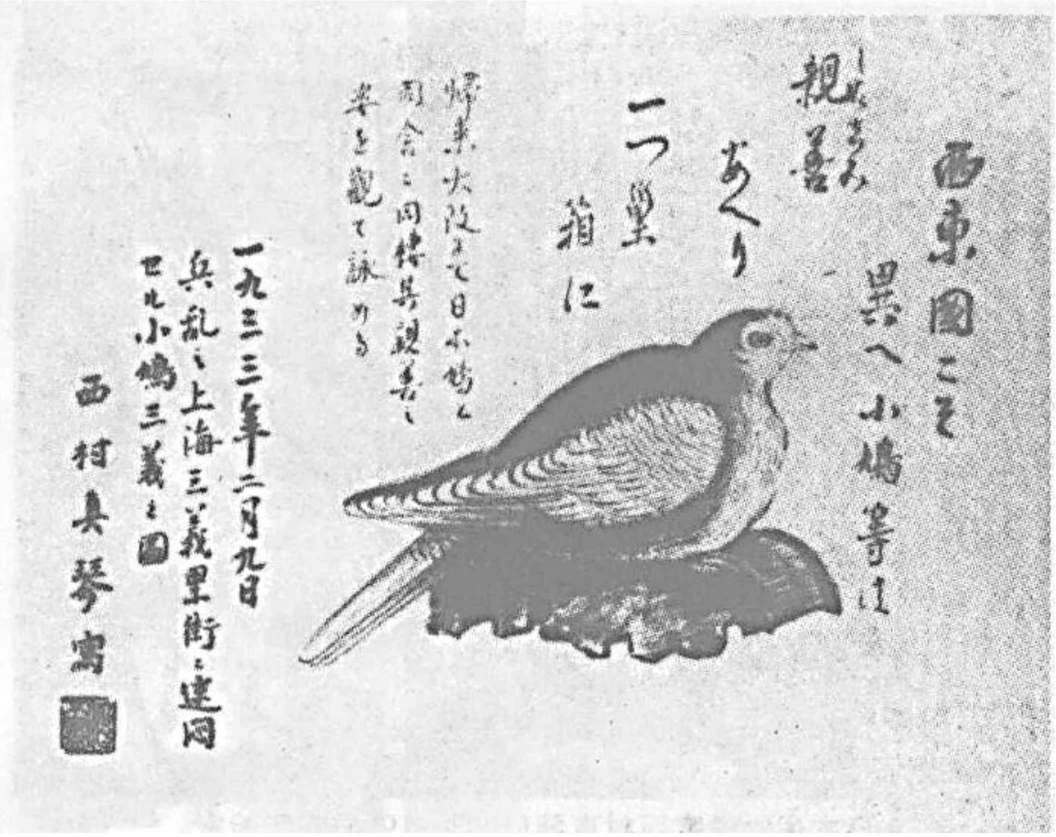
西東国こそ異へ小鳩等は
親善あへり
一つ巣箱に
一九三三年二月九日
西村真琴寫

Fig. 25 The Sketch of Sanyi the pigeon Nishimura sent to Lu Xun

In the poem Lu Xun composed in response, he also evokes the moment of encounter between Nishimura and the pigeon. The poem, titled “Inscription for the Stupa of the Three Fidelities” (題三義塔) reads as follows:

> Dashing thunder and flaying flame leave mortal men slain;
> Amid crumbling walls and caved-in wells a hungry dove remains.
> By chance it met a merciful heart and left the burning house.
> At the end a lofty tomb in Japan remains to commemorate the dead.
> Jingwei, awaken from a dream, would yet continue carrying pebbles;
> Determined to go against tide and flood together as rebels.
> We remain brothers when the calamitous waves all abate,
> On reuniting, with one smile, we wash away the hate.

奔霆飛焰殲人子，敗井頹垣剩餓鳩。
偶值大心離火宅，終遺高塔念瀛洲。
精禽夢覺仍銜石，鬥士誠堅共抗流。
度盡劫波兄弟在，相逢一笑泯恩仇。[255]

In the opening couplet, the word Lu Xun chose to denote “mortal men” literally means “sons of man.” This corresponds with the “hungry dove” in the second half of the couplet, emphasizing the equal vulnerability of human and nonhuman animals under the “dashing thunder and flaying flame” of the bombing and gun firing. The third line contains two Buddhist references, the “merciful heart,” which, according to the Buddhist text “Treatise on the Awakening of Faith in the Mahāyāna,” is the heart hoping to eliminate the misery of all living beings. The burning house refers to the world filled with suffering, an allegorical allusion from the *Lotus Sutra*. In fact, the first half of the poem is reminiscent of the Buddhist allusion that the Buddha, in a past lifetime, saves a pigeon by feeding his own flesh to a hawk.

The Buddhist imagery takes a turn as Lu Xun evokes a mythical bird Jingwei from *The Classic of Mountains and Seas*, an ancient Chinese mythological text. According to the text, Jingwei was the daughter of Emperor Yan who transformed into a bird after being drowned in the Eastern Sea. As an act of revenge, she carries stones with her beak, trying to fill up the Eastern Sea. This legend is often evoked to describe a firm resolution, but inevitably tinted with a sense of futility. In the context of the poem, the figure of the human-turned-bird indicates both the dove and its human companion. In other words, the “hungry dove” and the “merciful heart” become one in this line. The implied hope is that the regretful memory of the dove would transform its human companion into a fighter who goes against the tide and flood of history. The politically ambiguous intimacy suggested by Nishimura's poem is here transformed by Lu Xun into a radical solidarity, which in turn constitutes a challenged brotherhood across national borders in the last two lines.

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[255] Both the original poem and an English translation can be found in Huang, Qiaosheng ed. Jon Eugene von Kowallis trans. *Lu Xun Jiutishi zhongyingduizhao* 鲁迅旧体诗 中英对照 [Lu Xun's classical-style poetry: a bilingual edition]. (Shenyang: chunfeng wenyi chubanshe, 2016), 92-96. I use von Kowallis’ translation with slight adjustments.

The poem has been interpreted by some scholars as evidence of Lu Xun's "revolutionary optimism." Taking its Buddhist connotations into consideration, however, the poem is probably not as optimistic as it might seem. The term "jiebo" in the last couplet which can be literally interpreted as a "calamitous wave," is also a transliteration of the Sanskrit word "Kalpa," meaning the period of time from the beginning to the demise of a universe, which can last for 16 million years. As suggested by the image of the tireless bird who attempts to fill up a sea with pebbles, the tide and flood of history could not be simply turned around by some well-intended individuals like Nishimura. As opposed to what Lauren Berlant terms as "cruel optimism," which describes misplaced belief in unachievable fantasies in neoliberalist contexts, [256] I argue that Lu Xun's poem contains a "sympathetic pessimism," through which he recognizes hope and its fragility simultaneously.

The implications of the poem on a pigeon can be further revealed if we situate it in a genealogy of cultural imaginations of the pigeon in China. The 17th century *The Book of Pigeons* (鴿經) by Zhang Wanzhong is probably earliest encyclopedia on pigeons. It collected a variety of texts on pigeons from premodern China, ranging from a register of different subspecies to manuals for breeding, from historical records to literary texts. In these texts, pigeons are celebrated for their aesthetic values, moral symbolism for loyalty and marital love, Buddhist connotations, as well as military use.[257] While these cultural imaginations of the pigeon remained in 1930s China, wartime media tended to emphasize the pigeon's role as a prosthetic creature for the war machine.

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[256] See Berlant, Lauren Gail. *Cruel Optimism*. Durham: Duke University Press, 2011.

