The Sacrificial Altar of Development: Critiquing Narratives of Developmentalism in Contemporary Chinese Science Fiction

By Gemma Field

A dissertation submitted to the Department of English Language and Literary Studies

University of Cape Town

In partial fulfillment of the requirements for the degree of

Master of Arts

February 2022

Supervised by Dr Hedley Twidle

ACKNOWLEDGEMENTS

This project was only made possible with the support from some invaluable actors. I thank the University of Cape Town for partially funding my degree and Dr Hedley Twidle for providing much-needed administrative and editorial support. I am indebted to Nina Abrahams, Claire Hurst and Georgina Vintin for their unwavering support during this period. Finally, this project would never have been realized were it not for the invaluable intellectual input of Miro Field.

The Sacrificial Altar: Critiquing Narratives of Developmentalism in Contemporary Chinese Science Fiction

This project examines and critiques prevailing narratives of modernization and development, or developmentalism, through the representation of uneven socio-economic development in contemporary Chinese science fiction (sf). Using the theoretical paradigm of development studies as a point of critical departure, I argue for the value of sf as a field of literary inquiry into concerns around development and modernization. The purpose of this thesis is not to evince some unique Chinese characteristic of modernization, but to show how contemporary sf writers problematize the mainstream narrative of development, conceived, per neoclassical economics, as the only aim of a nation or company, with economic growth metrics only indicators of success. First, I survey modern Chinese history and sf, and the field of development studies, and then explore the function of the sf novum, and how this can be deployed as a grotesque critique of exponential, unceasing growth, in Wang Jinkang's 'The Reincarnated Giant' (trans. 2019). I then read Hao Jingfang's novella *Folding Beijing* (trans. 2016) in mind of Henri Lefebvre's conception of the social production of space to concretize and entrench social cleavages. The final chapter examines ecological assemblages in Chen Quifan's *Waste Tide* (trans. 2019). *Waste Tide,* which is read together with Anna Lowenhaupt-Tsing's (2015) theory of how such assemblages might offer ways of living "simultaneously inside and outside" capitalism. The concluding chapter summarizes these findings in terms of sf critical theory and development studies, concluding that sf is a productive but also ambiguous medium for critiquing developmentalism within the context of Chinese state censorship.

INTRODUCTION: A BRIEF SURVEY OF DEVELOPMENT THEORY AND MODERN CHINESE SCIENCE FICTION AND LITERARY HISTORY

Since the genre's beginning in the late nineteenth century, Chinese sf has been ideologically charged: beyond its official Chinese Communist Party (CCP) mandate of popularizing and teaching science to young people, Chinese sf has consistently provided visions of a utopia resulting from techno-scientific achievements; but equally the discourse of sf has been used to criticize the CCP and the state. Indeed, censorship makes direct critique impossible; under China's one-party state, no anti-government sentiments are permitted in the public sphere, and non-compliance is harshly punished. The oblique criticism from sf is seemingly more acceptable to the state, perhaps because of the genre's historical role as a propaganda tool. While younger Chinese sf writers such as Xia Jia, Ma Boyong and Chen Quifan are much more explicit in their social and economic critique, veteran writers like international literary sensation Liu Cixin, who is not discussed in this project, views scientific, economic and social development in markedly contrasting utopian tones.

A survey of the available Chinese sf in English suggests that the theme of economic development represented through violence is a prominent motif; from visceral representations of the individual as a bodily subject of developmentalism, as in Wang Jinkang's short story 'The Reincarnated Giant' (trans. 2018) , to the systemic violence of geo-engineered class divisions, operating on the level of society, such as in Hao Jingfang's novella, *Folding Beijing* (trans. 2016), to violence and assemblages of ecological disturbance that is shown in Chen Quifan's *Waste Tide* (trans. 2019). Deconstructing "the myth of national development" (Mingwei Song, 489) in China using three representations that forcefully displace the ideological foundation of developmentalism, this thesis critiques the influence of Western development archetypes on a country such as China, asking how elements of the developmentalism discourse are refracted through the economic and cultural development in China.

DEVELOPMENT: Theories and paradigms

Development theory is an interdisciplinary field of study which examines the ideas about the development of nations. It is not united by a single methodology *sui generis,* but rather a discourse concerning the evolving and changing perspectives on ideas of development in terms of a

"sociology of development knowledge" (Pieterse, 4) that is constantly evolving, prompted and shaped by social crises. Development theorists work with issues such as industrialisation, urbanisation, rural development, economic policies and social welfare. Traditional development theory is founded on structuralist principles, and *laissez-faire* neoclassical economics best summed up as 'the infallible hand of the free market', and its antithesis: the "commanding heights" (Yergin & Stanislaw, 2002) policies of welfare states and planned economies.

While 'development' has enjoyed and been imbued with a host of meanings over the past several centuries of recorded history, the present use of the term was popularised in mid-twentieth century stage theories, as a synonym for modernisation. Both technological and socio-political, it is couched in the discourses of industrial capitalism and liberal democracy. Walt Rostow's *Stages of Economic Growth* (1960) is the epitome of this line of thinking. Much like Marx's stages of social development on the way to the inevitability of communism, Rostow describes a series of stages of civilisation culminating in capitalism, and while capitalism is natural and good, it is not inevitable. Societies can move "backward or forward along the axis of progress." (Pieterse, 21). This was developed further in dependency and world-systems theory, chiefly expounded by Walter Rodney and Immanuel Wallerstein respectively, the impetus of which is to modernise, whether to break free of reliance on the West or to perpetuate it. As Shils puts it: "modern means being western without the onus of dependence on the west" (10). As many world-systems theorists make it clear that the West is only better than the rest because of this skewed balance of power, this contradiction has resulted in another shift in development thinking. A more recent permutation is neoliberal development, which posits that market forces will naturally assert and produce economic development, if freed from pernicious regulation and oversight.

The central thesis of development theory and developmentalism, in that all development studies claim to prove or refute it, is that "social change occurs according to a pre-established pattern, the logic and direction of which are known. Those who deem themselves furthest advanced along its course claim privileged knowledge of the direction of change" (Pieterse, 19) This of course is a Western paradigm of modernisation, a narrative of how the West developed itself through institutions of private property and the like, that takes for granted that the goals of any society are inherently economistic, that neatly sidesteps the role of colonialism in western development. Some radical theorists of development reject the paradigm entirely, arguing that resistance to the Western paradigm of developmentalism in the Global South constitutes "an affirmation of autonomy and an expression of cultural resistance to western ethnocentrism" (Pieterse, 29). The assumption is that wherever you go, everyone wants economic development. The linguistic and

discursive turn in development studies has problematised this. The conception of development as a body of ideas and exchanges – a discourse – and not merely a self-evident evident social evolution, called concepts such as the West and the Third World into question. Following cues from the traditional developmentalist refrain, epitomised by IMF loans and Structural Adjustment Programmes, has only exacerbated development problems for South American, South-East Asian, and African nations, revealing that the myth of modernisation is a false promise. Economism is not the only erroneous assumption in developmentalist thinking. Development scholars have highlighted developmentalism's failure to account for ecological limits, that the adherents of developmentalism aggressively push. Shiv Visvanathan conceptualises this shift as "a civil rights movement against development-as-terrorism, based on the recognition that the modern state committed to science has become the prime anti-ecological force in the world" (285). When economic development, and environmental and social welfare become mutually exclusive, the developmentalism model is further revealed as inadequate.

There are other conceptions of development that are gaining traction. Development reconceptualised as collective social good is an alternative model, what Björn Hette calls "intentional social change in accordance with societal objectives" (6). Amartya Sen (1999) has described development in terms of "capability", of which freedom is the primary modifier, and also Milton's Friedman's (1992) discussion of development in terms of "human flourishing". The United Nations Development Goals are an example of that model of development which prioritises equality and equal access to both necessities and opportunities for upward mobility. They speak to a discursive, if not a material shift, away from economised visions of development, which frame social good as a nice side bonus of development, towards emphasising that social good as the primary objective and the means through which development, of whatever kind, may be realised. The discourse and theories of development all share a commonality, resting on the foundation of an inevitable teleology, but whatever the model of development one chooses to employ, the economic history of late Qing and modern China runs the gamut of most metrics

CHINA: From the late Qing to the future

The following sections provides a brief chronological history of modern Chinese politics and culture, with a focus on the history of sf in modern China as it relates to the development of the modern nation, from the end of the final imperial dynasty to the present.

The End of Empire and the Beginning of the Nation (1830-1930)

After a millennium of increasingly centralised imperial rule over the world's largest territory and agrarian population, China's final dynasty relinquished power in 1912, as a result of combined pressures of external colonial incursions and internal civil discord. The Japanese, French, Russian and British empires increasingly encroached on Chinese sovereignty with extra-territorial zones, opium trading and global concessions, exemplified in the First Opium War (1839-42) and the Sino-Japanese War of 1894-5 and the ceding of Hong Kong and Taiwan respectively, and extra-territorial zones in key ports like Shanghai. China's exposure to sf dates to this time, when imported Japanese translations of authors such as Mary Shelley, Jules Verne and HG Wells, made their way to the Middle Kingdom. The most significant of these was Lu Xun's translation into Standard Mandarin, from a Japanese translation of an English translation of Jules Verne's *Journey Around the Moon* (1869), because it contained an accompanying original 'metafiction', perhaps making it the first sf story written and published in China. In 1902, scholar and writer Liang Qichao coined the term *kexue xiaoshuo* to describe this new literary phenomenon in in his magazine *New Fiction,* expounding the virtues of a new genre of literature he called "philosophical science fiction" (Wu & Yao, 46). Liang Qichao also published the first full original work of Chinese sf*, Xin Zhongguo Weilai Ji* ('The Future of New China'). This first "golden age" (1902-1911) spawned "numerous novels and short stories that combined science, fantasy, political utopianism and technological optimism" (Song Mingwei, xiv) in a time and place that was finding itself to be increasingly behind the times.

The Qing dynasty, which ascended to the throne in 1644, was steadily losing control of the enormous territory from the mid-eighteenth century, which became increasingly threatening to Chinese territorial sovereignty in the nineteenth century. This was despite the efforts at self-strengthening and the *Xinzheng* ('new government') institutional modifications of 1902, which were superficial and unable to dispel increasingly negative sentiments towards the government. Living conditions in China were poor. More than three-quarters of the population lived in rural poverty, their only contact with Nanjing in the form of tax collectors and mandarins. Famine was frequent, life expectancy was low and infant mortality was high.

During the chaotic final years of the Qing, sf vacillated between utopian hopes for the future and pessimistic criticism of the present. The most influential and noteworthy of the texts produced during this period was Lu Xun's *Diary of a Madman* (1918). His "truth-claiming literary realism" utilised the motif of cannibalism to make evince the "hideous evils of the Confucian tradition" (Song Mingwei, xvii) that became wildly popular. These famous national writers who spearheaded what become the May Fourth Movement vocally declared that this new and colloquial genre

"would help the spread of modern knowledge in China, emancipate people's minds and bring development to a declining civilization that was being surpassed by the industrialized Western nations" (Han Song, 15).[1] The arrival of "Western scientific culture" in China, and the influence of concomitant sf texts "brought about the flourishing of sf literature in China" (Wu & Yao, 45). The pioneers of sf in China, Lu Xun and Liang Qichao, believed that literature should always have a didactic purpose, in "holding up a funhouse mirror to the absurdity of things" occurring in China at the time, and "euphemistically depicted during traditional China's transformation into modern China" (Liyuan, 104). The utopian impulse of mainstream fiction was also present in the first wave of Chinese sf, by depicting a future of Chinese prosperity "sf gave hope to a difficult reality, strengthening [people's] faith in the future" (Liyuan, 105), strength to realise the utopias of this fiction. The pioneers of sf in China believed in the transformative power of this new literary genre, that, as the literature of science, progress and the future, it would help guide the nation as a lighthouse to the shores of modernity. Already from its early days, the genre performed a dual, almost schizophrenic role in Chinese society: praising China and lauding its future, whilst exposing the nation's present ills.

The internal pressures from rising dissent, "the signs of imperial overstretch" (Mitter, 21): bureaucratic dysfunction, famine and growing pockets of republican nationalism, violent cults and opportunistic local leaders across the vast territory, led to incidents such as the failed Boxer Uprising of 1911. The official end of the Qing dynasty came with the emperor's abdication in 1912. Thus ended a history of dynastic rule dating back to 221 BCE. The demise of the centralized power of the Qing created a power vacuum, quickly filled by Sun Yat-Sen, leader of the revolutionary Kuomintang and ten failed uprisings. While they held Nanjing, once again the capital, and a few other cities, the KMT's administration, infrastructure, and lines of command across the huge country were not sufficient to maintain power. The new government was relying on a bureaucracy that was dysfunctional, poorly trained, and corrupt. After Sun's death in 1916, the KMT became another party competing with the Chinese Communist Party, and an assortment of regional agitators, republicans and nationalist parties. But beyond their power bases, no group had "a real claim to control over the rest of the county" (Mitter, 31), and the country's brief period of peace was ended.

[1] The translations of European sf novels, as well as the works of Lu Xun and Liang Qichao, were all written in Standard Mandarin, a far less complex system of intonations and characters than Classical Mandarin, the traditional language for serious literature and the bureaucracy. As Classical Mandarin was the language of the elite, the decision to publish these texts in Standard Mandarin was radical in and of itself.

A significant event in Chinese cultural history took place during this power struggle. China had joined the Allies in the First World War on the understanding that the German concession in Qingdao would be returned to China. When this territory was 'given' to Japan at the Treaty of Versailles, protests erupted in cities across China. On May 4th, 1919, a group of protesting students and scholars demonstrating outside the Forbidden Palace stormed and destroyed government buildings outside its gates. From this was birthed the May Fourth Movement. Both social and cultural, it was born of dissatisfaction with long-established tradition of imperial rule and global isolation, and China's failure to maintain its sovereignty against Japan and Europe. The New Culture Movement explicitly rejected Confucian ethics, describing the West as "a model for modernizing China's society, culture and politics" (Carter, 119). Famous thinkers like Ding Ling, Liang Qichao and Lu Xun expressed in literature and popular writing what the everyman demanded: radical changes that were highly critical of Confucian thinking and Chinese traditions as having no place in the modern world, and "get rid of the heavy burden of history and tradition" (Zhang, 46). The movement was underpinned by "the twin panaceas of 'Mr Science' and 'Mr Democracy'" (Mitter, 35) the much-touted changes envisioned of post-imperial China. *Diary of a Madman* was an excoriation of Confucian values and imperial traditions through the metaphor of cannibalism, while *New China* described a powerful future for China based on scientific and military supremacy.[2] China's troubled present, and the possibilities offered by a scientifically enhanced future, represented in *Diary of a Madman* and *New China* respectively, defined the terms of engagement of sf in China.

Post-Republic to the Cultural Revolution (1930-1976)

The 1930s saw the publication of two significant texts that would demonstrate the diverging paths of sf in Chinese literary culture. Lao She's *Cat Country* (1932) describes a feline-founded Martian dystopia that its human narrator finds just as unsatisfactory and considerably more unsettling than the contemporary China from whence he came. Cat country and its citizens, absurd in their antipodean degeneracy, function as a satire and a critique of a morally and economically bankrupt China, depicting the "aftermath of the Opium Wars and economically colonized by foreigners, its people addicted to opium, impoverished and barely surviving through these economies of corruption" (Raphals, 73). While in 1939, popular science writer Gu Junzheng published an

[2] The four virtues (*'sizi')* of Confucianism are filial piety, righteousness, fidelity and loyalty. These are to be practiced by all to promote the ultimate goal of Confucianism, the creation and security of a harmonious and orderly society. Anyone who does not conform is putting everyone in danger by disturbing that harmony. In the context of the time, it meant obedience to, in descending order of importance, the emperor, the state and its laws, one's social betters, one's parents, one's elders, one's husband and one's male relatives.

anthology of detective stories, *Under the North Pole*, with plenty of scientific explanations to supplement the action. This was the didactic, as opposed to critical, role of the genre: using fun stories to teach children about science and the necessity of China's scientific ascendancy. Between the late Qing and the Republic periods "sf underwent a transformation…[leaving] the world of popular fiction…[and] increasingly entered the realm of children's literature" (Wu & Yan, 47), whilst remaining true to its origins in science education. It was believed that introducing the new children of the New China to science at an early age would foster interest in science and spur on national development, a belief that has persisted in shaping the genre since its infancy. It continued through the 1940s, 1950s and into the early 1960s. Sadly, the Cultural Revolution brought all of this to an abrupt end.

