Information Fantasies: Culture and Media in the Post-Mao "New Era"

By

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Abstract

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This dissertation aims to contribute a new historical and theoretical perspective to the growing body of studies that situate "information" in both global exchanges of knowledge and local cultural production. It investigates the crucial roles that the discourse and fantasies of a coming information society played in China's post-Mao transformations. In the late 1970s, "information" became a buzzword in both the official discourse of modernization and intellectual discourse of enlightenment, culminating with the introduction and translation of works by Daniel Bell, Alvin Toffler as well as Toffler's visits to China in person. Reading across science fiction, modernist writing, films, scientific treatises, historical monographs and key intellectual debates, this project unearths a heretofore neglected history of China's participation in the global production and flows of discourses about "information," revealing the ideological entailments of "information" beneath its guise of neutrality, and most importantly, opening new possibilities for rethinking the historical and theoretical intermeshing between post-socialism and information discourses.

Chapter One outlines the historical background and my theoretical interventions. Chapter Two discusses the parallel crazes from the late 1970s onward for what was referred to as the "science of extraordinary powers" and *qigong* (a practice of breathing and meditation techniques based on Chinese philosophy) — crazes which understood telepathy and other paranormal phenomenon as a key to the secrets of information transmission, and were rooted in a concurrent fascination with the centrality of information in the process of modernization. Examining how this scientific discourse was interwoven with the science fiction of the same period, I demonstrate the tension between the intellectual discourse of enlightenment and the technocratic rule of an information society, and reveal a new regime of controlling bodily affect as augured in these stories.

Chapter Three explores stories about robots in the context of Marxist humanist debates of the 80s, as well as the influx of Daniel Bell's and Alvin Toffler's "information theory of value" — that value is no longer produced by labor but by information. These intellectual interests were concurrent with widespread discussions of the intelligentsia's status in the post-Mao restructuring of the division of labor. My reading of the linguistic

characteristics of science fiction reveals that "information," presented as neutral, objective knowledge, allowed an increasingly specialized Chinese intelligentsia to advocate for their own autonomy. I am also engaging with the notion of "interface" in new media studies to rethink human-machine-communication in terms of affective labor, reflecting on current theoretical formulations of affective labor and interface in post-socialist context. By redefining interface as a productive site where communications between humans and machine-systems are constantly redefined, I argue that the notion of "human" also becomes fluid when merged by the way of the interface into information circuits.

The following two chapters focus on the new aesthetics of 1980s films. Chapter Four uncovers the intellectual ferment bridging the distinctive aesthetic of the fifth-generation films with a cybernetics-informed view of Chinese society represented by Jin Guantao's "ultrastable systems theory." Undergirding both the detached long-take aesthetic of the Fifth Generation and the scientific rationality of Jin's theory were a shared desire for modernization and a critique of Chinese culture as "an ultrastable structure of feudalism." I delineate how this view also influenced film critique and theories, which characterized Chinese cinema as "an ultrastable structure" mired in the "shadow-play" tradition and theatrical didacticism. The advocacy of "modernizing cinematic language" is examined against this backdrop. Ending this chapter with a close reading of *Black Cannon Incident*, I argue that its modernist cinematic language inadvertently provides a form for the structure of feeling in anticipation of the drastic changes as China was reincorporated into the global capitalism.

Chapter Five looks at how the proliferation of mediascapes and fantasies of new media technology expanded the very notion of cinema in this period. This effort to bring cinema into the "information age" and out of the confines of the theater, envisioned in both entertainment films and art films, generated a new aesthetic divorced from socialist realism and social realism, exploring instead the plasticity of cinema. This expanded, plastic cinema also provided a medium for fantasies and sentiments of this time, which on the one hand demonstrated the explosion of senses with the proliferation of media, and on the other hand signaled new ways of modulating affect that was increasingly channeled into marketization in post-socialist China.

Contents

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Chapter One

Introduction: Imagining a "New Era" of Information

In 1984, a science fiction story by Ye Yonglie, entitled "*Little Smartie's Second Visit to the Future World*" (*Xiaolingtong zaiyou weilai*), predicts a future world of networks of computers and electronic media. The journalist Little Smartie discovers to his surprise that newspapers in this future world are no longer "papers" published daily, but updated electronically in real time and can be contributed to by any resident of the city. Not only that, electronic media are everywhere: on the walls of ordinary households, in classrooms and museums, and also small enough to be taken anywhere. Little Smartie's two teenager hosts, Xiaoyan and Xiaohu, both have their earphones on when traveling with their guest, and cannot even take their eyes away from their little watch-like gadgets. The little gadgets are microcomputers. While Xiaohu is busy with updating himself with the latest news, Xiaoyan is studying Esperanto— both through the watch-size gadgets on their wrists. These networked mobile media envelop them in constant information flows. Indeed, the two teenagers seem almost obligated to synch themselves with these nonstop information flows, not leaving one second "idle."

Nothing excited Chinese readers more than such futurist visions, as evidenced by the immense popularity of Ye's first book *Little Smartie's Visit to the Future World*, which was published in 1978, sold up to three million copies, and from which ensued a boom in Chinese science fiction from late 1970s to mid-1980s. As I will show throughout this project, futurist fantasies became an indispensable part of the cultural imaginary of the post-Mao "New Era" (1978-1989)[1], and helped reshape popular understandings of time and history in this period. The birth of the *Second Visit* is telling of the self-consciousness of a new era. As Ye recounted, the original story published in 1978 was originally compiled in 1961. Most of its materials came from the 1950s and 60s. However, in 1984, when Ye was invited to give a lecture at China East College of Chemical Technology, someone from the audience wrote a note to Ye, saying: "*Little Smartie's Visit to the Future World* is all about

[1] The Third Plenary Session of the eleventh CCP Central Committee in 1978 marked the beginning of "Reform and Opening" policy, the end of the "class struggle" line, and the shift of focus toward economic development and the "modernization" of China. Around the same time, the literary critic and cultural official Zhou Yang, in a talk later published in *People's Daily* used the term "literature and arts of the socialist 'New Era'," and called on writers and artists to "devote themselves to the major tasks of the socialist 'New Era', into the struggles for accelerating socialist modernization, by observing, experiencing and depicting such heated struggles." He continued that "these struggles for modernization are a mass movement, but also a great scientific and technological revolution." See Zhou Yang, "Guanyu shehuizhuyi xinshiqi de wenxueyishu wenti"[Issues on literature and arts of the socialist 'New Era'], in *People's Daily*, February 23, 1979, accessed May 2, 2013, http://newspaper.duxiu.com/readbz.jsp?dxid=300106814242&npid=6639219&qwid=6639219&d=49CF3E2F079F6041CBF94CD0586A6F8C&sw=关于社会主义新时期文学艺术的问题&ecode=utf-8&ustext=0.

the past wave of industrial revolution, and its imagination still centers upon engines, conveyors, mechanical tools (and other such tools of industrialization). Cybernetics is never given the mention it deserves. As we are facing a new industrial revolution today, *The Future World* should be rewritten to address the impact of the ongoing information revolution…." In response to this reader's request, *Second Visit* therefore flaunts the "newness" of the information revolution from the beginning by updating a robot from the first book with "a metallically shining square head, bulb-like round eyes, and a triangle-shaped nose" into a highly intelligent robot that looks no different from a handsome teenage boy. If the first visit is packed with miracles of industrialization of agriculture and manufacture, the second visit surprises Little Smartie with its products and services, such as custom-tailoring and medical diagnosis, that people can enjoy even without leaving their houses. The replacement of laboring human figures by robots and faceless screens marks the inauguration of a new era of information.

The self-awareness of a new era is highlighted at the end of the story, when the teenage protagonists are educated in the Museum of History by way of a narrative of human history based on the development of technology: from the stone age, to the steam age, the electric age, the atom age, and finally to the computer age. Human history is conceived as a series of waves of technological advancement. This technological periodization of history may have been familiar to Chinese readers who have read *The Third Wave* by American Futurologist Alvin Toffler. The book had become an extremely popular guide for enthusiastic Chinese readers to imagine a coming information age. Seeing information and energy-related new technology as the third wave in the development of human society, Toffler predicted that this new wave would soon supersede the previous wave of industrialization. The speculative narratives of both *Little Smartie* and *Third Wave* feature information technology as curiosities of the future, even to the extent that information itself becomes a kind of fantasy. This dissertation shows such information fantasies as symptomatic of a post-Mao society impregnated with aspirations of self-renewal, as well as deep conflicts and challenges. Popular enthusiasm for these projected futures also speak with a great deal of precision of concurrent anxieties *vis-à-vis* an intractable past, the specter of which continued to fuel and to delimit imaginations of the future. For the 1980s, the most proximate past was, of course, the Cultural Revolution, and the socialist experiments and failures of the Mao era. As I will argue throughout this project, the information fantasies of the "New era," and new forms of literary and media practices generated along with these fantasies, were an inextricable part of the post-Mao critique, reflection upon, and negation of the socialist experience and legacy. These fantasies and practices were also products of and a form of mediation between local exigencies, and the global circulation and competition of discourses and cultures.

Toffler, Developmentalism, and Knowledge (or Information?)

Alvin Toffler's popularity in China was closely tied to the aspirations of both Chinese officials and intellectuals with the end of the Cultural Revolution and the beginning of the Reforms and Opening. In 1983, Toffler visited China at the invitation of the Chinese Academy of Social Sciences. He toured Beijing, Suzhou and Shanghai, and garnered a warm reception in each place. At the Chinese Society of Future Studies, Toffler gave a talk entitled "The Third Wave Impacts the World," in which he reiterated the idea in his

new book *The Third Wave* that industrial society — a product of what he termed the "second wave" — was soon to be superseded by the "third wave" of development in human history. He argued that the industrial production of the second wave, which he characterized as standardized, concentrated, and centralized on a mass scale, had caused the serious social and economic problems faced by both capitalist and socialist nations, and would be replaced by more diversified, flexible and small-scale production and service provisions characterizing the "third wave." Finally, he raised a question that undoubtedly excited his Chinese audience: in developing countries, might it be possible to skip the industrialization that had been undergone by Western countries and advance directly toward an information society of the third wave?

Even before Toffler's visit to China, Chinese intellectuals had already been exposed to these ideas. Immediately following the publication of Th*e Third Wave* in the English world, the book was partially translated and serialized in *Dushu* (Reading), an intellectual journal published since late 1970s and influential for its liberal voices and its publication of a broad scope of information. In 1983, the same year of the Toffler's visit, a full translation of his book was initially published "for internal reference only" but soon became publicly available. To Chinese readers, the rosy future offered by Toffler of an information society that was free of any historical burden appealed to their expectations at the threshold of a new era. With the end of the Cultural Revolution in 1976, Deng's policy of Reform and Opening on the one hand negated the class-struggle politics of the Mao era, and on the other hand laid out a blue print for a progressive future of wealth and prosperity. In this context, Toffler's "third wave theory" provided China with a timely imagined leap from the historical shadows into a future no longer pestered by ideological questions.

Toffler's ideas were soon absorbed into the official ideology of a "new scientific and technological revolution."[2] As early as 1978, Deng Xiaoping, the architect of China's

[2] The term "scientific and technological revolution" gained currency in Soviet Union and East Europe in the 1960s. For example, Rodavan Richta and his group at the Czechoslovak Academy of Science associated the notion of a "scientific and technological revolution" with automation and cybernetics, predicting a new revolution that would supersede that of industrialization. In countries "where capitalism did not play its historical role to the end and socialist society has to complete industrialization,"[…]"socialist production relations born of revolutions in the realms of powers and property cannot be expected alone to provide a solution for the problems inherent in industrial civilization or to eliminate the conflicts it engenders." Scientific and technological revolution was believed to usher in "a transformation of the entire structure of the production forces and the entire foundation of civilization," and solve problems inherent within industrialization. See Radovan Richta et al., *Civilization at the Crossroads: Social and Human Implications of the Scientific and Technological Revolution* (International Arts and Sciences Press Inc., 1968), 50-52. Two aspects of this dicourse should be noted here: first, their argument followed a teleological narrative of economic development, according to which socialism and capitalism were put into competition in the inevitable advance of productive forces; secondly, this revolution is predicated on the understanding of socialist countries as societies where class categories have been eliminated. William Dunn, writing in 1977, observed that in Eastern Europe "the values associated with scientific and technological revolution are typically supported by liberal reformers and younger and more highly educated members of the establishment. In Yugoslavia such groups tend to be occupied with issues associated with insulating science and technology from political

Reforms and Opening, gave a speech at the National Conference of Science. He predicted a decrease in manual labor and a corresponding increase in mental labor in future. Following recent developments in science and technology, he pointed out that "(i)n particular, the development of electronic computers, cybernetics and automation technology is rapidly raising the degree of automation in production."[3] *People's Daily* also featured the latest developments in information technology and biosciences, seeing these disciplines as the core of an incoming "information revolution."[4] In October 1983, the then premier Zhao Ziyang gave a talk entitled "A Worldwide New Technology Revolution and Our Strategies," in which he cited widely from recent publications on developments in communication and information industry in the Western countries. With a sense of urgency as to China's place in the global competition, he asked: "What should we do if the new technology revolution is coming?" Expressing his regret that China had missed the prosperous period of the late 60s when the economies of Japan, South Korea, and Taiwan had taken off, he warned that if China failed to seize this opportunity offered by the technological revolution, the gap with the developed countries might be further enlarged. Finally, he called attention to the crucial role of information and microcomputers in future development, and the recent shift from labor-intensive industries to knowledge-intensive industries.[5]

In 1988, Toffler was invited by the *People's Daily* to visit China again. This time he was received by Zhao Ziyang, the then General Secretary of CCP. *People's Daily*, the most authoritative voice of the party, covered two interviews with Alvin Toffler in one month. The *People's Daily* articles communicated mixed aspirations and anxieties when reporting

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influence and problems of modernizing or professionalizing the management of the economy and other spheres of production." See William Dunn, "The social context of technology assessment in Eastern Europe," *Technology and Communist Culture: The Socio-Cultural Impact of Technology Under Socialism*, ed. Frederic J. Fleron (New York and London: Praeger Publishers, 1977), 357-396. In the Soviet Union, the advocates of scientific and technological revolution (STR) believed that "under socialism the planned realization of the STR is a vital lever in the construction of the new material and technical basis of communist society; but under capitalism the spontaneous development of the STR can only lead to an intensification of inherent, antagonistic contradictions that can only be resolved by the revolutionary overthrow of capitalist production relations." See Julian Cooper, "The Scientific and Technical Revolution in Soviet Theory," in *Technology and Communist Culture*, 146-179. As we shall see, Daniel Bell, in developing his theory of "post-industrial" society in fact drew materials from these discussions of STR for his argument about the irrelevance of the division of socialism/capitalism to economic development. The discussions of STR in the "new era" of China often traced the origin of STR to United States, Japan and other Western developed countries, and China's participation in STR was regarded as the strategy to meet the challenges and opportunities of this STR, which was seen as the very secret of developed countries for their success in economic development.

[3] Deng Xiaoping, "Speech at the Opening Ceremony of the National Conference on Science," *Selected Works of Deng Xiaoping* (Beijing: Foreign Languages Press, 1984), 103.

[4] "Japan Prepares for the Fourth Revolution," *People's Daily*, August 29, 1980, 6.

[5] Zhao Ziyang, "*Yingdang zhuyi yanjiu shijie xin de jishu geming he womende duice*" [A Worldwide New Technological Revolution and Our Strategies], *zhongguo jingji daokan* [Journal of Chinese Economy] 1(1984): 3-9.

Toffler's descriptions of the inevitable transition from manual labor to mental labor. Toffler asserted that "a new mode of production based on 'information' and characterized by 'rapidity'" had challenged the "conventions of the industrial civilization" which people had taken for granted for hundreds of years. "'Muscular laborers" would no longer be popular among employers. "Knowledgeable and thoughtful information workers" would be in great demand, for employers would expect workers to contribute ideas— "even if they are bad ideas."[6]

It is not hard to see that the enthusiasm for Toffler and a new technology revolution were driven by a burning desire for development.[7] If the Great Leap Forward (1958 - 1961) of the Mao era mobilized the initiative and will of human subjects to realize a linear leap from one stage of development to the next, the post-Mao discourses of information shifted the emphasis to technology and its agency. As we shall see, in the science fiction of this period, mysterious devices — a black metal box, a high-tech medical pill, or an infrared ray device— almost invariably become the fetishized centers of narrative gravity for the texts. In the stories I examine in Chapter Two, these devices function to accelerate the production of mental laborers. With magical devices that send out waves which speak directly to the human body, people often find themselves to have acquired a new language or cutting-edge scientific knowledge during sleep, or find themselves working with no need to sleep at all. The wish to change the temporality and physiological limits of the human body resonated with the ambitions of the Great Leap Forward, when images of sleepless "iron wo/man" were everywhere. Yet in this later era, the relation between technology and humans is reversed. Compare these stories of magic devices with a short story written by a mariner and published in 1959, for instance. Titled "Even Telegrams are not Fast Enough"(*Wuxiandian ye ganbushang*), this brief sketch is about dockworkers who continuously receive telegrams instructing them to enlarge their freight loading capacity for incoming shipments, and their success in managing these challenges again and again. By the end of the story, workers are able to increase the load immensely even before the arrival of telegraphic instructions. Their innovations come even faster than telegrams can travel.[8] This magic of human will and consciousness has been transferred to devices at the turn of 1980s. In the science-fiction stories, human bodies become silent media to transmit information flows. The human body becomes an "information body."

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[6] Chen Gong, "Xinxi, jiezhou, weilai--- fang meiguo zhuming weilaixuejia Tuofule fufu" [Information, rhythm and the future: An interview with the famous American futurists the Tofflers], *People's Daily*, September 20, 1988.

[7] Andrew Jones in his recent book traces the discourse of developmentalism and evolutionary thought since the late Qing in the global context of capitalist expansion. Science fiction narratives, as incipient forms of modern Chinese literature, as well as cinema and other vernacular cultural forms, according to Jones, become a site for displaying and negotiating conflicts and issues about the agency of a "belated" modern subject in an era marked by the violence of such an epistemological shift. See Andrew Jones, *Developmental Fairy Tales: Evolutionary Thinking and Modern Chinese Culture* (Cambridge, Massachusetts: Harvard University Press, 2011).

[8] Liu Ronghan, "Wuxiandian ye ganbushang"[Even Telegrams are not Fast Enough], in *Wuxiandian ye ganbushang* (Shanghai: Shanghai wenyi chubanshe, 1959), 1-6.

This "information body" will remain central to my argument in other chapters, and continuously pose the question of the boundary between humans and machines. A poster made in 1989 speaks well to the ambiguous place of the human subject in this purported information revolution. In this poster entitled "Information: for the Future Development of Human Intelligence," positioned at the center of bright-colored, radiating rays is a silicon chip with intricately arranged wires and supporting circuitry surrounding it, as if everything at the periphery is generated by this chip. However, the profile of a woman on the left side of the image raises questions as to the relations of human beings to the centrality of the silicon chip. Is this image a metaphor of the human brain that processes information as efficiently as a silicon chip, or does it offer the prospect of "developing human intelligence" by placing the chip inside the human brain, or does it anticipate an information age in which the human brain is directly connected to a silicon chip? We may also ask: why is it a woman's profile in the poster? Is a woman's body a "natural" receptacle of information, or is it convenient to align a woman's body with the valorized productivity of information technology?

Figure 1. Information: for the Future Development of Human Intelligence
By Guo Xianlu (1989) [9]

[9] This poster was part of an exhibition commemorating Mao Zedong's "Talks at the Yan'an Forum on Literature and Art" at National Art Museum of China, (however ironically it may sound), and can be accessed on the website of the Museum. Accessed May 10th, 2013, http://old.namoc.org/zhuantiwangye/zhuantiwangye2012/yanan/zpzs/p3/201205/t20120518_149105.html. I wish to thank Anatoly Detwyler for bringing this poster to my attention.

These questions are also interrogated in science fiction, internalized in the stories as unexpected turns in their plot, in their capricious mix of celebrating fantasy and cautionary dreams of the mysterious waves that penetrate the human body and mind even without notice. If Toffler and *Little Smartie* each provide a smooth, teleological progression into an information age, the stories I examine in Chapter Two problematize this narrative by revealing unsettled tensions between human agency and informatization. The human beings on the receiver's end who start using these devices in the hope of empowering themselves with knowledge, end up falling sick (in "Dreams"), or giving up their "informed" status to opt for an idealized, rustic life (in "A Lost Dream"). It is exactly these unexpected turns that expose the impossibility of brilliant leaps into a shadow-free future, and stubbornly retain the laborious, physical body that cannot be dissolved into information flows.