For example, in 1930, at least four major pictorials, including *Young Companion* (良友)[258] and *Eastern Miscellany Pictorial* (東方畫報), published the same cluster of photos of war pigeons equipped with cameras from World War I. (Fig. 26) Similar images were introduced into China through *Eastern Miscellany* as early as in 1915, but had not acquire the same level of popularity. [259]

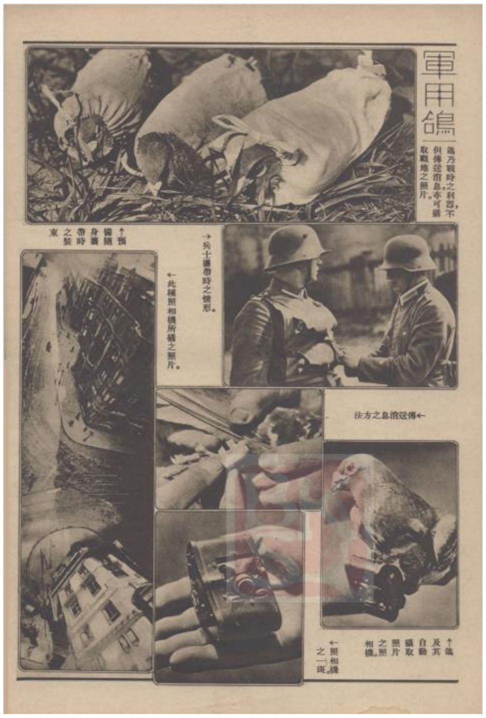

Fig. 26. "Military Pigeon" 軍用鴿. *Eastern Miscellany Pictorial*. Volume 31 Issue 4. n.p. (reprinted in Volume 31 Issue 6)

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[257] See Wang, Shixiang 王世襄 ed. Mingdai gejing qinggong gepu 明代鴿經 清宮鴿譜 [The Book of Pigeon from the Ming Dynasty and The Catalogue of Pigeons from the Qing Palace]. Beijing: sanlian shudan, 2015.

[258] "Oumei junjing zhi xunlian" 歐美軍警之訓練 [The training of military police in Europe and the U.S]. *Liangyou* 良友, Issue 44, 1930, 11.

[259] "Junyong chuanshu ge" 軍用傳書鴿 [Military home pigeons]. *Dongfang zazhi* 東方雜誌. Volume 12, Issue 14, 1915, n.p.

Even the children magazine, *Little Friends* (小朋友), published at least three articles on the strategic values and training procedure of war pigeons in the 1930s.[260] The increasing interest in war pigeons was embedded in the context of escalating Sino-Japanese conflicts in the 1930s. As early as in 1920, Chinese media had started introducing the mobilization of war pigeons in Japanese military exercises. In 1930 the *Military Magazine* (軍事雜誌) reported that there were at least 17 thousand carrier pigeons in Japan, including war pigeons. [261] In 1933, it was reported that the Japanese Kwantung army based in Manchukuo was going to open up the largest pigeon farm in East Asia, breeding pigeons for future wars.

Sensing the urgency to catch up, in 1931, He Yingqin(何應欽), the head of the Department of Military and Political Affairs from the Chinese Nationalist Government based in Nanjing issued an order to encourage civilians to keep pigeons, which can be drafted in wartime, and to hire an experienced Japanese trainer to train Chinese war pigeon.[262] During the battle in 1932 Shanghai, both Japanese and Chinese armies mobilized a large amount of war pigeons. Sanyi, the pigeon found in the ruins following the battle, might not be an innocent Chinese civilian pigeon as Nishimura had imagined. Following the battle, it was reported that Chinese civilians in Shanghai found strange pigeons mingling in local pigeon flocks they raised. [263]

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[260] "Feiji shang de zhanshi ba junyongge fangchu chuandixiaoxi" 飛機上的戰士把軍用鴿放出傳遞消息 [A solider on the fighter aircraft releases a military pigeon to carry messages]. *Xiaopengyou* 小朋友, Issue 562, 1933, 1. Lu, Zhengxun. "Junyongge" 軍用鴿 [Military pigeons], Xieopengyou, Issue 562, 1933, 2-9. Chen, Ruhui. "Yexingge he zhaoxiangge" 夜行鴿和照相鴿 [Night pigeons and photo-taking pigeons]. *Xiaopengyou*, Issue 766, 1937, 2-6.

[261] "Riben you chuanshuge erwanqiqian zhi" 日本有傳書鴿二萬七千隻 [There are twenty seven thousand carrier pigeons in Japan]. *Junshi zazhi* 軍事雜誌, Issue 26, 1930, 177.

[262] See Executive Yuan Direction No. 978. "Ling Junzhengbu: chengwei chengbao pinyong riben junyongge jiaoguan qingjian hebei anyou" 令軍政部：呈爲呈報聘用日本軍用鴿教官請鑒核備案由 [A direction to the Military political commission: please add the employment of a Japanese military pigeon trainer to your records] *Junzheng gongbao* 軍政公報 [Bulletin of Military Political Affairs], Issue 103, 1931, 29.

[263] Lingluan 鈴卵. "Riben junyongge liuluo chongming" 日本軍用鴿流落崇明 [Japanese military pigeon found wandering in Chongming]. *Fu'ermosi* 福爾摩斯, May 4, 1932.

Judging from the Japanese messages attached to their legs, it was realized that these newcomers used to belong to the enemy. Stories of pigeons of malleable loyalty extended to the aftermath of the Second Sino-Japanese War, when Japanese war pigeons kept captives during the war were recruited by Shanghai police station, forming a communication and surveillance network that covered the entire city.[264] (Fig. 27)

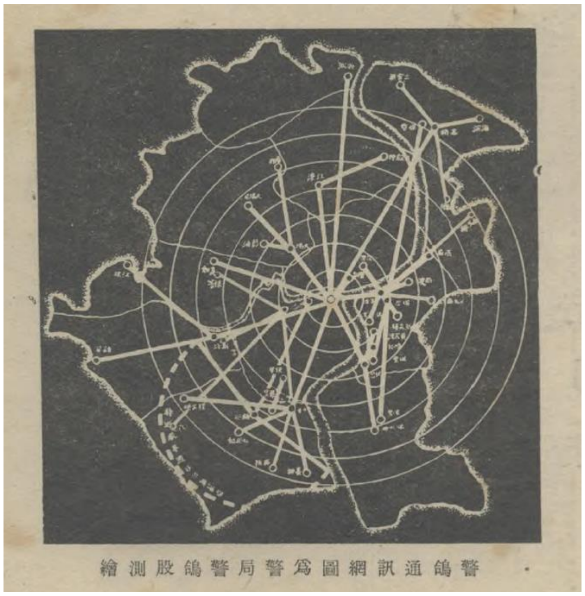

Fig. 27 Communication network formed by police pigeons in 1940s Shanghai

The visualization of the communication network constituted by pigeons is reminiscent of contemporaneous diagrams of wireless coverage. Indeed, besides their fluid identities crossing constantly shifting territorial boundaries in wars, another feature that differentiate 1930s war pigeons from their premodern counterparts is that they are often seen as a replacement of or supplement to a mechanical communication system. Pigeons were trained to work with mobile pigeon houses. Military vehicles such as cars, trucks, and even aircrafts, were equipped with carrier pigeons, which were said to be more stable than wireless communication especially there is a mechanical failure. Such pigeon-machine technique took an even darker turn when the American behaviorist B.F. Skinner designed a pigeon-guided missile as a counterpart to the Japanese Kamikaze suicide squad. [265]

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[264] "Liyong jingge chuandi qingbao" 利用警鴿傳遞情報 [Making use of police pigeons to deliver intelligence]. Jingcha huabao 警察畫報. Issue 13, 1949, 32.

Lu Xun was certainly aware of the instrumentalization of pigeons in his time. In fact, he wrote about Japanese war pigeons in an essay in memory of the Manchuria Incident published in 1934.[266] In contrast to the pigeons being incorporated and consumed by the war machine, Sanyi the pigeon appears in Lu Xun's poem first and foremost as a starving bird, a living being deprived of its essential need due to the war. The pigeon knows hunger just like the "son of man" knows death. This corporeal knowledge becomes the foundation of an unusual and fragile kinship or "brotherhood" across national and even species boundaries. The pigeon Sanyi acts not only as a symbol, but rather as a material-semiotic knot in which cultural connotations and material reality are intertwined in tension. The contrast between the hungry pigeon and the weaponized pigeons reveals the uneven distribution of life and death, nurturing and killing taking place in wartime East Asia.