Under the leadership of Mao Zedong, the party moved the capital back to Beijing and consolidated the nation in a violent *zhengfeng* ('purification'). Chiang and other nationalists decamped to Taiwan. The nation shifted its focus from spreading international communism, to strengthening internal communist rule and ideology. Chinese economic self-sufficiency, with technical assistance from and a strong commercial relationship with the USSR, was also high on the agenda. Despite the nation's dearth of mineral resources and international allies, the policies the CCP instituted in its early years speak to the optimism about the future and a decisive break with the past and a desire to build "a more just society" (Smith, 178). The Common Programme of 1949 was one of radical land redistribution and agrarian reform, organizing state monopolies, improving working conditions, eliminating the opium trade and breaking up the secret society trade monopolies. These "redemptive religious societies" (Smith, 184), such as the White Lotus, the Guomindang and the God Worshippers, not only refused atheist Mao Zedong Thought and the command economy, but they also often acted as fifth columns for Western powers.[3] Apart from demonstrating ruthless violence in the face of internal opposition, the policies of the early People's Republic improved the living conditions and future prospects of the country's rural population. China's relationship with Russia was not fated to last: Mao's directives favored economic self-sufficiency and self-strengthening, coming to a head in 1960 with the Sino-Soviet Split.

This move towards national economic self-reliance was made famous by two disastrous policies that resulted in significant loss of life. The first of these was the Great Leap Forward (1958-1962).

[3] These religious groups synthesized Christianity (i.e., the belief that all believers are children of God and must be redeemed by Christ, otherwise they will be damned) with Buddhism (which implies an eternal karmic cycle) and local practices. One group, the God Worshippers, whose leader Hong Xiuquan claimed to be the second coming, gained infamy with the Taiping Rebellion (1850-1864) that resulted in 30 to 50 million deaths.

A project of “extraordinary utopianism” (Smith, 196) and in accordance with communist ideals, it started out as a national rural empowerment project to produce steel, desperately needed for industrialization, through “backyard furnaces” in centralized communes. The scope of mismanagement that the country dissolved into chaos in a matter of months. the result was in the largest man-made famine in history, with estimates of the death toll, which patchy records have obscured, of up to 50 million people. The second major upheaval under Mao’s rule was the Cultural Revolution (1966-1976), which set different Communist Party factions against each other on the streets of cities across the nation and purged the government and civil society of so-called reactionary elements within the CCP. These included the infamous ‘struggle sessions’, where Red Guard high school students beat confessions out their former teachers in public and staged pitched battles in schools across Beijing. Two of the many public intellectuals beaten during these events and afterwards purged were sf writers Lao She and Ding Ling. The Revolution burnt itself out after the death of Mao Zedong in 1976, and the ‘rustication’ of former Red Guards.

The Golden Age to Rebirth (1976-1991)

1976 was an auspicious year. Beyond signalling the end of the Cultural Revolution, it was also the year many writers were politically rehabilitated and were able to resume writing, including Tong Enzhen and Ye Yonglie, who entered the literary scene in 1976 with great success. His ‘Miracle on the Highest Peak’ was essentially *Jurassic Park* more than a dozen years before Michael Crichton thought of the idea. It was during the late 1970s that veiled critiques of the Cultural Revolution began to appear in sf texts. Jin Tao’s ‘Moonlit Isle’ (1980) describes a pair of young lovers frustrated with the confines of conformist terrestrial life who escape to live freely amongst the stars; Zheng Wenguang’s ‘Earth’s Mirror’ and ‘Star Camp’ (both 1980), and Wei Yahua’s ‘Dreams of a Gentle Country’ (1981) also reflect on the chaos of the Cultural Revolution, “calling to account sheep-like adherence to ideology, poverty of thought, bureaucratization, and the policy of controlling the people by keeping them ignorant” (Wu & Yao, 49). These texts were still aimed at a teenage audience, but the tone of the genre had shifted from youthful optimism about China’s boundless future possibilities, to one of disenchantment and dissatisfaction, particularly at the heavy-handed rustication movement and the failed Cultural Revolution. Many critics consider the 1970s as the “golden age” (Wang, 469) of Chinese sf: along with the wildly successful ‘Miracle’, Tong Enzheng released another runaway success, *Death Ray on Coral Island* (1978), which in 1980 became China’s first sf film. In 1979, the first sf “prozine” (Wang, 470) in China was established: *Scientific & Literary.* Many other publications rose and fell in the

1970s and 80s, but *Scientific & Literary* was the only one to survive the anti-spiritual-pollution campaigns that were to take place the late 1980s.

The 'political rehabilitation' of reformists in the CCP – most famous among them Deng Xiaoping and Zhong Enlai – marked the official end of the Cultural Revolution. This paved the way for Deng, Zhong and others to implement restructurings, and reinstate political and social order that had been absent for almost a century. Chief among the changes was the liberalization of the domestic economy and the opening up of China to international trade. Many citizens disgraced during the fervor of the Cultural Revolution were officially rehabilitated, among them senior former Party members and civil servants, prominent scholars and renowned artists, a period known as *'Boluan fanzheng'* (removing chaos and restoring normality). While press and literary freedom were initially restored and encouraged, these rights were gradually curtailed over the next decade. This was also the beginning of the Reform and Opening Up Period. Spearheaded by Deng, the reforms include de-collectivization of agriculture, allowing foreign domestic investment, and promoting local entrepreneurism, later, the privatization of many state enterprises, and the relaxation of protectionist economic policies and price controls, permitting a certain degree of market influence. This was not an easy or steady period in China, as market reforms led to growing inequality and growing dissatisfaction with the one-party system and all the oppression that such a system entail.

Along with the official *perestroika* was an unofficial and short-lived *glasnost*. In the early 1980s, several sf and genre magazines started popping up. It was during this period that the magazine writer Tong Enzhong made his debut, demonstrating that "literary value should be the core purpose of sf" (Wu & Yao, 50). Straying away from its state-appointed didactic role proved unwise, and from 1982, "there were increasingly common accusations that sf was "anti-Communist Party and anti-Socialism"" (Wu & Yao, 50), thanks to the genre's longstanding association with Westernisation. Deng Xiaoping went so far as to label the sf "pseudoscience" and denounce the genre for glorifying "elements of capitalism and commercialism" (Wang, 470). Since the only valid form of science in the People's Republic was Maoism, the accusations that the genre was also unscientific was the final nail in its coffin. The zealotry of the post-Cultural Revolution anti-spiritual-pollution campaign, '*boluan fanzheng',* effectively "wiped sf from the map again" (Wang, 470) and most writers of sf were purged, including Lao She, who, after being purged and rehabilitated during and after the Cultural Revolution, committed suicide. Others faded from public view to avoid a similar fate.

Tensions that had been simmering for years came to a head in the Tiananmen Square Massacre, where the People's Liberation Army fired upon protesting students, provoking international outcry

and condemnation. In response, Beijing swiftly curtailed a number of liberal reforms recently introduced to the national laws prohibiting criticism of that government. Since the late 1980s, under the auspices of Deng and his chosen successor, the national economy has been liberalized, yearly GDP and living standards have steadily climbed, remaining so in the face of two recessions; although it should be noted that the increases in national income and individual living standards have not risen equally, deepening inequality, and widening the gaps between the affluent south and the arid north, between urban and rural citizens.

The New Wave(s) (1991-present)

Contemporary Chinese sf, that is, sf published since the country's economic liberalisation in the early 1990s, has generally moved away from reproducing the techno-optimism of earlier works, following the classic narrative of future China as a superpower, for bleaker visions of the future of the nation and the planet. The genre still maintains its didactic element but is aimed at a wider and generally much older audience. The late twentieth-century reforms also paved the way for social critique, particularly concerning the sense of spiritual emptiness that was a key literary movement in the 1990s "hooligan literature" (Huang, 64), accompanying the nation's explosive prosperity and international prominence, arguably characteristic of Western-style modernity in China. This is almost an inversion of the genre's problematic a century earlier, when China grappled with embracing Western and scientific norms and what the implications of such a shift might have for China and Chinese culture. The didactic element of Chinese sf has persisted, as Regina Kanyu Wang argues, literature in China "is something which should carry social responsibilities" (468), but this has shifted from using literature for teaching scientific principles to using scientific-style literary discourse to critique modern society.

The official beginning of contemporary Chinese sf was 1991, with Yang Xiao, editor and president of *Scientific & Literary* to *Science Fiction World*, shedding the didactic cover necessary to preserve the magazine during the 1980s. This was the year, says Kanyu Wang, that Chinese sf "started flourishing again" (471). *Science Fiction World* and Chengdu also hosted the World Science Fiction Conference. In 1997, Beijing, with special funding from the China Association for Science and Technology, a government body, hosted the International Convention on Science Fiction. In 1999, one of the questions in the national university entrance exam was 'what if memories could be implanted?', signalling how far sf had permeated into the nation's consciousness. Mingwei Song concurs with Wang that Chinese sf "already experienced a decade of its own golden age, 1999 to 2010" (485), which sadly passed unnoticed by mainstream readers and critics. Veteran Chinese sf writer and critic Fei Dao concurs with the genre's low status in

China's literary world, likening it subatomic particles or nuclear radiation in that it is similarly "undetectable to most" (495). In many publications and presentations, Fei Dao has likened the Chinese sf canon to a "hidden army" that has gone unnoticed in the Chinese literary landscape, lying "concealed in silence, alone on a desolate heath" (496). What had toiled ceaselessly and unnoticed for over a decade was like "a dam storing up the potential for an explosive release" (Fei Dao, 497), which had finally exploded onto the popular scene.

The scholarly world took a similar stance on Chinese sf. While scholars are generally slow to new trends, Chinese sf has quickly become a prominent subfield of China studies. Prior to 2012, when the prominent journal of Chinese literature in English, *Renditions,* published a special issue on the topic, and *Science Fiction Studies* special issue the following year, once the phenomenon of Chinese sf had become "impossible to ignore" (Mingwei Song, 486), the only scholarly article on Chinese sf in English was Mikael Huss's analysis of the genre's tentative, 'hesitant journey to [emulating] the West' and the Euro-American sf tradition. The runaway success of the *Three-Body* trilogy brought about an "unanticipated sea change" (Fei Dao, 496) in the scholarly landscape. *The Three Body Problem,* along with the rest of Liu's sizable body of work were already "landmarks in the Chinese sf world" (Mingwei Song, x) but his work is just a small part of a "new wave of Chinese sf [which] had already emerged at the turn of the twenty-first century" (Mingwei Song, xi). It was only with the radical economic liberalisations initiated in the early 1990s that the Chinese state began to "encourage freer writing" (Han Song, 16). In the time since then, Chinese sf has taken off in terms of popularity, cultural impact and market value, so that "sf is now the label for China's economic miracle, as well as its achievements in moderns technologies such as Chinese-made spaceships, high-speed computers, and genetically-modified crops" (Han Song, 17). The untapped reserves of the Chinese sf canon present "fresh literary terrain" ready for cultivation by "page-ploughing scholars" (Fei Dao, 497). After decades of toil, the "lonely hidden army" Fei Dao spoke of has seen the light of day, and, as *The Economist* wrote, it is "going global" (*The Economist*, online).

<u>China's modern role as a political power</u>

Since economic liberalization in the 1980s, political and social life in China has stabilized and improved, but this has come at a terrible cost. The human rights violations committed by the modern Chinese state against its own citizens, foreign nationals, and entire ethnic groups and religious societies within its vast territory, are almost too many to list. The country's unparalleled level of public surveillance, and the pervasive influence of the Party in everyday life are profoundly troubling and dystopian, as national celebrations of the CCP's centennial in 2020 made it clear

that Mao Zedong Thought is far from dead, and that China is making a concerted effort to keep it alive. China's position in the world political order is also a problematic one: the Chinese navy regularly violates South Korean and Taiwanese waters, and the country is locked in a trade war with two of its biggest historical trading partners: Australia and the United States, who have imposed sanctions and tariffs. The COVID-19 pandemic has further heightened tensions, causing a global rise in anti-Chinese sentiment.

Today, China is the world's fastest growing economy. In the space of a century, *Zhonggou* (the Middle Kingdom, the center of the world) has transformed itself from a static rural peasant economy of the previous several centuries, to the dynamic and aggressive economic and political power it is today. At forefront of heavy and light industry, consumer technology, communications, R&D and even aeronautics; in world markets and the integral technologies that power trade the world over, the Middle Kingdom is once again the centre of global commerce, with a gross domestic product second to the United States and rising foreign direct investment in the emerging economies, Sub-Saharan Africa, the Middle East and South America (Countrywatch, online. China-Africa Research Initiative, online).

The Chinese state has embarked on a number of ambitious projects at home and abroad. For instance, the Belt and Road Initiative, an international development programme to construct infrastructure in over 70 nations, for the purposes of developing and connecting emerging markets to the greater Chinese economic behemoth. It has cost the Chinese state upwards of $20bn and shows no signs of slowing down (Chatsky & McBride, online). In the field of environmental transformation, China has certainly destroyed massive swaths of nature and its occupants. China consumes more coal than any other nation and is on course to exhaust its water reserves by 2050, partly because of coal mining (China Water Risk, online). Yet it has also proved adept at reconfiguring the environment for pragmatic reasons that acknowledge the value and mechanisms of ecology. A good example of this is the Three-North Shelter Forest Programme, often referred to as the Great Green Wall. An afforestation project that encompasses all of northern China, its purpose is to stop the ever-growing Gobi Desert as well as revitalize the nation's logging industry (Cao, Suo & Xia, online).[4]

Liu Cixin, the international face of Chinese sf

Liu Cixin's literary career "best captures the giddying, libidinous pace of the Chinese economic boom" (Richardson, 2018). A veteran writer of hard sf, Liu has won China's prestigious Galaxy

[4] It has been given an sf treatment in Chui Hui's 'The Rainforest' (trans. 2018).

(Xinhe) award more than half a dozen times, but more than that, he is the writer who brought Chinese sf to international attention. His enormously successful Three Body trilogy earned him the first Hugo award for Best Novel ever awarded to a work in translation, in 2015. It has been described by many critics as the most ambitious work of sf ever written. Liu Cixin's critical and commercial success in a medium traditionally dominated by Westerners and Americans in particular, has come at a time when "China's global ambitions, especially in the field of technology, have begun to impinge upon American pre-eminence" (Fan, 2019). Liu Cixin is worth mentioning here not only because of his success and cultural impact, but also because of his political and ideological adherence to the national manifesto and the techno-utopianism of his body of work, which situates humans being in their "technological infancy" (Richardson, 2018). But Liu's work has not been without its controversies. While Liu Cixin originally planned a chronological narrative, that begins with scenes of brutal violence at the height of the Cultural Revolution, his publishers were concerned that the foregrounding of this episode would make the text "too politically charged" (Alter, 2019) to make it past the state censorship apparatus, and the section was slipped unobtrusively into the final third of the story. It was only in the English translation that the narrative was restored to Liu Cixin's original structure.

Ken Liu, a Hugo award winning Chinese American fantasy writer and prolific translator of Chinese sf, is arguably the man responsible for bringing the genre to international attention, has also courted controversy in China. He acts as a "critical conduit" (Alter, 2019) for Chinese sf writers to disseminate their work to a wider audience and more importantly, providing a platform for those writers producing content inadmissible at home. Chen Quifan's novella "What Has Passed Shall in Kinder Light Appear" (trans. 2019) is a good example of this, having only been published in English. It tells the story of an sf writer living in a China that is moving backwards through time, who is separated from his wife by the chaos of the Cultural Revolution. Liu said in an interview with the *New York Times Magazine* that he suspects he has been blacklisted by the Chinese government, after his long-term visa was denied and his packages to local authors seized.