It should be noted that the seemingly natural exchangeability between "information (*xinxi*)" and "knowledge (*zhishi*)" in fact implied a radical redefinition of knowledge. The social and material dimensions of knowledge production and circulation were (at least imaginatively) displaced by an information transmission mode of communication. The fantasy of instant knowledge acquisition through all sorts of magic devices in fact replicated the information theorist Claude Shannon's mode of communication, which, as Bruce Clarke comments, abstracted communication media "away from either sociological specifics or technological infrastructures toward a generalized and imperial notion of cybernetic control."[10] In Shannon's now canonical diagram, communication becomes a purely technological question, a matter of quantifying the signal transmission from the sender to the receiver. Donna Haraway piercingly points out that information conceived as such "is just that kind of quantifiable element (unit, basis of unity) which allows universal translation, and so unhindered instrumental power (called effective communication)."[11] Reduced to this transmittable mode of information, knowledge becomes detachable from the human and social body.

Labor, Ideology and Post-Marxist "Information"

The dematerialization of information/knowledge and its removal from the realm of the social entails consequential changes in the conceptualization and social organization of labor. In the poster above, there is another line of small characters that reads: "Information brings about new forms and functions of human labor." In the future world of *Little Smartie*, physical labor is eliminated. Information is invested with liberating power to free human beings from strenuous physical labor. The only problem that troubles those happy people in the future world is that now glued to their chairs, they often suffer from obesity. But that is easy to solve with advanced medical technology. The novel is indeed a

[10] Bruce Clarke, "Communication," in *Critical Terms For Media Studies*, ed. W.J.T. Mitchell et al. (Chicago and London: The University of Chicago Press, 2010), 136-137.
[11] Donna Haraway, *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991), 164.

utopia where technology can solve all problems, and eliminate any social conflicts that may result from the division of labor, for any unpleasant work is left to robots now.

In fact, the revision of Marx's theory of labor was central to the notion of an "information society." Both Alvin Toffler and Daniel Bell, the two most well-known advocates of the "information society" in China, argued that with information work becoming the dominant form of labor in future, the classic Marxist thesis of labor and alienation would no longer be valid. In his *Previews and Premises: An Interview with the Authors of* Future Shock *and* The Third Wave, published in 1983 and soon translated into Chinese, Toffler argued that Marx's theory about the division and alienation of labor applied only to traditional industrial societies, to the sort of workers trapped on assembly lines as represented in Charlie Chaplin's *Modern Times*. Workers in the third-wave industries, by contrast, were surrounded by "bright and cheerful" working environments, and enjoying flexibility in working hours and styles allowed by de-massified production. Toffler called these workers "mind-workers," and predicted that work in the future would shift "from the muscle to the brain," and thus that the "labor theory of value" should be replaced with an "information theory of value." Responding to leftist critique, Toffler regarded as increasingly obsolete and anachronistic the left/right axis of politics, as well as the issues of ownership and class that were central to the Marxist tradition.[12]

Daniel Bell, a Harvard sociologist, was another prominent voice predicting the diminishing of physical labor with the coming of a new form of society that would be optimized by a new "intellectual technology." In his *The Coming of Post-industrial Society*, the central thesis was the rise of the intelligentsia, including professionals and technicians such as scientists, engineers and administrative managers, whose role in social planning and management was becoming increasingly prominent because of their professional knowledge and technical skills. The expansion of professionals and technicians, according to Bell, separated the ownership of the means of production from its actual management, and would eventually invalidate Marx's formula of a polarized society made of capitalists and the proletariat.

Once active in Trotskyist intellectual circles, Bell claimed himself to be "post-Marxist." His idea of post-industrialism in fact took up a Trotskyite critique of Stalinism and bureaucratization in the Soviet Union, turning them against the Marxist notion of class. He cited in his *The Coming of Post-industrial Society* both Trotsky, and the Yugoslavian dissident Milovan Djilas, whose *The New Class* happened also to be a widely read "internally circulated book" among intellectual youth during the Cultural Revolution.[13] Yet different from their critical stance, Bell regarded bureaucratization as evidence of the inevitable expansion of white-collar work, which he related to Marx's notion of "the labor of superintendence." Once he established the expansion of office personnel as a result of industrialization, Bell argued that bureaucratization was a tendency that transcended the

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[12] Alvin Toffler, *Previews and Premises: An Interview with the Authors of* Future Shock *and* The Third Wave (New York: William Morrow and Company, 1983).

[13] Xiao Xiao, "Shu de guidao: yibu jingshen yuedushi"[The trajectory of reading: a history of spiritual reading], in *Chenlun de shengdian* [The Sinking Sanctuary], ed. Liao Yiwu, (Urumqi: Xinjiang qingnian chubanshe, 1999), 4-16.

ideology of socialism and capitalism. He proposed that from the perspective of economic development, "the concept of industrial society subsumed the two social systems under the common rubric." Industrial societies as "economizing societies" were "organized around the principle of functional efficiency" and rationalization. Bureaucracy was born from the same process of rationalization in modern societies for the efficient operation of administration in all areas. In a socialist country such as the Soviet Union, bureaucracy had increasingly assumed autonomy and independent power. And so had the professional knowledge and skills involved in office and scientific work. Bell thus postulated that knowledge, instead of property, had become the primary basis of social power.[14]

Published in the early 1970s, Bell's reformulation of labor and class issues was clearly clouded by Cold War ideology. He saw the emergence of the "new class" as questioning the character of the Soviet society: "Is it still socialist? Is socialism the necessary stage after capitalism?" Bell's solution was to disregard ideology, seeing it as irrelevant to production functions, capital-output ratios, the marginal efficiency of capital, linear programming and the like, and concluded that "socialism is a non-economic (or even anti-economic) philosophy in which other modes than functional efficiency, or goals other than 'economic growth' are sought."[15] By reducing socialism to a "non-economic philosophy," Bell invalidated the differences between socialism and capitalism, providing instead the categories of "industrial society" and "post-industrial society." Furthermore, he predicted the end of ideology with the end of class structure.

His prediction of "white-collarized" work was also addressing Marx's critique of labor conditions under capitalism. Yet he sneered at the "naïve ideas" of early Marx, who envisioned a utopian future "where a man would be hunter in the morning, a fisherman in the afternoon — and perhaps a superior lover at night; in which there would be no distinction between mental and physical work or town and country." To Bell, this countervailed against pragmatism. Instead, he offered technocracy, the ends of which, he asserted, would be efficiency and output.[16] Bell's defense of a technocratic post-industrial society rested upon the emergence of what he called a new "intellectual technology." According to him, the birth of information theory, cybernetics, decision theory, and game theory in the second half of the twentieth century all centered upon "the management of organized complexity." With the development of automated machines and computer programs, algorithms would help formalize a set of decision rules through statistical and logical techniques, reducing the arbitrariness and irrationality of intuitive judgments. The goal of the new intellectual technology, Bell argued, was "ordering 'the mass society'," to define and achieve rational actions.[17] In other words, Bell's post-industrialism presented a dream of the rational planning of social life through algorithms embodied as contemporary information science and technology.

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[14] Daniel Bell, *The Coming of Post-industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973), 49-109.
[15] Daniel Bell, "Technocracy and Politics," *Survey: A Journey of East and West Studies* 17(1) (1971): 1-24.
[16] Daniel Bell, "Technocracy and Politics."
[17] Daniel Bell, *The Coming of Post-industrial Society*, 28-33.

Using "information society" and "postindustrial society" interchangeably, Bell's assertion of information society as knowledge-based economy was problematic. While contending for the importance of knowledge and skills, he used the expansion of the service industries as a proof for the rise in skill levels of workers. But most jobs in the service sector were actually low-paid jobs requiring low-level skills. As one of his critics Victor Ferkiss pointed out, even in the United States, a society on which Bell's argument was based, "we are not becoming a white-collar nation, much less dominated demographically by a technically expert middle class, but still have a 'working class' majority," leaving aside the fact of "a growing 'pink collar' proletariat of underpaid female workers, largely but by no means exclusively in the 'service' industries."[18]

The discourse of information work and knowledge-based economy, though not descriptively accurate, played a substantial role in China's post-Mao transformations. Bell's *The Coming of Post-industrial Society* was translated into Chinese in the early 1980s. He appeared thereafter in Chinese publication, along with Toffler, as an advocate of a futurist information society. Curiously, concurrent with the introduction of Bell into China, the Marxist humanist diagnosis of socialist alienation involved a critique of state bureaucratism, but this critique of bureaucratism did not produce any effective critical responses to Bell's thesis of a post-industrial society. Gao Ertai, in his signal critique of the state apparatus, contended that the fact that ordinary people were forced to sacrifice their individual interests during the Cultural Revolution was a manifestation of the feudalist form of alienation, which originated from the coercive power of the state and irrational forces of religion.[19] To Gao Ertai, as well as many Chinese intellectuals, bureaucratism was regarded as a relic of feudalism. They believed modernization to be the ultimate goal of China's reforms and the remedy for problems left by the Mao era. Technology as a result was also seen as a progressive tool. In a lecture, Gao dismissed the notion of "technological alienation" as an issue of capitalism where industrialization was already highly developed, whereas the degree of industrialization in China was "not yet up to the level" of producing "technological alienation."[20] By relegating the problems of state socialism to feudalism, Marxist humanism failed to produce a critique of the logic of rationalization behind Bell's argument. Instead, Bell's technocratic view was accepted as an unquestioned schema of modernization.

It was with the same logic of rationalization and efficiency that mental labor and knowledge work were fetishized as a shortcut to an information society. Manual labor was believed to be "fundamentally defective" and simple, and thus inferior to more "complicated and efficient" mental labor.[21] These ideas coincided with a call for raising the

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[18] Victor Ferkiss, "Daniel Bell's Concept of Post-Industrial Society: Theory, Myth, and Ideology," *Political Science Review* (fall)1979: 61-102.

[19] Gao Ertai, "Yihua xianxiang jinguan" [A new perspective on the phenomenon of alienation], *Ren shi Makesi Zhuyi de chufadian* [Human beings are the starting point of Marxism], ed. Renmin chubanshe editorial office (Beijing: Renmin chubanshe, 1981), 72-98.

[20] Gao Ertai, "Yihua jiqi lishi kaocha" [Alienation and its development throughout history], *Ren shi Makesi shuyi de chufadian*, 162-216.

[21] Zong Han, *Naoli laodong yu xiandaihua jianshe* [Mental Labor and Modernization] (Beijing: Hongqi chubanshe, 1986).

social status of intelligentsia. The debate trigged by "At Middle Age," a story by Shen Rong, as well as its film adaptation, became the occasion for a humanist critique of Mao's intellectual policy and socialist ethics.

On the other hand, Bell's post-ideological formulation, itself doubtlessly an ideology, appealed to Chinese intelligentsia contending for an autonomous space independent of socialist ideology. Echoing Bell's advocacy of a future society ruled by technicians and professionals, an expert became the authority who represented scientific rationality and truth, as opposed to the irrational political fervor and cult of personality that was blamed for the disaster of the Cultural Revolution. The development of expert systems, which aimed at extracting and writing expert knowledge into computer programs in order to replace human experts, exemplified the intertwinement between the fetish of expert authority and the fascination with informatization. In Chapter Three, in reading "At Middle Age," a story about a human doctor, alongside "The Curious Case," a story about a robot doctor, I examine the professional "coolness" of Lu Wenting and the robot doctor in relation to this post-Mao reformulation of labor, and a discourse of scientific objectivity. This "coolness" also becomes the linguistic and aesthetic mark of both "At Middle Age" and "The Curious Case," manifested particularly in their meticulous detailing of medical terminology. This transferability of technology onto the technical level of literary texts prepared the ground for an understanding of modernist techniques as essential to the "modernization" of Chinese literature and culture, an understanding which also informed the "new wave" aesthetics manifest in both the cinema and literature of the 1980s.

Scientism and Modernization

The discursive correlation between "scientific objectivity" and "modernization" was also seen in the endeavor of Chinese intellectuals to develop "scientific observations" of Chinese society and culture by adopting the terms of cybernetics and systems theory. *Prosperity and Crisis: on the Ultrastable Structure of Feudal Society in China* coauthored by Jin Guantao and Liu Qingfeng and published in 1983 was acclaimed as the first such scientific study. Inspired by W. Ross Ashby's classic study *Design for a Brain: The Origin of Adaptive Behavior*, they characterized Chinese society as a dynamic system that always tended towards states of equilibrium, and was exceptionally resistant to disruptive events, such as peasant rebellions. This resulted in an ultrastable system that would always restore itself without breaking into a new system. To Jin and Liu, this explained why "feudalism" persisted in China.

However inaccurate and over-generalized "feudalism" is in understanding Chinese society over the course of more than two thousand years,[22] Jin and Liu's question should be understood in the context of the general intellectual ferments of the late 1970s and 80s.

[22] About the genealogy and misuse of the term "feudalism," see Prasenjit Duara, *Rescuing History from the Nation: Questioning Narratives of Modern China* (Chicago: University of Chicago Press, 1995), chapter 5, 147-175.

It was generally believed that the remnants of feudalism and the lack of scientific rationality in Chinese culture had resulted in the tumult of the Cultural Revolution. As He Guimei astutely points out, though Jin and Liu divided Chinese society into several interconnected subsystems, in their formulation, it was always Confucianism and its patriarchal clan system that helped restore the ultrastable system each time after its disruption by local, chaotic forces.[23] Their argument boiled down to an critique of the innate flaws of Chinese culture that had locked China into the ultrastable structure of feudalism and prevented it from advancing into a modern society.

This cultural thesis was also used to explain the absence of modern sciences in China. In 1982, the *Journal of Dialectics of Nature*, which Jin served as an editor, held a symposium to find out the "causes of the backwardness of modern sciences in China." The essays were later collected as a book, entitled *Scientific Traditions and Cultures*. Jin and Liu made a comparative study on the diverged paths of scientific and technological development in China and the West. The failure of the primitive scientific structure in China to transform itself into the open system of modern sciences, according to them, was attributable to feudalism and Confucian culture.[24] Another essay in this anthology attributed the absence of modern sciences to the lack of free circulation of information, for which the author blamed the closed library system operated by the feudalist states.[25] In one word, the general enthusiasm with science could not be separated from the fervent but also agonizingly self-reflexive obsession of Chinese intellectuals with modernization.

It should be noted a culturalist thesis of modernization was also central to modernization theory dominant in post-War social sciences in the United States. One representative figure is Talcott Parsons, a Harvard sociologist who adopted systems theory to "describe how the point of social equilibrium might shift over time."[26] Opposed to Marxist modes of dialectical conflict, Parsons instead emphasized "the power of cultural values in shaping the patterns of an integrated, stable social order." Using the dichotomy between the "traditional" and the "modern" as well as a set of "pattern variables," all areas and social systems are comparable "on an evolutionary line marked by increases in 'adaptive capacity.'"[27] This Parsonian approach is one of the most influential products of modernization theories in United States. As Michael Latham shows in his extensive study on the relation of American social science to Cold-War politics, the central challenge to modernization theorists was to "rejuvenate and project abroad America's liberal social

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[23] He Guimei, *"Xin Qimeng" zhishi dang'an: 80 niandai zhongguo wenhua yanjiu* [The Archival of the "New Enlightenment:" Studies on 1980s Chinese Culture] (Beijing: Bejing daxue chubanshe, 2010), 250-259.

[24] Jin Guantao, , "Wenhua Beijing yu Kexuejishu de Yanbian"[Cultural Background and Evolution of Scientific and Technological structure], in *Kexue Chuantong yu Wenhua* [Scientific Traditions and Cultures], ed. editorial of *Journal of Dialectics of Nature* (Xi'an: Shaanxi kexuejishu chubanshe, 1983), 1-81.

[25] Zhu Xihao, "Xinxi de shengming zaiyu liutong"[The Life of Information Lies in its Distribution], *Kexue Chuantong yu Wenhua*, 396-411.

[26] Michael Latham, *Modernization as Ideology: American Social Science and "Nation Building" in the Kennedy Era* (Chapel Hill and London: The University of North Carolina Press, 2000), 33.

[27] Latham, *Modernization as Ideology*, 31-32.

values, capitalist economic organizations, and democratic political structures" and to defeat "the forces of monolithic communism by accelerating the natural process through which 'traditional' societies would move toward the enlightened 'modernity' most clearly represented by America itself."[28] Repacking the not so new imperial notion of Western superiority and teleological narrative into new languages, modernization theory played an important role in the foreign policies and strategies of United States to contain the danger of communism in "backward" regions, and was "resurrected in post-Cold War analyses celebrating the collapse of state socialism and the transformative power of capitalist markets."[29]

Along with Jin Guantao and Liu Qingfeng's system analysis of the ultrastable structure of Chinese society came the increasing introduction and study of Parsons' theory among scholars in social sciences. Ding Xueliang, at that time a doctoral student in Sociology at Harvard, detailed in a long essay the conceptual framework of Parsons and modernization theory, examining them more as a scientific method than from the perspective of their ideological implications.[30]

Against this backdrop, discussions of modernism often drew an opposition between the "scientific tradition" of modernist techniques and media technology, and the "didactic, moralist" tradition of Chinese culture. This was best seen in critique of the "ultrastable structure" of the "shadow play" tradition in Chinese cinema, against which the "modernization of cinematic language" had to establish itself. In Chapter Four, I examine the new wave of cinematic aesthetics of the fifth generation in this context. Interestingly, while futurist visions and aspirations to make a new era permeated the post-Mao late 70s and 80s, films such as *Yellow Earth* (*Huang tudi*, 1984) with their immobile shots of immutable, rural landscapes created an imagined temporality of eternal "stagnancy." Shielded from drastic changes in post-Mao China, this temporality of slowness and stagnancy paradoxically revealed the deep anxieties of China's reincorporation into the linear temporality of Western modernization. Ending the chapter with a close reading of *Black Cannon Incident* (*Heipao shijian*, 1985) by Huang Jianxin, and of the disjunction between the intention of the film makers and its modernist aesthetic, I argue that its modernist language inadvertently provides a form for an emergent yet unarticulated structure of feeling that would otherwise be drowned by the dominant discourses of modernization.

Information and Affect

[28] Latham, *Modernization as Ideology*, 6.
[29] Latham, *Modernization as Ideology,* 5.
[30] Ding Xueliang, "Xiandaihua lilun de yuanyuan yu guannian goujia"[The origin and conceptual framework of modernization theory], *Zhongguo Shehui Kexue* [Chinese Social Science] 1 (1988): 65-78.

The presumably ever-persistent "ultrastable structure" is burdened with the anxiety of a recursive haunting of the past, of being cut off from a "universal" progress. This anxiety can only be relieved in fantasies of a distant future that no longer bears the traces of the past, a future that is ever renewable and refashionable. "Information" promises just such utter newness and malleability. If the landscapes in *Yellow Earth* are an immutable, suffocating environment, the future world Little Smartie visits is a placeless place where things become outdated quickly and disappear without a trace. In his second visit, everything Little Smartie saw in his first visit already belongs to an erasable past. With flying machines that soar among the clouds and movable match box-like apartments that can be relocated anywhere, people in this future enjoy unprecedented flexibility to manipulate their surroundings at their will.

In his second visit, Little Smartie is invited to watch TV with his hosts. In a living room where no screen can be found, Little Smartie finds himself surrounded by characters he knows from TV shows. When one of them opens a bottle of wine, the smell of the alcohol also lingers in his nostrils. As he starts to relax among his new friends, he suddenly finds himself trapped by fire. The terrified Little Smartie shouts for help, only to find that the fire is soon "extinguished" by his hosts who have simply turned on the lights in the living room — the fire was just another image on TV, but holographic as opposed to two dimensional.