Lu Xun probably did not foresee that in 1937, a year following his death, his poetry exchange with Nishimura would appear in *Expanding the Social Work of Japanese and Manchurian Women: Records of Women Ambassadors' Visit to Manchukuo* (日満婦人社會實業を拓く：婦人使節訪隣誌), a brochure complied by Nishimura himself. This brochure promotes the activities of the Japanese Women's Association of National Defense in

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[265] See Capshew, J.H. "Engineering Behavior: Project Pigeon, World War II, and the Conditioning of B. F. Skinner," *Technology and Culture.* Vol.34 (4), 1993, 835-857.

[266] See Lu Xun. "Jiu yiba" 九一八 [September 18th], *Lu Xun quanji,* Volume 4, 595.

Manchukuo, Japan's puppet regime in Northeast China. Sent by Osaka Manichi Shimbun Newspaper, Nishimura accompanied the delegation group of the women's association to visit Manchukuo, particularly Japanese-built hospitals, institutes for charity, and local religious organizations. This brochure included the scripts of lecture given by Japanese and local officials, accounts of delegation group members, as well as Nishimura's own diaries, sketches, and commentaries. According to him, the development of Manchukuo needed "the gentleness of women and the kindness of religionists."[267] Nishimura shared the story about Sanyi the pigeon in the lecture he gave to the delegation group, after which, two representatives of the group donated a pedestal to the pigeon's memorial stupa.[268]

In this volume, Lu Xun's poem is cited along with another poem on Nishimura's encounter with Sanyi the pigeon by Zheng Xiaoxu (鄭孝胥), the prime minister of Manchukuo, Japan's puppet regime in Northeast China:

> Amidst calamities this wronged bird met you by chance.
> This encounter engendered emotions and gave rise to literature.
> It is not impossible to escape from worldly suffering;
> We might as well spend this ephemeral life amongst birds and beasts.
>
> 浩劫冤禽忽遇君,
> 已生情感復生文。
> 人間業海非難度,
> 彈指何妨鳥獸群。[269]

The poem was composed in 1936, a year before the full-scale outbreak of the Second Sino-Japanese War. Appreciating the affective bonding between Nishimura and the pigeon,

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[267] Nishimura, Makoto ed. *Nichiman fujin shakai jigyo wo taku* 日満婦人社會實業を拓く [Expanding the Social Work of Japanese and Manchurian Women], Osaka: Osaka mainichi shimbunsha, 1937, 114.

[268] The inscription on the pedestal, as a disturbing colonial legacy, was removed in 2002 when the stupa was renovated to commemorate the 30th anniversary of normalization of Sino-Japanese relations.

[269] Nishimura ed. *Nichiman fujin shakai jigyo wo taku,* 171.

Zheng Xiaoxu evokes and reverses an allusion to the Confucian classics *The Analects,* according to which Confucius, when being questioned why he has not withdrawn from the human affairs replete with chaos and evils, defends himself by saying that “A person cannot flock together with the birds and the beasts. If I do not associate with the followers of men, then with whom would I associate?” (鳥獸不可與同群 吾非斯人之徒與而誰與？).[270] Confucius had to compromise and associate with the imperfect human society and undesirable companions to change the world. In reality, Zheng sided with Confucius and collaborated with the undesirable partner, the Japanese, in order to achieve the “Kingly Way” (王道) in Manchukuo. Zheng proclaims that he believes this to be the only way to salvage Asia from encroaching Western colonization. In this poem, however, he seems to suggest that the figure of the pigeon illuminates an alternative way of living, which is to withdraw from or overcome the human struggles by associating with nonhuman others. The nonhuman others become a medium for ruminations on who to associate with and the problem of companionship and collectives (群). They compel the reader to reflect on who should be seen as “our own kind” that share common interests. This poem can be therefore read as a manifestation of Zheng’s ambivalent attitude to the colonial puppet state he himself was serving while witness the escalating Sino-Japanese conflicts.

Regardless of the complexities of Lu Xun’s and Zheng’s poems, they are both cited in the volume as tokens of “Sino-Japanese amity” (日中親善). The concept of Sino-Japanese amity was closely related to Japanese Pan-Asianism which was evoked to justify colonial expansion and especially the coercive erasure of cultural and linguistic differences between the colonizers and the colonized.[271] In 1936, Shimazaki Tōson (島崎藤村), a well-known Japanese naturalist writer and a good friend of Nishimura, wrote an essay titled "An Account on Sanyi the Pigeon" (三義鳩の記), which narrates Nishimura's journey with the pigeon from Shanghai to Osaka in detail and frames this episode as a perfect materialization of Sino-Japanese amity. Towards the end of the essay, Shimazaki cites the famous couplet from Tang Dynasty poet Du Fu's poem "Spring View" (春望): "Moved by the moment, flowers splash with tears, alarmed at parting, birds startle the heart." (感時花濺淚，恨別鳥驚心) The effect of citing this couplet is three-fold: first, citing the canonical Tang poet reminds the reader of the long history of Sino-Japanese cultural exchange, and hence the myth of "same language, same race" (同文同種) evoked by colonizers to justify colonial assimilation[272]; second, no matter how vague, it does acknowledge the traumatizing impact of Sino-Japanese conflicts as manifested by the anthropomorphic bird; third, making use of the quote, he then suggests that such trauma can be eventually cured by time and the bird/pigeon embodies a natural history, whose spatial and temporal scales are larger than human history. Evoking the nonhuman animal therefore enables Shimazaki to look away from immediate human suffering and trivialize the ongoing Japanese colonial expansion in China. Shimazaki's essay was included in at least three different versions of wartime Japanese textbooks. It is noteworthy that all of them are national language and literature textbooks for women such as *A Reader of National Language for Showa Women* (昭代女子国語). It is probably not a coincidence that Nishimura and the editors of national language and literature textbooks consider the pigeon story to be appealing to female audience, who, in Nishimura's words, tend to have more "gentle feelings." The figure of the pigeon therefore contributes to a gendered affective mobilization of imperialist identification.

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[270] See Confucius, Edward Slingerland. translated. *The Analects*. Indianapolis: Hackett Publishing Company Inc., 2003. P217

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[271] Baskett, Michael. *The Attractive Empire: Transnational Film Culture in Imperial Japan*. Honolulu: University of Hawaii Press, 2008, 21.

[272] See Dikötter, Frank. *The Construction of Racial Identities in China and Japan*. Hong Kong: Hong Kong University Press,1997.

So far I have examined the poetry exchange between Nishimura and Lu Xun over the life and death of Sanyi the pigeon, which, in juxtaposition with wartime media representations of war pigeons, illuminates on a "horizontal kinship" between human and nonhuman beings based on shared mortality and the precarious situation of being incorporated and consumed by the war machine. The emergence of such a kinship, I argue, can be only negatively defined through a "sympathetic pessimism." Otherwise, as demonstrated through Zheng Xiaoxu's and Shimazaki's literary responses to the pigeon's story, the affective human-nonhuman bonding can be conveniently utilized to justify a "benevolent" colonialism.

The nonhuman figure constantly poses the question of "who to associate with," and hence potentially disturbs and subverts the imperialist discourses that coopt the pigeon's story. In fact, the shifting boundary between "us" and "them" illuminated by the nonhuman figure and the fleeting connection across the boundary also extended to the afterlives of the poem in postwar China.

Despite its past use in colonial contexts, the story of pigeon was once again revived following the normalization of Sino-Japanese relations in 1972. Lu Xun's poem continued to be cited by Chinese national leaders and public figures in recent years. In 2008, when addressing the contentious relations between mainland China and Taiwan, Wen Jiabao (温家寶), the former prime minister of the PRC quoted the last two lines from the poem, "We remain brothers when the ravaging surges all abate, when reuniting, with one smile, we wash away the hate."[273] More recently, Hua Chunying (華春瑩), the spokesperson for the Ministry of Foreign Affairs, cited the couplet to comment on the Inter-Korean summits in 2018, comparing the two Koreas to brothers with grudges who would eventually reconcile. [274] In the name of brotherhood, the poem was evoked to smooth out uneven power relations and mark the shifting alliances in postwar East Asia.