American readers have found the political implications of *The Three-Body Problem* troubling. Indeed, one critic goes so far as to read *The Three-Body Problem* "as a parable about the perils of inviting into your country foreigners whose ethics have been forged in more violent circumstances" (Richardson, 2018). Liu Cixin's support for China's ethnic cleansing of its Uighur Muslim minority unfortunately seems to support this reading. It was this comment that landed him in hot water, it caused a number of Republican senators to publicly call for Netflix to cease production on its adaptation of *The Three Body Problem*, criticizing the streaming site for

"normalizing" (Flood, 2020) the ethnic cleansing by ignoring the author's unpalatable opinions. Liu is one of many public figures to be caught up in the ongoing diplomatic tensions between the two nations. Huawei CFO Meng Wanzhou and Canadian journalists Michael Kovrig and Michael Spavor, have all been tools of so-called hostage diplomacy in recent years. Under the Trump administration, numerous tariffs and trade bans on Chinese exports were imposed, and both countries withdrew their respective ambassadors. All this to say that China is preparing to become the planet’s only superpower, a nation capable of utilizing all the human and material resources of its vast territory to bring to bear on that hard imperative of development and the assortment of impediments to that national project.

DEVELOPMENT AS NOVUM in WANG JINKANG's 'THE REINCARNATED GIANT'

In this chapter, I examine the short story 'The Reincarnated Giant' (trans. 2018) by Wang Jinkang, using this text as a case study for explaining the science fictional concept known as the novum. As the textual signifier of difference in an sf text, this analytical tool is useful for establishing the primary themes and concerns in a text. After exploring the central novum of the text, which I argue is uncontrollable growth/expansion, I will discuss the text as an example of developmentalism itself as a novum and the text's critique of individual behaviour under such conditions. This will demonstrate the efficacy of the genre as a means of critique, whilst still providing scientific education.

In his short story 'The Reincarnated Giant', Wang Jinkang satirizes and estranges China's explosive economic growth over the past three decades through the figuration of a man's boundless greed and its manifestation in the form of uncontrollable and ultimately fatal unceasing physical expansion. It is a richly satirical tale of a long-suffering physician and his patient, the story's central figure: Mr Imagai. A business tycoon who refuses to accept mortality, he undergoes a "human grafting" (Wang, 323) surgery and installs his brain in the body of an infant. But his boundless greed causes him to grow ceaselessly and exponentially, to the point where he has to live in the ocean and suckle from whales, until he is eventually crushed by the weight of his own organs. Believing human nature is "essentially evil" (Wang, 324), Imagai possesses a keen sense for people's greed, which he leverages to tie the fates of his employees and business partners to his own. This story takes on the paradigm of rapid and ceaseless industrial capitalism, representing it through a bizarre and obscene parody. It ends violently and at great ecological and individual cost, with no payoff to anyone who was involved in keeping the tycoon sated.

The story is told in non-chronological titled chapters by the doctor Motose Zeku, explaining how he came to know the tycoon and assist him in cheating death, for a time, by undergoing a "full-body transplant" (Wang, 320), wherein the body itself, an anencephalic (brain dead) fetus is the donated organ. Wang's story employs a darkly satirical tone, and a convenient displacement by locating the story firmly in Japan, or "J-nation" (Wang, 313). The story of the transplant and its consequences are interspersed with flashbacks of Motose's first meeting with the businessman and the lengthy and dubious efforts of preparation, which reveal the extent of Imagai's amorality and gluttony and foreshadow the events in the present time of the story. The narrative, and indeed the narrator, is propelled by the base greed and desire to possess that the ruthless Imagai evinces in everyone around him, and how these characters who tie themselves to his continued growth for their own success becomes subsumed by Imagai's quest for growth. At the beginning of the

story, Motose describes his employer as “ruthless and decisive, with a gaze like a knife and a penetrating understanding of people” (Wang, 313), that is, how to use greed to motivate people and render them subservient to him and his industrial behemoth, Western Steel.

‘The Reincarnated Giant’ can be used to demonstrate the science fiction literary function known as the “novum” first put forward by seminal science fiction critic Darko Suvin in his book *Metamorphoses of Science Fiction* (1979). The novum is defined by Suvin as “the technological, social and material differences from the author’s “empirical environment” (373). It is a useful literary tool for representing violent economic development, by estranging ostensibly ordinary or assumed phenomena from the context in which the reader usually encounters it, to render it remarkable. In this case, it is China’s unsustainable growth that is estranged and refigured, represented by the grotesque and gluttonous growth and appetite of the tycoon, Mr. Imagai. A refiguration that is only made possible through technological intervention with adverse consequences in accordance with the principles of biology and physics that serve up a moral lesson. His desire is so strong that it overrides the laws of physiology, causing him to grow and consume uncontrollably. He tries to devour his creator, but the physical exertion is fatal.

COGNITIVE ESTRANGEMENT: The Science Fiction Praxis

In the critical theory canon of science fiction, the concept of the novum is perhaps the most fundamental, and indeed the most useful, analytical tool. A concept introduced by theorist Darko Suvin in a 1972 article, the novum of an sf text is the thing or things that make the world of the text different from our own. By operating as simultaneously estranging and cognitive, the act of reading the sf text allows the reader to juxtapose reality with the radical difference of the text whilst also evaluating (and thus, imagining) the scenario depicted in the text. Suvin differentiates between sf as “the literature of cognitive estrangement” (Suvin, 372), on the one hand, its workings are elevated above the systems of what is “mere fantasy” (Suvin, 378) on the other. More expansively, Suvin describes the novum as the technological, social and material differences from the author’s “empirical environment” (Suvin,373). It is these differences that allow us to reflect on that environment. By comparing “a set normative system”, that is, the ‘real world’, with an estranging “new set of values” (1972, 374), sf renders visible and the implicit mechanisms upon which that system is based, through cognitive - by which he means scientific or logical - reading and writing. The estrangement element invokes Brecht’s use of the technique in his famous plays “for a scientific age”. The novum is a useful tool for categorisation: for many

scholars, the presence or absence of a novum is the definitive factor in classifying sf texts and relegating them to the realm of the fantastic.

For example, we firmly exclude fantastic and magical realist texts on this basis: take the wildly popular *A Song of Ice and Fire* series by George RR Martin – it is a realistic depiction of medieval life, aside from the dragons and the climate (every season lasts for years, not months). These two elements may be critical to the premise and plot, but they cannot be called nova because the origins or reasons for these differences are shrouded in mystery, they are not used as explanations for the world of the text being the way it is. The same can be said of magical realism: something fantastic happens in the text, like the parallel world of Haruki Murakami's *1Q84* (2009), when his protagonist discovers she has inadvertently slipped into a distorted version of 1984 Tokyo. In *The Wind-Up Bird Chronicle* (1995), the protagonist goes looking for his cat and undergoes various occult and supernatural experiences. When the narrative departs from reality, in neither case is this particularly troublesome to the protagonist. Rather, it is a springboard for an existential quest. For contrast, let us turn to two classics of sf: Frank Herbert's *Dune* (1965) and Arthur C Clarke's *Childhood's End* (1955). The former is a fairly standard hero's journey set against the backdrop of an exotic desert planet. What makes it sf is the explicit framing of the critical difference of this world to our own: the existence of the spice-melange, which is both an energy source and a psychotropic drug, which greatly enhances mental capabilities, effectively turning human minds into super-computers, and permitting interstellar travel. In *Childhood's End*, humanity in the near future has developed utopian technologies, but these are minor nova in comparison to what is the most striking difference and the drive of the narrative, the visitation of two alien species far superior to humans. They force humanity to evolve and transcend physical bodies into a shared collective consciousness, along with all other suitable lifeforms in the universe. The novum here is the peaceful conquest of Earth by beings incomprehensibly superior, and the complete eradication of human civilisation. The novum can be said to be the foundation of material difference over which the bricks and mortar of an sf text are laid.

Suvin goes further: arguing that in sf texts, that cognitive element is "both underlying attitude and dominant formal device" (Suvin, 375). The workings of that formal device have been unpacked, but the underlying attitude is more nebulous. It is in recognizing the familiar within the estranged, that allows the reader to construct an intellectual bridge to the extrapolated or analogic frame of the fantastic universe. Whereas other fantastic literature "claims to explain once and for all the essence of phenomena", or eschew explanation entirely, sf posits them "first *as problems* and then sees where they lead to" (Suvin, 375, emphasis mine). Suvin's theory of sf is paradoxically

structuralist and post-structuralist: while an sf text must have an identifiable novum in order to qualify as such, Suvin is also emphatic that is not a checklist or an essential narrative or a collection of tropes (although this is not to say that tropes do not abound), but rather a methodology for approaching alterity and the future, which, like science, is predicated on falsifiability and scepticism, but powered by possibility and creativity. As Farah Mendelsohn remarks, sf is “less a genre”, with concomitant tropes and conventions, “than a conversation” (2003, 1), with and about the things we don’t know. As Li Zhou puts it, the sf model "critiques the expected transformations of human society brought about by scientific and technological developments" (Li, 613). The working definition of sf that this inquiry will proceed from is that the ‘essence’ of science fiction lies in its engagement with, but not necessarily adherence to, the normative values, concerns, and methodology of empirical investigation of the material world, collected under the umbrella term of ‘science’. As Suvin says, a work of sf is a proffered scientific hypothesis, and the reading of the text, the following of the scientific method per the work’s novum, to the logical conclusion of that hypothesis.

The Body of Academic Analysis

‘The Reincarnated Giant’ has not generated much critical interest in the Anglophone academy, but existing criticism has emphasized the bodily affect and discourse of embodiment that feature prominently in the story. The short story has also been read in terms of utopia and satire. The representations of bioeconomics and the embodiment of capitalism in the text are two significant strands of interpretation, that will be discussed below. Wang Jinkang is famous for using the life sciences to displace current social concerns in China and to disconcert readers. Wang uses biological imagery and embodiment to speak to contemporary concerns in China around rapid social and economic changes in the country.

For Li Zhou, who takes his theoretical cue from Jurgen Habermas, the story of TRG is emblematic of the "biotechnological transformation" of modern and future society, constituting what Habermas describes in *Towards a Rational Society* (trans. 1968) as "purposive-rational action" (81) to create in the text a new "politics of life" (Li, 612). It speaks to China's "excessive emphasis on economic development" and functions as "a critique of the undesirable ethical and technological consequences of this policy" (Li, 616), that is, the ethical and political implications of advances in monetizing life that will destabilize society if left unchecked. Li also thematizes the story in terms of posthumanism: the biotechnology that allows for Imagai’s transformation and perpetuation

repeatedly redefines the human subject in this process. This is done through underhanded economic and legal methods that, for Li, constitutes a situation in which the body itself is commodified in accordance with "interest-orientated rationality and technology" (611). Li uses ‘The Reincarnated Giant’ to illustrate Habermas's thesis that as the application of scientific ways of thinking degrades established norms and hermeneutics: "technology and science permeate social institutions and thus transform them, old legitimizations are destroyed.” (Habermas, 81). ‘The Reincarnated Giant’ thus offers a critique on the social and biological changes that developmentalism in science will put in motion.

Established notions of human subjectivity and personhood are challenged by Wang Jinkang through the figuration, and disfiguration, of Imagai. For Li this constitutes a "breakdown" of traditional mechanisms and institutions for the "management of human life" (612). The system Imagai creates to manage his biovalue and exercise his biopower is "an economic interest-oriented system to manage [the] vitality" (617) of those whom Imagai makes stakeholders. It is this "confluence of private funding, bio-science and purpose rationality" (617) that comes together to make the full-body transplant possible and keep its subject going. It arguably constitutes a new socio-economic regime outside the purview of traditional institutions, essentially a privatization of trading in life. In closing, the author notes the increasing prevalence of the political economy of biopower pervading the everyday. The development of biological sciences and their practical disciplinary application plays an increasing role in "transforming economic and imperialist mechanisms into forms" that favour "neoliberal capitalist frameworks and institutions" (Li, 613). This is inherently posthuman, as it destabilises traditional notions of the human subject by means of technology. Indeed, Li argues that "ideas about controlling, managing, reshaping and modulating" (613) the very things that presently define us as human, are prevalent in Chinese sf. It is these "recomposed forms of power relations" (Li, 613) in sf that are vital in shaping our understanding of present structure and form of Chinese society. Li reads ‘The Reincarnated Giant’ in terms of the widespread social unease about the consequences of economic and scientific developmentalism in confluence.

Writing on ‘The Reincarnated Giant’ and the work of Han Song, Lyu Guangzhou reads the text in terms of its representation of "the embodiment of market forces" (2020, 126) that are effecting radical changes across China. Lyu compares Imagai's transformation and the resulting "monstrous consumption of matter" (126) to Marx's description of capitalism methods of generating productivity: "dead labour which, vampire-like, lives only by sucking living labour, and lives the more labour it sucks" (Marx, 342. Quoted in Lyu, 2020), and constitutes what Steven

Shaviro calls "a capitalist monster" (290. Quoted in Lyu, 2020). He remarks that the labour value of all the work done towards creating and maintaining Imagai are "economised and commercialised" in ways that serve this "embodiment of capitalist market principles" (Lyu, 127), that are inevitably cast aside once spent and empty, such as the exploited wet nurses. Lyu states in no uncertain terms that the exploitation and transformation in the text "should be viewed in line with the pressure, confusion and uncertainty faced by Chinese people during China's recent and ongoing transformation" (Lyu, 127) wherein the people of China feel like so much expendable human capital. The text is an expression of the anxiety felt by the Chinese people in a nation undergoing such monstrous permutations, "where people are rendered as undifferentiated human capital" (Lyu, 128). According to Lyu, the story speaks to the growing spectre of "the homogenous nature of a world dominated by economised values" (131). Clearly, a common theme is emerging. While Li discussed the text in terms of scientism (science developmentalism), Lyu reiterates similar anxieties about bodily integrity in an increasingly commercialized and expanding public sphere.

In contrast, pre-eminent sf Sinologist Mingwei Song situates ‘The Reincarnated Giant’ within the larger trajectory of utopian themes in Chinese sf, which he argues has, since its inception, been a “central motif” (86) of the genre. As a Westernised literary form that was premised on the possibilities offered by imaginative and technical achievements, noted adherents such as Liang Qichao argued that it would help modernise Chinese society, and "renovate the people of a nation" (Der-Wei Wang, 24) who were at the time shaken by numerous international and domestic defeats. As mentioned in the introductory chapter, sf in China has always served an ideological and nationalistic role. Capable of reflecting both “reality and hope for change”, sf in China has, since its genesis, been characterized by “a strong political investment” (Song, 86): that of the very future of the nation. It is inevitable, perhaps, that it should be "a genre closely associated with the discourses of an emerging nationalism" (Song, 86) in China. Indeed, perhaps “the image of a transformed China” (Song, 86) is the most prominent novum in the entire canon of Chinese sf.

Song looks deeper into the "obsession with development and its ethical and technological effects" (91) that has always been a central concern in Chinese sf. Song contextualises this in terms of the genre’s introduction during the late Qing period. The introduction of sf, Song argues, was inextricably tied up with the introduction of a new narrative and scientific model, that of evolutionary thinking, premised on natural selection and social Darwinism, which also came to China in the late Qing period. This discourse offered an "organic model of change" characterised by a comforting "teleological inevitability" (91) of the steady march of progress. This "evolutionary

thinking", originally scientific, also constituted a novel narrative mode, thematising "the growth and progress of nations and national subjects" (Jones, 7) in the national consciousness.

Song situates Mao's disastrous Great Leap Forward (da yuejin) as yet another failed projection of the utopian impulse which TRG speaks to, the "same yearning for development" (92) which characterised fictional technological miracles, an attempt to manifest that reality through the utilising the masses of the Chinese people. The winning combination of utopianism and nationalism has produced a literature to "sustain faith" in the multitude of "reforms and revolutions" (92) China and its people have endured over the last century. To demonstrate the extent to which physical growth is seen as the epitome or embodiment of development, Song turns to a 1958 children's story. "Gediao bizi de daxiang" (Elephants with their trunks removed), in which children ride genetically engineered pigs so large as to be mistaken for elephants without trunks, the story figures as a "vivid concretization of the vision of unbounded development" (92). The image was also incorporated into the discourse and imagery of Cultural Revolution and Great Leap Forward propaganda. This "blatant political myth", for Song, is representative of "China's cult of development" (92), the legacy of which he traces from the origins of the sf genre in China. In ‘The Reincarnated Giant’, these themes are "recapitulated and parodied" (Song, 87), with the pig and the giant both serving as reminders that these aspirations are unrealistic and dangerously unsustainable. Song’s interpretation is a departure from those of Li and Lyu. His analysis lands somewhere near the other two, providing a historical context for the ideas that they are discussing, which are in some ways a continuation of the “cult of development” that has always been couched in a nationalist utopian impulse.