Holography seized the popular imagination of future media in the 1980s. Believed capable of capturing the fullness of the "information" contained in a scene, holography promised to break the constraints of the traditional movie or television screen and thus to blur the boundaries between the space of information and the space of living. Space would thus become fluid and malleable, shot through with information flows. Furthermore, holography foregrounded the manipulatability of media effects through optical waves. The surface of a holographic film would no longer present a point-to-point two-dimensional image of an object as with ordinary photograph, but would instead be made up of wave patterns that "contained information as much as that of hundreds and thousands of ordinary photos."[31] Song Feijun, an optical scientist, in writing about the transition from traditional optics to information optics, pointed out that the latter shifted to focus on spatial frequency. He celebrated that with this shift to frequency, optical graphics could be analyzed as communication signals. Concepts and methods of communication studies could be easily applied to optics as well.[32]

Friedrich Kittler in his genealogy of communication media highlights the modern concept of frequency that is open to mathematical analysis as a significant moment when the simulation process of communication media such as telegraphy and gramophone "is no longer partnered in the reception process by a language-based mnemonics or pedagogy, but by a sensory physiology which has guaranteed the media their worldwide and, thanks

[31] Song Feijun, *Cong bodong guangxue dao xinxi guangxue* [From Classic Optics to Information Optics](Beijing: kexue chubanshe, 1987), 221.
[32] Song Feijun, *Cong bodong guangxue dao xinxi guangxue*, 10-18.

to Shannon's measure of information, calculable success."[33] Along this line, Tiziana Terranova argues that the informatization of culture does not start with the rise of a digital media system, but with "the analogue function of *frequency*," and the making use of physical processes "which are faster than human perception and are only susceptible of formulation in the code of modern mathematics."[34]

Kittler and Terranova's observations on the asynchronicity between informatization and digitization, revealing the hidden continuity between analogue media and digital media, are also crucial to our understanding of "information" in the context of late 1970s and 1980s China, before personal computers and the general accessibility of the internet became pervasive. The years following the end of the Cultural Revolution witnessed the expansion of wireless radio broadcasts, the rise of cassette culture (with the wide circulation of both cassette music and video cassettes), as well as the rapid growth in the coverage of television broadcasts and the accessibility of TV sets to ordinary households. This proliferation of media was accompanied by an explosion of information and a multiplication of information channels, which overlapped and competed with each other. Mixed with newly available digital technology (television production started adopting digital effects at this point[35]), these analog media shaped the imagination of future media, becoming "new old media." For example, the indefinite "waves" abundant in science fiction of this period were imagined as magic media capable of transmitting information directly to the human body and brain. Ambiguously blurring the boundary between the analog and the digital, these imagined wave technologies were on the one hand spurred by the sudden expansion of wireless radio and television broadcast, and on the other hand gestured towards digital media by anticipating the myth of a "universal connectibility" regardless the material specificity of different media.

Chapter Five examines how cinema also became a "new old medium" against this backdrop. Situated within a newly vibrant media ecology and facing fierce competition with television broadcast and the spread of videotapes, cinema was attributed a sort of "plasticity"— an understanding of the malleability of its audio-visual elements, of its propensity for the rendering the imaginary visible. This generated a new aesthetic in Chinese cinema, one which self-consciously distinguished itself from realism as a style, and representation as an agenda, both of which had been associated with, and attacked as "socialist realism" in the Post-Mao context. By the mid and late 1980s, the effects of media on the human sensorium had begun to be valorized among Chinese media critics and practitioners against the allegedly didactic role of cinema in Mao's era. The evocation of

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[33] Friedrich Kittler, "A History of Communication Media," *Ctheory* (ga114) 1996, accessed May 22, 2013, doi: articles.aspx?id=45.

[34] Tiziana Terranova, *Network Culture: Politics for the Information Age* (London and Ann Arbor, MI: Pluto Press, 2004), 8.

[35] Some television and broadcasting journals started introducing to their audience the magic of "digital special effects." See, for example, Li Xiaobin, "Dianshi jiemu zhong qimiao de teji: shuzi teji"[Marvelous special effects in TV programs: digital special effects], *Zhongguo guangbo dianshi* [Chinese Television and Broadcast] (12) 1985: 21.

bodily affects[36] and the liberation of the senses were understood as counteracting the oppression of "human nature" by political dogmatism.

To be sure, affect is not absent in the literature, cinema and art of Mao's era. As Wang Ban convincingly argues, instead of repressing desire and bodily affect, cinema and literature produced in Mao's era in fact effectively mobilize emotional and libidinal energy, recycle and re-channel the energy for the cause of revolution and socialist utopia.[37]

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[36] My use of "affect" is relevant to the notion of "affective labor" as defined by Michael Hardt as "the creation and manipulation of affects." Hardt discusses "affective labor" as one face of immaterial labor of which products are intangible. Affective labor "requires (virtual or actual) human contact and proximity" and produces "social networks, forms of community, biopower." In his discussion, Hardt focuses more on the effects and products of "affective labor" than a clear-cut definition of "affect," or the distinction between affect and emotion as Brian Massumi does. This line of discussion shifts the discussion of labor from the components of labor (such as mental/manual labor) to its communicative functions. In fact, Hardt makes it clear that to define affective labor as "immaterial" is not to deny the corporeal component involved in affective labor. Linguistic and communicative capabilities are also crucial in "creating and manipulating affects." In other words, "affective labor" may involve the corporeal, linguistic, communicative capabilities of the performer to produce and manage affect. See Michael Hardt, "Affective Labor," in *Boundary 2* 2 (1999): 89-100. Also see Brian Massumi, "The Autonomy of Affect," in *Cultural Critique* 31 (1995): 83-109. For a critique of Massumi, and Silvan Tomkins, who argues for the autonomy of affect, see Ruth Leys, "The Turn to Affect: A Critique," in *Critical Inquiry* 3 (spring 2011): 434-472. Steven Shaviro recently takes up Massumi's division between affect and emotion, arguing that "emotion is to affect as, in Marxist theory, labor power is to labor," and "just as affect is captured, reduced, and 'qualified' in the form of emotion, so labor (or unqualified human energy and creativity) is captured, reduced, commodified, and put to work in the form of 'labor power'."(5) But by highlighting the transformations and connections between emotion and affect, Shaviro in fact destabilizes the division of the two. See Steven Shaviro, *Post-Cinematic Affect* (Winchester and Washington: O-Books, 2010). My use of "affect" follows two lines: first, aligning with Hardt's autonomist exploration of the increasing role of affective and immaterial labor in the current economy of informatization and "production defined by a combination of cybernetics and affect."(Hardt, "Affective Labor," 97.) Secondly, the notion of affect suggest an understanding of culture not only as "ideological superstructure" in traditional Marxist terms, but the effects of cultural products on the human body and even the unconscious, with a process of composing and decomposing subjectivity. It is in the second sense that Hardt associates affective labor with biopolitical power, for "what is created in the networks of affective labor is a form-of-life." (Hardt, "Affective Labor," 98.) By retaining the unarticulated aspects of affect, we would be able to see the ways in which "life" per se is subsumed into the capitalist production, and individual subjects are decomposed and recomposed within the pervasive field of cybernetics. In a recent evaluation of Tomkins' theory of affect, Jonathan Flatley highlights two aspects: first, Tomkins insists that affects "occur neither in mind or body but in an assemblage, network, or system that is not comprehensible in terms of its corporeal or cognitive component parts."(14) Secondly, Tomkins borrows from cybernetics and systems theory to understand affect as a system interacting not only with drive, perception, thought process, act and behavior, but also with the environments. Affect thus indicates something relational and transformative. See Jonathan Flatley, *Affective Mapping: Melancholia and the Politics of Modernism* (Cambridge, MA: Harvard University Press, 2008).

[37] Wang Ban, *The Sublime Figure of History: Aesthetics and Politics in Twentieth-century China* (Stanford, California: Stanford University Press, 1997), especially chapter 4, 123-154.

Passions and desires were expressed through efforts to embody an appropriate class subjectivity. With the end of the Mao's era, and the politics of what Wang Hui calls depoliticization,[38] many intellectuals began to argue for the liberation of "personal" feelings and bodies from political "manipulation." Feelings and bodily affects were acknowledged as the "private" realm, which in turn generated experiences of and a desire for autonomous individuality. Lisa Rofel reads this production of new "human nature" as that of a "desiring subject" in postsocialist China, simultaneous with a "re-worlding" of post-Cold War order in which China participates while remaking itself. In post-Mao China, to become a "desiring subject" means a rejection of the political fervor of Mao's era. "Other material, sexual, and affective longings have replaced those sentiments, not necessarily as something Chinese people have felt for the first time but as that which is seen at the heart of creating a new kind of world and hence a different kind of human being."[39] Such illusions of individuality and autonomy of affects may be characterized as "deterritorialization," in the sense that desires were generated and unleashed from the socialist political and economic structures. The boundary of individuality and subjectivity was redrawn in relation to economic reforms and marketization. The growing role of the market in regulating social relations, and the transfer of control over resources from the central to the local government, generated a sense of liberation and longing for individual freedom. This may be understood as the experience of a temporary transitional moment when the production and distribution of affectivity was "liberated" from political and ideological manipulation, but at the same time not subject to commercialization and commodification. While such an idealized, transitory moment might not exist as a real

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[38] The term "depoliticization" comes from Wang Hui's essay "*Quzhengzhihua de zhengzhi, baquan de duochonggouzheng yu liushi niandai de xiaoshi*"[Depoliticized politics, multiple components of hegemony, and the eclipse of the sixties], *Kaifang shidai* 2 (2007): 5-41. Wang Hui points out that the depoliticized politics in contemporary China are closely related to the negation of the revolutionary history of China from 1911 to 1976. It manifests itself as the annulling of the political subjectivity of peasants and the working class, the transformations in the role and function of the state, as well as the change in the party's identity that no longer possesses "its own distinctive evaluative standpoint or social goals" but can "only have a structural-functionalist relationship to the state apparatus." While depoliticized politics did not start with the post-Mao China, the new order since the late 1970s consolidated the hypothetical separation of the economical and political realm, on which the notion of modern market economy is built, and expelled relations of production from the discussion of economic development. Borrowing Carl Schmitt's argument about "neutralization," Wang points out that depoliticization is especially related to the neutralization of technology. For two different versions of English translation, see "Depoliticized Politics, From East to West," trans. Chris Connery, in *New Left Review* 41(2006): 29-45, and "Depoliticized Politics, Multiple Components of Hegemony, and the Eclipse of the Sixties," trans. Christopher Connery, *Inter-Asia Cultural Studies* 4 (2006): 683-699.

[39] Lisa Rofel, *Desiring China: Experiments in Neoliberalism, Sexuality and Public Culture* (Durham: Duke University Press, 2007), 22. Though Rofel's argument of this post-socialist "reworlding" focuses on the post–Tian'anmen period, the shift from class subjectivity to "desiring subject" started from the post-Mao late 70s. Humanist discourses permeating the literature and films of this time laid the foundation for this shift. By the late 1980s, the influx of Western films and popular culture, the surge in domestic production of entertainment films, as well as the emergent urban culture, further forged inseparable connections between the "desiring subject" and consumer culture.

historical moment, the experience or the fantasy of such a moment mirrors the utopian impulses induced by a new sense of liberated individuality.

Ironically, such individuality was cut across by a new mode of perception management. As Terranova points out, the term "perception management" was first coined within military and intelligence circles, but is expanding in the commercial sector with the emergence of perception management consultancy firms, which aim not simply at the manipulation of public opinion, but also toward a micro-physical level, inducing perceptions and organizing the imagination. Images or information flows are, according to Terranova, "bioweapons" directed not only at individuals, but more importantly at "dividuals," which "results from the decomposition of individuals into data clouds subject to automated integration and disintegration."[40]

We already see an augur of this type of "dividuals" in the scientific practices and science fiction of early 1980s, in which the transmission of information circumvents the consciousness of humans and effects human bodies without the awareness of the people involved. The magical waves therefore became a form of furtive media, their effects unpredictable and unnoticeable to those people falling under their power. They operate beneath the threshold of consciousness, undercutting self-recognition and reason of the individual subject. With the increasing pressure of commercialization, cinema also became manifested a new affective tendency, not only because cinematic discourse and production were geared towards sensorial effects since the mid-1980s, but also for its proclivity for plasticity and fantasy, as well as constant self-renewal at its intersections with other media. Converging with the increasingly drastic marketization, now aligned with a new mode of management of affects, media flows generated, reintegrated and redistributed subjectivities into a network society of control. This shift of cinematic discourse and aesthetics from representation to sensorial effects thus can be understood as double-sided: on the one hand it was a rebellion against the mode of cinematic production and aesthetics in Mao's era, and on the other hand anticipated new modes of "perception management" arising with post-socialist marketization.

The action of media on human bodies, and the interface between information devices and humans, therefore should be reexamined in this light. The interface becomes a *dispositif*, around which subjectivities and "dividuals" are generated and dispensed. Before I move on to explore the socio-economic functions of the interface, I should mention that the proliferation of media in the 1980s was also accompanied by a transformation in the power relations among the state, cultural producers and audiences. Audiences were no longer "the people" to be mobilized for class politics. They were also more complicated and heterogeneous than the "passive masses" to be enlightened by intellectuals. In their new relationship to their audiences, media flows and images become, not only vehicles for generating desires and imagining freedom, but also, as Terranova would have it, bioweapons "to be openly displayed as a field for the propagation of intensities or affects – – a battlefield for the war staged on the terrain of perception."[41]

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[40] Tiziana Terranova, *Network Culture*, 3.
[41] Tiziana Terranova, *Network Culture*, 14.

The Body and The Interface

So far we can see that the connotations of "information" in the context of 1980s China were multivalent: "information" as a discursive construction that promised to eliminate and in effect render physical labor invisible; information as discrete, transferrable knowledge that was central to a "knowledge-based economy;" information, as used by Claude Shannon and Warren Weaver, that privileged the technical functioning of the delivery of signals between two points over significance, which, as N. Katherine Hales puts it, delaminated information from any specific material substrate "as a kind of immaterial fluid that circulates effortlessly around the globe";[42] information related to the proliferation of media and the experience of a sudden information explosion in post-Mao late 1970s and 1980s; and information associated with new modes of "perception management" and new wave cinematic aesthetic that appeared in the late 1980s.

What are the interconnections among these different layers of information and its discourse? The aforementioned "expert systems" may be an interesting point of entry into this question. The idea of replacing human experts with "expert systems" signaled a fantasy that the performance of labor would no longer rely on the presence of the physical, laboring body. Underlying the idea of "expert systems" was the belief that expert knowledge once transcoded through computer programs into information circuits could function independently of human intervention. However, these autonomous systems in the popular imagination of the early 1980s were not rectangular screens or devices circled by wires or cords, but instead assumed the human form of an intelligent, good-looking woman, bestowed even with an endearing female name: "Fangfang." Why does an "objective," "impartial" expert system have to assume a human form? Is the intelligent machine with a female body still a machine? Is the body that becomes the fleshy medium for ethereal information circuits still a body?

Perhaps we need to ask how cybernetics and computerization have transformed our understanding of the human body and media. N. Katherine Hales explicates three general contributions of cybernetics to media studies as "joining information with feedback, creating a framework in which humans and machines can be understood in similar terms, creating artifacts that make these ideas materially tangible." In this understanding media are the components of cybernetic information feedback loops, which encompass both life and non-life forms. The gist of cybernetics is to "construct a framework with in which animals, humans and machines can all be located" and understood in terms of information flows. Cybernetics, as Hales points out, "in its ambition to create frameworks that apply equally to machines and to bodies, has been one of the forces driving twentieth and twenty-first century thought to interpret the mind/body in computational terms and to think about computers as cognizers capable of evolving in ways that parallel the

[42] N. Katherine Hayles, *How We Became Posthuman: Virtual bodies in Cybernetics, Literature, and Informatics* (Chicago, Ill.: University of Chicago press, 1999), 246.

emergence of humans as thinking beings."[43] Subverting the distinction between the artificial and the natural, cybernetics turns the body into a medium for information flows.

This understanding of the body can be observed in somatological science promoted by Qian Xuesen, the renowned cybernetician, according to whom both the effects of *qigong* and extraordinary powers are information exchanges among human bodies or between the body and other objects. This body is often coupled with machines and instruments in order for scientific experiments and research to detect the secret information mechanisms of the human body that circumvents ordinary sensory organs. Infrared detectors, brainwave activity monitors, and instruments to measure electrostatic fields among others, were used to convert the body into the data. "As new technologies have allowed for the opening of the body and its dispersal into fragmentation of information," Bernadette Wegenstein points out, "these technologies have in turn served as strategies for understanding and ultimately controlling the body."[44] By imagining "*qi*" sent out by *qigong* masters as undetected waveforms, Qian and other science fiction writers thought of the body as an electronic device that could be connected to other devices immediately. The ultimate goal of somatological science, as Qian and his followers indicated, was to achieve seamless human-machine-interface.

In order to be incorporated into these frictionless information circuits, the "media specificity" of the body, if the body is conceived as a suite of sensory media now, has to be overcome. If there is, as Friedrich Kittler observes, a tendency towards the convergence of media with the advent of the digital, this new discourse of the body is aligned with an understanding of universal convertibility between different media through digitization. Criticized as a "dematerialization" of the body, the view of the body often encounters various kinds of resistance. Mark Hansen, for example, insists that "humans retain a distinct form of embodiment that differs categorically from the materiality of computers, even though the two can be 'interactively coupled' through 'indirection'."[45] In the science fiction stories I examine in Chapter Two, a similar resistance can be detected as an excessive presence of corporality, in contrast to the hypermediated body, hooked up with monitors and screens, often depicted here as well. "A Lost Dream," for example, a story that starts with the dream of immediate knowledge transmission, ends with a country scene in which the human body attains an organic harmony with nature. Such a "natural" body should not be regarded as an authentic body, for it is clearly codified as a symbol of romanticized country life. It should be understood as a yearning against the hegemonic power of universalizing information, against the deterritorialization of social relations many experienced as China was re-incorporating into the global capital system.

Such a criticism of dematerialization is levied not to recover an integral, organic body, but to understand the ways in which the body is now reoriented and dispersed around its interface with various machines and media. Through the interface the human body is woven into feedback loops with machines. Alexander Galloway thus describes the

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[43] N. Katherine Hayles, "Cybernetics," in *Critical Terms For Media Studies*, 145-156.
[44] Bernadette Wegenstein, *Getting Under the Skin: the Body and Media Theory* (Cambridge, Mass.: MIT Press, c2006), 161.
[45] Mark Hansen, Foreword to *Getting Under the Skin: the Body and Media Theory*, by Wegenstein, xi.

interface as "the point of transition between different mediatic layers within any nested system," "an 'agitation' or generative friction between different formats." This friction is not merely a technological issue, but an allegory, as Galloway phrases, "of the forced divorcement between the poetic and the functional, or the private and the public, or process and stasis," and as "a projection of the agonizing scars of fragmentation and atomization in all layers of social life."[46] He thus proposes the interface as the starting point for a cognitive mapping of our social life, the complexity of which eludes our understanding of it as a whole.

Galloway's insight invokes an understanding of the interface as a mode and process of mediation, or a "*dispositif*," around which power, knowledge, and social relations are produced, distributed and intersected. Along this line of argument, the interface of humans and intelligent machines, especially when it comes to the expert systems that I examine in Chapter Three, symptomatically reveal the friction between humans and the abstract systems of an increasingly specialized society. Anthony Giddens, in writing about this consequence of modernity, comments that the modern society is built on the trust of people in abstract systems in the form of "faceless commitments, in which faith is sustained in the workings of knowledge of which the lay person is largely ignorant." Yet "faceless commitments" cannot work by themselves. "Facework commitments" are "important as a mode of generating continuing trustworthiness."[47] Doctors, experts, and professionals, in their face-to-face communication with lay actors, play important roles in maintaining and building up trust at what Giddens calls the "access point." The mediation at the access point becomes even more fundamental with the arrival of the digital era. Noticing the parallel booms in information work and service work in US economy, Alan Liu observes that "both information workers keying data and front-line workers dealing with the public must be seen to form a continuum of service through which information flows." Commenting on the sociality of the human face in "interfacing" the system and laypersons, he wittily remarks that "front-line workers were the public inter-'face' of back-office computerization" and "living dumb terminals" of "a firm's infosphere."[48] In this sense, the "human face" of Fangfang and "Metal Head" indicates the demand for an "interface" to "socialize" intelligent machines.

Interestingly, however amazing the robots may be in their ability to surpass humans, science fiction writers in 1980s China insisted that there should be some differences between robots and humans. In "A Curious Case," the preternaturally capable doctor Fangfang cannot communicate effectively at all beyond her narrow professional setting. When summoned to court, she talks to the judge as a doctor speaking to a patient. She is too expert to have any of the "common sense" of human beings. In "*Little Smartie's Second*

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[46] Alexander Galloway, *The Interface Effect* (Cambridge, UK and Malden, MA: Polity, 2012), 31.
[47] Anthony Giddens, *The Consequences of Modernity* (Stanford, Calif.: Stanford University Press, 1990), 23-29. Sianne Ngai deals with the similar issue in her discussion of "Post-Fordist Zaniness." Ngai, *Our Aesthetic Categories: Zany, Cute, Interesting* (Cambridge, MA and London, England: 2012), 197-198.
[48] Alan Liu, *The Laws of Cool: Knowledge Work and the Culture of Information* (Chicago: University of Chicago Press, 2004), 119-120.