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[273] See "Wen Jiabao: We remain brothers when the ravaging surges all abate, when reuniting, with one smile, we wash away the hate" (温家宝："度尽劫波兄弟在，相逢一笑泯恩仇") http://news.sohu.com/20080318/n255771036.shtml

While the last two lines remains in cultural memory, the rest of poem has become obsolete. I hope today's presentation brings us back to the moment of the encounter Nishimura captures in his sketch, and the opening couplet in Lu Xun's poem:

> "Dashing thunder and flaying flame leave mortal men slain;
> Amid crumbling walls and caved-in wells a hungry dove remains."

Nishimura's vision of an all-encompassing posthuman kinship dissolving the distinctions between the human and the nonhuman, the organic and the mechanical, although inspiring, turned out to be complicit with an imperialist agenda in a colonial world order due to its paternalistic implications and neglection of uneven power dynamics involved. Historians like Richard Reitan have revealed that even in contemporary Japan, the seemingly innocuous idea of the "oneness" between the human and the environment has been adopted by reactionary ecologists to confirm "a homogeneous folk community" and hence to justify anti-immigrant discrimination.[275] Echoing this observation, Matthew Taylor argues in the context of American posthumanism that “the dream of the dissolution of harmful self-world distinctions [threatens] to become the nightmare of an all-colonizing subjectivity.”[276]

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[274] See "Chinese national leaders on the Summit of Two Koreas" (中方谈朝韩领导人会晤：渡尽劫波兄弟在，相逢一笑泯恩仇) https://www.chinanews.com.cn/m/gn/2018/04-27/8501812.shtml.

[275] Reitan, Richard. "Ecology and Japanese History: Reactionary Environmentalism's Troubled Relationship with the Past." *The Asia-Pacific Journal*. Volume 15 Issue 3 Number 2. 2017, n.p.

On the other hand, Lu Xun’s insight of a horizontal kinship negatively defined through a sympathetic pessimism, brings him closer to Donna Haraway’s proposal of “staying with the trouble” through unconventional kinship. The horizontal kinship also requires a different sense of temporality, with which we are not pivoting towards a utopian or apocalyptic future dependent on the next generation but staying at the thick present. This thick present, in Lu Xun’s Buddhist term, contains seeds and seedlings of the past and the future, and embodies myriad unfinished configurations of places, times, matters, and meanings.

The relational comparison between Nishimura and Lu Xun demonstrates a way to ecologize evolutionary modernism seen in many of their contemporaries, which is to recognize unity and interconnections that do not diminish differences and tension. As we are still stuck in the lasting present of global pandemics, cold and hot wars, the stories of the pigeon and the robot may shed new lights on the hope and its fragility in our connections with human and nonhuman others.

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[276] Taylor, Matthew A. *Universes Without Us: Posthuman Cosmologies in American Literature*. University of Minnesota Press, 2013, 6.

Epilogue

Elephants from the Battlefields:

Towards a Weak Anthropocentric Perspective for More-than-Human Wars

In previous chapters, I have examined the mutual transformation and tension between animalistic bodies and mechanic bodies in wartime China, as well as the ecological imaginations they inspired. From the gas mask to the mimeograph machine, from the pack mule to the war pigeon, from the frontline soldier writer to the modernist poet in the hinterland, from a Chinese cultural giant to transnational authors, the mental, social, environmental, and media ecologies in 1930s and 1940s wartime China demonstrate their own patterns and dynamics, suggesting possibilities for creating new connections in a time of historical crisis.

Recurrent in these case studies is the phenomenon I term the "precarious connection" between human and nonhuman entities, which is generated by and contributing to wartime states of emergency, contingencies, and a shared sense of precarity. As Judith Butler points out, precariousness does not merely indicate jeopardous conditions, but also implies "living socially, the fact that one's life is always in some sense in the hands of the other." [277] While Butler emphasizes social interdependency between human beings, this dissertation has revealed the precarious conditions predicated on the interdependency between the human and the nonhuman. Some connections are precarious because they are derived from a common threat, such as the terror from the air (Chapter One). Some are precarious because of their embeddedness in fragile material conditions, such as the guerrilla-style mimeograph printing practices necessitated by the war-damaged print industry (Chapter Two) and infrastructure construction in the ruthless tropical environment (Chapter Three). Some are precarious because they challenge the boundary between the human and the nonhuman, such as the identification between a soldier and a war mule in Qiu Dongping's story (Chapter Two) and Nishimura Makoto's design of the "organic" robot (Chapter Four).

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[277] Butler, Judith. (2009) *Frames of War: When Is Life Grievable?* London: Verso, 2009, 14.

In this epilogue, I will offer a glimpse of the lasting entanglement between wartime discourses and ecological imaginations in postwar socialist China and the larger Sinophone world, through its manifestations in *An Elephant Capture* (捕象記) and *The Stolen Bicycle* (單車失竊記). The former is a documentary made during the Cultural Revolution (1966-1976) when the state had entered the emergency of "war preparation," whereas the latter is a contemporary Sinophone novel by the Taiwanese writer Wu Ming-yi (吳明益), which revisits the memories of World War II in Asia.

In 1971, a group of Shanghai zoo workers and filmmakers embarked on an expedition to Sipsong Panna in Yunnan, on the China-Laos-Myanmar Border, where they captured an elephant with the help of PLA soldiers and local hunters. Banna (版納), the elephant they captured and transported to the Shanghai Zoo, was meant to be the first zoo elephant caught by and for ordinary Chinese people. This historically significant expedition was documented by *An Elephant Capture* (捕象記), the first animal-themed documentary in socialist China. Released in 1972, *An Elephant Capture* attracted almost a hundred million viewers and was adapted into at least six versions of *lianhuanhua* picture books. Despite its popularity in a unique historical context, the film nevertheless remains understudied both in Chinese and English scholarship. This documentary will be the main focus of this epilogue, for it resonates with other cultural production covered in this dissertation in terms of its embeddedness in a time of conflicts and crises, while Wu's novel will complement the discussion and point to the possibilities of re-ecologizing the legacies of World War II in Sinophone worlds.

Produced during the Cultural Revolution, which swept through 1960s and 1970s China and led to intense political struggles, destruction of cultural heritages, and violent turmoil, *An Elephant Capture* was not so much about human struggles as about an equally intense battle between human beings and nonhuman others. Compared to contemporaneous "model performance films" that emphasized theatricality and dominated the silver screen at the time, *An Elephant Capture* stood out in its employment of location shooting, natural coloring, and exotic landscapes. At the same time, it shared a similar set of militarist and voluntarist discourses with the former. How does the documentary enrich our understanding of cultural, technological, and environmental histories in socialist China? When revisiting the historical crisis of the Cultural Revolution, how does our perception change when we shift our focus from political-driven and human-centered struggles to the nonhuman figure of the elephant?

In this epilogue, I treat the figure of the elephant from and beyond the film as a semiotic-material nexus in human-nonhuman networks, where cultural imaginations and historical realities are brought together. I will approach this figure in the film from three perspectives, which I call the "three elephants in the room": the historical elephant, the symbolic elephant, and the disenchanting elephant. I separate these three dimensions of the figure of the elephant for the convenience of discussion, with the awareness that they are mutually intertwined and affecting. Combining close reading of the film and analysis of archival materials, I will reveal how the figure of the elephant in the text, context, and the paratext of the film embodies and subverts the Maoist discourse of "self-reliance" and multi-ethnic nationalism in socialist China.

I. The Historical Elephant

Judith Shapiro describes the human-nature relationship in socialist China as “Mao’s war against nature.” According to Shapiro, Mao waged a war against nature through political repression, mobilization of utopian urgency, imposition of dogmatic uniformity across China regardless of local specificities, and state-ordered relocations of population such as the sent-down youth campaign. This war caused degradation of land and massive deforestation due to excessive reclamation activities, as well as habitat loss for nonhuman animals and even their extinctions. [278] In sum, it was a time that celebrated human agency at the expense of nonhuman environments. Expanding on Shapiro’s observation, Daisy Du contends that socialist China, particularly during the Cultural Revolution, witnessed a “double disappearance” of animals. According to Du, “wild animals not only disappeared significantly in the real world as Mao launched a series of wars against nature but also vanished from the silver screen as a result of the radical artistic forms and cultural policies adopted at the time.” [279] It was impossible for model performance films shot in theatres to incorporate live animals. Following the Chinese opera tradition, animals are indicated by gestures or props. Moreover, anthropomorphic animals in animations were also banned for being at odd with socialist realist aesthetics and for evoking association with Western cultural imperialism represented by Disney films. Du thus sees revolutionary cinema as a “representational tomb” for animals.[280]

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[278] Shapiro, Judith. *Mao's War against Nature: Politics and the Environment in Revolutionary China*. Cambridge: Cambridge University Press, 2001, 4.