This survey of the scholarly discourse surrounding the text makes it clear that, from whatever angle one approaches the text, its content, and the discourse arising from the text, is controversial and politically loaded. Whatever the impulses of the text reflect, it is evident that ‘The Reincarnated Giant’ is a potent vehicle of critique. Issues of bodily autonomy under pervasive capitalism, in conjunction with a fixation on growth and expansion, that are examined in the text, reflect the concerns of ordinary Chinese under a pervasive and voracious market economy.

SIZING UP THE TEXT: Growth as Novum

In ‘The Reincarnated Giant’, growth itself is the textual signifier of the departure from realism. The text considers the implications of removing the natural limits to growth, effectively what modern technology and economics have done, and the potential consequences for society and individuals

under such a paradigm as the one put forward in ‘The Reincarnated Giant’. Imagai, and his grotesque transformation, take the text’s ‘hypothesis’ to its logical extreme.

As “the spiritual father of J-nation’s financial world” (Wang, 313), Imagai exerts considerable influence, while this description of Imagai as a spiritual father to a nation recalls the personality cult of Mao Zedong, who was also described in those paternal terms regarding the Chinese nation. Imagai’s plan is to transplant his living brain into the cranium of a brand-new body, in this case that of an infant, which this would reset his brain to restart the natural decay of its cells “while maintaining its original consciousness” (Wang, 324). One lifetime of accruing material wealth is not enough for this man, so he tricks his body into believing it is young again. But the flipside of this regeneration is that this is not the only radical change to his physiology – his overriding impulse for primitive accumulation and expansion causes him to grow larger and larger until his bones can no longer support his weight and he is crushed by his own organs. It is only a matter of time before his hunger outstrips his considerable means to sate it. Once this inevitably occurs, he turns on his creator, swallowing Motose. But the action of moving his enormous head snaps his spine and he dies. Motose, after years of labour, is left with nothing but a firm belief in the value of “cold, hard cash” (Wang, 353).

Reframing ‘The Reincarnated Giant’ in the terms outlined by Suvin’s novum affords useful insight into the narrative and themes of the text. Suvin argues that the novum of the text is the thing, or things, that make the world of the text distinct from our world. It is from this fundamental difference from which all differences in human behaviour represented in the text stem. At a biological level, the novum of ‘The Reincarnated Giant’ is Imagai’s unique physiology: it restarts the anencephalic infant’s biological clock, setting the whole grotesque process in motion. But this is science fiction, so we must look for a technological solution. One might argue that the “full body transplant” process is the novum, since Imagai would not have been reincarnated without this sf technology, and it is this process that transforms Imagai’s behaviour and makes his greed most visible. The story of a greedy man, even a magnate, who one day just started growing without end until he is killed by his own body mass, without an explanation for the departure from realism, would be a magical realist story. One might go so far as to call it Kafkaesque. But the existence of the body transplant technology, key to the narrative, means that this transformation is not a metaphor for the human condition, rather, that the change can be viewed as a result of direct human intervention and in terms of a science-based critique.

There are two textual moments told through Motose’s perspective, one before and one after the transformation, which best represent the significance of Imagai’s transformation. Born out in

contrasting representations of Imagai's behaviour as he conducts the business of life, for indeed these interactions are fundamentally transactional. In the first exchange, Imagai is unquestionably the dominant party, demonstrating his "penetrating understanding of people" (Wang, 313). The exchange is decidedly unilateral. In terms of 'eyes' and 'gazes', a powerfully descriptive leitmotif throughout the text, Imagai's eyes are originally characterized by Motose as "sharp as a knife" (Wang, 326). In Motose's description of their first meeting, such an invitation in and of itself is "immensely flattering" (Wang, 322) – just to be noticed by such an elevated figure sends Motose into daydreams of the possibilities that could come with being "favored by the nation's richest tycoon…[this] surely meant that wealth and status awaited [him]" (Wang, 322). Yet Imagai's business maxim, - Don't use talent, use mediocrity - (Wang, 323) - which Motose mentions in this part of the narrative, suggests otherwise. The mechanisms comprising Imagai's dealings are by their nature iniquitous for this very reason.

But Motose, the characters of whose name transliterate to the phrase 'I am shameless', is too blinded by dreams of "wealth and status" to realise that this also applies to his own dealings with Imagai, who promises him a sizable stake in his company if he succeeds. This shiny lure, "an opportunity for advancement" (Wang, 323) that would instantly propel the young surgeon to the nation's 1%, is exactly what Imagai leverages to ensure dedication and loyalty. Imagai mocks Motose here when he cuttingly remarks that "there are perhaps people not greedy for money but who will exert their maximum effort only when the reward matches the result" (Wang, 325), implying that Motose is in fact motivated by greed, desire for things perhaps less tangible than the money itself but more desirable. Motose describes the meeting in tense and discomforting terms. The stake in Imagai's company, and the leap in social status it would entail, is described as a "juicy bait" (Wang, 325) with which to lure Motose, and "dangled" (Wang, 325) in front of him, implying a degree of mockery from Imagai. Like Adam and Eve in the Garden after consuming the apple, exposure generates shame and vulnerability when Imagai evinces the physician's "innermost greed" (325). The shameful awareness leaves Motose without "even a trace of fig leaf to hide behind" (Wang, 325). That this description implicitly casts Imagai in the role of God and that Imagai "had known all along" (Wang, 325) Motose would accept his terms, is an uncomfortable experience that causes Motose's awe and avarice to be "momentarily tinged with hatred" (Wang, 325). This insight into the early days of their relationship is a model for all of Imagai's interactions, which are entirely transactional, including his sexual and romantic relationships.

After his reincarnation, Imagai's power and greed are represented in considerably cruder terms. This can be seen in his interactions with his employees, who are now his carers, from whom he is sucking the life out of. Firstly there the breastfeeding that Imagai, as an 'infant', insists is his "sacred right" (Wang, 326). All of the wetnurses, who are working for Imagai on similar terms to Motose's contract, are quickly driven away by their boss's inhuman hunger. His greedy latching draws blood from the women and causes them "excruciating pain" (Wang, 238), and while this might be explained away by the natural instincts of his baby's body combined with his sizable mass, Motose realizes that this is not the case. Looking into Imagai's eyes while he is nursing, Motose recognizes the now-familiar "trace of evil" (Wang, 238) therein, and realizing that his "well-developed male instincts were already awakened" (Wang, 238). And while he painfully leeches life-sustaining fluid from these bodies, his eyes are "busy at work" (Wang, 238), engaging in a similar form of consumption. Imagai's greed is also represented in terms of sexual violence. Imagai makes a point of hiring poor women from rural parts of "J-nation" as wetnurses, just as he chooses the anencephalic infant from a poor, rural couple. When the supply of J-nation's breastfeeding women runs dry, he agrees to use women "from the third world" (Wang, 325). He is always sure to maintain the iniquitous power relations where his own health is concerned. These two examples of Imagai's rapacity in the text echo China's very real migrant labour problem, as villages and even entire provinces are emptied of their working age demographic to service light industry, mining, and other low-overhead sectors.

After his transformation, Imagai is depicted in much cruder terms and the perversion of his greed is emphasized. This is done through a scientific process, locating the themes of the text in the terms of material concerns – by this I mean the nova of his extraordinary, exponential expansion. The contrast between the two interactions suggests that technological intervention influenced and exacerbated existing social and economic tendencies, and to awful effect. This chapter introduces the field of science fiction studies as a means of literary critique by demonstrating the form and function of the novum. The representation of developmentalism as novum is illustrated through the figure of a man fundamentally altered by a deadly combination of his own greed and scientific intervention. The critique extends beyond the figure of Imagai to all those corrupted in his quest, as science and capitalism increasingly tend to the commodification of the body. By critically framing developmentalism itself as the novum in this manner, Wang Jinkang's story indicates that China's peaceful rise is anything but, while remaining true to scientific principles and the didactic role of sf in Chinese culture and society.

THE SPATIAL PRACTICE OF UNEVEN DEVELOPMENT in HAO JINGFANG'S *FOLDING BEIJING*

Drawing on the field of critical geography, this chapter focalizes on the medium of space to develop the project's critique of developmentalism. Employing the lens of critical geography to analyze the representation of space as a site of development, this chapter argues that developmentalism is represented as uneven development in the social and political space. Social space in this novella is a production of uneven development, and this forecloses potential alterity in the world of the text. This chapter examines spatial practice as a means to inscribe and perpetuate uneven development in the novella *Folding Beijing*. It proceeds from the notion that space is a social text, inscribing and prescribing hegemonic discourse whilst being mutually constitutive with its users, taking its cue from pre-eminent scholars of spatial studies and critical geography, chief among them Henri Lefebvre, Mark Gottdiener and David Harvey. 'Space' in this discursive context, is a dynamic and fluid entity, in the words of Harvey Molotch: "neither merely a medium nor a list of ingredients, but an interlinkage of geographic forms, built environment, symbolic meanings, and routines of life" (888). Like the production of literature, the production of space is inherently imbued with ideology; reading the spatial text is what Henri Lefebvre calls a "critique of space" (92).

In the folding city of future Beijing, an "earthen wall" (Hao, 228) divides the city into three Spaces in which the very fundamentals of living, time, space, and sunlight, have been divided and parceled out according to social strata. In this "monstrous municipality" (Wang, 692) Beijing's insurmountable class barriers, and, by implication, the uneven distribution of the social and economic benefits of living in the metropolis and the nation at large, are rendered in the form of a rotating city of three interdependent but seemingly impermeable caste-bound spaces. This chapter draws primarily on conceptions from Lefebvre's *The Production of Space* (trans. 1991), such as the distinction between "representations of spaces" and "spaces of representation", and between the "products" of abstract space and the "works" crafted in absolute spaces. This chapter argues that the spatial practice of modern capitalism, what Mark Gottdiener describes as the "fragmentation" and "homogenization" (132) of space, perpetuates violence against the spatial and physical body to maintain the caste system of the folding city. The story of the waste worker Lao Dao, who transgresses the Spaces to lift his daughter Tangtang out of inescapable poverty, constitutes a space of representation and Tangtang a human "work" crafted in that space, a possible counternarrative to the prevailing paradigm. Within the framework of critical geography, as informed by the theoretical work of Lefebvre, the novella can be used to represent the

inescapable spatial logical that dictates, and indeed, as *Folding Beijing* demonstrates, withholds the material benefits of economic and technological development from those it purports to assist.

Comprising the exclusive and utopian First Space where the wealthy and sophisticated elite reside in self-congratulatory splendor; the white collar Second Space of the comfortably well-off and upwardly mobile middle class; and – where the vast majority of the city's residents and all its migrant labourers reside – a bursting, bustling Third Space, the industrious underbelly of service work and waste processing, the city acts as a space of self-regulation by maintaining these physical barriers. While Second Space and Third Space are cocooned in induced sleep, their homes and livelihoods stowed away like so many miscellaneous items shoved in drawers and slotted into darkness, First Space enjoys a whole day and night on the surface. Then the city flips over and Second Space, and then Third Space, receive 16 and 8 hours respectively. The waste processing worker, Lao Dao transgresses the geo-engineered class barriers, spurred on a by small effort against these divisions. His desire for his adopted daughter Tangtang to live a better life leads him to undertake a transgressive mission across the Spaces. Couriering a missive from the hapless Qin Tian to a First Space woman, both men attempt to rise above their allotted station in pursuit of hopes of social upliftment through social ties. Qin Tian, "optimistic about the future" (Hao, 234) to the point of naivety, seeks to change his life through this unlikely romance with the glamorous Yi Yan and Lao Dao's "dazzling" (Hao, 225) love for his daughter Tangtang to have a musical education motivates his journey.

The novella ends on ambivalent note: Lao Dao returns to Third Space unscathed, having completed the job and earned double what he was promised. But his odyssey is fraught with contradictions: the married Yi Yan pays Lao Dao to nurse Qin Tian's doomed love and assuaged her own guilt; and Lao Dao's encounter with Second Space students and a First Space government minister, who explains that the people of Third Space are being kept in the dark to maintain the city's economic equilibrium, suggest that nothing has changed nor will it for Tangtang. Despite all that he has witnessed and been party to in one First Space-day, Lao Dao returns home from his ordeal relatively unchanged. The story concludes with the protagonist, content that he was "fortunate" (Hao, 262) not to have fared worse, preparing for another day sorting through Beijing's waste, the waste produced by his social betters.

CRITICAL GEOGRAPHY: The Spatial Paradigm

As a Marxian structuralist, Lefebvre is informed by the effects of capitalism on the creation of a space, thus all productive processes from biological to labour, to space itself, are subsumed into capitalism when it acts upon space. In *The Production of Space* Lefebvre introduces a number of conceptions of the creation and perpetuation of spaces, which all contribute to a history of what he calls the "decorporealisation" of space. He distinguishes between abstract space, which serves capitalism and the state to the detriment of its antithesis, known as absolute space, which is a lived space that shapes and is shaped by its occupants.

What Lefebvre calls "spatial practice" is the way people, communities and institutions conceive of and engage with 'space' as a bounded somewhere, a demarcated inside and outside, upon which ideology is inscribed through the practices of engagement according to a particular, prevailing epistemology. In spaces within which the hegemonic will, that is, the will or logic of modern western capitalism, is enforced, the so-called "representations of spaces" operate; people and spaces are apprehended through a hermeneutics of rationalization that is both product and component of that hegemonic will. Lefebvre offers a utopian alternative that spaces can simultaneously and equally act as "spaces of representation", sites of resistance to said hegemony.

In the abstract space of Folded Beijing, the "spatial practices" that Lefebvre describes, those means by which a space is intellectually mapped and apprehended, foreclose this possibility (Lefebvre, 21-3). Even though the physical barriers between the spaces are permeable, the ideological entrenchment of the spatial hierarchy are made clear by Lao Dao's journey. Passing through the city's waste-filled veins is relatively easy for Lao Dao, but the social and intellectual barriers of the city are not so easily overcome, as he returns from his odyssey satisfied and counting his blessings, not sparing a thought for the barriers that he will never be able to cross. Through "spatial practices" of the absolute and the abstract, space can be read as a text for representing embodied alterity as well as imposing hegemonic ideology.

The distinction and opposition Lefebvre creates between "spaces of representation" and "the representation of spaces" demonstrates the problematic of an increasing tendency towards favoring abstraction over absolute use value, a process Lefebvre describes as that of decorporealisation. For Lefebvre, in the modern epoch it is the "world of representations", of signs and signals, a world for systems to unilaterally apprehend, which is "substituting itself, little by little…for the anterior world" (Lefebvre, 50), that is, the world that people comprehend and engage with through lived experience, that is based on the idiosyncratic rather than the systematic, that is marginalized under modern capitalism. Like many French post-structuralists, Lefebvre is

concerned with the body as a site of mapping the workings of discipline. For him, the body is also a space and thus the abstraction entailed in decorporealisation is violent on the structural and individual levels. Lefebvre goes further and situates the body as a space of liberatory praxis in opposition to discipline. Space, says Lefebvre scholar Lynn Stewart, is a “product of the human body, as a perception and as a conception” (609) not simply the materialization of institutional/hegemonic will. It is the practice of producing an embodied corporeality that constitutes resistance to that will. In Lefebvre’s critical geography, bodily discipline and spatial discipline are inextricably linked, as both are texts upon which hegemonic ideology may be inscribed, while they may establish sites of resistance.

Spatial practice has always been a constant, although it has changed over time as people’s needs and beliefs have shifted emphasis from lived experience and *connaissance* to computation and regularity, the products of *savoir*. This move to abstraction constitutes for Lefebvre a troubling demonstration of institutional dominance. One way of doing this, Lefebvre’s second conception, is quantifying and measuring space to compartmentalize its use. In other words, the praxis of urban management and surveillance. This is his second conception, the representation of spaces, “born of *savoir* and logic”. The "representation of space" is the praxis of spatial and therefore bodily discipline. In reducing the dimensions/flattening out of the space through imposing a "logic of civilisation" e.g., urban planning, GPS or GIS (geographic information systems). The resulting "readability" of the space constitutes "the reduction of a space to a surface that is 'transparent' and hence unproblematic" (Stewart, 610-1), which in its blandness and neutrality, "evades both history and practice" (Lefebvre, 7) and renders the space innocuous and seemingly de-politicized in spatial practice. In contrast to this is Lefebvre’s third conception, the liberatory praxis of “spaces of representation”. These creations are sites of lived, inhabited space in dialogue with their creator(s), that are imbued with meaning and, as a result, "produced and modified over time and through use" (Stewart, 610), sedimented with localized significance. The spatial practice of representation of spaces imposes a neutralizing uniformity on spaces that, when representational, is shaped by the patterns of its users.