Visit to the Future World," the lovely robot boy "Metal Head" with "a face as delicate as that of a girl" is fascinated with taking up the one activity that humans are proud of for themselves: poetry-writing. To "Metal Head," poetry-writing is no different than any other programmed activities, for a poem for him is just a series of rimed sentences broken into several lines. His poetry writing merely arrange into patterns Chinese characters picked out from a dictionary of phonology! Making fun of robots for their programmed "minds," both stories highlight the limit of their "machine language." If the myth of seamless interface is predicated on the commensurability of different mediatic layers through computative transcoding, this inadequacy of algorithmic language exposes the limits of the understanding interface as merely built-in technological features of machines. To interface is to produce and negotiate social relations by investing affective labor, which in turn continuously reconstruct human subjectivity around media and machines.

The interface not only mediates, but also redraws the boundary between humans and machines. The question raised in the story "A Curious Case" of whether the robot doctor Fangfang is a human equivalent or a tool indicates the increasingly intricate relationship of humans to electronic media and intelligent machines. As we see in the second chapter, devices that send out mysterious wireless waves exert their power on the unconscious, without even the awareness of human beings. The binary structure of humans and tools, subjects and objects can no longer apply here, for the devices destabilize but also shape the very becoming of humans. In this sense, recent reflections, initiated and inspired by Italian autonomist thinkers, on the shifting modes of capitalist production of value in a post-industrial, information age, are pertinent to rethinking the role of the interface in producing and transforming human subjectivity. If the capitalist extraction of value extends beyond factories and work space into leisure time, it is electronic devices from television to personal computers, *i*phones and *i*pads that help eliminate the line between work and play, work time and leisure time, subsuming into capitalist value production not only specialized knowledge, but also affects, communicative skills and various aspects of human capacities.

The interface as "*dispositif*" exceeds the working space, restructuring and moderating life *per se*. In this light, the imagery of future cinemas beyond the confines of theatres, which I examine in Chapter Five, should be read as an anticipation of our screen-permeated society, where information spaces and living space interpenetrate. Alan Liu in writing about the "*generalized interface* of contemporary culture," argues that the purported "user friendly interface" is "no less than the postindustrial repositioning of leisure *within* work," "a kind of contemporary leisure that 'works out' on high-tech gym equipment." The interface functions to "cushion the rough corners of work within a fiction of ease even as they simultaneously display the ideal of fearsome efficiency."[49] Wrapping work around play and play around work, the ubiquitous interface weaves human beings into information feedback loops for non-intermittent optimization. The question of why robots are made into human forms, then, should be flipped around: aren't human beings now synched into endless cybernetic loops just like intelligent machines that are never turned off?

[49] Alan Liu, *The Laws of Cool*, 160-170.

The information fantasies that permeated the culture and media phenomenon of the post-Mao "New era" were imbued with techno-utopian imaginations of a new era, developmental aspirations of the state, and the enthusiasm of Chinese intellectuals for a future governed by rationality and no longer riven by ideological conflicts. Labor and subjectivities, human and nonhuman, work and leisure were reshuffled and redefined along with these information factasies. By producing this "newness" in both discourse and praxis, China participated in the global reorientation towards a post-socialist world.

Writing in the late 1980s, Arif Dirlik proposed the term "postsocialism" as a means of conceptualizing the transformations of Chinese society, starting with the end of the Cultural Revolution:

> By postsocialism I refer to the condition of socialism in a historical situation where: (a) socialism has lost its coherence as a metatheory of politics because of the attenuation of the socialist vision in its historical unfolding; partly because of a perceived need on the part of socialist states to articulate "actually existing socialism" to the demands of a capitalist world order, but also because of the vernacularization of socialism in its absorption into different national contexts; (b) the articulation of socialism to capitalism is conditioned by the structure of "actually existing socialism" in any particular context which is the historical premise of all such articulation; and (c) this premise stands guard over the process of articulation to ensure it does not result in the restoration of capitalism. [50]

The post-Mao "new era" witnessed an interrogation of both "metatheoretical" socialism and "actually existing socialism." From challenging Marxist class analysis and class subjectivity with a cybernetic view of Chinese society and the discourses of an "information society," to denouncing socialist ethics and social relations as "inhuman," socialism as both ideology and practice was besieged by critiques and reflections. In fact, the post-Mao new waves of literature and film derived exactly from their dialogue with and denial of socialist traditions. From the utopian visions of speculative fiction, to the Fifth-generation's renouncement of the melodramatic tradition of socialist realism, as well as playful dismantling of socialist counter-espionage genre film, postsocialist aesthetics were dialectically intertwined with socialist utopian visions and experiences. My use of "aesthetics," following Miriam Hansen's treatise on "vernacular modernism," is not limited to "a repertory of artistic styles,"[51] but also encompasses the tension between artistic

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[50] Arif Dirlik, "Postsocialism? Reflections on 'Socialism with Chinese Characteristics'," *Marxism and Chinese Experience*, ed. Arif Dirlik et al. (New York and London: M. E. Sharpe, 1989), 364.

[51] Hansen writes: "Focusing on the nexus between modernism and modernity, then, also implies a wider notion of the aesthetic, one that situates artistic practices within a larger history and economy of sensory perception that Walter Benjamin for one saw as the decisive battleground for

practices, and a new economy of sensory perception and affectivity arising with the drastic transformations with the end of the Mao's era. The modernist cinematic language of *Black Cannon Incident* I discuss in Chapter Four, for example, registers the anxiety about rigidly programmed social life and its increasing bureaucratization as the inevitable products of modernization. The plastic aesthetics of *Flights of Fantasy* in Chapter Five, for another instance, despite its connections to the fledgling emergence of a consumerist ethos, are imbued with a bracing sense of liberty and a celebration of creativity. By registering the "structure of feeling"[52] that was not necessarily assimilated into dominant discourses, by capturing the however transitory utopian impulses and imaginations, there lie with the new aesthetics of postsocialist literature and cinema the possibilities of a history and future that can never be relegated to capitalist teleology.

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the meaning and fate of modernity." See Miriam Hansen, "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism," Modernism/Modernity 6.2 (1992): 60.

[52] The term is coined by Raymond Williams. It enables us to talk about lived and unfixed experience, which is "emergent or pre-emergent," and does not "have to await definition, classification or rationalization before they exert palpable pressures and set effective limits on experience and on action." While affirming the sociality of feelings, this term also leaves space for the experiences that have not yet hardened into ideologies. See Raymond Williams, *Marxism and Literature* (New York: Oxford University Press, 1977), 128-135. Especially relevant to my project here is the "emergent or pre-emergent" nature of the "structure of feeling," which may register the potential of the conflicts-impregnated 1980s. It is in the same sense that my use of "postsocialism" indicates the potential irreducible to "global capitalism." It is also different from the often-seen dating of "postsocialism" from the falling down of the Berlin Wall and the collapse of the Soviet Union.

Chapter Two

The Science of Psychic Information and Tales of Magical Waves

In 1979, *Sichuan Daily* reported the discovery of a twelve-year old boy called Tang Yu who could "read" words with his ears instead of his eyes. The story goes that the boy, when playing with others, accidentally touched the pocket of one of his playmates with his ears, and immediately "saw" the brand of the cigarettes in his friend's pocket without actually looking into his pocket. The boy's ability to read without seeing aroused the interest of local officials, whose ensuing tests further developed the legend that the boy could detect with his ears not only words but also the colors of the ink in which the words were written. Some wrote English words for him to "read." Lacking any knowledge of English language, Tang was able to reproduce the accurate images of the words without knowing their meaning. Tang himself described that he could feel the words reflected in his mind when his hands touched a rolled-up piece of paper with words inside, as if there were electricity passing through his hands; when he stuck the rolled-up paper inside his ears, the details of the characters appeared in his mind as clearly as on a screen. The author celebrates the new horizon of research that the Tang Yu case might open for further understanding of the human body. The story concludes by reporting that the authorities of the Sichuan Province are urging scientific institutes to investigate the phenomenon of "extrasensory powers" (*teyi gongneng*).[1]

That such a story could appear on the front page of a Party newspaper may already surprise those familiar with the CCP's atheistic and materialist educational policies, let alone the enthusiastic support by the Party authorities for further research into the phenomenon. This seeming lapse into superstition was linked, however, to one of the central scientific and developmental keywords of the time: information. One year after the *Sichuan Daily* report, the *Chinese Journal of Nature* (Ziran Zazhi), held an academic conference on extrasensory powers in Shanghai, assembling scientists from universities and research institutes, as well as fourteen children and adolescents who allegedly possessed extrasensory powers. In the opening remarks, He Chongyin, the chief editor of *Ziran Zazhi*, declared that the pivot of the current research into the purported "image-recognition through nonvisual organs" (*fei shijue qiguan tuxiang shibie*) was to uncover "the mechanisms in the human body for receiving, transmiting, processing and displaying information." He believed that this research promised breakthroughs in the life sciences, as well as the discovery of an unknown, alternative sensory system of the human body, or what he called "the seventh sense." [2]

The Tang Yu case was only a start. A few days after the *Sichuan Daily* report, a girl called Jiang Yan in Beijing was reported to have a similar power to read with her ears.

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[1] "*Dazu xian faxian yige nengyong erduo bianzi de ertong*"[A child in dazu county discovered to be capable of reading with ears], in *Chuangjian renti kexue* [Establishing somatological science], ed. Qian Xuesen et al. (Chengdu: Sichuan jiaoyu chubanshe, 1989), 1-2.

[2] He Chongyin, "*Tansuo shengming kexue de aomi*" (Exploring the secrets of the life sciences), *Ziran zazhi* 4 (1980): 289-293.

Soon children with extrasensory powers were reported everywhere and captured immense media attention. Thus it was no surprise that the Shanghai conference could summon up to twelve children for the purpose of demonstrations and performances during the proceedings.

This fascination with the secret connections of extrasensory powers to the human body's mechanism of information transmission finally led to the rise of the so-called "somatological science" (*renti kexue*), a term coined by the renowned Chinese cybernetic scientist Qian Xuesen, who himself enthusiastically established and promoted "somatological science" as the frontier of information sciences. The human body was conceived as an enigmatic system composed of informational circuits, the secret of which was believed to be able to empower human beings. Once the ways in which the human mind and body might communicate with other information systems were discovered, there would be a revolution in the development of the human intellect.

This strong interest in the potential of the human body led He Chongyin to ask: Could it be possible that such powers were prevalent among the common people, given that some children's extrasensory powers were only activated by their parents or researchers after the Tang Yu case was reported? If so, how to develop and make use of this potential energy? To solve this problem, he proposed that researchers should first figure out how the non-visual organs of the human body receive information. If television sets rely on complicated electrical circuits to process information, what is the mechanism of information processing of the human body? What is the vehicle for information transmission? It was believed that varied types of waveforms, such as electromagnetic waves, were the fundamental vehicle of information. The discussions of waves at this time thus often hovered between the real and the imaginary, between scientific discourse and futurist fantasy.

Interestingly, to many information enthusiasts, these magical informational waves could find a counterpart in traditional Chinese philosophy and religious practice in the form of "*qi*," which can be roughly glossed as "breath" or "intrinsic life energy." Converging with the crazes for "information" and "extrasensory powers" in post-Mao China was what David Palmer calls "*qigong* fever." Qian Xuesen and other Chinese scientists included the "science of *qigong*" into their ambitious blueprint for "somatological science." Therefore, not only was the traditional Chinese philosophical term "*qi*" reframed into modern scientific terms, but the magical waves were also further mystified by way of their new alliance with the no less mysterious term. "*Qi*" was thus renewed as a medium of information, not only possessing therapeutic power, but also promising to liberate the immense potential of the human body in an age of information.

This fascination with the information potential of the human body resonated with the developmental state's demand for educated labor for the purpose of modernization and competition among global powers in the wake of the Cultural Revolution. Waves were imagined not only to be able to "talk" to the human body, but also to transmit information directly to the human brain, and thus as the most effective way to produce the educated labor needed for China's modernization. In the futurist visions provided by Qian Xuesen and other advocates of "somatological science," information science and technology would empower human beings as "the all-powerful." Ironically, while they cast "somatological science" in the glow of enlightenment as "a revolution in human history," the science fiction stories of this period, while rehearsing the theme of enlightenment and knowledge

transmission, are nonetheless shot through with a parallel dread of the relentless control over individuals and human minds exercised by omnipotent waves. The invisibility of waves contributes to the mystery of their power, but may also loom as a hidden menace.

Science fiction thus becomes a field of tension between technological empowerment and technological dominance. The legitimacy of science fiction in post-Mao China came from its alliance with scientific popularization. Science fiction was believed to be a vehicle for enlightenment, propagating a spirit of scientific rationality among the common people, especially in the political climate of critiquing irrationality that had caused the Cultural Revolution. At the same time, the factual and the fictive, the scientific and the imaginative often came to inform one another. On the one hand, stories and research reports about *qigong* and extrasensory powers often flowed across both popular magazines and scientific journals. Some stories were published in literary journals and popular cultural forums, while others appeared in scientific journals including *Kexue shidai* (Science Times) and *Kexue huabao* (Science Pictorial). On the other hand, while literary imagination about future technologies often reflected concurrent scientific interests, many research reports of "somatological science" also read like science fiction stories. For instance, in one story by Zheng Wenguang, a summer camp assembles a collection of children with myriad extrasensory powers, including "ears reading," telepathy, long-distance vision, clairvoyance, so that the camp (and indeed, the story itself) becomes a bizarre showcase of "child prodigies."[3] Concurrent with multiple reports about demonstrations and laboratory tests of extrasensory powers in newspapers and journals, the text's litany of extrasensory powers is no less informative than those reports about "real" performances. The presumed function of this genre in disseminating scientific knowledge was inseparable from its speculative narrative to spur the imagination of a better future.

In this chapter, I will read the fad for "somatological science," and the fascination with extrasensory powers and *qigong* side by side with the science fiction of this time, revealing the fantastic, speculative nature of "somatological science." This parallel reading will also bring forth the conflicts between enlightenment and enchantment, autonomy and control, as well as the tension between the body as a site of liberating potentialities, and yet also subject to instrumental control.

The Body as a System of Information

The term "somatological science" was coined by Qian Xuesen, the designer of China's nuclear weapons program and the author of *Engineering Cybernetics*. One of most prominent and politically influential scientists in China, Qian was an avid advocate of extrasensory powers research since late 1970s. It was also his call for establishing "somatological science" and his inclusion of extrasensory powers into somatological science that gave scientific legitimacy to the research into paranormal powers. Adopting the discourse of systems theory in a speech given in 1987, Qian summarized his previous speeches on somatological science, arguing that the human body should be regarded as an extremely complicated system with many layers of subsystems. Engaged in a constant exchange of information and material with the exterior world, this system always manages

[3] Zheng Wenguang, "*Qiyi gongneng xialing ying* [Summer camp of children with extrasensory powers]," in *Zheng Wenguang Xinzuo Xuan*, (Changsha: Hunan renmin chubanshe, 1981), 171-195.

to maintain a relatively stable state. When people are performing certain type of activities, such as sleeping and waking, Qian tells us, their physiological indices, including brainwave activity, are maintained in a stable range. Qian calls these states of the human body the "eigen states," a term borrowed from quantum mechanics. The goal of somatological science was, according to him, to examine the "eigen states" of the system in relation to information circuits, including the state of a person when exerting extrasensory powers or practicing *qigong*.[4]

Qian believed that the achievements of somatological science would release the latent potential of the human body once the secrets of the body adjusting itself to different "eigen states" were revealed. He spoke highly of the liberating power of somatological science, claiming that it might bring about "the second renaissance in the human history:" "If we apply toward future educational practice any discoveries we make about child prodigies, every one will be able to become 'wise' in the 21st century; if we find out how extrasensory powers work, and use those principles to develop the latent power of the human body, everyone will be able to become 'all-powerful.'"[5] Comparing the transformative power of somatological science to human society to that of communism, Qian even rewrites the first sentence of Marx and Engel's *Manifesto of the Communist Party*: "the specter of somatological science is haunting us." In this sense, he celebrates somatological science as "not only a scientific revolution, but also a cultural revolution."[6]

This prospect of an unprecedented "cultural revolution," which Qian self-consciously characterized as a movement toward enlightenment and distinguished from Mao's Cultural Revolution, excited many of Qian's followers. The human body conceived as such exceeded the physiological limits of the human body as it was usually understood. These "extra senses" would enable the human body to detect signals and electromagnetic waves that could not be captured before. It was believed that, once the mechanism of extrasensory powers could be reproduced, human beings would no longer rely solely on their eyes and ears to obtain knowledge. With the ability to receive electromagnetic waves, the human body could be directly fed with constant informational streams.

Also pertinent to the investigation into the informational mechanism of human bodies was Qian's avid promotion of cognitive science, a science examining how human brains process information. Called *"sixwei kexue"* in Chinese, Qian regarded it a broader term than "cognitive science" in the west, for *"sixwei kexue"* should study, besides the logical thinking of the human beings, more importantly, how the imagistic thought (*xingxiang sixwei*) and inspiration work. He thus later proposed using the term "noetic science" instead of "cognitive science." Qian asserted that breakthroughs in the research of artificial intelligence were to be expected from the realm of *"sixwei kexue."* In the future, with computers, human beings would be liberated from "the basic, inferior mental labor" so that they would have more time and energy for creative activities. To find out the secrets of creativity and inspiration, *"sixwei kexue"* should, according to Qian, involve

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[4] Qian Xuesen, *Lun renti kexue yu xiandai keji* [On somatological science and modern science and technology], (Shanghai: Shanghai jiaotong daxue chubanshe, 1998), 95-97.

[5] Qian Xuesen, "*Yingjie di'erci wenyi fuxing de daolai*" [Welcome the second renaissance], *Chuangjian renti kexue,* 273-282.

[6] Qian Xuesen, "*Renti kexue de youling zai paihuai*" [The specter of somatological science is haunting us], *Chuangjian renti kexue*, 256-267.

interdisciplinary collaborations of neurologists, electronic engineers, and above all, linguists, literature scholars and aesthetic theorists, for it were they, seemingly irreverent to the information sciences, who could actually contribute most to scientific research into how human beings recognize words and undertake creative thinking. [7]

Such efforts would in the end enable better control of the human body and make it work more efficiently in varied circumstances. According to Chen Xin, a distinguished scientist of aviation medicine, the somatological science would be crucial to the future development of "integrated human-machine environment systems." In order to manage the information circuits of the human body in an integrated environment, he proposed that the somatological science should, besides determining various "eigen states" of the human body, set up the parameters for quantitative measurements of each state, find out the control variables, and establish records of the physical and biological effects of each "eigen state."[8] Such quantitative studies, while preparing the human body for human-machine interfaces, also threatened to reduce the human body into an instrument no different from other digital processing devices.

That Non-stop Information-processing Machine

This fascination with direct information transmission to the human body was directly linked with the emergent discourse of "knowledge-based economy," which became increasingly influential with the wide circulation of *The Third Wave* as well as Alvin Toffler's visits to China in 1983 and 1988. As I mentioned in the introductory chapter, both Chinese officials and intellectuals embraced Toffler's elevation of mental labor over manual labor. The undisputed acknowledgment of the power of knowledge was best seen in the numerous science fiction stories that center upon instant transmission of knowledge through waveforms. For example, "Cranes and Human Beings" is a story about an electronic instrument that directly transmits information to the human brain through encoded waves so that the information receiver becomes proficient in a new foreign language even in her sleep. In this case, the human body becomes a *non-stop information-processing machine*, working day and night.

The fantasy of transforming the temporality of the human body maintains some degree of continuity with the pervasive imagery of Maoist "iron" men and women, who work day and night for the cause of socialist construction, except that these socialist heroes rely on their revolutionary will, whereas the "information-processing machines" — the human bodies subject to various mysterious electronic instruments— in the 1980s stories can hardly be called heroes. In a children's story entitled "Dreams," the protagonist is a little girl who by chance becomes involved in an ambitious project. As explained by a scientist in the story, this experiment attempts a race with time:

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[7] Qian Xuesen, "*Guanyu siwei kexue*"[About noetic science], in *Guanyu Siwei Kexue*, ed. QianXuesen (Shanghai: Shanghai renmin chubanshe, 1986), 13-27.