[279] Du, Daisy Yan. *Animated Encounters: Transnational Movements of Chinese Animation, 1940s-1970s*. Honolulu: University of Hawai’i Press, 2019, 155

[280] Du, 157.

It was in such a historical context that zoo workers and filmmakers were sent to capture an elephant in Sipsong Panna, in both physical and visual forms. Prior to that, zoo elephants in China were mostly imported. The mission for the zoo workers was therefore to prove that Chinese people could capture their own zoo animals. In other words, like the war against nature, it was an action to exert will power and human agency against nature. Militarist languages and elements were deployed throughout the film. For example, the mission of the zoo workers was described as a “decisive battle.” The theme song of the film is a march called “A Song of Hunting Team Members” (狩獵隊員之歌), not unlike forceful mobilization music.

When the elephant capture team was first introduced in the film, a truck is seen dashing towards the audience carrying a dozen of solider-looking men, suggesting the intrusive and aggressive nature of their expedition. (Fig. 28) In a buoyant tone, the narration says, “Under Chairman Mao’s teaching on self-reliance. Zoo workers from Shanghai came to Sipsong Panna, a natural zoo. Here they are going to capture an elephant with tranquilizer guns.” (上海園林國人，遵照毛主席要自力更生的教導，來到這個天然動物園西雙版納地區，他們要在這裡，用麻醉槍捕捉大象。) Two phrases are emphasized in the narration, one ideological, the other material: Chairman Mao’s slogan of “self-reliance” (自力更生, literally meaning “regeneration through one’s own efforts”) and “tranquilizer guns” (麻醉枪), a modern technology put in contrast to the “primitive” landscape of Sipsong Panna, which is perceived as a “natural zoo.”

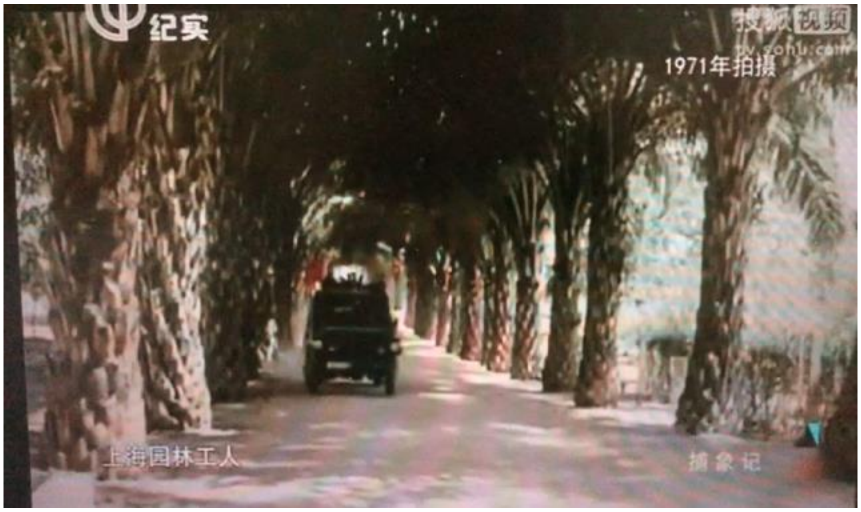

Fig. 28 The shot of the elephant capture team entering into the forests in Sipsong Panna

"Self-reliance" was a slogan promoted by Mao following the Sino-Soviet split in 1960 and in face of continuing hostility from Western nations. The slogan took on more weight, as "after the United States bombed North Vietnam on August 4, 1964, Mao called for accelerated inland development in preparation for war, sounding his favored themes of urgency, decentralization, and self-reliance." [281] Mao emphasized the construction of the inland "Third Front" in the Third Five-year Plan (1966-70), which included the development of Yunnan. About 50,000 sent-down youths were sent to Sipsong Panna, the majority to join the "Production-Construction Army Corps" (生產建設兵團) there.[282] They participated in land reclamation activities and rubber production, which led to the reduction of elephants' habitats and increase of human-elephant conflicts in the area.

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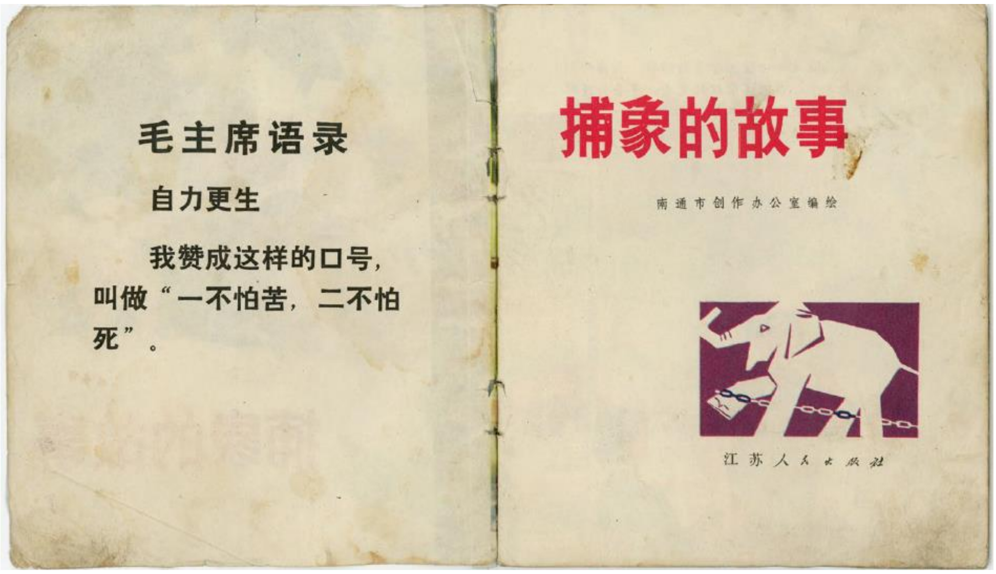
[281] Shapiro, 144.

[282] See Shi Weimin 史衛民and He Lan 何嵐. *Zhiqing beiwanglu: Shangshan xiaxiang yundong zhong de shengchan jianshe bingtuan* 知青備忘錄上山下鄉運動中的生產建設兵團 [Educated Youth Memoirs: The Production- Construction Army Corps in the Rustification Movement]. Beijing: Zhongguo shehui kexue chubanshe, 1996, i.

The discourse of "self-reliance" not only illustrated a confidence in local self-sufficiency and a militant atmosphere for the elephant capture, but also structured the narrative of the documentary into an epic journey of successive victories. In the film, despite some setbacks, the elephant capture team always managed to overcome the challenges with their will power and eventually captured an elephant, tamed it, and transported it to Shanghai without eternal aid. This dominant discourse of "self-reliance" also shaped the way the film was received. The same slogan can be found in almost all *lianhuanhua* adaptations of the film, either printed on the fly page, or depicted with the scene of the elephant capture team's mobilization meeting. (Fig. 29) "Self-reliance" is also cited in the entry on the elephant capture in *One Hundred Thousand Whys*, a popular science book for children. This entry poses the question to its young readers: "How was an elephant caught?" The answer is two-part: the spirit of self-reliance, and, as its materialization, the domestically developed tranquilizer guns.



毛主席语录

自力更生

我赞成这样的口号，叫做"一不怕苦，二不怕死"。

捕象的故事

南通市创作办公室编绘

江苏人民出版社

Fig. 29 The slogan of "self-reliance" on the fly page of *The Story of an Elephant Capture* 捕象的故事. Nantong: Jiangshu remin chubanshe, 1972.