The scholarly space occupied by the text

Other scholars have also approached *Folding Beijing* from the perspective of critical geography. Wang Liao argues that Hao uses this depiction of a location as a form of social criticism and a means to resist spatial hegemony. In interviews, Hao Jingfang describes her own fiction as

"uncatergorised literature" (quoted in Ren, 55), that her work "cares about the real space but express that through the virtual space" (quoted in Ren, 55). Hao Jingfang's fictional praxis is one that the author describes as exploring the "possibility of the reality outside of reality" (quoted in Ren, 55). Ren Dongmei describes this in terms of "sci-fi realism" (55). A term pioneered by Chen Qiufan, who in 2012 described sf as "the greatest realism at the present time" (quoted in Ren, 55), and refined the term in his 2013 article "Rethinking Sci-fi Realism" ("Dui 'Kehuan xianshi zhuyi' de zai sikao"). Ren concurs with Chen in that traditional realist literature in China, stifled by "too many taboos" in the public discourse, has come to represent instead of social critique, a "wish to escape reality" (Ren, 55). Hao Jingfang herself said that "virtual reality can project reality in a purer form" (quoted in Ren, 55). Through the portrayal of a grimly realistic Beijing, *Folding Beijing* concretizes "social stratification and class solidification" (Ren, 56) by rendering them in the realization of physically insurmountable class barriers.

However, their views differ from those expressed here in that they draw more optimistic conclusions about the text. Wang's argument is two-fold. First, she draws on Henri Lefebvre to distinguish "absolute" from "differential" space to read the trisected city, arguing that the alienation of humans from the landscape is manifested in its being an abstract space. Differential space is Lefebvre's conception of the resistance to abstract space, it is different to absolute space in that while the former looks to inscribe new modes of living on the landscape, the latter is "relativised and *historical* (Lefebvre, 48, emphasis in original). This engenders a homogenous landscape and "mentality" (Wang, 686) and the fragmentation of temporal rhythms. Secondly, Wang uses this as a base from which to argue that Jingfang is critiquing the technologism in modern China, on the basis that love inevitably transgresses boundaries in its quest for differential space. It is through Lao Dao and Qin Tian, argues Wang, that the reader sees "the struggle for a differential space filled with hope and love" (687). As already stated, this reading simplifies the text's structure to a simple fable and fails to appreciate the author's explanation of how real world economics, in a potential future of unchecked developmentalism, forecloses that possibility. Wang follows Kevin Lynch's (1960) thesis that landscapes serve as "vast mnemonic [systems] for the retention of group history and ideals" (127) to read the differentiation of the nature of First Space as a horrific critique of the "modern technology-assisted production mode" to which the residents of Third Space have all been effectively sacrificed, "only to keep a [natural] state without production itself" (Wang, 690) in the curated and cordoned off nature of First Space.

From the perspective of First Space, Third Space is a purely abstract space, "conceptualised into a hollow number" by the "extreme" rationalisation and organisation of the folding city, a

constituting a spatial practice "facilitated by technology" (Wang, 691). This technology facilitates an "unconscious social discipline" (Wang, 691) in the populace through the flattening that occurs in the trisected space. In Wang's reading, Lao Dao attempts to carve out a differential space for Tangtang in accordance with Lefebvre's views on art. Lefebvre argues that "art in general and the artistic sensibility bank on maximum difference, at first merely virtual, sensed, anticipated, and then, finally, produced." (Lefebvre, 395) In other words, art is the basis and starting point for resisting homogeneity and uniformity, as the means of creating space of alterity and idiosyncrasy. Wang's second point is that Hao's representation of Beijing on a "spatiotemporal axis" (696) indicates her awareness of the temporal aspect of the commodification process increasingly enable by technology. Hao's depiction of the future city is "emblematic of the fragmented relation between space and time in the process of capitalist production" (697) and how this will be increasingly prominent in the future. Wang argues that in the abstract Second and Third Space, "lived time with individual and social interest have been repressed", a "social actualisation" (698) of the hegemonic will. Finally, for Wang, Tangtang acts as "the symbol of love and expectation in this passively experienced abstract space" (696) containing the potential for social change.

This chapter disagrees with Wang on a number of points. Wang says Lao Dao's journey is not life-changing, compared to the "acts of subversion" of the Second Space graduate students who aspire to reform the system from within, "against the passive internalisation of the space" (695), expressing the "desire for the change has always been inscribed as the seedling for social revolution within the hearts of the oppressed people" (695). This paper will argue that none of these acts can be categorized as subversive. And while Wang also reads Tangtang as that symbol of change and engagement in an otherwise passively experienced, abstracted space, and seems to take her upward mobility as a given, now that Lao Dao can afford her primary school tuition, this is a simplistic reading of the text. But the fact that Lao Dao remains unchanged by his singular journey: nothing he has seen or heard or experienced in the city above him, not even seeing the Sun, prompts any kind of class consciousness or critical thinking on his part.

UNFOLDING BEIJING: The Spatial Practice of the Folded City

The spatial body that is Hao's geo-engineered folding city, and the story of *Folding Beijing*, are ideal for mapping Lefebvre's conception of the production of space onto representing the violence done to the body by the process of decorporealisation, by rendering it in a textual format, in a process made possible through science. Through the eyes of the humble waste worker Lao Dao,

as he transgresses the boundaries of the Spaces, the reader sees how the Change, the daily process by which the city "folded and collapsed" (Hao, 229), constitutes a violent decorporealisation of the spatial body that is folded Beijing and the majority of its inhabitants. The spatial practice of the folded city is clearly marked by compartmentalization and regulation, in both inhabited and economic space. This is made manifest, first and foremost, by the redistribution of its populace by social class into separate cities that by design can never meet.

While First Space takes up one half of the rotating earth, the other half is shared between Second and Third Space; with each space folding in on itself to become the foundations of the other. The regulation of this order is airtight. This is immediately apparent in the text, as Lao Dao observes the "noisy quotidian chaos" of the Third Space food court being tidied away less than an hour after the workday is finished (Hao, 222). The reader quickly realizes that the "cleaning trucks" whose crews "pack up by force" whatever is in their path, are not there to clean up waste (that is Lao Dao's job) but rather to tidy up the people, and the crowd disperses "like fish in a pond disturbed by a stick" (Hao, 223). This spatial discipline is described in terms of human interference (and consequently domination) with natural processes. By ridding the space of people, the space goes from being absolute to abstract, which is necessary for the Change to take place.

The built environment of the city is continually described in terms that juxtapose the organic with the engineered. As the following extract demonstrates, the Change constitutes a violent decorporealisation of the spatial body, which makes the fragmentation and then homogenization of space possible:

> The sound of steel and masonry folding, grating, colliding filled the air, like an assembly line grinding to a halt. The towering buildings of the city gathered and merged into solid blocks: neon signs, shop awnings, balconies and other protruding fixtures retracted into the buildings or flattened themselves into a thin layer against the walls, like skin. Every inch of space was utilised as the buildings compacted themselves into the smallest possible space. (228)

The violence of the Change is immediately apparent. Violence first upon the material foundation of the space, the seemingly inflexible and unmovable boundaries of said space forcibly twisted and contorted in their "folding, grating, colliding" to oppress and confine its occupants "into the smallest possible space", but moreover a violent process of spatial flattening as Lefebvre conceives of it. That is, while the physical "protruding fixtures" of the space are flattened, so are the signs of its *connaissance* as inhabited and, through that, localized and particularized in

opposition to the hegemonic will as expressed through imposing “readability” and uniformity on the space. By imposing the “logic of civilization” (Stewart, 610) it is flattened into “a thin layer…like skin” in that it is being neutralized as a medium and location of critique: its people and their embodied knowledge and potential alterity are compressed and stowed. The city’s fixation on efficiency, vertical integration and utility squeezes its own occupants into “the smallest possible space”. The movement of the built environment during the Change, in the contrast between the implication of organicism in the buildings that “gathered and merged”, with the Fordist overtones of the “assembly line grinding to a halt” speaks to the nature of the spatial practice at work in the folding city. In this regime of spatial discipline, the materiality of the space is subordinated to its function under capitalism, along with everything else that grants subjectivity to the inhabitants of the folding city.

Gottdiener emphasizes that the production of space is, above all, a capitalist process. In such spaces, all other processes are subordinate to and subsumed by capitalism. This is borne by the extract in the manner in which the space, now fragmented into many spaces, are rendered uniform and commodified. The shrieking metallic violence of the Change, which forces skyscrapers to “bow their heads like the humblest servants until their heads touched their feet” twisting in on themselves until they formed “compacted blocks” that “assembled into gigantic Rubik’s cubes" (Hao, 228) then reconstitute themselves into Second Space, revealing a different kind of spatial discipline:

> On both sides of the street, one black cube after another broke apart and opened, revealing the racks and shelves inside. Signboards appeared on tops of the cubes and connected together while plastic awnings extended from both sides of the lane to meet in the middle, forming a corridor of shops. (228-9)

Here, connectivity and motion are emphasized, as “one black cube after another” reveals the array of consumer goods in circulation and strewn with abstractions: the symbolic and literal signs of consumerism that are “connected together” to channel its inhabitants into a spatial practice of neutralized and neutralizing consumerism. The same blocks that comprise the spatial discipline keeping Third Space in slumber, blocks made in the Change which has fragmented the inhabited, absolute Third Space site and reduced it to “compacted blocks” (Hao, 229), are utilized for the perpetuation of consumer culture when re-arranged, the “corridor of shops” literally channeling surplus human time and energy into this abstract space and the continued circulation of capital. The representations of spaces discussed above are concerned with bodies, with people, with social connections, which as already mentioned is a key aspect of critical geographic thinking.

But Lefebvre and others have also read spatial discipline and spatial practice as acting upon the body as a site of discipline and resistance. Here, the contrast in spatial practices across the different Spaces is borne out in the representation of consumption, the various practices of engaging with food, in the text. The way in which the different spaces consume food is a good focal point for mapping the different ways of inhabiting space that take place in each of Beijing's three Spaces. When Lao Dao finishes work, he goes to the communal food court, a space of "noisy quotidian chaos" where people eat bad food “family style”, (i.e., traditionally, there is nothing Western style in Third Space as Lao Dao notes the presence of Western fashion and food in First Space), “bargaining loudly” and complaining about the prices. They eat “heartily”, with “faces buried in bowls of hot and sour noodles, their heads hidden in clouds of steam” (Hao, 221-3). The eaters are immersed in the bodily process. Here the eating praxis, and by implication the spatial practice, is characterized by idiosyncrasy, localized methods of consumption and engagement with the food objects, an absolute and embodied spatial practice. In contrast, engagement with food in First and Second Space is marked by globalized products, technological intervention and alienation. When he first arrives in Second Space, Lao Dao is astounded by the varieties of food for sale, "jujubes from Xinjiang, *lapi* noodles from Northeast China, bran dough from Shanghai, and cured meats from Hunan" (Hao, 229), a testament to the power of the globalised rhizomatic cosmopolitan consumer network at work in the city above Lao Dao's head.

Lao Dao’s experience of consumption and consumerism in Third Space is spent "navigating dirty tables at hawker's stalls and loudly bargaining crowds surrounded by street vendors" (229), a spatial practice of informality and embodied, localised knowledge. Whereas food and eating in First and Second Spaces are mediated by technology. When Lao Dao visits Qin Tiang in his shared apartment, he observes Qin Tiang’s roommate, his face “impassive” as he synthesizes “something delicious” that Lao Dao cannot identify from an unknown machine, “popping, whirring, grinding” (Hao, 237), only to return to his room and stare at the wall while eating. As Lao Dao moves up in the world of the folded city, different consumption practices are revealed. The quality of the food, the complexity of its supply chain and the degree of technological intervention in the consumption process increase as he ascends the city’s Spaces, which speaks to the varying degrees of modernization in the consumption process. This modernization of consumption recalls Lefebvre’s discussion of the decorporealisation of space, as embodied practices such as that of consumption are increasingly alienated from the consumer by technological interventions. While complaining about twice-fried pork at the marketplace hardly constitutes a radical bodily alterity, the relation between consumption alienation and technological intervention, the text provides a fitting depiction of Lefebvre’s discussion.

Using theory from the field of critical geography, this chapter argued that Hao Jingfang's novella *Folding Beijing* displays a spatial practice consistent with the hegemonic will of the nation-state and modern capitalism. Moreover, and contrary to other critical readings, this chapter has argued that Folded Beijing itself is a spatial body with its own systems of flattening and uniformity, not just that which is enforced upon the citizenry. This constitutes a spatial practice of uneven development that perpetuates and entrenches existing divisions between classes within the city, and between the city and the rest of the country. Moreover, what *Folding Beijing* makes abundantly clear, is that the hegemonic will of the nation state has little to no vested interest in equitably distributing the benefits of economic and technological development. While the discourse of development is premised on change and growth, *Folding Beijing* suggests that the hegemonic will is in fact vested in maintaining the status quo.

ECOLOGICAL ASSEMBLAGES as a RESPONSE TO DEVELOPMENTALISM in CHEN QIUFAN'S *WASTE TIDE*

This chapter critiques the paradigm of developmentalism from the perspective of the environmental humanities, by employing the sociological methodology known as actor-network-theory, or assemblages, drawing primarily on the work of Bruno Latour. This sociological methodology has been used effectively by Anna Lowenhaupt-Tsing to describe a phenomenon of mushroom cultivation, which she reads as endemic of the next step in post-capitalist living. Her conceptions of "assemblages" (viii) formed under conditions of "precarious living" (98) in the described in The *Mushroom at the End of the World* (2015) critiques narratives of developmentalism from an ecological perspective. Taking its epistemological cue from the norms and discourses of Anthropogenic climate change as Lowenhaupt-Tsing describes them, this chapter evinces in Chen Qiufan's *Waste Tide* (trans. 2019) a representation of developmental alterity, in a new life form and developmental praxis which is born amongst the "assemblage" of "precarious living" on the edge of capitalism. This chapter reads the titular Project Waste Tide, and the manifold representations of its technical applications throughout the text, as an assemblage similar to the matsutake in its subversive operations. This chapter discusses Project Waste Tide and the posthuman it produces, as representations of precarious living and possible counterargument to growth without change, which is what this project suggests is the problem in the discourse of developmentalism. Thus, the historical and evolutionary narrative of Project Waste Tide constitutes the novum of the text as both a environmental critique of developmentalism as well as a counternarrative to its logic.

Waste Tide, Chen Qiufan's debut novel, tells the story of Silicone Isle, a futuristic treatment of Guiyu, the e-waste processing capital of the world. The novel's title refers to a top-secret CIA psychological weapons programme from the Second World War. The discoveries from this research proliferate, as is the case in reality, into an assemblage of technical applications, from a battery powered by a live virus to a brain-machine interface that is responsible for the cyborgised society of the world of the text. The uneasy equilibrium in the city, fraught with tensions between the clans competing for the e-waste business, the migrant workers known as the Waste People who process the waste, and the corrupt local government, is disturbed when representatives from an American recycling concern, one of whom is a corporate spy, arrive and propose radical changes to the island's industry. When a junk prosthetic contaminated with the Project Waste Tide technology is deliberately exposed to the son of a powerful clan leader and the Waste woman Mimi, the computer virus migrates to the human hosts. The accumulation of toxins in Mimi's body

because of her work provides the perfect growing medium, and the virus evolves into a posthuman synthesis of the technological and the organic. The new lifeform leads the Waste People into conflict against the locals, but as the city is threatened by a typhoon, its residents band together to weather the storm. The new lifeform is kidnapped by the corporate spy, whose mission was to oversee the infection process and retrieve the specimen. Mimi's Chinese-American love interest rescues and euthanizes the new lifeform to spare it from life as an experimental subject.