[8] Chen Xin and Long Shengzhao, "*Yunyong xiandai kexue chengjiu tuidong renti kexue yanjiu*" [Using the achievement of modern science to advance somatological science], *Chuangjian renti kexue,* 221-233.

> Since human beings cannot avoid dreaming when sleeping, why shouldn't we make people study some basic knowledge in their dreams? To show the significance of this idea, let's do some mathematics: if a man's life expectancy is around 80 to 100 years, the time he spends on sleep is up to 27 to 33 years or so. Moreover, among the eight hours of sleep every day, the duration of a deep sleep is not long. Once it is possible to make use of the sleep time and dreams, we can immediately shorten the learning process of human beings.

The story begins with Zhang Xiaomei, an elementary school student who mistakenly takes home another traveler's suitcase on her train trip. Inside the suitcase, she finds a square metal box. Out of curiosity, she presses one white button but nothing happens. The next morning, however, to her surprise, she finds herself able to recite fluently an English essay she spent only a few minutes reading the night before. It turns out that the metal box is a memory machine that a group of scientists, including the traveler to whom the suitcase belongs, have developed in order to help people memorize during their sleep time what they have read. Xiaomei accidentally becomes the first human being to be experimented on with the machine.

The mystery of the metal box plays out through the story precisely because the intangible way in which it works on people. Invisible waves that talk to the human brain even elude the consciousness of the individual effected: she does not know that her brain is made to memorize the English essay even when she is sleeping. The human subject is, instead of being possessed of autonomous agency, dispersed around its interface with the machine. This dispersed human subjectivity is also manifested in the form of multilayered dreams. The next night, Xiaomei presses the other red button on the machine. This time, getting into bed after reading a science fiction book, she has a long dream. First, she is brought into a spaceship, where her friends and classmates have already gathered, and told that they are flying to a planet called XIII— α . It is announced that because the trip takes as long as 400 years, everyone in the ship will be "frozen" to pause their biological activities during the flight. They will be woken up in turns by programmed computers every twenty years to perform routine maintenance tasks for the ship. Xiaomei quickly falls "asleep" after taking "hibernation" pills. When she "wakes" up, it is already 100 years later, and everyone else is in hibernation except a robot called "Metal Head." From a letter written by her friend Pingping who was on duty before her, she is informed that everyone in the ship has received higher education through computer programming during their hibernation. Pingping has been designated to study medicine so that she can serve as a doctor of the group when they land on the alien planet, whereas Xiaomei has been assigned to study foreign languages, including the language of the planet to which they are flying.

Readers must have found themselves in a maze of dreams at this point in the story: a girl in a science fiction story having read a science fiction story dreams of herself of dreaming on a space trip and waking up from in the dream of space travel only to find her voyage like a dream! The relay between the reader and the science fiction book, science fiction stories and the dreams, constitutes a strange feedback loop. The hypermediated nature of the dreams dilutes the human subject. Is Xiaomei the author of the dreams, or is she just a recording machine that plays back the input into her brain when she is

connected to the memory machine? Later, when Xiaomei is asked to draw the extraterrestrial creatures in her dream, her drawings are pointed out by researchers as inaccurate when compared with the images recorded in the memory box! At this point, Xiaomei cannot even claim the authenticity of "her" own dream. Moreover, the recorded contents of neural activity as she dreams have been made into a science fiction movie, which directly externalizes her dream as a resource for further use. The relays back and forth between human beings and machines obliterate the autonomy of the human subject, rendering the human being merely a component of what the aviation scientist Chen Xin called "integrated human-machine systems."

Qigong Fever

Sleep-learning was a most common topic in the science fiction of this time. In a story entitled "The Sleepless Son-in-law," a stealthy-looking son-in-law who often shuts himself indoors and makes all kinds of noises in the middle of the night is subject to the secret investigation of his mother-in-law. She peeps into his room from the window and inadvertently finds his whole body covered in tangle of wires. A moment later, he starts his unusual midnight activities, beginning with physical exercises, then reading, and reciting newspapers. Pressed for an explanation for his bizarre behaviors, the son-in-law finally reveals that he is experimenting on an electronic *qigong* device with the power of healing diseases, dissipating fatigue and restoring physical strength. With the help of the device, people need little sleep and thus have more time for work and study.

The notion of an electronic *qigong* device is not a mere fabrication. By studying the mechanism of *qigong* and extrasensory powers, somatological scientists hoped to manufacture a device emitting the same sort of "information" as the purported healing effects of *qigong*. Through analyzing the waveforms of the *qi* sent out by qigong practitioners, scientists reproduced the infrared rays information that was believed to underlie the effects of *qi*. The device, called an "infrared ray information healing device," was reported to have been proved to have the same therapeutic effects of *qigong*.[9]

To Qian Xuesen and the somatological scientists, *qigong* provided a shortcut to uncover the informational mechanisms of the human body. In his paper delivered at the Second Conference on Extrasensory Powers, referring to the report that some children with extrasensory powers had the same healing power as *qigong* masters did, Qian celebrated *qigong* as an "advantage" possessed by Chinese researchers. This was because, as Qian explained, extrasensory powers were often unstable and thus posed great difficulties to researchers, whereas the same effects could be achieved by *qigong* practitioners so that they could provide reference cases and reliable statistics not easily accessible to foreign researchers.[10]

But "data" about *qigong* should not be taken as granted. Qian argued that unsystematic records and experiences from previous eras, which could be categorized as "pre-scientific (*qian kexue*)," should be transformed and reorganized into the framework of modern scientific systems. This was also his attitude towards traditional Chinese medicine,

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[9] He Chongyin et al., *"Zhongguo de qigong kexue yanjiu"* [The study of *qigong* science in China], *Chuangjian renti kexue*, 300-313.
[10] Qian Xuesen, *"Kaizhan renti kexue de jichu yanjiu."*

qigong and extrasensory powers. In his opinion, their holistic view of the human body in relation to its environment might be relevant to systems theory. Yet, in essence, traditional Chinese medicine was part of "the prescientific," and its language had to be modernized by way of the terminologies of modern sciences such as physiology, biology and systems theory. Another way to modernize traditional knowledge was to verify and quantify through laboratory instruments and devices. As the human body was now conceived as an advanced system of information processing, instruments such as electromagnetic wave detectors were employed to determine any changes as well as the amounts of information exchanged. Devices were often attached to the body of a tested subject in the course of conducting demonstrations of *qigong* or extrasensory powers. These procedures gave rise to the "the science of *qigong*."

The link between traditional Chinese medicine and *qigong* was not coincidental. According to David Palmer, as early as the 1950s *qigong* as the heritage of the traditional medicine was already integrated into the health and medical institutions of the PRC. This was partly due to "the lack of modern medical personnel and the low cost of traditional healing," but also because in the political climate of an anti-west, anti-bourgeoisie tide, Chinese medicine was promoted as part of "popular democratic culture." But since the 1960s, *qigong* had been condemned as superstition and a "rotten relic of feudalism." [11] When Qian Xuesen started advocating the *qigong* research in the early 80s, he would have to distinguish the scientific research of *qigong* from superstitious practices.

But how to explain by way of modern science the ancient notion of "*qi*" and its allegedly healing effects? Qian resorted to "information" for an explanation: *qi* was released from a certain part of the body, or an acupuncture meridian point, as designated by the consciousness of the *qigong* master. *Qi* was the conveyer of information. This information was received by another object or the body of another person, which in turn sent back information that could be detected only by the *qigong* master, who was equipped with special sensors. He concluded that *qi* might in fact another name for electromagnetic waves.[12] It should be noted that Qian's explanation actually adopted a cybernetic mode, placing the *qigong* master and the person under *qigong* therapy in a feedback loop. If the human body was regarded as a system of information, the effects of *qigong* resulted from information flows within and among different systems.

Yet the argument for *qi* as a wave-form was merely a hypothesis that had to be proved by empirical evidence and laboratory data. Qian thus proposed that the first step was to establish a "phenomenological study of *qigong*" (weixiang qigongxue), starting with collecting and classifying previous records of *qigong*, the accounts of *qigong* practitioners, and ancient theoretical works of *qigong*.[13]

On the other hand, myriad experiments and laboratory tests had been going on since late 1970s to determine the exact nature of *qi*. Infrared detectors were used to capture *qi*, or waves sent out by *qigong* masters; electrostatic fields around *qigong* masters were measured when they were in meditative state; the effects of *qi* on various bacteria were

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[11] David Palmer, *Qigong Fever: Body, Science and Utopia in China*, (New York: Columbia University Press, 2007), 29-45.
[12] Qian Xuesen, *"Kaizhan renti kexue de jichu yanjiu," Chuangjian renti kexue*, 41-57.
[13] Qian Xuesen, *"Jianli weixiang qigongxue"* [Establishing a phenomenological study of *qigong*], *Chuangjian renti kexue*, 246-255.

tested; the brainwave activities of *qigong* practitioners were recorded and analyzed by computers.[14] Similar tests were implemented on people with extrasensory powers: besides ears, hands, feet, and noses, even armpits were tested to determine their powers of image recognition; clairvoyance, telepathy, psychokinesis were all tested under lab conditions.[15] There were as many as thirty-eight laboratory reports published in *Ziran zazhi* in this field from September 1979 to November 1981. A lot of the researchers involved in these tests were from prestigious universities and institutes such as Tsinghua University, University of Science and Technology of China, and Beijing Normal University. The Scientific Study Group of *Qigong* at Tsinghua University had done a series of collaborative experiments with the legendary *qigong* master Yan Xin, after which major media in both PRC and Hong Kong published a jubilant announcement of their successful affirmation through experimental evidence of the medical effects of *qigong* as well as "the extrasensory power of the human body to remotely control and transform the physical and chemical substance of things even without physically touching the thing."[16]

The purported association between *qi* and information was soon adopted by *qigong* practitioners themselves as a powerful discourse to trumpet the magical healing effect of their *qi*. A legendary *qigong* therapist named Zhang Xiangyu was reported to be able to cure difficult diseases. It was said that a young man who suffered from chronic nephritis went to Zhang for help. Having noticed his suspicion toward traditional practices, Zhang required him to believe in the "science of *qigong*" before she could start healing him. By way of assurance, she sang out a "song of information." She claimed: "Usually *qigong* therapists send out *qi* to dispel diseases. If you are gifted with the power of vision (*yan'gong*), you could see white *qi* driving away black *qi*. When the black *qi* is gone, the disease is cured. But I use 'information language' instead to cure diseases. It works the same way…. People should not take medicine in the process, for medicine would conflict with the 'information' I send out to disperse the black *qi*." Preposterous as the story sounds, nonetheless, it was the discourse of information prevalent in the 1980s that transformed the word "information" into a mystical signifier.

Accusations of Pseudoscience

The fever for *qigong* and extrasensory powers was not uncontroversial. Yu Guangyuan, the vice-minister of the State Science Commission and director of the Institute for Marxist, Leninist and Mao Zedong thought, was the most influential voice countervailing against extrasensory powers research. Referring to the investigation of the Tang Yu case by Sichuan Medical School, as well as the evidence of Jiang Yan's cheating in a demonstration among other evidence, he charged that the demonstrations of extrasensory powers were "conjuring tricks." Comparing them to magic shows, he criticized the invisible manipulation of the audience and innocent children: "In a magic show, the attention-arresting magician actually plays a supporting role, whereas the

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[14] He Chongyin et al., "*Zhongguo de qigong kexue yanjiu*."
[15] Zhu Runlong and Zhu Yiyi, "*Zhongguo de renti teyi gongneng yanjiu*," *Chuangjian renti kexue*, 314-355.
[16] "*Zhongguo kexue yu wei kexue douzheng dashiji*" [A Chronicle of the Struggles between Science and Pseudoscience], accessed March 11, 2012, http://www.uua.cn/article/show-201-2.html.

leading role is actually taken backstage by one who secretly passes things to the magician…. Accordingly, it is reasonable to believe that in performances demonstrating those with 'extrasensory powers' are not the kids on stage but those backstage with furtive ways to send out 'information.'"[17] He accused their video recordings of showing merely their prowess at cutting and editing, and claimed that even the data provided in experiments could not be trusted, for "the more sensitive are the instruments, the more they are subject to external factors, to the extent that even people with no extrasensory powers could make the instruments display unusual figures."[18]

Since Qian Xuesen's championing of "a phenomenological study of *qigong*," his followers had been combing through ancient texts for evidence of the historical existence of *qigong* and extrasensory powers. Ancient sorcery, divination and medication were believed to be early examples of extrasensory powers. Yu Guangyuan, responding to these examples and the argument that the extrasensory powers receded with the development of human rationality, used them for his own argument: "the enthusiasts of 'ear reading' finally revealed a truth: extrasensory powers are nothing more than superstitions, just like divination and sorcery." The only difference was that extrasensory powers were, a new form of superstition "in the guise of science." He aligned these beliefs with the Western tradition of parapsychology and psychical research and provided a detailed history of how western parapsychology developed a scientific look. Listing the scientization strategies of parapsychology — including the invention of new terminologies and the collection of laboratory data — Yu was also skewering the "scientific guise" of extrasensory powers research in China.[19]

This contention over what scan or hould be counted as "science" problematized the boundaries of modern science. Since the twentieth century the pursuit of modern science had always involved a simultaneous attack on previous "premodern" and "prescientific" religion and beliefs. Wang Hui points out that the institutionalization of modern sciences and establishment of a scientific "worldview based on axiomatic principles" (*gongli shijie guan*) paved the way for the professional division of labor and a new knowledge classification system. The domain of scientific knowledge is separated and divided into knowledge of nature, knowledge of society, knowledge of morality, and knowledge of aesthetics. In this new knowledge system, the traditional worldview and its epistemology lost its status as a worldview, existing only as an element of the new knowledge education. The enlightenment of modern science was also a process of disenchantment with traditional "superstitions" and beliefs. However, as Wang Hui insightfully demonstrates, the crisis of this scientific worldview arises from the tension between its characteristic as a worldview and its claim to scientific methods, between its need for a narrative of totality to defend the legitimacy of the new system, and its positive methods that validate the

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[17] Yu Guanyuan, *"Ping liangnian duo lai 'erduo shizi' de xuanchuan"*[A review of the two-years' propaganda on 'ear-reading'], *Ping Suowei "renti teyi gongneng"* [Comments on the so-called extrasensory powers], (Shanghai: Shanghai zhishi chubanshe, 1986), 31-158.
[18] Yu Guangyuan, *"Dui liangnian duo 'erduo shizi' xuanchuan de zhexue pinglun"*[A philosophical reflection on the two-years' propaganda on 'ear-reading'], *Ping Suowei "renti teyi gongneng,"* 1-26.
[19] Yu Guangyuan, *"Ping liangnian duo lai 'erduo shizi' de xuanchuan," Ping Suowei "renti teyi gongneng."*

destruction of the old system and ideas but also challenge its own idea of totality.[20] In this sense, the contention between Qian and Yu over the legitimacy of the "science of extrasensory powers" inadvertently exposed how radically divergent "subjective" beliefs might undergird the boundary of the purportedly "objective" realm of modern sciences. The reenchantment with science, in this case manifested as the fetishism of "information," brought forth the inherent paradox between truth and the values of modern science.

Yu criticized the "science of extrasensory powers" for going against scientific materialism: whereas western parapsychologists never disguised their opposition to materialism, Chinese supporters of extrasensory powers claimed themselves to be materialists adhering to "facts" gained from scientific experiments. However, their blind belief in laboratory data, Yu argued, merely consigned them to the pitfalls of empiricism. Since Yu associated extrasensory powers with psychical research in the West, the most powerful challenge to extrasensory powers would be Friedrich Engels' critique of spiritualism. In his essay "Natural Science and the Spirit World," Engels criticized spiritualists like British naturalist Alfred R. Wallace for diverging from natural science into mysticism. Following Engels's critique of "some of the most sober empiricists" being misled into "the most barren of all superstition" by their "empirical contempt for dialectics," Yu suggested that scientists should study dialectical materialism. Once using their theoretical thinking, they would find extrasensory powers implausible. [21]

Yu's "theoretical thinking" was counterattacked by the supporters of extrasensory powers as a purely "logical deduction" without facts to support it. Positivist methods again were employed as the yardstick of "facts" and "truth" to negate and challenge existing beliefs. Yu's use of Marxist classics as the starting point for his critique of the "science of extrasensory powers" in this context was attacked as being not only unscientific, but also a "leftist superstition" that caused the disasters of the Mao era. Yu was accused of being an adamant conservative who believed the "two above all" (*liangge fanshi*) principle: "nothing is plausible beyond theoretical classics and nothing is plausible beyond so-called common sense."[22] This was exactly the same language the reformists camp of Deng Xiaoping used to criticize the conservatives in the party who clung to the "two above all" principle that "every decision by Chairman Mao we all support and every instruction of Chairman Mao we all follow." Such rhetoric made the debates about science and pseudoscience appear as debates between reformists and conservatives, the liberal and the orthodox.

Both sides had prominent scholars and scientists as well as high officials of the Party in support.[23] Finally in 1982, the Propaganda department of the Party Central Committee intervened and announced the policy of "no publicizing, no criticism, and no controversy," which in fact silenced the criticism of the extrasensory powers and allowed the paranormal

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[20] Wang Hui, "Scientific Worldview, Cultural Debates, and the Reclassification of Knowledge in Twentieth-century China," trans. Hongmei Yu, *Boundary 2* 35: 2 (2008): 125-155.

[21] Yu Guangyuan, "*Yao lingxue, haishi yao ziran bianzhengfa*" (Spiritualism, or Natural Dialectics?), in *Ping Suowei "renti teyi gongneng,"* 169-186.

[22] Yu Guanyuan, "*1981nian woguo kexue zhanxianshang de yijian zhongyao shiqing*" [A significant incident on the battlefield of science in 1981], *Ping Suowei "renti teyi gongneng,"* 258-266.

[23] David Palmer mentioned that Hu Yaobang, the later general secretary of the CCP was behind the initial campaign against extrasensory powers, whereas Zhao Ziyang, the later premier, encouraged the propaganda and research of the Tang Yu case. David Palmer, *Qigong Fever*, 71-72.

craze to go on. According to David Palmer, state-sponsored *qigong* associations mushroomed and numerous journals further stimulated the *qigong* fever, including *Qigong yu kexue* (Qigong and Science) by the Guangdong Qigong Science Research Society, *Zhonghua Qigong* (Chinese *Qigong*) by the All-China Qigong Scientific Research Society, *Renti teyi gongneng yanjiu zazhi* (Extrasensory Powers Research Journal) by the Shanghai municipal government, *Beidaihe Qigong* by Beidaihe Qigong Sanatorium, *Dongfang Qigong* (Oriental Science *Qigong*) by Beijing Qigong Research Society, among others.[24]

Omnipotent Waves

As the association between waves and "*qi*" consolidated, devices with magical powers increasingly appeared as a feature of Chinese science fiction. A story entitled "A Snow Girl" is about a "*qigong* hat" equipped with an electronic device that sends out invisible rays of *qi*-like power. The hat successfully cures a former skiing champion who is paralyzed due to a cerebral concussion. "H-N-Y" is a similar story about a magical hat that enables its wearer to forego sleep entirely.

Waves were imagined not only to possess healing effects, but also as a means of immediate communication. In a story called "SJ-1"— the initials serving as an abbreviation for "thought" (*sixiang*) and "computer" (*jisuanji*) in Chinese —people wear a specially-made helmet that can immediately encode their brainwaves and in this way they may "talk" to each other in real time regardless of the distance between them. But they do not even have to open their mouths, because their "thought messaging" (*siwei tongxun*) does not need to be voiced to travel across space. This means of "feeling" each other's thoughts was not so different from telepathy, of course, except that in this case "modern" telepathy is facilitated by a high-tech gadget. The fruits of neurology in the West, moreover, were closely followed and reported in the press. For example, it was reported that scientists at the University of Missouri had successfully translated some portion of the bandwidth of the brainwaves into words. The news excited brain scientists, but also caused concern about privacy and information security.[25] We will see later in this chapter how these concerns are addressed in some of the espionage-plot science-fiction stories from this period. Yet the elements of secret-decoding and information-prying typical of the espionage genre can be found in the first instance in these scientific narratives in which brainwaves were seen as the source of information to be tapped.