An Elephant Capture includes a long sequence on the experiments leading to the invention of a new kind of tranquilizer, its antidote, and a novel design of a syringe dart, which guaranteed the elephant's successful capture. The technology was developed by the Shanghai Medical Industrial Research Institute (上海醫藥工業研究院), advised by the chemist Wang Qizhuo (王其灼). During the Cultural Revolution, Wang had been persecuted and driven away from his lab. His position at the institute was temporarily rehabilitated for this particular mission. The mission to capture a nonhuman animal therefore accidentally redeemed the man who had been dehumanized as "cow demons and snake spirits." [283] Wang appeared in the film only in passing, with half of his face blocked by a condenser pipe. (Fig. 30) Instead of the scientists like Wang, the audience would be more inclined to identifying with the elephant capture team members. Cross-cutting shots between the team members holding tranquilizer guns and the elephant being aimed at, especially its body part that was shot, invite the audience to experience the triumph of conquering the colossal animal and the victory of "self-reliance," as their own. (Fig. 31)

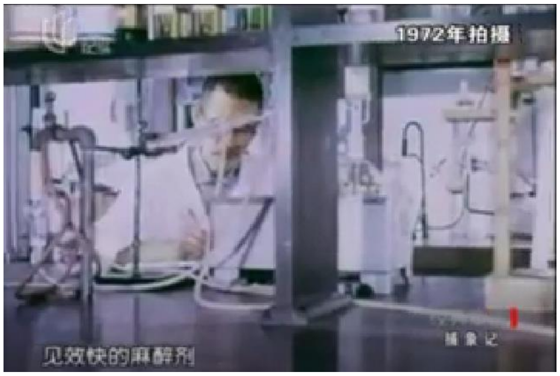


Fig. 30 Wang Qizhuo in *An Elephant Capture*

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[283] Wang, Qizhuo 王其灼. "An Anecdote about *An Elephant Capture*" 《捕象記》軼事 [an anecdote about the making of *An Elephant Capture*]. *Zhongguo yiyao gongye zazhi* 中國醫藥工業雜誌. 49(04), 2018, 541-542.

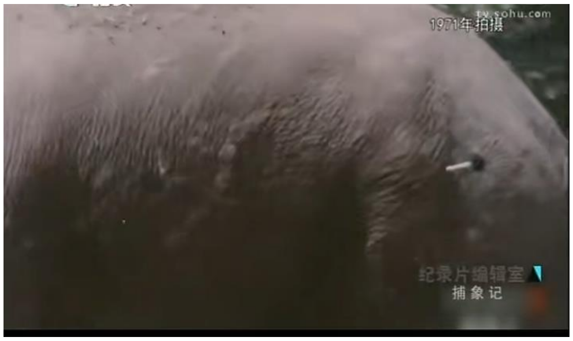

Fig. 31 A zoom-in shot of the elephant’s body part shot by a tranquilizer gun

Besides being a showcase for self-reliant technological development, the elephant capture was also celebrated as a project of multi-ethnic collaboration. Local ethic Dai people acted as guides leading the zoo workers into the forests, helped the Shanghai team trace the elephants, and opened a path to transport the captured elephant from the forests to a nearby village. Similarly, the *lianhuanhua* adaptations of this film highlight the effects of combining indigenous knowledge of the locals and the modern technology brought by the Shanghai team, exalting the elephant capture as a triumph of multi-ethnic nationalism. To understand how the figure of the elephant contributes to the constructing of this narrative, we need to take into consideration a complex genealogy of cultural and political symbolisms of the elephant in Chinese history.

II. The Symbolic Elephant

It is probably more challenging to discuss the “symbolism” of the elephant than other animals, since the pictographic Chinese character for “elephant” (象) is also used in abstract terms such as “symbol,” “image,” and “imagination.” According to the pre-Qin philosopher Han

Fei Zi, one could associate the abstract meanings of the character with the material condition for people to imagine an elephant: "Men rarely see living elephants (*xiang*). As they come by the skeleton of a dead elephant, they imagine its living form according to its features. Therefore it comes to pass that whatever people use for imagining the real is called 'xiang'."[284] (人希見生象也，而得死象之骨，案其圖以想其生也，故諸人之所以意想者皆謂之象也。) The figure of the elephant therefore evokes abstract concepts such as phenomena, representations, and manifestations of hidden truth. When it comes to its political implications, "xiang" is used for its abstract meaning in the phrase "there are manifestations of national peace and order" (太平有象). In the Ming Dynasty, the abstract "xiang" was yet again brought back to the material world when the figure of the elephant was seen as the embodiment of national peace and order and employed in palace decorations. [285]

This zigzagged route of "xiang," between the material, the abstract, and the symbolic, is also related to the material history of tribute elephants. Since the Han Dynasty, tribute elephants had played an important role in Chinese court ceremonies. The number of tribute elephants is often seen as a proof of the influence of a regime over neighboring countries as well as its control over borderlands. Since the Yuan Dynasty, the ritual of bathing royal elephants in public had become an annual event to display power and provide a spectacular entertainment for royal families and commoners.[286]

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[284] Liao, W. K. trans. *The Complete Works of Han Fei Tzu.* London: Arthur Probsthain, 1959, 193.

[285] Lin, Wanxuan 林宛萱. "Zhizuo taiping: qingdai gongting 'taiping youxiang' chenshe" 製作太平 ——清代宮廷「太平有象」陳設 [Manufacturing Peace and Order: Qing Palace Decorations with the Theme of "Manifestations of Great Peace and Order"] *Gugong wenwu yuekan* 故宮文物月刊 [The National Palace Museum Monthly of Chinese Art]. Issue 457, 2021, 62.

[286] Yang, Ho-ji 楊龢之. "Mingting yangxiang kao" 明廷養象考 [Textual Research on Elephants in the Imperial Palace during the Ming Dynasty]. *Zhonghua kejishi xuehui huikan* 中華科技史學會學刊 [Bulletin of Association for the History of Science], (14), 2010, 41-42.

This symbolism became salient in the PRC when Dao Shixun (刀世勋, Chao Mhoam Gham Le), the last king of the Sipsong Panna kingdom gifted his mount elephant Nanjiao (南娇 or "Beauty from the South") to Chairman Mao in 1954. This event took placed following the shift of power from the kingdom to the newly established autonomous Tai prefecture in Yunnan Province. Under the direction from the General Office of the State Council, the Shanghai Zoo (at the time named the Xijiao Park) was built in order to house this politically significant elephant. It took a year for Nanjiao to arrive in Shanghai. As Nanjiao aged, the zoo had to capture another young female elephant to be her successor and to perpetuate her symbolic myth. It was for this reason that the eight-year-old Banna was tranquilized, taken away from her mother, and transported all the way from Yunnan to Shanghai to be displayed next to her predecessor. Through a sequence of transportation via vehicles such as a truck and a train, the elephant's body is woven into the fabric of the state's infrastructure. (Fig. 32)