MAGIC MUSHROOMS: A Socio-Economic Paradigm

Through the metonym of matsutake mushrooms and mushroom pickers in rural Oregon, USA, *The Mushroom at the End of the World* describes an emerging and increasingly prevalent form of peri-, or post-capitalist living. The connections – between the mushrooms themselves, the unique harvesting economy of the trade, the complex supply chains connecting buyers and sellers and shippers and shops, the sentiments the fungi evoke and their cultural and aesthetic significance in Japanese cuisine and culture – constitute an "open-ended assemblage" (Lowenhaupt-Tsing, viii) of actors and forces. Assemblages such as the one described in *Mushroom,* says Lowenhaupt-Tsing, reflect the "patchiness", or uneven coverage, of prevailing capitalist forms. The conditions under which this ecological and social lifeworld has come to flourish are only possible through capitalist activities and failures. This chapter argues that the same can be said of Project Waste Tide.

One significance of the matsutake mushrooms lies in their ecological complexity and, consequently, their resistance to cultivation. So sophisticated are the ecological interactions that they are beyond our understanding. In order words, the conditions under which matsutake flourish cannot be replicated, their processes exist beyond what science can fully account for. On a less metaphysical note, this means that matsutake cannot be factory-farmed, they can only be harvested where they naturally occur, under highly specific conditions. They only grow in the remains of denuded forests, seasonally and foraged by pickers who live on the economic and social margins of society, such as the "Open Ticket" (Lowenhaupt, 75) group in the Oregon mountains, comprising South-east Asian immigrants, American war veterans and other sundry characters who must or choose to live on the social margins, outside or perhaps beyond modern capitalist life. But the laws of supply and demand mean that these social outcasts trade in some of the most valuable organic commodities on the legal marketplace. The pickers bargain and barter their hauls, with the best mushrooms destined for import. Lesser mushrooms will make

their way into restaurants across the Pacific North-West. Mushroom buyers across North America, who need to be embedded in these societies to ensure they make the best purchases, route their hauls to international exporters who negotiate the logistics of transporting the fungi across the Pacific.

On the Japanese side, the bulk mushroom shipment is parcelled and sold to wholesalers, who sell to restaurants and retailers, where they become part of a gift-giving economy. This is the patchiness of capitalism mentioned earlier, the uneven coverage of capitalism, something the matsutake needs to flourish ecologically and commercially. The “precarious livelihoods” (Lowenhaupt-Tsing, 4) of the pickers and the socially informed bartering of the buyers make the global political economic chain of luxury gift mushrooms possible. The mycelial complexity of the matsutake, resisting cultivation, makes it necessary, and this is the same complexity of its supply chain. The disturbed landscapes left in the wake of capitalism make the mushrooms and the foraging industry flourish. The culture of gift exchange, driving the demand for the mushrooms, makes it an economic system. Thus, the matsutake mushroom exists within and without capitalism, as both are necessary links in the lifecycle and supply chain.

The mushroom and its dynamic assemblage are tools for Lowenhaupt-Tsing to explore the patchiness of capitalism and what blooms in other patches; to think through and pick out what might be able to live past the capitalist epoch. Lowenhaupt-Tsing’s mushroom demonstrates that assemblages integrate capitalist and non-capitalist forms, highlighting the often-instrumental roles of non-human actors in economic processes. Reading for assemblages, says Lowenhaupt-Tsing, requires a framework of radical relativity. The matsutake embodies this. Imbued with a high degree of “relationality” (Lowenhaupt-Tsing, 40), it exists in markedly different ecosystems and assumes different meanings in different interactions; as a fungus it can never exist *sui generis*. It is in the potentialities of “co-existence within environmental disturbance” (Lowenhaupt-Tsing,4), an art the matsutake has perfected, that is also relevant to this inquiry. The matsutake is site-specific. It can only grow under the correct confluence of environmental factors. Any attempt to engage with or apprehend the mushroom must consider that its needs and position within the ecosystem interact with other organic and inorganic agents that comprise the mutable landscape.

The mushrooms are Lowenhaupt-Tsing’s way of working through the problems and potential of assemblages, by offering an alternative epistemology for making sense of an increasingly precarious present and a future growing bleaker by the day. For the mushrooms, it is their “willingness to emerge in blasted landscapes” (Lowenhaupt-Tsing, 3) that provides a model and perhaps a methodology with which to analyze, appraise and possibly even apprehend “the ruin

that has become our collective home" (3), a ruin that we ourselves created. By tracing the fluid and multilateral connections comprising the promising "open-ended assemblages" that make up the precarious present. Lives, livelihoods, and livability, in what has increasing become a post-capitalism world: what the mushrooms show us in this regard are organic evolutionary responses to alternative parameters of livability. For the study of *Waste Tide*, this story of the mushrooms speaks to the dynamic power of an assemblage and its interplay with its constituting elements. It is the "hidden collaborations" (Lowenhaupt-Tsing, viii) that link the elements of Project Waste Tide and the actors in the present of the story into a narrative that allowed for an alternative epistemology for interpreting and interpellating how *Waste Tide* represents uneven development.

The Scholarly Assemblage of the Text

Waste Tide has generated a relatively large degree of scholarly interest in the Anglophone academy. Most scholarship has focused on the intertwined ecological and humanitarian themes, speaking to violent alienation under late capitalism. Other scholars have read *Waste Tide* in terms of gender politics in Chinese literature. Chen's original style of "science fictional realism" is also discussed, as both commentary on Chinese literary tropes, and in contrast to prevailing realist traditions in modern Chinese literature.

Some scholarship on the text precedes through the environmental humanities and paradigms offered by structuralism and world literature. Yuanyuan Hua (2020) interprets the text in terms of the Frankfurt School's theories of alienation and domination over both human nature and the natural world, which the author describes as a "dual alienation" at work in the text. Drawing on Horkheimer, who, in *The Eclipse of Reason* (1974), equivocated humankind's history of subjugating nature with that of the history of "man's struggle over man" (from Hua, 670), and Marcuse, who is quoted in *Capitalism, Nature, Socialism* (1992) as saying that the commodification and denaturisation of nature constitutes a form of "political anaesthesia" (from Hua, 672), an alienation from internal as well as external nature, the author argues that, through bodily violence and the commodification of nature, *Waste Tide* represents humankind's alienation on both those levels. In *Waste Tide*, this is depicted in not only the gender-based violence and the violation of the female body, but also in nature "robbed of its inherent value and purpose as nature", which can be seen in "transformations, alienations and violations of the original body's nature" (Hua, 680) that take place throughout the story. The author argues that *Waste Tide* represents Marcuse's thesis that, under capitalism, all forms of unnatural nature come into being,

“polluted nature coexists with military-use nature, artificial nature [and] commercialised nature” (Hua, 679) in this case, in the pursuit of rare earth minerals.

Yuqin Jiang also reads *Waste Tide* in terms of feminist body politics and alienation. She argues that the mutations that Mimi undergoes over the course of the text constitutes a process of “dehumanisation and denaturalisation” (Jiang, 655) not just of her own body but also that of Silicone Isle, and less developed regions across China. But it is also this mutation, which the author describes as “cyborg alienation” (Jiang, 659) that affords Mimi and other women, and indeed, all those on the margins, a potential means to rebalance to uneven distribution of modernity, or, in *Waste Tide*, the future. On a technical level, Jiang notes Chen’s adherence to a technical and unemotional style that conforms to realism as much as possible. Chen argues that his style of “science realism” works because “people could show their sympathy only when they realised it similarly happened in reality” (quoted in Jiang, 657). While the female body is depicted as a slate upon which patriarchy and ideological are inscribed, cyborg adaptations of the future enable women “to find a new way to be themselves and fight against the patriarchal world” (Jiang, 658). The author concludes that the book argues that “the wholeness of humanity” can be achieved through “harmonious connections” (Jiang, 667) between people and technology. While Hua interprets the technological intervention in *Waste Tide* as a harbinger of social and bodily alienation via the paradigm of the Frankfurt School, Jiang reads the depiction of technology in the text as a means of bridging social divides and promoting cohesion through a feminist lens.

Cara Healey argues that previous analysis of Chinese sf has been largely confined to thematic analysis, which she expands upon to examine formal and stylistic characteristics of the genre in the broader context of modern Chinese literature. She argues that *Waste Tide* is representative of what she describes as the style of "generic hybridity" (2) to both synthesise and deconstruct the styles and conventions of mainstream Chinese literary realism, and the tropes and themes of Western sf. Chen synthesises the "estranging" elements of cyberpunk and the sf tradition whilst "maintaining continuity" with mainstream Chinese literary traditions of critical realism and the high value placed on the realist mode, to produce a unique "generic hybridity" (5) that, in *Waste Tide*, "illustrates humanity's complex relationship with the environment" (5). Chen's self-proclaimed style of kehuan xianshi zhuyi (science fictional realism) thus constitutes a meaningful contribution to a significant ongoing debate in Chinese Literary Studies, the "connection between realism and speculation" (6). Healey also notes in relation to this text that, while environmental destruction is a "global phenomenon", it nevertheless has "differing local consequences" (8). While cli-fi has certainly demonstrated the saturating of Western sf with a strong environmental consciousness,

there has also been a shift towards "ecoliterature" (Yang 2013), this has been mostly through the lens of the "common understanding of realism" as "foundational" (Healey, 8) to modern Chinese literature. Thus, there is a dearth of Chinese texts using "non-realist elements" (8) to portray critically and politically charged issue of ecological devastation

Healey notes "echoes" (9) of the thematic and structural workings of Lu Xun's 'loner and crowd' narrative, in the tension that surrounds the character, Chen Kaizong. the "fraught relationship" (9) between the urban-educated intellectual and his rural kin has been treated by Lu Xun in narrators of "My Old Home" (Guxiang, 1921), "New Year's Sacrifice" (Zhufu, 1924), and "Upstairs in the Tavern" (Zai jiulou shang, 1924). The novel's treatment of his ambivalent homecoming can be seen, says Healey, as a response to the *xiangtu wenxue* (native soil literature), a placeholder for nostalgia, that "idealises the rural, ancestral village" (10).

Another aspect in which Chen adheres to national literary norms is in his "allegorical use" (9) of the female body, which Healey says is fertile literary terrain for exploring "national, political and economic concerns" (14). Healey reads the environmental devastation depicted in the novel in tandem with the bodily, gendered violence inflicted upon Mimi. In this way, by comparing Mimi's suffering to that of the ecosystems of Silicone Isle and the polluted landscape in general, Chen enhances his treatment of the figure of the cyborg. The cyborg, which blends and deconstructs the natural with the artificial, is represented as the ways in which both the landscape and the woman are "transformed by the encroachment of the artificial into the natural", a process which has "ravaged" both (14). By this equivocation or analogising, the text employs a popular device in Chinese literature, using women's bodies as a site for inscribing "social critique" (15). In this case, Chen is using Mimi's body to "project anxieties" (14) about the e-waste business and the pernicious effects of global capitalism on China's land and people. Again, Healey notes that Chen subscribes the national literary tradition of using violence against women's bodies as a metaphor for "the backward state of the nation" (15). Healey argues that the palirromancy ritual ties *Waste Tide* to an established tradition of Chinese texts that portray women's drowning as the result of misogyny, including Ba Jin's (1904-2005) novel *Family* (Jia, 1933), Zhang Xian's (1934-1997) story "A Corner Forsaken by Love" (Bei aiqing yiwang dejiaoluo, 1980), and Su Tong's (b.1963) novella ‘Wives and Concubines’ (Qiqie chengqun, 1990). These abject portrayals are used to describe the nation as in moral crisis and the deplorable state of Chinese society, effectively "connecting her to a long line of oppressed women in modern Chinese literature and film" (15)

Finally, Healey situates the novel within the cyberpunk tradition. Chen emulates William Gibson, Philip K Dick and others through his treatment of the figure of the cyborg, which "engages with

the tensions between natural and artificial" and in Chen's case, "injects them with a high degree of social consciousness" (4). Chen's generic hybridity is primarily figured in the characters of Mimi and Kaizung. Kaizung, as an emulation of Lu Xun's loner/crowd trope, this has also been noted by Bruce Sterling as an sf and specifically cyberpunk hallmark: "the sunstaring visionary, the biker, the rocker, the policeman, and similar outlaws" (1986, xi). Healey reads Kaizong's cyborg transformation as an sf treatment of both tropes, that elevates him from the generic cyberpunk anti-hero and his representation as a "Lu Xun stock character", as he goes from passive witness to active participant in the Waste People's struggle.

ECOLOGICAL ASSEMBLAGES: Precarious Living on Silicone Isle

Waste Tide aptly illustrates the workings of the anthropological methodology of Bruno Latour's actor-network theory, although Lowenhaupt-Tsing refers to the phenomenon as "assemblages". Latour describes the praxis of ANT as a "network tracing activity" (378), able to "sail between" scales, scopes and "frames of reference" (378) to make novel intellectual connections between the sociological connections linking actors. In other words, forming a network. With regard to developmentalism, *Mushroom* and *Waste Tide* critique the paradigm of unceasing exponential economic growth in favour of "a state of acknowledgement of our vulnerability to others" (Lowenhaupt-Tsing, 29), a state that makes co-operation and symbiosis key to everyone's survival. Chiefly, *Mushroom*'s critique of developmentalism concerns "scalability" (Lowenhaupt-Tsing, 38), that is, growth without change. While the term 'assemblages' was popularized by Deleuze and Guattari to refer to rhizomatic social and ecological relations, their conception implies a linearity with spreading connections in only one direction, and what Lowenhaupt-Tsing and Latour describe is less systematic, and more systemic. That is, focused less on evaluating the disparate parts and more on the dynamism of the whole. An assemblage is more than the sum of actors, human and non-human, that are the parts comprising the whole. The connections between the actors have a life of their own and are in a dynamic interaction with mutually changing actors in multiple "polyphonic" (Lowenhaupt-Tsing, 24) connections. In anthropology as in literary studies, assemblages relativize human agency within a larger ecology that considers non-traditional actors, tracing strands of agency to the animal, the non-human, the microscopic, even the inorganic.

In *Waste Tide,* non-scalability is realized in the form of the new lifeform, Mimi 1, the synthesis of multi-species assemblage surrounding the titular Project Waste Tide, the secret United States

military research project and its practical applications that are woven throughout the text. The confluence of factors which gives rise to Mimi 1, is by way of its diversity in having produced this novel lifeform, constitutes a non-scalable ecosystem and is therefore post-capitalist. Capitalism, which thrives on expanding scales of production without changes to the structure or composition of the assemblage, i.e., to concentrate ever-increasing profit margins, “banishes meaningful diversity”. It is death to variation and hence evolution. Scalability can also be seen as the capacity of a programme to resist change. The assemblage of the novel’s story, the assemblage that surrounds Project Waste Tide, is non-scalable and the dynamic connections that comprise it, like those of the matsutake mushroom, offer the possibility of a means of negotiating the ruins of capitalism through the lives that those very ruins create. A global hub of waste reprocessing, this island becomes the site of a techno-social revolution when a contaminated AI prosthetic infects a waste worker. While Latour’s *Introduction to Actor-Network Theory* is the authoritative text, I draw primarily from *The Mushroom at the End of the World*, which is more relevant for the purposes of this project, with its emphasis on ecology and economy and their liminal shared space (traced through the matsutake mushroom).

Lowenhaupt-Tsing’s approach is to evince the kinds of life and ways of living possible in the precarious present, inhabit and perhaps even flourish in the ruins of capitalism. Lowenhaupt-Tsing’s description of what she calls “precarious living” (13) has three elements particularly relevant to this analysis. Firstly, the matsutake mushroom is situated within a multi-valent supply chain. Secondly, this supply chain, and the mushrooms, exist simultaneously within and without capitalism. Finally, that the mushroom always exists in a state of relationality to other actors. In *Waste Tide*, the story of the titular virus exemplifies not only a critique of developmentalism, but a representation of the alternative praxis of rejecting growth in favour of change. Project Waste Tide: the secret US military research project, initiated almost a hundred years before the events of the story, from which the novel takes its title. Indeed, the format of the narrative, and its resolution into the plot, constitutes an exercise in tracing an assemblage such as the one Lowenhaupt-Tsing traces in the eco-social lifeworld and global economic supply chain of the matsutake mushroom.

In *Waste Tide,* the location of the story and the site of the narrative assemblage feature prominently, in the creation of the fictional Silicone Isle. As a concretization of that location-contingent and perpetually relational role, the island exercises agency in mutually influencing relations with human and animal actors. This analysis of *Waste Tide* is cognizant of the value of

a site-specific analysis. It is only at the dumpsite of the world's waste, a site defined by disturbance, that the virus' radical potential is made possible.