Brainwaves were also expected to "talk" with other waveforms so that human beings would be able to move and control objects directly through their brainwaves. One report begins by announcing that the dream of controlling spaceships directly by one's mind as depicted in Isaac Asimov's science fiction classic *Foundation* series, had already come true. It goes on to recount how scientists in the United States had recently developed brainwave-controlled computers: "All you need to do is to fix your eyes at a beam of flickering light, and then your brainwaves will be read and the computer will do whatever

[24] David Palmer, *Qigong Fever*, 75.
[25] "*Naobo de mimi* [The Mystery of Brainwaves]," in *Zhishi Wanxiang* [Miscellaneous Know-how], ed. Han Zhenfeng, (Hefei: Huangshan shushe, 1988), 209.

you intend."[26] A similar fascination with psychokinetic power in the concurrent craze for *qigong* and extrasensory powers could be seen as intimately related to this fantasy of brainwaves, only that on some occasions "will and ideas (yi'nian)" were substituted for "brainwaves." One author composed an eulogy for the invisible power of "will and ideas:" "The power that human beings gains by exerting his/her own ideas and will on laser beams is called the eigen state of the human body…. Imagine that people could use this power to fetch and deliver goods across distances of hundreds and thousands of miles, or even travel to other planets."[27] Yu Guangyuan dismissed this as superstition and idealist nonsense that went against the basics of scientific materialism. But given the scientific prospect of remote control by brainwaves, the thin line between science and pseudoscience, reality and fantasy became ambiguous.

One reason that waves captured the popular imagination was probably the excitement generated by the increasing accessibility of radio and TV sets since the end of the Cultural Revolution. By the end of the Cultural Revolution, there were only 32 TV stations and broadcasting time was limited. TV sets were still luxuries. There were 3 million TV sets across the country in 1978. But by 1986, the number of TV sets had increased to 92 million.[28] Starting from 1983, local, including municipal and county level, TV stations were allowed by the central government. With this new policy, the number of TV stations surged to 202 by 1985, covering 68.4% of the whole population. At the same time, wireless radio stations increased from 106 in 1980 to 213 in 1985, and the rate of radio set ownership doubled to 241 million. Interestingly, wired radio broadcasting, which was dominant in the Mao era, decreased beginning in the early 1980s. The lines dedicated to wired broadcasting dropped from 5, 317, 811 pole km to 3,042,231 pole km.[29] The increasing coverage of wireless radio and TV broadcasting became new channels of information dissemination, promptly transforming the cultural landscape of post-Mao China, and generating new speculation and enthusiasm about the future of wireless media communication. High-frequency electromagnetic waves, because they usually cannot be detected directly by human sensory organs, conveniently became the imagined medium of information flows for explaining *qigong* and extrasensory powers.

Unsurprisingly, the fantasy of instant information transmission is closely tied to productivity. A story entitled "The Secrets of 'Inspiration'" starts with a journalist's investigation into the secret of a prolific writer who produces 50,000 words everyday. The secret turns out to be a pair of "headphones" able to detect the brainwave activity of the wearer, which can be translated into words by a computer directly connected to the headphones. Both the journalist and the writer are ecstatic as they calculate the efficiency of the instrument: "With this instrument, 50,000 to 70,000 words can be produced in less than ten hours!"

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[26] *Diannao shi shehui gaiguan* [Computers transform the society], ed. Lin Shengtong, (Nanjing: Jiangsu kexue jishu chubanshe, 1985), 70-172.
[27] Quoted by Yu Guangyuan in "Ping liangnian duo lai 'erduo shizi' de xuanchuan," 154.
[28] *Zhongguo guangbo dianshi tongshi* [A General History of TV and Broadcast in China], ed. Zhao Yuming, (Beijing: Zhongguo chuanmei daxue chubanshe, 2006), 580-583.
[29] *Zhongguo guangbo dianshi nianjian: 1986* [The 1986 China TV and Broadcast Yearbook], (Beijing: Zhongguo guangbo dianshi chubanshe, 1986), 857-859.

This story also provides a glimpse into the conditions of publication in 1980s China: the proliferation of both professional and popular journals, and the quantitative calculation of words to determine an author's remuneration for each piece she contributed. Before I move to the specifics of the stories, I should add a few words about the publication of science fiction in the late 1970s and early 80s. The flourishing of the science fiction genre in the 1980s might be seen as an immediate response to the eminence of science and technology in both the official and popular discourses. It also happened simultaneously with the proliferation of new print publications in the years following the end of the Cultural Revolution. In 1976 there were 542 periodicals issued in China, but by 1979 the number had soared to 1470, an almost threefold increase. In the five years from 1976 to 1981, about 600 science fiction novels and stories appeared as books or in magazines.[30] The journal *Kexue wenyi* (Scientific Literature) founded in 1978 became a most important venue for Chinese science fiction. Other science fiction journals that mushroomed in this period included *Zhihui shu* (Wisdom Tree), *Kehuan haiyang* (Seas of Science Fiction), *Shijie kehuan yicong* (Translations of World Science Fiction), *Kehuan shijie* (World of Science Fiction) and others. Besides these science fiction journals, mainstream literary journals also showed a strong interest in science fiction. For example, Tong Enzheng's story "The Death Ray from the Coral Island" (*Shanhudao de siguang*) was published in the prestigious journal *Renmin wenxue* (People's Literature). Some stories discussed in this chapter also appeared in mainstream literary journals: "A Lost Dream"(*Shiqu demeng*) by Wei Yahua in the Ha'erbin based journal *Xiaoshuo Lin* (Forests of Stories), and "Destiny Club" (*Mingyun yezonghui*) by Zheng Wenguang in the Shanghai based journal *Xiaoshuo jie* (The Realm of Fiction). This phenomenon evinces the indispensable role of new scientific and technological imaginaries in the cultural fever of the 1980s.

In the rest of this chapter, I will read in detail several representative science fiction stories to tease out the conflictual social forces and sentiments surrounding scientific discourses in the popular imaginations of this time. The fad for information and the crazes for extrasensory powers and *qigong* were intertwined with the emergent discourse of an information society and a knowledge-based economy, as evidenced in the wide popularity of Alvin Toffler and Daniel Bell among both Chinese officials and intellectuals. The stories I examine here take as their central subject and structural principle the presence of omnipotent waves of information. It should be noted that the nature of these waves is usually left ambiguous and mysterious. The general term "waves" (*bo*) is used to designate, and also infuse with mystery, both factual and imagined forms of waves. Waves emerge as a universal medium connecting human beings and devices, cerebral activity and information circulation, promising overnight effects on human beings. Intangible waves are often rendered visible to readers by the narrative expediency of transferring their power and efficacy to a mysterious black box or a magical pill. The black box becomes a fetish object, rousing curiosity, promising miracles, but also causing fear and awe. As we shall see, the science fiction of this time became a field of tension, not only reflecting scientific interest and discourses, but also registering a radical redefinition of knowledge and knowledge production in post-Mao China, anticipating the tension between

[30] Jiang Qian, *Huanxiang yu xianshi: Ershi shiji kehuanxiaoshuo zai zhongguo de yijie* [Fantasy and reality: the translation and introduction of science fiction in China], (Shanghai: Fudan daxue chubanshe, 2010), 93-94.

technological empowerment and technocratic control, restaging the dynamics across an imagined "global" and "local," and between disembodied information and the irreducible corporality.

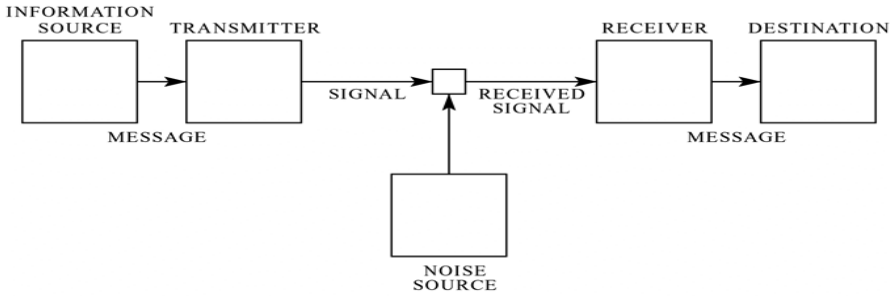
Instantly Transmitted, But Redundant?

"A Lost Dream" (*Diushi de meng*), a story published in 1983, adumbrates anxieties about rationalization and the demand for efficiency that lay behind the information craze and the discourse of knowledge economy. It begins from the perspective of the I-narrator, a cognitive scientist, Doctor Di Fang, who has invented a mysterious medical pill that distills a wide range of human knowledge. He reaches out to a country girl who had intended to commit suicide because of her failure to pass the entrance exams to college. The severe reality of a social hierarchy based on knowledge is already visible from the girl's polarized view of her future, as she writes in her diary how the college entrance exam can determine her future fate: "There are two signposts at this crossroads: one leads to the future of a high-level intellectual, the other to that of a common laborer; one to the titles of assistant engineer, engineer, chief engineer, expert and professor, the other to an [unemployed] "job-awaiting youth"…." Her strong wish to overcome her humble origins by way of higher education, the dread of being a common laborer like her father and the aspiration of being a respected intellectual are palpable in her diary. It is not hard to see that this scene of competition for resources is a microscopic version of what Alvin Toffler described as the global competition among national powers. If Toffler offers information as the magical engine for China to skip the stage of industrialization and to catch up with the developed countries, Dr. Di offers the hopeless country girl the magical pill of knowledge.

Half poking fun at the routine narrative gesture of scientific explanations in the so-called "hard-core science fiction" — a practice with a pretense to accuracy of technological detail that is closely tied to the service of official efforts to popularize science — Wei runs through a long-winded lecture by Dr. Di about how the pill works: "To acquire knowledge is a process in which the owner of knowledge, that is the teacher, transforms the thoughts in his brain — and note that thoughts in human brain are a bioelectric phenomenon—into linguistic signals. The signals, having reached the ears of a student in the form of sound waves, are converted back into bioelectric signals, and stimulate the cerebral neurons of the student…. This process of learning is quite similar to the way a computer works. The brain engages in coding and self-correction in accordance with constant inputs. What I have done is to replace the commonly seen vehicles of communication such as writing with a medical pill."[31]

[31] Science fiction in China has long been associated with "science popularization" (*kepu*), and seen as a tool to disseminate scientific knowledge among the masses. In fact, a debate occurred in mid-1980s about whether science fiction should be regarded as an artistic form as other literary genres are, or should be regarded as a tool of science population. For more details about the debate, see Xiao Jianheng, "*Shitan woguo kexue huanxiang xiaoshuo de fazhan: jianlun woguo kexue huanxiang xiaoshuo de yixie zhenglun*"[The development of science fantasy in our country, and some comments on the debates about science fantasy], *Lun Kexue huanxiang xiaoshuo* [On science fantasy], ed. Huang Yi, (Beijing: kexue puji chuban she, 1981), 8-47. Xiao uses the term "science fantasy"

Clearly, Dr. Di gives a "scientific" explanation of the process of knowledge acquisition by adopting Claude Shannon's diagram of a communication system. The process entails signal transfer and transmission between the transmitter and the receiver. The social specificity of knowledge acquisition disappears from this generalized notion of communication. An abstract yet universally intelligible signal or information now circulates freely between the disembodied transmitter and receiver, their social and corporeal existence at best irrelevant, or simply annulled. Sender and receiver become no different from machines that register signal input and output.



From Shannon's "A Mathematical Theory of Communication"[32]

The girl, now fluent in French, English, Russian and German, erudite in mathematics, physics and biology, leaves her creator, and confidently walks out of the ward of Di's hospital. A few years later, Di goes to Suzhou for vacation, and is intrigued by all sorts of legendary tales about a "Tofu Sister." He goes to her Tofu stand, and finds a girl with "clouds of black hair covered exquisitely by a piece of white and blue homespun cloth, and a silver hairpin in her bun." "In a traditional-style, blue blouse made of homespun cloth, wearing an apron of printed cotton around her waist, and a pair of round-toed, embroidered cloth shoes," the dark-skinned, handsome "Tofu Sister" is busy attending her customers, at times joyfully flirting with young lads. He is shocked when he realizes that this country girl is the perfect, intelligent creature he has created and with whom he had talked about the most complicated and abstruse scientific theories years ago. Not even an English word could she recall now. As if to mock the redundancy of knowledge in her present situation, she questions him: "what's the use of theories of relativity and probability, quantum mechanics, or Riemannian geometry for a Tofu-making woman? They are no more useful to her than pickled mustard root, dried shrimps, sesame oil, or fish sauce, are they?"

Di may feel sorry for the wasted talent of the girl. However, he is also deeply touched and intrigued by the simplicity and happiness of these country people. As he savors the

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(*kexue huanxiang xiaoshuo*) to distinguish the works of many 1980s science fiction writers, including his, from the early mode of science popularization.

[32] C.E. Shannon, "A Mathematical Theory of Communication," reprinted with corrections from *The Bell System Technical Journal* Vol. 27, July, October (1948): 379-423, 623-656. Accessed April 21th, 2012, http://cm.bell-labs.com/cm/ms/what/shannonday/shannon1948.pdf.

Tofu soup and the scent of sesame oil, and appreciates the dance-like, skillful movement of the Tofu Sister, he also observes with interest the intimacy among these ordinary people. He cannot help questioning his own view of life: "I simplified the complexity of the society and human life into merely a few technical parameters, as if they were merely scientific research in the lab, and hoped to apply the lab results to this world of variety. How mistaken I was!" The Tofu Sister's comments on the redundancy of quantum mechanics and other "high" theories to her life can be read as a sharp criticism on the alien nature of "high" knowledge per se: "high" theories are only for "high" talk in labs. This also poses the question: what is legitimately to be included in the realm of "knowledge"? Can Tofu Sister's tofu-making skills be counted as knowledge? Instead of seeking her own worth in "high" knowledge, she values more her bond to her country people: "Now whenever I walk across this Suzhou region, my brothers and sisters, uncles and aunts are all around. They are all my family. People like the Tofu Sister, and I like them too. Isn't it good?"

The discovery of this other world flips the initial premises of the story. The story thus splits between two worlds, or two world views: one is a world of high technology and science, in which knowledge serves the global competition of powers as well as individual competition for social privilege; the other is the simple world of the countryside, full of the vitality and warmth of common people. In the end, we may come back to the title and ask: If there is a lost dream, whose lost dream is it? It could be the girl's dream of going to university and becoming a scientist, or Di's dream of creating a perfect, intelligent human being. Yet, could it also be Di's dream of the country, his nostalgia for a world to which he is now alien? The narrative structure of the story is ambiguous in this respect. It begins with the narrator's lament for a lost dream, and ends with a beautiful, lively scene of the country life: "On the river a skiff is drifting along with the silvery ripples. A stout man with thick, black eyebrows and a gallant, full beard is standing at the prow of the boat…. The wind of evening lifts up his white short gown, exposing his sturdy, browned upper body…"

Corporality, banished by the reductive and ethereal communication mode of Dr. Di, returns in this passage as an almost spectacular, masculine body. The highlight on the physicality of this body disrupts the world constituted of signals and codes. Excessive corporality thus becomes a tangible site of resistance to the rationalization and abstraction implied in Shannon's mode of effective communication.

Figure 2. An illustration from "*Diushi de meng*" in *Xiaoshuo Lin*[33]

It should also be noted that the descriptions of the countryside in this story is highly codified. Tofu Sister's country style attire, her hair style and decorations, all become symbols of an authentic folk culture. This is all the more obvious in the two portraits of Tofu Sister that appeared along with the story in the journal *Xiaoshuolin*. The style of the girl's attire in the portraits would certainly strike a reader of the 1980s as an exotic resurrection of traditional attire. The flirtation scene that appears twice in the story as well as the boatman with bared muscles in the end, also constitute an exotic scene of folk life of vitality, which somehow reminds us of Shen Congwen's writing in the 1930s about the culture of the ethnic minorities in western Hunan. It might not be a coincidence that Shen's story "*Biancheng*" (Frontier City) was republished in the literary journal *Shouhuo* (Harvest) in 1982. His disciple Wang Zengqi also began to publish at this time his series of stories set in the countryside of southeastern China, and won increasing critical attention for his distinctive portraits of folk life. Wang is often regarded as the forerunner of the "Roots-seeking literature" that rose to the horizon by the mid-1980s. As Han Shaogong, the flag bearer of "Roots-seeking literature," claimed, " 'Roots-seeking' writers found in themselves strong desire to discover the uninterrupted traditions of folk life.[34] However, as is shown in "A Lost Dream," neither this exotic country life nor the roots found in distant areas should be regarded as unmediated, "authentic" folk culture. Instead, these highly codified symbols should be read side by side with anxieties over the radical

[33] "*Diushi de meng*," *Xiaoshuo lin* 3(1983), 40.
[34] Han Shaogong, "*Wenxue de 'gen'* (The Roots of Literature)," *Zuojia Zazhi* (4)1985, 2-69.

historical changes taking place as China was reintegrated into the global system beginning in the late 1970s.

With China's opening and "return" to "the world," there was no passport to global citizenship for intellectuals like Dr. Di than the "universal" language of science. In his lab, as he listens with tears in eyes to the girl he created speaking fluent English, German, French and Russian, the thrill of overcoming cultural boundaries through science and technology reach such a dramatic pitch that the overjoyed Dr. Di almost faints. However, such a global subject, unconfined by geographical and cultural boundaries, as represented by the multilingual girl is soon dispersed and converted into a country girl embedded within the confines of her local community. The knowledge transplanted neurally through the agency of the magical pill is posited as the opposite to the folk tradition discovered at the end of the story, and the rootless Riemannian geometry as alien to the tradition passed down through collective memories. Thus by juxtaposing the two worlds together, one of the global competition in the emergent economy of knowledge, one of imagined "native" traditions and memories, the story splits between expectations and anxieties, aspirations and nostalgia, confronting an historical shift in process.

Erotic Analogies

There is another aspect that should not be neglected in this Pygmalion story: the power relations between genders in the process of knowledge transmission. When Dr. Di watches closely on a 24-inch monitor the brainwave activity of the girl after she takes the pills, the graphs on the screen are described in vivid detail:

> Several waves are swirling in torrents, accompanied by flashing flames and sparkling spots, as if they were fireworks of festivals, or flying bullets in the battlefield…. Gradually, the confusing, overlapping waves are replaced by continuous, beautiful sine waves of symmetry and harmony. As if a symphony of grandeur were rushing towards me, I am intoxicated with the lively, green waves…. I know, her brain is a land in drought now, hungrily devouring torrents of information. It is absorbing, filtering, categorizing, and storing. She is undergoing the most dramatic transformation ever in her life; her millions of neurons are experiencing unprecedented stimulation. Every one of her nerve endings is trembling with bioelectric currents.

Readers may feel overwhelmed by the rushing torrents of language in this paragraph. The affective power of this passage comes from the sense of technological sublimity in unpacking the "black box" of the human brain, and rendering its activity readable and manageable. It should be noted how heavily this visualization of brainwave activity relies on metaphors: torrents, fireworks, flashing flames, even sparkling spots—as if they were astronomical phenomenon. Yet these images are not what Di "sees" on the screen but his imagination in an "intoxicated" state of hallucination. The metaphors, in fact, lead readers into his mind, and allow us to "see" his brain activities through the images. According to Di's theory, we readers are now, through the torrents of linguistic signifiers, synching our brainwaves with those of Di, as if waves themselves are contagious. If the brainwaves can

be manipulated through the external waves of signals, the language of this passage mimics, or even becomes, manipulative waves that reach out to us, the readers.

It is worth asking how those entirely different categories of things, from astronomical phenomena to land in drought, from bullets to a symphony, all are bound together through a series of metaphors. They bridge the interior of the brain and the exterior phenomenon, as if there are correspondent structures between the framework of human brains and other things in the world. Even the "beautiful sine waves of symmetry and harmony" are ambiguous: they can be the graphs on the screen that signify the otherwise invisible brainwaves of the girl, or visualize the intoxicating symphony that Dr. Di hears. In other words, the interior and the exterior, the abstract graphs and the life activities are all analogous to each other so as to make their boundaries and differences irrelevant. Perhaps the effect of sublimity we detect from the passage also comes from the power of this universal analogy that presumably underlies everything. The analogies, breaking the boundaries of individuals and bodies, evoke implicitly erotic fantasies.[35] Ironically, this affective, boundary-breaking moment in the story is also a hypermediated moment of technological "cool," for the girl's corporeal existence is completely replaced by the graphs on the monitor.