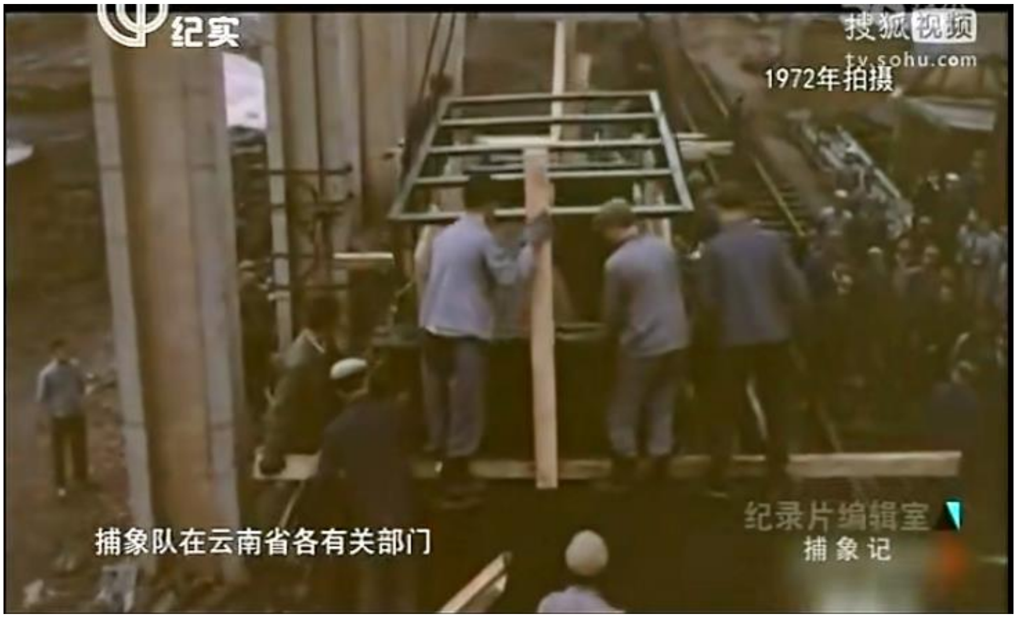

Fig. 32 Banna being loaded onto a train

Banna was named after Sipsong Panna, her hometown where she would never return. According to Mette Halskov Hansen, when the CCP gained firm control over the area in 1950, “it allied itself with parts of the Tai elite and treated the influential Buddhist leadership gently so as to assure the loyalty and cooperation of the Tai people.” [287] However, this alliance soon turned into a relationship fraught with tension and political struggles. During the Cultural Revolution, this area suffered from heavy repression of religious activities and expressions of ethnicity. Temples were closed down or destroyed while some monks were forced to return to lay life.[288] In the 1960s, the filmic representations of Sipsong Panna in works, such as *Menglongsha* (1960) and *Dai Daughters* (1960), portrayed this area as under the lurking threat of Nationalist espionage and tenuous trust between the Han-dominated CCP and the local Dai people. [289] The making of *An Elephant Capture* thus contributed to the imagination of a rehabilitated relationship between the Han and Dai peoples. By evoking the historical memories of tribute elephants, the film symbolically consolidated the center-periphery power dynamics between Beijing/Shanghai and Sipsong Panna. This intention is further evidenced by one the film’s theme songs “Gazing afar at Beijing from the Frontier” (站在邊疆望北京).

However, if we move beyond the narrative of tribute elephants and take into consideration the connotations of the figure of the elephant in Theravada Buddhism, the dominant religion in Sipsong Panna, Dao Shixun’s gifting elephant to Chairman Mao can be read differently. According to *Vessantara Jataka Tale,* one of the major texts of Theravada

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[287] Hansen, Mette Halskov. “The Challenge of Sipsong Panna in the Southwest Development, Resources, and Power in a Multiethnic China.” Morris Rossabi ed. *Governing China's Multiethnic Frontiers*. Seattle: University of Washington Press, 2004, 56.
[288] Ibid, 57.
[289] Yan, Zhenhui. *Ethnic Minority Children in Post-Socialist Chinese Cinema Allegory, Identity, and Geography*. New York: Routledge, 2020, 23.

Buddhism, Prince Vessantara, a pre-incarnation of Buddha, gave the auspicious elephant of his kingdom to a neighboring country to save it from a drought. This excessive generosity offended his people and led to his banishment. [290] In 1954, following the establishment of the autonomous Tai prefecture, Dao Shixun gifted the elephant Nanjiao to Chairman Mao and left Sipsong Panna for Beijing to study linguistics. Unlike Vessantara who eventually returned to his kingdom and reclaimed the throne, Dao returned to Yunnan as an ethnographer in 1962. [291] In today's Mandiu village in Sipsong Panna, one can find murals depicting the return of Prince Vessantara painted in the 1980s. In the murals, Prince Vessantara is accompanied by modern armed soldiers, reminiscent of the entering of the PLA soldiers in the 1950s. (Fig. 33) Here by reframing the gifting of the elephant with Therevada Buddhist imaginations, the mural painter reverses the center-periphery dynamics established through the tradition of tribute elephants. The symbolic elephant is therefore multifaceted and does not always serve the purpose of reinforcing centralized governance and multi-ethnic nationalism.

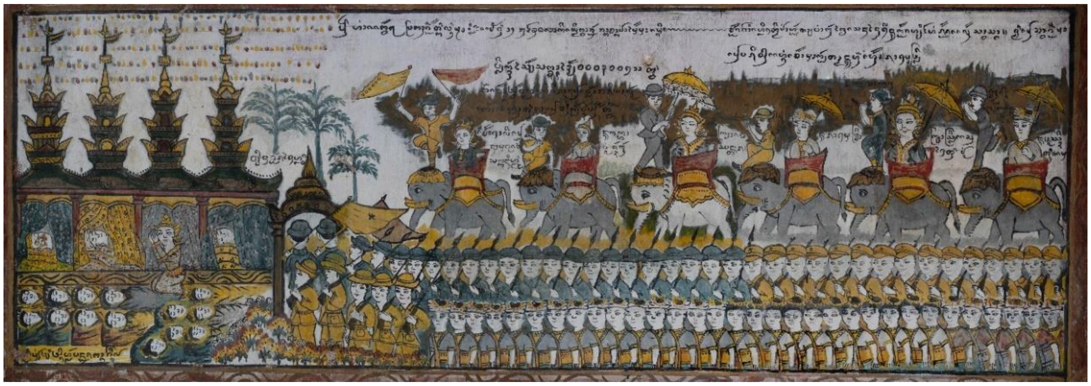

Fig. 33 Mural in Mandiu Village depicting the return of Prince Vessantara. Photo courtesy of Cheng Xinhao 程新皓.

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[290] Wynne, Alexander; Cone; Gombrich, Margaret; Richard F. "The Perfect Generosity of Prince Vessantara." *Bulletin of the School of Oriental and African Studies*. University of London; Cambridge Vol. 75, Issue. 2, Jun 2012, 404.

[291] Dao, Shixun 刀世勛. "wo zouguo de daolu" 我走過的道路 [the path I took]. *Yunnan wenshi ziliao xuanji* 雲南文史資料選輯 [Selected Collection of Research Materials on the Culture and History in Yunnan]. Volume 44. Kunming: Yunnan renmin chubanshe, 1993, 328.

III. The Disenchanting Elephant

The historical and symbolic myths of the elephant constructed and evoked by the film is further subverted and even disenchanted, if we return to more concrete historical realities. Interviews of the members of the elephant capture team in recent years revealed that the journey of the elephant capture team was not entirely a triumphant story.[292] Both the zoo veterinarian Hua Baofa and the filmmaker Luo Zhengsheng recalled that a herd of elephants, including Banna's mother, encircled the village at night and let out heart-wrenching trumpeting roars all night along. This affectively disturbing and morally challenging moment remained in their memories more than three decades after the elephant capture.

It was also revealed that there was tension between the Shanghai team and local Dai people. The Shanghai Zoo workers were determined to accomplish the mission by any means, whereas local Dai people retained a sense of awe towards elephants and sometimes refused to serve as the zoo workers' guides. The zoo veterinarian Hua Baofa, who participated in the capturing and taming of Banna, admitted that the frustrations he experienced in the process from time to time destabilized his belief in Mao's voluntarist philosophy. To regain calmness, he even visited Buddhist temples in the mountains and learned from the monks how the Dai people and Theravada Buddhism understood elephants.

Moreover, what was left out from the film is the unexpected ecological consequences of the capture. According to a study of human-elephant conflicts in China, there were at least five elephants killed in the capture. Two were shot by the PLA soldiers with submachine guns, while the rest were killed due to miscalculations in the dosage of the new tranquilizer. Witnessing this technologized elephant capture also disenchanted some of the local people with the divinity of elephants. In the decade following the making of the film, at least 10 elephants were poached around the village where the zoo workers were stationed. The large herd of elephants in this area were broken into smaller ones and some left Yunnan for Myanmar and Laos.[293] The project aimed to display China's own elephants ended up driving the elephants away from their native habitats.