The world of *Waste Tide* is seemingly replete with nova. This is perhaps more realistic than the typical sf novum, as a single innovation will produce numerable practical applications and permutations. The narrative describes disparate experiences and pieces of information about the world of the text, told from the perspectives of almost a dozen characters, while the novel's plot traces the origin of all the technology in the text, from cybernetics to ever-lasting "virus batteries" (Chen, 87) to e-drugs and augmented-reality technology – none of which are particularly moving or original in and of themselves – to the single innovation that made them all possible: Project Waste Tide. The novel takes place on the fictional Silicon Isle, a port city that has become a global hub of waste processing. Junk from all over the world finds its way there to be stripped, smelted, melted, or simply added to the trash heap that seems to make up the entire city. This hazardous work is undertaken by migrant workers referred to as "the Waste People" (Chen, 38), who are overseen and exploited by the three native clans. These clans vie endlessly for control of the ports, the waste shipments, and the labour supply. They must buy influence with the local government to pass pro-business legislation and rubberstamp their operations, and the local bureaucrats have their own agenda.

When Scott Brandle, the representative of an international recycling company, and his interpreter, Chen Kaizung arrive on the island, ostensibly to propose radical changes to the waste processing business, they are caught in up the power struggles taking place on the island. Beyond the labour conflicts, the ecoterrorists Coltsfoot Blossom, and a sinister unnamed global concern, Brandle's true employers, are hunting the contaminated and contagious byproducts of Project Waste Tide. A waste worker named Mimi is inadvertently exposed to the Waste Tide sample and becomes the target of Scott and clan leader Luo Jincheng, whose son has also been infected by the virus. Interwoven through this is the history of Project Waste Tide, from a military experiment to the grisly fate of the test subject ape, Lucy. This chapter focuses on the dynamic assemblage that is Project Waste Tide, analogizing the supply chain of the matsutake mushroom with that of the HEMK virus, one of the many products of Project Waste Tide.

Out of the collision between actors emerges a new lifeform, Mimi 1. A synthesis of human meat and machine parts made possible by a self-aware AI membrane, from the Project Waste Tide material and Mimi's waste-infected body, Mimi 1 represents the possibility of life with and through the island's junk, a social and environmental egalitarianism. The synthesis of human and AI proves unsustainable, and Kaizung euthanizes Mimi 1. While the radical possibility is seemingly

foreclosed with Mimi 1's death, suggesting that this world is sadly not yet ready to embrace fundamental change, this is not the case. When viewed through the *Mushroom* paradigm, a more nuanced and optimistic ending is evinced. Silicon Isle is destroyed by tidal forces, and Kaizung begins a new career tracing plastic gyres. This conclusion suggests that, beyond Mimi 1, a new form of social life also emerges from the political and environmental chaos, and "possibilities of co-existence within environmental disturbance" (Lowenhaupt, 4) is possible, and perhaps inevitable. Irreparably altered by the rumblings of capitalism and decidedly moving away from its toxic processes, social and environmental, whilst utilizing some of its byproducts for environmental renewal.

We can find the dynamic flow of assemblages throughout the text. The Waste People, "the men and women living among the trash" (Chen, 31) themselves are perhaps the most striking presentation of an economic and cultural adaptation to climate change in the text. Migrant workers from the rural provinces of China, they live on meagre wages that they must send home to indigent relatives. They are subject to prejudice that often crosses the line into abuse at the hands of the Silicon Isle natives, who have an extreme attitude towards the migrant labourers. They dwell amid the waste they process, in structures built of all sorts of repurposed waste, from corrugated iron sheets to sex toys. While the Waste People appear to subsist on the margins of Silicon Isle, they are one set of actors in the narrative and network. Other actors vying for the largest dividends are the indigenous clans who control the waste-processing industry, the local government, and international resource concern posing as a recycling company. When a representative of the company visits a settlement of Waste People, he is horrified to witness children gambolling in the squalor and rubbish: "where fibreglass and the charred remains of circuit boards twinkled…where embers and ashes from burnt plastics smoldered [sic]…They seemed to think this was the natural state of the world, and nothing disturbed their joy" (Chen, 31). They subsist on and at the margins, geographically, economically, socially, and just about every other way you can think conceive of, in a world where "everything was shrouded in a leaden miasma, an amalgamation of the white mist [from] acid baths and the black smoke from the unceasing burning of PVC, insulation and circuit boards". As part of their work sorting through the tonnes of junk that they are named for, they exposed their bodies, inside and out, to toxic fumes daily, "seeping into the pores of every living being" (Chen, 32). The Waste People subsist until their bodies can no longer persist and they inevitably expire. Under such conditions, life is bare, and death is arbitrary.

Life on Silicon Isle is a life surrounded by the world's waste. Anything extracted from its soil, food or water, is unfit for human, or animal, consumption. All the waste of the world has ended up here:

products as well as people. Silicon Isle's clans and corrupt government maintain the *status quo* by any means necessary, including the debasement and exploitation of the migrant labourers. A society surrounded by all the gathered rubbish of the world has given rise to a narrative of injustice both sadly familiar and striking in its hyperbole. The labourers of the "[an] instrument might break down and require repairs, while workers could be sent home with a few yuan if they got sick, not even requiring medical insurance… human lives are so much cheaper than machines" (Chen, 70). This history of the Waste People is always obscured by the pernicious logic of neoliberalism, and the victims themselves easily replaceable, the least valuable of raw materials in the supply chain of waste repurposing. Even more sinister is the risk of biological contamination that is so easily glossed over, as Director Lin lets slip to Kaizung that "junked prostheses are shipped here. Most haven't been decontaminated and still contain blood and bodily fluids, which pose a lot of potential risk to public health" (Chen, 34). Like the rural Chinese wet markets most likely to blame for the irruption of COVID-19, this environment of fast and slow violence is the perfect breeding ground for the irruption of new diseases, not to mention radical grassroots political movements. If capitalism has produced one source of organic waste, it could be said to be human lives. A parallel may be drawn here with Lowenhaupt-Tsing's notion of "ruin capitalism": that it is when life is bare and capitalism has truly come off the rails, that novels forms of life may emerge.

These hidden connections in the novel take the form of the secret truth of Project Waste Tide and is crystalised in the figure of Mimi. A waste girl, she becomes the unwitting host of the HL virus that is the final form of Waste Tide's findings. A poor migrant worker who spends her days sorting plastics, Mimi is reminded constantly that "she is a waste worker who belongs to the Luo clan" (Chen, 56), and by the end of the narrative, she is "a pawn to be sacrificed in some Great Game" (Chen, 213) between forces beyond her simple ken. Kaizung, a naïve representative of the sham recycling company, takes a shine to her and she becomes property of the Chen clan. Her story is a sad one: "she and others like her had left their homes to come here under the euphemism of 'economic development' so that they could eke out a living in pollution and poison, suffer the prejudice and exploitation of the natives, and perhaps even die in a land far from home and loved ones" (Chen, 80). Mimi's life begins to unravel after encountering the contaminated prosthesis. She is violently abducted by the Luo clan and in a life-or-death struggle, the virus in the prosthesis creates a second consciousness with seemingly limitless hacking abilities, later revealed to be the HEMK virus partly comprised of the digitalized consciousness of inventor and actress Hedy Lamarr, in a virus form, whose face always appears overlaid over Mimi's, "like a ghost image" (Chen, 210). The new Mimi, known as Mimi 1, radicalizes the Waste People, but also becomes

the new target of the energy concern. Kaizung, unnerved by her abilities and knowing that she will be doomed to the caged existence of a lab rat, lobotomizes her at the end of the novel.

The assemblages in the novel *Waste Tide* made possible by precarious living in a context of scientism and developmentalism present an alternative to developmentalism. Assemblages are a methodology; a way of seeing social and material connections, emphasizing the dynamic connections between subjects and objects, as a dynamic social force that influences the things in them, rather than foregrounding the things themselves. Precarious living is a kind of assemblage that takes place on the social and economic margins on traditional capitalism, may constitute a form of post capitalism, a new way of living in and through and with the ruins of capitalism. The matsutake mushrooms and project waste tide/Mimi 1 are both the results of assemblages of precarious living, of rhizomatic thinking and living. The text demonstrates that growth and change are necessary for the survival of life and ways of living beyond the crumbling capitalist epoch.

CONCLUDING REMARKS

In my introductory chapter, I introduced the discourse of developmentalism as the central problematic of this project. Developmentalism is a political-economic discourse premised on an unquestioning adherence to unceasing and exponential material and economic growth, in accordance with a teleological Euro-American historical trajectory. It is one that the Chinese state has embraced with what many have found to be a troubling degree of enthusiasm. The flipside of this is uneven development, that propels the lucky few into the developed future at the expense of leaving many in the past. I then followed the trajectory of sf in modern Chinese history. I argued that since its inception, sf in China has served dual critical and didactic purposes. On the one hand to spread modernism and scientific education whilst entrenching Chinese nationalism with visions of technological miracles and the inevitable rise of China as a global power. On the other hand, it has always served as a medium of criticism against the Chinese state and Confucian values. As China is the world's fastest growing economy, it is inevitable that issues of uneven development and the problematic of development play out in the Chinese public forum. Given the pervasive degree of government intervention in everyday life, normal channels of communication are obstructed or monitored. Thus, sf provides an ideal medium for such a discussion. Moreover, in the context of modern China, where any critique of the one-party state is required to walk a teetering tightrope to avoid censorship, sf's outlandish stories and settings allow it to pass state censorship when realist critiques would not. With its focus on investigating the possible consequences of technological and social development via fantastic and estranging means, sf's enduring popularity and inherent political entropy in the Chinese context speaks to the Chinese people's concern with and refiguration of those issues.

In my second chapter, I introduced the concept of the novum as a critical tool of sf literary analysis. I described how the novum works on the level of 'estrangement' - recognising and understanding the differences between the world of the text and the material world – and simultaneously 'cognition' – an awareness of the striking similarities between those two different worlds. I demonstrated the functioning of the novum through a reading of Wang Jinkang's short story 'The Reincarnated Giant', in which a synthesis of technological intervention and human greed create a disastrous embodiment of developmentalism. I read developmentalism itself as the novum responsible for creating the titular titan. While perverse and pervasive greed are themselves nothing new, the novel aspect here is Wang Jinkang's treatment of an existing trend in the post-human commodification of the body. While the Imagais of the world will always be all-but guaranteed long lives, a futuristic framework in which techno-medical intervention is able to

realise desires in this material and embodied fashion estranges the impulses behind the desire for growth for generally. Unthinking, unceasing and exponential expansion – which in the context of economics and development studies we have agreed in this chapter to call developmentalism – when displaced onto human biology, are rendered as grotesque and abhorrent. I concluded that this representation constitutes a critique of developmentalism in China.

In the third chapter, I approached the problematic of developmentalism and uneven development from the field of critical geography. I discussed the social and ideological production of space to demonstrate the effect of developmentalism and uneven development on spatial practice through the representation of consumption and spatial discipline in the novella *Folding Beijing*. In Hao Jingfang's novella, the social space that is the folded city is a product of uneven development due to its rigid class separation and spatial discipline, and this forecloses potential alterity in the world of the text. The folding city, or the Change, is the novum of the text.

According to Henri Lefebvre, from whom this chapter primarily takes its cue, spatial discipline tends more towards the formulation of abstract rather than embodied practices and spaces, to the detriment of those who inhabit those spaces. In *Folding Beijing* this is demonstrated in the different ways that food is consumed in the different spaces, wherein affluence increases the degree of abstraction of consumption. The regime of spatial discipline is also apparent in Hao Jingfang's representation of the Change (the folding and unfolding of the portions of the city). The folding process is treated as violent and disconcerting, enforced upon the occupants, and the unfolding, while treated positively, speaks to a similar spatial discipline regime, one premised on consumerism as a means of ideological discipline, as opposed to embodied. Hao Jingfang's representation of the Change, and the events and story of *Folding Beijing* more generally, critiques how social inequality and uneven development dictate class and privilege, at a level that is ideological as well as material, by estranging the conditions of spatial inequality and displacing them onto violent and disciplined representations of the novum. I concluded that this representation was a critique of uneven development in China that evinced the mutually dependent nature of spatial discipline and ideology that makes the perpetuation of the terms of uneven development possible.

The fourth chapter presented a critique of both developmentalism and uneven development, from the perspective of the Environmental Humanities. I employed the discourse and norms associated with anthropogenic climate change. I argued that representations of assemblages in the novel *Waste Tide* synthesize a critique of scientism in combination developmentalism and uneven development through the novum of Project Waste Tide.

Taking my cue from renowned sociologist Bruno Latour in his *Actor-Network Theory*, I defined assemblages as the combinations of networks and all the actors passing in and out of them, and a fluid and intangible third element generated from the interactions between the two. It is a way of seeing social and material connections, emphasizing the dynamic connections between subjects and objects, as a mutable social force that influences the things in them, rather than foregrounding the things themselves. The representation of what Anna Lowenhaupt-Tsing call precarious living, a symptom of uneven development, is a kind of assemblage that takes place on the social and economic margins on traditional capitalism, and may constitute a form of post capitalism, a new way of living in and through and with the ruins of capitalism, is represented by Silicone Isle and the lives of the Waste People. This is a representation of uneven development in the novel that serves also as a critique of developmentalism.

The novum of Chen Qiufan's novel is the titular Project Waste Tide. What started as an ethically dubious US military experiment during the Second World War leads to a multitude of advances in biotechnology and electronics, so that in the near future, when these advances converge in the environmental and social conditions of Silicone Isle, they result in a new lifeform synthesizing technology and biology. In *The Mushroom at the End of the World*, Lowenhaupt-Tsing argues that, just like with the matsutake mushroom, it is only under changing conditions, when different lifeforms and ways of living collide, that diversity and alterity are possible. I argued that this is indeed the case in *Waste Tide.* Finally, I noted that the results of precarious assemblages in the novel may present an alternative to the developmentalist paradigm.

*

Across all three texts, developmentalism is treated as an ultimate threat to individual humans, human society and the natural world, and not simply detrimental to their optimum flourishing. In all three of the chosen texts, development is consistently represented first and foremost as a violent process. Developmentalism is represented as harmful to individuals ('The Reincarnated Giant'), the community or society (*Folding Beijing)* and the environment (*Waste Tide*).

In Wang Jinkang's short story, human greed and posthuman technological transformation create the Frankenstein's monster of nova. Imagai's impetus for expansion is so great that that his fixation defies the laws of human physiology to render him monstrous. while he has 'defeated' one kind of natural limit, that on human physiology, the material realities and limits of physics kill him in the end as his growth proves unsustainable when his muscles prove unequal to the task of supporting his bones, and his neck snaps when he attempts to eat his personal physician.

There is also an undercurrent of sexual and gender-based violence in Imagai's rapacious employment of the wet nurses. These representations of violence done to and with bodies critique developmentalism through representation of bodily functions in contrast with their posthuman origins.

In *Folding Beijing*, the textual violence can be found in the representation of social space and the disciplining of its inhabitants. The novum of the Change, the geo-engineering wonder that gets its inhabitants to police themselves, estranges the material and social barriers to upward mobility and social equality. The Change is represented in terms that convey spatial discipline imposed upon inhabitants and space alike in one space of the folding city, and a covert but equally compelling spatial practice than channels consumerism and alienation in others. While Lao Dao is able to scale, circumvent or undermine the physical and social obstacles to his mission, the fact that he returns to his allotted station in life after witnessing the truth of the city, without any qualms or questions, suggests that Hao Jingfang considers the ideological barriers in the space of the folding city, in the real Beijing, and between Beijing and the rest of the country, to be nigh-insurmountable. And this is clearly as a result of the developmentalist mentality that shapes both cities. Uneven development, the fallout from developmentalism, is depicted by Hao Jingfang as the coercive means of maintaining the socio-economic status quo.

In *Waste Tide,* Chen Qiufan depicts the slow violence of uneven development through his signature style of sf realism. While the traditional purpose of the novum is to estrange, the sprawling network of technologies originating with Project Waste Tide comprise a more believable novum. *Waste Tide*'s Silicon Isle juxtaposes opulence and futurism with the degraded landscape and dehumanized living that makes such opulence possible. Physical violence on the part of developmentalism's agents is frequent and visceral.