The eroticism of analogies is what Katherine Hayles finds part and parcel of Norbert Weiner's cybernetic narratives. She points out that analogy is the corner stone of Weiner's theory, in the sense that "(a)nalogy is not merely an ornament of language but is a powerful conceptual mode that constitutes meaning through relation." In a manuscript fragment titled "The Nature of Analogy," Weiner explicitly elucidated the central role of analogy in broad fields ranging from science, mathematics to language and perception. In Weiner's formula, analogy is "constituted as a universal exchange system that allows data to move across boundaries." Hayles therefore concludes that "cybernetics as a discipline could not have been created without analogy." Meantime, Hayles notices that in Weiner's work "boundary formation and analogical linking collaborate to create a discursive field in which animals, humans, and machines can be treated as equivalent cybernetic systems." Analogy constitutes similarity across boundaries but also reconsolidates boundaries, and "(w)ithout boundaries, the links created by analogy would cease to have revolutionary impact." Weiner, as Hayles observes, on the one hand takes pleasure in seeing the flow of information penetrate boundaries, and on the other hand feels anxieties about the destruction of an autonomous self. Reading erotic metaphors in Weiner's cybernetic narratives, Hayles sees this tension as the erotic fantasy and anxiety of an American male about controlling the flow of information as well as desire, as seen in the "deferred intimacy between men in a society that is homophobic, racist and misogynist." The relation of control and subordination implicit in the erotic metaphors is, as Hayles reads, best demonstrated in Weiner's repeated account of an American male and his savage companion alone in the woods.[36]

Weiner is not the only one who acknowledges analogical thinking as the cornerstone of cybernetics. The fascination with "noetic science" also attracted the attention of Chinese scientists to analogy. In a thesis entitled "On Analogy," Zhang Guangjian, a student of Qian Xuesen, proposed the notion of the "analogical chunk" (*xiangsi kuai*) to refer to the

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[35] I am grateful to Paola Iovene's insight about the eroticism implicit in this passage.
[36] N. Katherine Hayles, *How We Became Posthuman*, 91-112.

way in which knowledge is stored in human brains: "The analogical chunks stored in human brains are not static. They not only interact with the informational input through sensory organs but also interact and interconnect with other analogical chunks, just like the interference and coherence of waves in a spectrum analyzer. The interactions between analogical chunks will finally bring forth a new analogical chunk."[37] Zhang argued for the universality of analogical chunks, to the extent that even the most commonly seen rhetorical figures such as metaphors and similes are based on analogical chunks.

The eroticism of the analogies in the above cited passage, with its technological sublimity and erotic effects of boundary-crossing, conceal the dominance of male intellectuals in controlling the flows of information. This is not a new story in the enlightenment history written mainly by male Chinese intellectuals. Mao Dun's 1930 story "Creation" is a similar Pygmalion story about a May-Fourth male intellectual who creates an ideal new woman for himself. In fact, Wei Yahua also wrote a story about a wife "created" by her husband, only that this time the wife is a robot.[38] Wei Yahua, with his thought-provoking science fiction writing, brought up the central problematic of the information discourse: is information transmission neutral, or are the flows of information always accompanied by power relations of control and subordination?

Inside Out

The paradox between empowerment and control within this information discourse is also implicit in "A Tacit Pair" (*Lingxi*), a story by Zheng Wenguang. It tells of twin sisters, Qu Guizhi and Qu Guiye, who are born with telepathic powers. Guizhi, when traveling to Hong Kong, is kidnapped by spies who hope to make use of her telepathic power to access classified information through her sister Guiye, as Guiye is working at the space center in the United States. Telepathy was, as we have seen in the concurrent craze of extrasensory powers, fantasized as a means of immediate communication to overcome distance. The story, through the twin sisters' telepathic communication, bridges the thousands of miles between Hong Kong and Houston, alternating between what each of the twins "feels" is going on at the other side. The free yet perilous circulation of information between the sisters, as well as the efforts of the spies to extract information from Guizhi and her brainwaves, overshadows the optimistic vision of telepathy, signaling that information flow and control have always been part of global politics and competition among the powers.

Despite the promise of accessing information through telepathic communication, the story is narrated from the limited perspectives of the twins. Neither Guizhi nor Guiye has any idea about the plot of the spies or the way the American military manages to get Guizhi out of the hands of the spies. The sisters are confined in observation rooms, either by the spies, or by CIA. Mostly, they are intentionally kept in a state of drowsiness by their warders. Circumscribed by their limited perspectives, the story appears as an elliptical narrative that leaves out key information about how the American side tracks

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[37] Zhang Guangjian, "*Xiangsi lun*" (On analogy), in *Siwei kexue tansuo* [Explorations on noetic science], (Taiyuan: Shangxisheng siweikexue xuehui, 1985), 45-79.

[38] This story is called "*Wenrou zhixiang de meng*" [Conjugal happiness in the arms of Morpheus], *Xiaoshuo yuebao* 3 (1981): 25-34. Paola Iovene in her book project *Tales of Futures Past: Literature and Anticipation in Contemporary China* provides an interesting reading of the story.

down the spies, which is supposed to be the main focus of a spy story. Instead, the readers are only told what has happened through the words of the head of security office to Guiye after the whole affair is already finished: "No, you surely have no idea about this. We have a specially trained force, which is everywhere around the globe to protect the interests of the United States." Refraining from telling Guiye more than that, he creates more mystery about the information system of the United States rather than providing any sort of explanation.

Compared to the invincible power of this invisible information system, the information detectors of the sisters — their brains — are "so vulnerable that it is as if the substance of their brains were exposed to the air." Their very "extrasensory power" turns into their vulnerability to manipulation by external forces. The sisters are "minor pieces" subject to the strategies of the powers in their competition for information. The power of telepathic communication, and the dream of immediate information transmission, in this case, becomes mere fantasy.

This tension between information circulation and control complicates the use of free indirect speech in this story.[39] The appearance of free indirect speech in Chinese literature of the late 1970s and 1980s is often associated with the resurgence of a modernism that explores the interiority of characters. Free indirect speech in Wang Meng's series of stories such as "*Chun zhi ɹheng*" (The Message of the Spring) and "*Ye ∂e yan*" (The Eyes of the Night) was regarded as a renewal of the technique of stream-of-consciousness in Chinese literature and generated heated discussions about modernism. An autonomous interiority constituted by free indirect speech was believed to signal the rediscovery of individuals in the humanistic climate of the post-Mao period. For example, Wang Meng justified his own experiments by relating psychological interiority to the dignity of human beings: "Lin Biao and the 'Gang of Four' ruthlessly denied the dignity and value of human beings, forbidding any psychological descriptions, depriving people of any feelings, imaginations or longings. People were made coarse, dumb and apathetic. Given this situation, it is the task of our literature to display the sentiments and the spiritual world of the human beings."[40]

While Wang Meng's argument affirms the effect of free indirect speech in creating an intimate zone for readers to "inwardly experience" the feelings and thoughts of the characters, it should be noted that this intimate experience of interiority is at the same time mediated by a third-person narrator. Dorrit Cohn recognizes the flexibility of free indirect speech, through the junction between narrated monologues and their narrative context, to weave in and out of the character's mind without perceptible transitions. The narrated

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[39] For discussions about free indirect speech, see Roy Pascal, *The Dual Voice: Free Indirect Speech and Its Functioning in the Nineteenth-century European Novel*, (Manchester: Manchester University Press, 1977). Dorrit Cohn prefers to use the term "narrated monologue." See Dorrit Cohn, *Transparent Minds: Narrative Modes for Presenting Consciousness in Fiction*, (Princeton: Princeton University Press, 1978). Cohen succinctly defines it as "the technique for rendering a character's thought in his own idiom while maintaining the third-person reference and the basic tense of narration."(100) Lydia Liu talks about David Hawkes' use of free indirect style in his translation of *The Story of The Stone,* as well as Lao She's translingual practices of free indirect style in his novels. See Lydia Liu, *Translingual Practice: Literature, National Culture, and Translated Modernity-China, 1900-1937*, (Stanford: Stanford University Press, 1995).

[40] Wang Meng, "*Guanyu 'yiɹhiliu' ∂e tongxin*" [Correspondences about the "Stream of Consciousness"], in *Wang Meng Wencun*, (Beijing: Renmin wenxue chubanshe, 2003), 183-187.

monologue is thus suspended between the immediacy of quotation and the mediacy of narration.[41] The delineation of the inner and outer is more complicated in "A Tacit Pair," for the content of free indirect speech is both Guizhi's flow of thoughts and her telepathic communication with her sister Guiye. When Guiye "calls" and asks Guizhi to recall how she was kidnapped by the spies, Guiye's thoughts are directly passed to her sister thousands of miles away:

> She has to think carefully. The memories are fragmentary. She remembers only the forests of skyscrapers. Yes, Bank of China, that she recognized; Wan Chai, that she remembers too. After that, the car drove uphill along the winding road, past a green house… This process of recall is slow and painful. She feels the anxieties of her sister being transmitted to her mind. She could also see in her mind the gloomy face of the American standing beside her sister now. Um, yes, they need to know every detail before they come to rescue her — of course, not because of their knightly courtesy, but for their own interests, in the purpose of protecting the secrets of their space center.

This communication between the sisters is in no way private. The presence of the American with a "gloomy face" indicates that their telepathic conversations are under the seamless surveillance of the global power of the United States. Not only that, the spies are also "overseeing" her thoughts through brainwave detectors. To prevent information leaking, her sister, under the instruction of the gloomy-faced American, tells her to stop thinking, and her mind immediately becomes blank, *"as if it were a television suddenly turned off."* The metaphor of TV broadcasting for the process of thinking is suggestive of the ways in which the invisible waves of wireless broadcasting, an increasingly preeminent phenomenon with the expanding TV and wireless radio network, had seeped into the human unconscious, reconfiguring the interiority of human subjects. The free indirect speech in this story does not constitute the autonomous interiority of the characters but instead brings the inside out. There are constant anxieties about thoughts being overheard and overseen. Even the spontaneity of thinking is interfered with by external forces. In this sense, free indirect speech, which seamlessly bridges an invisible third-person narrator and the flow of thoughts of the characters, puts into question the very possibility of an autonomous interiority. The invisible narrator, who has direct access to the character's thoughts and mediates the way the interiority is presented, parallels the presence of invisible powers that directly interfere information flow between the telepathic minds. The telepathic minds become transparent minds to those who monitor them. This is why the representation of gender relationships also matters in this story. The way the story is presented from the perspective of the naive and innocent sisters differentiates itself from many other "hard" science fiction stories that incorporate into themselves a heavy dose of scientific and technological terminology. The intonation of "their" thoughts, the frequent use of interjections that are supposed to "mimic" the idiom of the sisters, in effect, infantilize the sisters: they need the protection of male adults. At the end of the story, the sisters, after being rescued, are recruited by the American security department to take part

[41] Cohn, *Transparent Minds*, 103-106.

in an experiment in communication in outer space: what would be better and less expensive as a communication device than the sisters with their telepathic powers?

Wireless Control of Your Brain

It should be noted that "A Tacit Pair" is framed as a spy story centered around contention over secret information. In fact, many science fiction stories of this time are cross-fertilized with detective and spy genre, such as Ye Yonglie's popular series with a detective protagonist named Jin Ming. Uncovering and defending secrets are two inseparable sides of information control. Detective and spy genres provide an ideal form for the narrative crystallization of anxieties over the flow and security of information.

These anxieties about control and manipulation, for Chinese intellectuals in the 1980s, are reflected back into their still fresh memories of the Cultural Revolution. "Destiny Club"(*Mingyun yezonghui*) by Zheng Wenguang tells the story of Di Dingyuan, a once sent-down party cadre, on his first visit to his wife's hometown the City H— referring to Hong Kong— and his unexpected adventures in the alien city. Di, bored with his idle vacation in the luxurious mansion of his father-in-law, becomes intrigued with a series of bizarre suicide cases outside of a club called "Destiny Club." Curious about what happened, he visits the club with his brothers-in-law, only to find himself slipping into a hypnotic state. Outside the club, he almost gets himself killed by a running car. As if waking up from a dream, he can hardly recall anything in the club, except that he was listening to a singer called Lin, whose accent Di detects to be that of northeastern China, the place that happens to be where Di was sent-down during the Cultural Revolution.

After several attempts at investigation, Di finds out that the boss of Destiny Club is Xu, his previous supervisor in the sent-down years, a former power-holder. Xu, now a merchant in the City H, shows off to Di an ultrasonic device, the "devil" that has caused all the accidents outside the club. He explains how the ultrasonic waves emitted by the device work on the people in his club:

> The human brain is a sensitive and fragile machine. The mechanism of the brain activity relies on bioelectric currents (*nao shengwu dianliu*), the frequency of which varies individually. If the frequency of the ultrasonic device and that of a person's brainwaves happen to constitute a certain functional relationship of mathematics, the possible resonance of the two waves may magnify the intensity of bioelectric currents in the human brain, and cause stimulations too strong for the nerve system of a man to bear.

To make things even worse, the device cannot detect the frequency of bioelectricity of human brains, so that it is totally random who will be its next victim. It is this randomness that Xu develops as his own philosophy, which also gives the club the name. However, it is not the first time that the device shows its power. Xu has ruthlessly tried it on the sent-down cadres before. An elder cadre was driven crazy by the merciless waves of the device and committed suicide. To Xu, this game of randomness speaks precisely to the uncontrollable destiny of individuals engulfed by the chaotic and unpredictable forces of history: "Our life is just as inconstant as flowers in the mirror, the moon in the water. Look

at history: from the first emperor Qin, who established his name by uniting the country, to Genghis Khan, who swept across the Eurasian continent, as well as to the recent General Lin (note: Lin Biao) once 'blessed' with 'eternal health,' and the pompous Madam Mao, all of whom have vanished into ashes. The only eternal thing is destiny…. Who is able to take control of his own fate?"

This adds a twist to the detective story. The story alternates between the consumer culture in the city H and the memories of the distant northern land, as if the misty adventures of nightlife in the city H are also a journey through misty memories and a probe into the mystery of history. In fact, the melancholy and nostalgic songs of the club singer strike Di as uncannily familiar, throwing him immediately back to his sent-down years. He detects the "exceptional clanging sound of bronzes and stones" wrapped in the "dreamy, mellifluous, even sentimental melody," and feels that in the songs "there is something familiar, so familiar as to be heartrending." The lyrics that capture him go like this: "Oh, the glorious dreams, the swift wind/ Once I sent my dreams along to the spirits/ Accompanying them to the Mt. Kunlun and the East Sea/My dream crashes into pieces under the wheel of history / Into smoke, into dust and shadows, gone with the wind…." Di soon learns that the songs are written by none other than Xu, who served as a music propaganda official during the Cultural Revolution. The mixed memories of dreams, disillusionment and exile, are now wrapped in the "dreamy and sentimental" melody, alien but also uncannily familiar.

The "dreamy, mellifluous and sentimental" melodies might not be far removed from songs of the Taiwanese singer Deng Lijun (Teresa Teng), who since late 1970s quickly conquered the audience in the mainland China, and transformed the soundscape dominated by the "clanging sound of bronzes and stones" of revolutionary model opera. The popularity of Deng Lijun's songs, mostly about love-sickness and pastoral nostalgia, indicates immense transformations in both political and social life. As Chinese scholar Cai Xiang points out, Deng Lijun provided "an illusion of private life," which satisfied "people's desire to escape from the control of public politics, to live a relaxing, free, wealthy and even sentimental style of private life."[42] As the myth of revolution and its grand narrative fell apart, in its place stood commoditized forms of individual desires to fill in the ideological gap. However, the mixed-coded songs in the Destiny Club, despite its mellifluous, commercial form, still preserve utopian sentiments of the sent-down generation by referring to their "glorious dreams," evoking their aspirations with the images of "Mt. Kunlun" and the "East Sea," and reflecting on the ties of individual fate to the "wheel of history." The sentimental tonality of the songs, while providing an illusion of private life, also transforms the lost dreams into nostalgia for a haunting past.

However, the rich ambiguities of the songs are soon displaced by meaningless ultrasonic waves. According to Xu, it is only the frequency of the waves that matters. Whether there is in the ultrasonic waves any message interpretable to human beings is irrelevant in terms of how the device works on the human brain. In this sense, whatever is coded in the songs is no longer significant. It is all about the device emitting vicious waves.

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[42] Cai Xiang, "*1970: Modai huiyi* [1970: Memoirs of the end of an era]," accessed May 12, 2012, www.wyzusx.com/Article/Class14/200812/62971.html. For other references to Deng's popularity in mainland China in the early 1980s, see Nimrod Baranovitch, *China's New Voices: Popular Music, Ethnicity, Gender, and Politics, 1978-1997*, (Berkeley: University of California Press, 2003), 10-13.

Ironically echoing Marshall McLuhan's motto that the "media is the message," these content-free ultrasonic waves become the media that allow the analogy to be drawn between the Cultural Revolution and the consumer culture in the City H, enabling the parallel narrative of the story that alternates between the memories of the sent-down years and the hypnotic scenes in the night club. The black box of the ultrasonic device, which obeys its own technological logic, or randomness, is fetishized as the ultimate determinant of history that defies human rationality and intervention. The implicit anxieties about an impending technocratic society are displaced as and transformed into the feebleness of human individuals hijacked by the "randomness" of history.

The contention between the meaningful lyrics and meaningless ultrasonic waves therefore becomes a question of the readability of history. Katherine Hayles traces how information became "meaningless" when the first generation of cyberneticists excluded meaning from "information" for engineering efficiency of information transmission. The problem of the meaning of information for human receivers keeps haunting later developments in cybernetics.[43] Yet it is never a purely technological question but instead one interwoven with specific social forces, and intimately related to shifting understandings of the role of human agency in history. In the post-Mao late 1970s and 1980s in China, a notion of meaningless information emerged out of the ruins of history, the debris of revolutionary narrative, as well as the struggles for an interpretable past over meaningless noises. Yet if interpretation is a form of human intervention, an effort to make meaning out of the random and arbitrary, what does it mean when the noises circumvent human consciousness to work on the asubjective level of micro-biological bodily affects?

Sonic Weapons

"Destiny Club" marks the shifting boundaries between sound and noise with the increasing adoption of synthesizers and other digital devices for music-making. The opposition between music and digital noises appeared repeatedly in stories of this time. Digital sounds were imagined as lethal weapons manipulated by evil hands. A story published in 1980, titled "The Sinking of the Music Island" (*Yinyuedao de chenmo*), tells about a musician Fang, who is drawn toward a man-made island by some mysteriously alluring music. He is captured there by an unidentified military force, who uses him as a test subject for a new biological weapon. The weapon is nothing other than digital music, or a digital simulation of music. It changes the way the human body works, tampering with its metabolic cycle:

> They (Fang's captors) have developed methods of using digital music to control people's appetites, drug them into drowsiness, and drive them insane. Now they are carrying on an even more sinister experiment. Dubbed "the art of death," it can manipulate the circadian rhythm of the human body with digital sound, accelerating the ageing and death of the body, so that the life of the test subject will be compressed into a span of just a few minutes.

[43] Hayles, *How We Became Posthuman*.

The effects of this sinister sonic weapon on the human body are not even registered by human consciousness, depriving the test subject of any chance of resistance. The traceless sound haunting the vast ocean eschews material forms, as ethereal as the air, as if it were everywhere and nowhere. As the weapon tampers with the body's sense of temporality, the body no longer occupies a secure realm of knowledge about the world around. What could be more disorienting than a situation in which what one experiences as four seconds is in reality four hours?

However, the allure of the sound is irresistible, working on Fang like a Sirens' song, and drawing him to the island despite the warnings from his fellow travelers. Fang is a twentieth-century Odysseus, determined to uncover the myth of the Sirens' song, for no myth should remain inexplicable for an "atheist who believes in materialism" like Fang. He is a hero of enlightenment in this sense, not unlike Odysseus is in Horkheimer and Adorno's reading of the myth. For Adorno and Horkheimer, the encounter of Odysseus and the sirens is a proper allegory of the dialectic of enlightenment. Instead of losing himself in the past as Di does in "Destiny Club," the hero must struggle to preserve the unity of his own life, holding the "I" together against the temptation of disintegration, in order to sail forward without distraction into the future. This striving for progress, as Horkheimer and Adorno point out, is predicated on the subjugation of sensual experiences to the dominance of intellect, to function and practicability. A division of labor is involved in this process of subjugation: Odyssey plugs the ears of his boatmen with wax, so that the laborers, denied any pleasure from the song, can row with all their strength. As for himself, "(h)e listens, but while bound impotently to the mast; the greater the temptation the more he has his bonds tightened." The beauty and temptation of the song is without consequence for him, for "their temptation is neutralized and becomes a mere object of contemplation— becomes art."[44] Insulated from practice and from manual labor, sensual experiences are relegated to the realm of bourgeois art, which chains inactive concertgoers as prisoners.