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[292] Hereafter my discussion is based on the following three interviews: Jianzheng yingxiangzhi 见证影像志 (Witness: Visual Histories) (2007): https://v.qq.com/x/page/r01489ooxpb.html; Jingdian chongfang 经典重访 (Revisiting the Classics): https://www.youtube.com/watch?v=sC7I_9MzQwU; Jilupian bianjishi 纪录片编辑室（The editing room of Documentaries）(2013) : https://www.bilibili.com/video/BV17A411e78K?from=search&seid=4552775149351182947&spm_id_from=333.337.0.0;

During the Cultural Revolution, the nonhuman animals that "disappeared" from model performance films and animated films reappeared in documentaries such as *An Elephant Capture* and demonstrated a complex entanglement between their material presence and symbolic implications. [294] Revisiting the making of *An Elephant Capture* and its consequences not only provides another footnote to Mao's war against nature, but more importantly reveals how, instead of being fought against, nature can be mobilized for its symbolic values. The intertwined media, technological, and environmental histories of the elephant, I argue, reveals the mechanism of and the fissures within the discourse "self-reliance" and multi-ethnic nationalism in Mao's China, and brings us to the compelling materiality and dynamic meaning-making of the nonhuman animals that cannot be simply incorporated into these ideological frameworks.

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[293] Chen Mingyong 陈明勇, Hong, Guozheng 洪国政, Li, Zhengling 李正玲, Dong Yonghua 董永华, Yang Yunzhong 杨云中. *Zhongguo renxiang chongtu yanjiu* 中国人象冲突研究 [A Study of Human-Elephant Conflicts in China]. Kunming: Yunnan keji chubanshe, 2012, 105-106.

[294] Another example is Domesticating Deer 驯鹿 (1973), which celebrated the spirit of "self-reliance" exemplified by the domestic farming of deer antlers. For reference, see Zhao, Kejun "Jingshen bian wuzhi, renmen chuang qiji: caise jilupian buxiangji, xunlu guanhou" 精神变物质　人们创奇迹 ——彩色纪录片《捕象记》、《驯鹿》观后 (People Create Miracles by Turning Spirit into Material: Reviews of Color Documentaries an Elephant Capture and Domesticating Deer). Guangming Daily 光明日报. Feb 13, 1973.

As the Maoist discourses faded away in the following decades, Banna remained in the Shanghai Zoo. When it passed away, the Shanghai Zoo launched a commemorative event called "Banna and Me" on the social media forum Weibo and invited Shanghai residents to share their photographs taken with Banna. From these photographs, one can observe how the elephant had transformed from an ideological prop to a sentimental token of family memories. What was not mentioned in the event is that Banna, with the traumatizing memories of being taken away from her mother and uprooted from the familiar habitat, never once lied down to sleep for the entire 46 years of her stay in the Shanghai Zoo during which she gave birth to eight elephants.

IV. Connecting with Elephants in the "Limbo"

Banna's fate poses the question of whether or not we can truly empathize with our nonhuman other, especially in a time of crisis, and even build a posthuman kinship with them. In his novel *The Stolen Bicycle*, Wu Ming-yi offers his answer by allowing the elephant to gaze back at his human readers. The novel consists of multiple intertwined narrative threads, one of which follows a herd of elephants that were first deployed as war elephants in Burmese jungles by the Japanese, captivated by the Chinese army, and eventually transported to Taiwan. These elephants are paralleled to another nonhuman "character" in the novel- the bicycle. Similarly in the Burmese battlefield, bicycles were mobilized and destroyed as part of the war machine and act affective companions and mechanic tools that shaped the soldiers' bodies. Resonating other cases examined in this dissertation, the boundaries between the human and the nonhuman, between the mechanic and the organic become blurry.

A posthuman kinship is naturally evoked in this context. Thinking with these elephants, who seem to possess a different sense of temporality from human beings, Wu Ming-Yi conjures up an ancient age "when humans considered themselves the most insignificant of the animals, the least able to communicate with the spirit." [295] However, he does not linger upon the mythically enchanted time, and instead guides the reader into the sensorium and consciousness of an elephant subsumed and consumed by the modern war machine. Abused and wounded, this elephant is constantly troubled by nightmares about the war. It even develops the capability of "smelling" the soldiers' fragmented nightmares and understanding their wounds. There is no easy redemption offered in this mutual understanding. The soldiers and the elephant are all lingering in the "limbo" between life and death, between innocence and guilt. "The elephant acknowledged that pain and fear as its burdens to bear in this life—that the life of an elephant was a dream in which various torments had to be endured" [296] The "limbo" is inscribed with the subaltern heterotemporalities of suffering and endurance shared by the elephants and the soldiers. By inviting his reader to become the elephant, Wu Ming-Yi not only reveals the ecological impact of the war but also lends his reader a pair of animal eyes to revisit the human conditions.

In the postscript to *The Stolen Bicycle*, Wu Ming-Yi quotes the ancient Greek historian Polybius to describe his ideal of writing: "The most instructive thing is remembering other people's calamities. To stoically accept the vagaries of fate, this is the only way" [297] However, Wu's horizon is not limited to other *people*'s calamities, but encompasses the calamities of both human and nonhuman others. The humble gesture of observation, which he terms "weak but intent gaze," naturally leads him to "weak anthropocentricism," a concept he first evokes in *The Book of Lost Butterflies* (迷蝶誌), his first essay collection on butterflies. [298]According to Bryan G. Norton, the ecocritic who coined the term "weak anthropocentricism," this self-reflexive position is based on the human subject's "considered preference" rather than merely "felt preference." He distinguishes "considered reference" from "felt preference" as follows:

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[295] Wu, Ming-yi. Darryl Sterk trans. *The Stolen Bicycle*. Melbourne: Text, 2017, 297.
[296] Ibid, 299.
[297] Ibid, 368.

> A *felt preference* is any desire or need of a human individual that can at least temporarily be sated by some specifiable experience of that individual. A *considered preference* is any desire or need that a human individual would express after careful deliberation, including a judgment that the desire or need is consistent with a rationally adopted world view—a world view which includes fully supported scientific theories and a metaphysical framework interpreting those theories, as well as a set of rationally supported aesthetic and moral ideals. [299]

It is important to note that "considered preference" places emphasis on the process of value formation. It is always in negotiation with the "felt preference." Therefore, to take a weak anthropocentric position means to always be ready to take on values "formed and informed by contact with nature" and adjust one's own. In this process, "Nature need no longer be seen as a mere satisfier of fixed and often consumptive values-it also becomes an important source of inspiration in value formation." [300] As the human subject casts a "weak but intent gaze" on the nonhuman other, the nonhuman other would return the gaze and in turn reshape the human subject.

In early 2021, more than 74 years following the war elephants' journey from Burma to Taiwan, a historical event fictionalized in *The Stolen Bicycle*, and 49 years after Banna's transportation from Sipsong Panna to Shanghai as recorded in *An Elephant Capture*, a herd of 14 elephants embarked on a north-bound expedition from the nature reserve in Sipsong Panna, possibly searching for a new habitat. Following a 1300km journey that took them across Yunnan, the trekking herd eventually returned to their original reserve. Following Mao's war against nature, the elephants' habitats have been further reduced due to deforestation and encroaching farmland in the context of post-socialist emphasis on economic development. Monitored by a team of 360 experts, a fleet of nine drones sent by the authorities, and the cameras of voluntarily devoted livestreamers, the roaming elephants soon became nationwide celebrities and attracted global attention. Netizens across the world were transfixed by their iconic images. The obsession with "xiang" as the elephant is thus fused with the infatuation with "xiang" as the image.

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[298] See Wu, Ming-yi. *Mi die zhi* 迷蝶誌 (The Book of Lost Butterflies). Taipei: Xiari, 2010.

[299] Norton, Bryan G. "Environmental Ethics and Weak Anthropocentrism." *Environmental Ethics* 6.2, 1984, 134.

[300] Ibid, 135.

In this materialized sequel to *An Elephant Capture* and *The Stolen Bicycle*, the figure of the elephant, disenchanted as a scientific object for experiment and mastering in socialist China and celebrated as an embodiment of China's self-reliance, is reenchanted by postmodern media technology as an epic spectacle for the world to consume. It can be considered as a timely reminder of the precarious connections we engage with today, that come with relational responsibilities for both human and nonhuman others. In these precarious connections, we can find opportunities to practice a weak anthropocentric vision in the Anthropocene.

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