The treatment of development in the texts, through the representation of uneven development, suggests that development does not serve the common good or those most in need of what it promises. In all three texts, the nova representing developmentalism would not be possible without the deliberate exclusion of the nation's poorest citizens.

In 'The Reincarnated Giant', the poor, rural couple who sell their brain-dead fetus to Imagai's representative, provide an instrumental part of the novum that enables the tycoon to physically manifest his greed. Imagai uses their tragedy in conjunction with the technological innovations he has funded. But these are the very people who should benefit from quality medicine and Motose's technological innovations. Instead, they are exploited to make his continued expansion and

exploitation possible. Imagai's influence with the government also allows him the use of the nation's navy to ensure his personal safety when his growth rate forces him to move to the ocean to reduce the pressure of his bones on his organs. Here, developmentalism is made possible by state capture.

In *Folding Beijing*, uneven development is intrinsic to the very novum of the story. Government Minister Guo reveals that the class division represented by the three Spaces, particularly the relegation of the working class to the undercity, is vital to the city's richness and its role as a national symbol of prosperity. What was designed ostensibly to maximize productivity and living space (if it can be called living, when one never gets to see the sun and spend 8 of their 10 waking hours at work) of China's greatest city, is only made possible by excluding the vast majority of its inhabitants from the benefits of living in Beijing. Thus, the novum of the folding city institutionalizes uneven development in the world of the text.

Finally, in *Waste Tide*, we see that the luxuries of the near-future – the biotechnological advances and high quality of life enjoyed by people across the China of the text – are made possible by the endless supply of those desperate enough to become Waste People and engage in the form of precarious living portrayed in the text, without which the e-waste processing economy would not be viable.

In all three texts, the development process perpetuates and widens socio-economic inequality. This suggests that development in many instances, relies on that socio-economic chasm widening. This consistent representation of inequality as profoundly iniquitous and a necessary condition of development represented in the texts is born out through representations of exploitation.

In 'The Reincarnated Giant', we see this playing out in the biological commerce in the text. This commodification of the human body can be seen when Imagai's lawyer procures the donor organ from an impoverished rural couple for an amount well below the expected price. But it is most apparent in the representation of Imagai's horde of wet nurses. Their exploitation is twofold. Reduced to a single biological function, their employer's disquieting sexual rapaciousness causes bodily harm, and the women invariably resign without being paid, compounding their exploitation. Imagai makes a point, first, of only recruiting the nation's rural poor, but when that he exhausts that resource, he chooses to recruit women of the Global South specifically.

Folding Beijing makes it clear that this is intrinsic to national development, and a price the state is more than willing to pay. The entire economic foundation of the folding city rests on maintaining

the social and economic deprivation of the residents of Third Space. As a result of automation, says Minister Guo, which was necessary for China to remain a competitive and growing economy, an entire swathe of the population was cut out of the economy. By consigning the meagre and low-paying economic networks to their cramped existence, the city is reducing the purchasing power and ensuring little time for the purchasing of goods and services, but as a result, their only real purpose is to process the waste of the other two spaces. Hao Jingfang is an economist, and this part of the story is grounded in economics. The Phillips Curve, which Minister Guo mentions when he tries in vain to explain to Lao Dao the cruel lot he has been assigned in life, is a real economic theory. Phillips observed an inverse relationship between inflation and high unemployment and argued that low unemployment and high inflation would cause ever more money to circulate in the economy and thus increase GDP. But in an economy where technological innovations increase profit margins without decreasing unemployment, this model is inadequate. This is exactly what happened in the late 1990s and early 2000s, and Minister Guo makes a point of mentioning this phenomenon. Like the novella as a whole, it is another example of developmentalism taken to a detrimental extreme.

In *Waste Tide* this is evident in many instances, chief among them is the story of the character of Mimi. In the original Mandarin text, her name is Xiao Mi. This is a pun: ‘xiao’ is an affectionate diminutive, but Xiaomi is also the name of a cheap and popular brand of Smartphone available in China. Smartphones are only so cheap as a result of China’s rare earth metal deposits, and the waste processing industry in Guiyu on which Silicone Isle is modelled. A woman from a broken rural home who was misled to Silicone Isle by promises of big city prosperity only to end up working punishing hours in dangerous conditions for paltry wages in an informal and highly competitive environment, she represents the plight of migrant workers across China, not unlike the protagonist of *Folding Beijing*. By choosing this name for his ill-fated protagonist, Chen Qiufan is making a deliberate connection between the exploitation of migrant labour and cheap consumer electronics and other superficial trappings of developmentalism.

In all three texts, developmentalism serves the interests of an elite minority. All three texts represent scenarios in which development has been hijacked by private interests or becomes a net loss to its target. Imagai is the personification of this: his grotesque development is fueled by the resources of individuals and the state, but all this is in service of primitive accumulation for the sake of being around to accumulate more of it. Wang Jinkang makes a point of informing the reader that Imagai is on the Fortune 500 list, that his company, Western Steel, is the biggest in

‘J-nation’, and that he owns one-sixth of the nation’s land. Yet is it Imagai himself who is the biggest expense to this empire.

In *Folding Beijing*, we can see this by again comparing the way food is consumed. While in Third Space, people buy from street vendors and eat family style in public spaces. Exactly how most people in China do today. In comparison, when Lao Dao travels to First Space, he witnesses consumption patterns that have been streamlined by technology. While technology has drastically altered consumption in the higher spaces, this has not ‘trickled down’ to Third Space, where nothing has changed. The landscape described in *Waste Tide* is perhaps the best example of this. The slow violence of the e-waste processing industry has utterly transformed the landscape, obliterating or perverting ecosystems and rendering Silicone Isle inhospitable to organic life. While the children of the Waste People frolic amongst circuit boards and prosthetics, the locals drink water brought from the mainland, and use the profits from the e-waste processing industry to send their children away from the blighted landscape. It does not matter to the wealthy minority if primitive accumulation destroys the world because they can afford to defer its effects.

Developmentalism and ecological imperatives are represented as mutually exclusive: the environment is almost always a casualty of the development process. Under developmentalism it is often the first to go. In ‘The Reincarnated Giant’, the relationship between developmentalism and nature is represented in scatological terms. So prodigious is Imagai’s input and output, that not only does his rapacious appetite grow as to require the milk of an entire whale pod, but his excretions destroy and deter marine life in his vicinity. The embodiment of developmentalism is rendered all the more grotesque by this detrimental interaction with nature.

But it is also made manifestly apparent in *Folding Beijing*. The very things that seemed beyond commodification (sunlight, fresh air, even grass), the very things residents of Third Space never experience, are only there for the people of First Space. It is only in First Space is any open space, let alone a green one, is mentioned in the text. Indeed, the residents of First Space treat the natural enclave as proof of their richer heritage than that of Second or Third Space. Thus, developmentalism has all but eliminated nature from the space that is the folding city.

But this paradigm is nowhere more apparent than in *Waste Tide*, when the head of the Chen clan likens the development process to a noose tightening around one’s neck, pulling one higher but dangerously so. In this context he is referring to the destruction of the Isle’s natural world as the cost of doing business. Indeed, this sentiment is echoed throughout the text by various nefarious characters, from Director Lin to Luo Jincheng to Scott Brandle. The text is replete with images of

landscapes denuded and ecosystems degraded by the e-waste processing industry, from the river to the ocean to the earth to the air. Indeed, all the characters not native to Silicone Isle mention the island's pollution. It is very clear in the text that the economic interests on Silicone Isle have overwhelmingly prevailed against the environmental ones.

Science is a cornerstone of development and developmentalism and sf itself, but in these sf texts, science and development are not treated in a positive light – the role of science in developmentalism is critically highlighted. All three texts represent how technology plays a key role in the distribution and degree of development. In 'The Reincarnated Giant', it is the full-body transplant novum that, in conjunction with greed and a contemporary trend towards posthuman sensibilities, that makes the monstrous manifestation of developmentalism possible. In *Folding Beijing*, the critique of science takes the form of a critique of economics. Hao Jingfang, who obtained her doctorate in economics from the prestigious University of Tsinghua, points to the failure of economics as a science. Her depiction of a future China that has developed its own citizens into a rigid hierarchy to maintain a healthy GDP represents the national fixation on economic growth above all else.

In *Waste Tide,* Chen Qiufan takes a stab at Chinese internet censorship by introducing the notion of a reduced-bitrate zone, wherein Silicone Isle is deliberately held back from enjoying the full benefits of Project Waste Tide by the peninsula's bandwidth. Using internet connectivity as a metric of development is a relatively new but generative methodology, as technology has become more integrated with the internet. Using his trademark style of science fiction realism, Chen Qiufan draws attention to the Great Firewall as well as to the key role of cutting-edge technology and access thereto plays in economic and social development.

Since its inception, science fiction in China has served a dual role as nationalist propaganda, promoting visions of a future China empowered by science and technology, and as a medium of social and cultural critique. While it has been the subject of state censorship at times during the past century, presently it is experiencing a great deal of interest and profit. This project is premised on the notion that these factors make science fiction the ideal medium through which to critically assess economic development in China and the problematic paradigm of developmentalism. I have hoped to show how these science fictions critically highlight the role of science and technology in development and the prevailing discourse of developmentalism, ultimately revealing that it is a hollow paradigm.

WORKS CITED

Cao, Shixiong, Xinhao Suo, and Chengqi Xia. "Payoff from Afforestation Under the Three-North Shelter Forest Program." *Journal of Cleaner Production*.256 (2020): online. Print.

Carter, James. "The Rise of Nationalism and Revolutionary Parties, 1919 - 1937." *The Oxford Illustrated History of Modern China.* Ed. Jeffrey N. Wasserstrom. Oxford: Oxford University Press, 2016. 118-149. Print.

Chatsky, Andrew & McBride, James. "China's massive Belt and Road Initiative." *Council on Foreign Relations.* January 20, 2020. Web. <https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative>.

Chau, Angie. "From Nobel to Hugo: Reading Chinese Science Fiction as World Literature." *Modern Chinese Literature and Culture* 30.1 (2018): 110-35. Print.

Chen Quifan. *Waste Tide*. Tran. Ken Liu. New York City: Tor Books, 2019. Print.

China Water Risk. "China's water challenges." *China Water Risk.* 2018. Web. <https://www.chinawaterrisk.org/the-big-picture/chinas-water-challenge/>.

China-Africa Research Initiative. "Chinese investment in Africa." *China-Africa Research Initiative.* 2021. Web. <http://www.sais-cari.org/chinese-investment-in-africa>.

CountryWatch. "Country review: China." *CountryWatch.* 2021. Web. <http://www.countrywatch.com.ezproxy.uct.ac.za/intelligence/countryreviews?countryid=37>.

Fei Dao. "Science Fiction: Embarrassing no More." *Broken Stars: Sixteen Stories from the New Frontiers of Chinese Science Fiction.* Ed. Ken Liu. London: Head of Zeus, 2019. 493-499. Print. Contemporary Chinese Science Fiction in Translation .

Fenby, Jonathan. *The Penguin History of Modern China: The Fall and Rise of a Great Power, 1850 to the Present*. Third ed. London: Penguin Books, 2019. Print.

Gottdiener, M. "Henri Lefebvre: A Marx for our Times." *Sociological Theory* 11.1 (1993): 129-34. Print.

Hao Jinfang. "Folding Beijing." Tran. Ken Liu. Liu, Ken ed. Invisible Planets: 13 visions from the future of China Vol. London: Head of Zeus, 2016. 216-262. Print.

Herrick, Christopher, and Gai, Zheya and Subramanian, Surain. *China's Peaceful Rise: Perceptions, Policy and Misperceptions*. Manchester: Manchester University Press, 2016. Print.

Hettne, B. "Development Discourses in History." *Sustainable Development in a Globalised World: Studies in Development, Security and Culture.* Ed. B. Hettne. 1 Vol. London: Palmgrave Macmillan, 2008. 6-30. Print.

Hua, Yuanyuan. "Dual Alienation in *Waste Tide*." *Comparative Literature Studies* 57.4 (2020): 670-85. Print.

Huss, Mikael. "Hesitant Journey to the West: SF's Changing Fortunes in Mainland China." *Science Fiction Studies* 27 (2000): 92-104. Print.

Jiang, Yuqin. "Ecotech, Alienation and Science Realism in the Chinese Science Fiction Cyborg novel *Waste Tide*." *Comparative Literature Studies* 57.4 (2020): 655-69. Print.

Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press, 2005. Print.

Lefebvre, Henri. *The Production of Space*. Tran. Donald Nicholson-Smith. Oxford: Blackwell, 1991. Print.

Liyuan, Jia. "Gloomy China: China's Image in Han Song's Science Fiction." *Science Fiction Studies* 27 (2013): 103-15. Print.

Mitter, Rana. *Modern China: A very Short Introduction*. New York: Oxford University Press, 2008. Very Short Introductions Web.

Molotch, Harvey. "The Space of Lefebvre." *Theory and Society* 22 (1993): 887-95. Print.

Nederveen Pieterse, Jan. *Development Theory*. 2nd ed. Oxford: SAGE Publications, 2010. Print.

Raphals, Lisa. "Alterity and Alien Contact in Lao She's *Cat Country*." *Science Fiction Studies* 40 (2013): 73-85. Print.

Roberts, Adam. *Science Fiction: The New Critical Idiom*. Abingdon: Routledge, 2006. Print.

Scholes, Robert. *Structural Fabulation: An Essay on Fiction of the Future*. Notre Dame: University of Notre Dame Press, 1975. Print.

Shils, E. *Political Development in the New States*. The Hague: Mouton, 1966. Print.

Smith, A. S. "The Early Years of the People's Republic, 1949 - 1960." *The Oxford Illustrated History of Modern China.* Ed. Jeffrey N. Wassterstrom. Oxford: Oxford University Press, 2016. 178-202. Print.

Song, Han. "Chinese Science Fiction: A Response to Modernization." *Science Fiction Studies* 27 (2013): 15-21. Print.

Song, Mingwei. "Introduction: Does Science Fiction Dream of a Chinese New Wave?" *The Reincarnated Giant: An Anthology of Twenty-First Century Chinese Science Fiction.* Ed. Song, Mingwei & Huters, Theodore. New York: Columbia University Press, 2018. XI-XXI. Print.

---. "A New Continent for China Scholars: Chinese Science Fiction Studies." *Broken Stars: Sixteen Stories from the New Frontiers of Chinese Science Fiction.* London: Head of Zeus, 2019. 483-491. Print. Contemporary Chinese Science Fiction in Translation .

Stewart, Lynn. "Bodies, Visions, and Spatial Politics: A Review Essay on Henri Lefebvre's *the Production of Space*." *Environment and Planning D: Society and Space* 13 (1995): 609-18. Print.

Suvin, Darko. "On the Poetics of the Science Fiction Genre." *College English* 34.3 (1972): 372-82. Print.

---. *Positions and Presuppositions in Science Fiction*. London: Macmillan, 1988. Print.

The Economist. "China's grand, gloomy sci-fi is going global." *The Economist.* June 22, 2019, 2019. Web. <https://www.economist.com/books-and-arts/2019/06/22/chinas-grand-gloomy-sci-fi-is-going-global>.

Tsing, Anna. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press, 2015. Print.

Wang, Jinkang. "The Reincarnated Giant." *The Reincarnated Giant: An Anthology of Twenty-First-Century Chinese Science Fiction.* Tran. Carlos Rojas. Ed. Song, Mingwei & Huters, Theodore. New York: Columbia University Press, 2019. 313-353. Print.

Wang, Liao. "The Alienation of Spaces in Future China: The Case of Hao Jingfang's *Folding Beijing* ." *Comparative Literature Studies* 57.4 (2020): 686-701. Print.

Wang, Regina Kanyu. "A Brief Introduction to Chinese Science Fiction and Fandom." *Broken Stars: Sixteen Stories from the New Frontiers of Chinese Science Fiction.* Ed. Ken Liu. 2 Vol. London: Head of Zeus, 2019. 465-482. Print. Contemporary Chinese Science Fiction in Translation .

Yan, Wu & Jianbin, Yao. "A very Brief History of Chinese Science Fiction." *Chinese Literature Today* 7.1 (2018): 44-53. Print.

Zhang Lonxi. "Literary Modernity in Perspective." *A Companion to Modern Chinese Literature.* Ed. Yingjin Zhang. Sussex: John Wiley &Sons, 2016. 41-53. Print.