Horkheimer and Adorno see in this allegory not only the slavery of the boatmen, but also the regression of the master as Odysseus renounces participation in labor by having himself bound impotently to the mast. Art with "no purpose" shields him in "harmless" and unproductive pleasure. Horkheimer and Adorno insightfully reveal the division of labor and the machinery of domination that makes possible the autonomy of bourgeois art. "Mankind, whose versatility and knowledge become differentiated with the division of labor, is at the same time forced back to anthropologically more primitive stages, for with the technical easing of life the persistence of domination brings about a fixation of the instincts by means of heavier repression."[45] For Adorno and Horkheimer, the autonomy of art is accompanied with the regulation and repression of senses. Yet even such an autonomous realm of sensuous experience already became elusive for a modern Odysseus like Fang, for his bodily affect is now subjugated to the manipulation of electronic devices. This modern story of Odysseus, in whom the primacy of intellect fails to beat the modern sirens now armed with a new technology, adumbrates the anxieties *vis-à-vis* a new regime of control, anxieties so acute that the story, as in many other stories discussed in this

[44] Max Horkheimer and Theodor Adorno, *Dialectic of Enlightenment* (New York: Continuum, 1997c) 34.
[45] *Ibid*, 35.

chapter, has to be told in the past tense in order to shield against an impending menace. Concurrent with Qian Xuesen's promotion of "somatological science" was the rise of a cybernetic capitalism that seek to tap relentlessly into the potential of the human body for the production of value, instead of controlling the mind or the hands alone. Art, the realm directly related to sensual experiences, has become a battlefield to reconfigure the relation of bodily affects to various media interfaces and cybernetic circuits of information.

In the story, this battlefield is transformed into a battle between digital sound and "real" music. While Fang's captors boast about their electronic devices "capable of simulating every music instrument and all sorts of music performance," predicting the "demise" of musicians and eventually that of art, Fang insists that real music comes from the human heart, as an expression of human emotions, which can never be achieved with electronic simulation. In fact, Fang immediately trusts a girl, whom he at first took as one of his enemies, once he hears her singing, for he believes that "real art bonds human hearts." The story thus deliberately draws a division: if digital sound is a sinister weapon for ruthless control, "real" music preserves the "authenticity" of human emotions and attachment. This Romanticist definition of art excludes technology from the emotions and sensual experiences of human beings. This notion of an "authentic" art as unmediated human experience, however, has to be understood as counteracting an increasingly hypermediated bodily affect and feelings. Works of literature and art in an information age have to be reexamined in terms of the conflictually charged reconfiguration between the body and media, affect and control that takes place with the rise of a cybernetic society. This is also my goal throughout my thesis.

Chapter Three

The Curious Case of a Robot Doctor: Rethinking Professional Ethics, Affective Labor and Interface in Post-socialist Context

"A Curious Case" (*Qiyi de anjian*), a story by Wei Yahua published in 1981, tells about a lawsuit, concerning a robot doctor accused of murder. Fangfang, a robot believed to be "the highest achievement in artificial intelligence research thus far," is an amazingly efficient doctor in diagnosing diseases and conducting medical operations. A perfectly designed robot, she is able to "examine thoroughly the viscera of a patient, not missing any problems in the patient's every nerve, vessel, muscle, or cell." On the very first day she starts working, she already diagnoses and solves more than twenty difficult medical cases. The plans she chooses for each surgery are the best possible, and the operations she conducts the most precise. However, as capable as she is, when Lin Caihong, the assistant to Fangfang's designer An Xiang, goes to her for an examination because of a headache, Fangfang unexpectedly decides to vivisect Lin. She wants to open up Lin's skull to solve the medical enigma of her headache! Discoursing on the backwardness in the current research of the human brain, she promises that the vivisection will significantly push progress in neuroscience, uncovering the pathogenesis of many neural diseases.

Fangfang is so eloquent, and with her solemn references to scientific progress, Lin cannot even find the words to refute her. The terrified Lin is forced to jump out of a window and is badly injured. This incident is read by Lin's father, a "peasant-looking" man in a "washed-out military uniform," as a political incident plotted by, as he puts it, "a class enemy in camouflage." The enemy within to whom he addresses himself is Fangfang's designer, An Xiang, a "countrevolutionary" born in "a reactionary family of bourgeois scholars." He also attacks Fangfang as "a selfish chaser after fame unabashedly sacrificing others for her own interests." Yet Fangfang's retort astonishes everyone: she proclaims herself "a selfless non-individualist," one who "transcends any class categorization," who even "has no need to eat or to drink, to rest or to consume, with neither parents nor siblings or any social relations to tend to." Money and fame are of no use to her. Her whole existence revolves around a single purpose: her work as a doctor.

Wei Yahua's imagination of a robot doctor who puts humans to shame was not merely his own fabrication. As we have seen in the last chapter, scientific stories often intermingled with, and even anticipated the interest in and development of information technologies. While the "somatological science" championed by Qian Xuesen claimed to explore the "informational potential" of the human body, one purpose of such research was to develop an artificial intelligence that functioned in a manner equivalent to a human being's own information processing systems. Qian and other Chinese information scientists were intrigued with the prospect of transferring human knowledge and experiences into computer programs called "expert systems." The idea was to collect the professional experience and knowledge of the experts in a certain field, and store them into computer information systems, so that those systems could provide professional

services even in the absence of a human expert. With the development of medical expert systems in the West since the mid-1970s, such as the MYCIN system pioneered by Stanford University, Chinese scientists were eager to develop expert systems for traditional Chinese medicine as well. Wei Yahua's story was a sensitive barometer registering this emergent interest in expert systems.

The story interestingly weaves the technological appeal of expert systems with a number of concurrent intellectual discussions. The accusations made by Lin's father may sound alarming to ears that had been exposed to similar language that proliferated during the Cultural Revolution. His judgment of An based on An's "bourgeois" background immediately makes him the target of criticism and a laughing-stock in the post-Mao critique of the primacy of class struggle in revolutionary politics. Yet Fangfang's own claim to an exemplary ethic of selflessness and self-sacrifice is even more ironic in the context of contemporaneous debates on Marxist humanism. Selflessness and self-sacrifice were the virtues often attributed to the image of socialist new men, a model of ethical perfection. These qualities became questionable in the early 1980s when Chinese intellectuals took up Marxist humanism to criticize the neglect of individual value and human needs in the Mao era.

Almost at the same time, the publication of Shen Rong's story "At Middle Age" (*Ren dao zhongnian*) became the opportunity for a full-throated campaign for an improvement in Chinese intelligentsia's status, while the discourse of a coming information society, especially with the popularity of Daniel Bell and Alvin Toffler among both officials and intellectuals, also paved the way for these ideas. With the convergence of these discourses, intelligentsia were recognized as crucial to China's modernization. However, with little critical reflection on the narrative of modernization, an "information society," as proposed by Bell and Toffler, was embraced as a technologically advanced society that would be able to overcome the "backwardness" of China. The recognition of intelligentsia was not so much about "human value" in the sense of Marxist humanism, but a shift in differentiating the value of different forms of labor in relation to economic efficiency. In other words, while the Chinese intelligentsia gained recognition for their knowledge work with the promotion of a "knowledge economy," they were also subject to the rule of rationalization and quantification.

"A Curious Case," auguring these transformations, raises a series of questions concerning technology and the ethics of work in the milieu of post-Mao China. With socialist ethics challenged in the wake of Marxist humanist critique, professional ethics was valorized as new principles to regulate social relations in a way disassociated with ideology and political views. Both Lu Wenting, the protagonist of "At Middle Age," and Fangfang demonstrated a sort of professional "coolness," an embodiment of scientific impartiality and rationality, in opposition to the political fervor that was believed to have caused the catastrophe of the Cultural Revolution. With this shift, the management of affect and emotions were also transformed, from its relegation into the political realm as class identification and sentiments, to a depoliticized realm as a form of affective labor.[1] In other words, the post-socialist professional Lu Wenting works with "cool," objective

[1] The term "depoliticization" comes from Wang Hui's essay "*Quzhengzhihua de zhengzhi, baquan de duochonggouzheng yuliuniandai de xiaoshi*" [Depoliticized Politics, multiple components of hegemony, and the eclipse of the sixties], *Kaifang shidai* 2 (2007), 5-41. See note34 in the introduction chapter.

knowledge and technology, as well as affective labor to bind together the "cool" systems of professionalization and post-socialist subjects.

In this chapter, by contextualizing the technological development of expert systems within the social, intellectual discourses of 1980s China, I expect to intervene in two strands of theoretical issues: first, to rethink in post-socialist context the relation between "information work" and the redefinition of labor by Italian autonomist theorists. "Information society" and "information work" as raised by Alvin Toffler and Daniel Bell, among others, challenged the Marxist division of mental and manual labor, and therefore also the class-based analysis of society. The development of Marxist labor theory by autonomist Marxists could be regarded as a response to this challenge by delineating expanded regimes of labor, especially in post-Fordist conditions. On the other hand, by tracing the devaluation of manual labor and the increasing invisibility of manual labor in post-Mao China, I also question the seeming obliviousness of autonomist theorists to the enduring existence of an "inferior" physical labor and the involvement of the physical body in laboring process, as well as the materiality of post-Fordist "immaterial" labor.

Secondly, I am also engaging with the notion of "interface" in new media studies to rethink human-machine-communication in terms of affective labor. Instead of seeing the "interface" as merely a built-in feature of machines, I regard the interface as an "access point" into which affective labor is invested in order for abstract systems of expert knowledge and technology to function properly in a society that is segmented by specialized domains. The inability of the robot doctor Fangfang to think and communicate beyond her specialized area indicates the inadequacy of such abstract systems and the need to re-embed technology into human society. By thinking the interface as a productive site where communications between humans and machines/systems are constantly redefined, I also call attention to how the very notion of the "human" also becomes fluid when merged by way of the interface into informational circuits. Reading "The Curious Case" as both a story and a historical text that symptomatically calls for retheorizing labor and human-machine-communication, I hope to reflect on current theoretical formulations of affective labor and the interface in post-socialist context.

Expert Systems, Too Expert?

The idea of expert systems was first promoted by Edward Feigenbaum, a computer scientist at Stanford University, in the 1970s. In his research in artificial intelligence, he found that what made a person an expert in his field was his possession of professional knowledge in his domain, especially the experience he gained through his long-term practice of a profession. Feigenbaum decided that once this knowledge and experience was written into a computer program, the system could plausibly be made to function just like a human expert. The earliest expert system he developed was called "DENDRAL," a system for identifying unknown organic molecules based on a mechanism for automating the decision-making processes and problem-solving behaviors of organic chemists. The 1970s went on to witness the birth of several pioneering expert systems of medical consultation, including MYCIN for the diagnosis of and prescription of medicine for infectious diseases, CASNET for glaucoma, and INTERNIST for internal medicine, among others.

The development of expert systems in China started in the late 1970s. Inspired by the aforementioned achievements in medical consultation systems, Chinese information scientists grew fascinated with the prospect of developing traditional Chinese medicine-based expert systems. This was partly driven by anxiety about the looming loss of traditional medicine knowledge, as an older generation of practitioners aged and passed away. The engineering of knowledge through expert systems addressed this anxiety by promising the preservation of traditional knowledge, but also modernizing this knowledge by way of the computerized language of the vanguard in information science. In the process of developing expert systems, information engineers collaborated with experienced practitioners of traditional medicine, recording their experience in natural language, examining the process of their decision-making, and then coding their knowledge into computer programs.

Expert systems were believed capable of overcoming human errors and inefficiency. Human beings could be subject to fickle emotions, making irrational decisions; or to unproductive conditions such as sickness, exhaustion, or other distractions that might result in errors or negligence. Robots wouldn't have such problems, and thus promised a rapid improvement in productivity.[2] Moreover, whereas experts were in urgent demand for the country's modernization, the training of a human experts was both time-consuming and costly. The immediate reproducibility of robot experts might circumvent the long training process of human experts.[3] By the late 1980s, Chinese information scientists and engineers had developed hundreds of expert systems for weather forecasting, transportation management, oil detection, medical consultation, and other uses. To cite just a few examples, a skin diseases diagnosis system developed by Jilin University, as well as a traditional medicine expert system developed by Dongnan University, were quickly put into use in the mid-1980s.[4]

The "Weakness" of A Human Doctor

One "advantage" of robot doctors is that, as Fangfang attests, they have "no need to eat and drink, to rest or consume, and neither parents nor siblings nor any social relations to tend to." They can work twenty-four hours a day, and they exist solely for their work. Human doctors are "flawed" in this sense. Wei Yahua obviously knew that. Just before the publication of his story, another story of a human doctor falling sick because of overwork had generated a nationwide discussion, and garnered new attention for the status of the intelligentsia, which was regarded as unmatched in the kind and degree of its high-end, intensive intellectual labor. This doctor, named Lu Wenting, is the female protagonist in Shen Rong's story "At Middle Age." Lu, a middle-aged ophthalmologist of great skill and professionalism, demonstrates a high regard for her patients, often working

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[2] *Zhongyi jisuanji moni ji zhuanjia xitong gailun* [Computer simulation of traditional medicine and introduction to expert systems], ed. Qin Dulie and Bao Yiwan (Beijing: Renmin weisheng chubanshe, 1989), 370.

[3] You Cun, "Zhuanjia xitong mianmianguan"[Multiple perspectives on expert systems], *Jisuanji yonghu* [Computer users] 3(1986): 15-24.

[4] Huang Keming, *Zhuanjia xitong daolun* [Introduction to Expert Systems], Nanjing: Dongnan daxue chubanshe, 1988, 15-16.

overtime at the cost of her own health. She finally faints beside the operating table after performing three consecutive operations.

This image of a doctor devoting herself wholeheartedly to her work renewed the lineage of "new socialist men." Doctors, for their close connections with death and life, are often elevated as a profession of devotion and self-sacrifice. Norman Bethune, the well-known Canadian physician who served the Eighth Route Army at Yan'an during the second Sino-Japanese war and eventually died at his post, was lauded by Chairman Mao for his "utter devotion to others without any thought of self," as "a man of moral integrity and above vulgar interests, a man who is of value to the people."[5] This image of a selfless doctor striving to save the lives of his patients was reincarnated in a 1950 play entitled "Brotherly Love amid the Same Class"(*Jieji zhi'ai*) as Dr. Liang, who insists in staying at his post on New Year's Eve, even when he knows that his own son is very sick.[6] To highlight the dramatic conflict between individual interests and the interest of his "class brothers," two competing voices are arranged to speak to Dr. Liang simultaneously: on the one side is the nanny of his only son, who urges him to go back to his son, "who is so sick that even his lips have turned black because of high fever;" on the other side is his coworker in the hospital, who informs him of a patient in need of urgent medical help. With little hesitation, Liang goes to the patient, even without asking about his own son. In a contrast to the selfless Liang, his coworker Dr. Gu, an elder doctor subscribing to the ethics of "the old society" — referring to a pre-PRC "dark age," cares more about his reunion with his family on New Year's eve, and leaves for home even when patients are flooding in. By the end, Gu is educated by Liang's selfless contributions, and determines to transform himself with a new class consciousness, and to show his solidarity with and love for his patients. All the happenings in the play are concentrated in the workspace of the hospital, marginalizing the domestic space and personal life into invisibility.

"At Middle Age" interestingly follows a similar plot: Lu Wenting's daughter is sick with a high fever, but Lu, too busy with her patients, has to leave her daughter in the kindergarten, and bear the blame for her failure to take care of her family. However, in contrast to Liang's strong-willed determination, Lu is tortured by her feeling of guilt — she never stops blaming herself for her failure to be a good mother and wife. Though devoted to her work, she still struggles to perform all sorts of domestic duties. The story details how she rushes home to cook lunch and dinner for the family, take care of the two kids, and do mending even after a whole day's heavy work. The story hence, instead of focusing singly on the hospital space as in "Brotherly Love," shifts between the hospital and Lu's home, a cramped, little room for a family of four. The domestic space and personal life invisible in "Brotherly Love" resurfaces here with a vengeance, significantly modifying the image of "new socialist men."

Critics immediately sensed how this image of Lu Wenting diverged from the previous lineage of new socialist men. The grand heroes of the Mao era were giving way to Lu, an "average-looking" woman who has to deal with everyday menial troubles, has to eat and

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[5] Mao Zedong, "In memory of Norman Bethune," accessed July 7 2012, http://www.marxists.org/reference/archive/mao/selected-works/volume-2/mswv2_25.htm.

[6] For a detailed reading of this story, see Cai Xiang, *Geming, xushu: zhongguo shehuizhuyi wenxue, wenhua xiangxiang* [Revolution and narrative: The Literary and Culture Imaginations of Socialism in China] (Beijing: Beijing daxue chubanshe, 2010), 302-306.

drink, and to take care of her family just as common people do. As one critic wrote: "Lu is such a common person in real life. How familiar her appearance, her work and life sounds to us! However, as an ideal of a new socialist man, this image is also unfamiliar to us."[7] The unfamiliarity detected by this critic derives in part from this bringing into visibility her personal life. The revelation of her continuous menial troubles in everyday life, the incorporation of her domestic space into the story, and the depiction of her profound love and care for her family, make this hard-working woman more "human," but less an embodiment of the "spirit of revolutionary romanticism" than her predecessor Dr. Liang. The "humanness" of Lu no longer rests upon her political devotion, but her emotions and feelings as a "common" person.

Such modifications were not uncontroversial. With the story's adaptation into an eponymous film, a series of heated discussions began with a volley of severe criticisms that accused the story of lauding a passive and pessimistic character who "surrenders to troubles in life."[8] Lu's lack of revolutionary, romantic passions was singled out as politically suspicious. But this criticism soon generated refutations. Lu's case was read as a consequence of the inhuman state and the bureaucracy. As one critic questioned: "Why is Lu Wenting, in the eyes of some leaders, no more than 'a good scalpel' to serve in the eye operation of a minister? Why is she just a 'supporting pillar' in this famous hospital? This is not a problem simply resulting of the Cultural Revolution, but a problem within our socialist system. It touches upon the question of the role and value of human beings in our society."[9] As I will show, the modifications of the image of the new socialist man, and the discussions generated by the story, cannot be separated from the contemporaneous Marxist humanist critique of Mao' socialism. It was in this context that the call for individual value and self-realization became a critique of the previously valorized virtue of self-sacrifice, questioning the new socialist man as an ethical model.

Marxist Humanism and Socialist Hero/ines Questioned

In 1980, a letter published in *Zhongguo Qingnian* (Chinese Youth) quickly garnered nationwide media attention. Pen-named Pan Xiao, the letter writer claimed herself to be a 23-year old factory worker, who since she was a kid had modeled herself on Pavel Korchagin, the hero in the soviet novel *How the Steel was Tempered*, and Lei Feng, a selfless, socialist hero whom Chairman Mao asked the whole country to emulate.[10] As with most of

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[7] Zhang Zhengxian, "Cong 'Rendao Zhongnian' Lu Wenting de xingxiang kan shehuizhuyi xinren de suzao" [The image of Lu Wenting in "At Middle Age" as a new socialist person], *Nanjing daxue xuebao* (4)1984: 34-38.

[8] Xu Chunqiao, "Yibu you yanzhong quexuan de yingpian" [A severely defective film], *Wenyi Bao* 6 (1983): 57-80.

[9] Zhang Zhengxian, "Cong 'Rendao Zhongnian' Lu Wenting de xingxiang kan shehuizhuyi xinren de suzao," 37.

[10] It was revealed later that Pan Xiao is not a real person but a fictive character based on a female factory worker called Huang Xiaoju and a college student named Pan Wei who had earlier attempted suicide. The editors of *Zhongguo Qingnian* combined together the two's accounts of life experiences and the language they used in their letters, and decided to publish their accounts under one fictive character named Pan Xiao. See http://news.xinhuanet.com/theory/200812/11/content_10486877_1.htm, accessed July12, 2012.

her generation, she was indoctrinated with the belief that her individual value should be realized through her sacrifice for the interests of the Party and people. However, the distress she suffered throughout the Cultural Revolution had made her rebel against this education: "I know what I am doing is no longer for the service of the people, nor for the modernization of this country. It is for myself, for my own satisfaction… I realize that one's life and work has to serve one's own interest. If her behaviors benefit others, it is only a derivative from the pursuit of her own interest. It is like the sun —it shines for its own existence, while the sunshine's nurturing other things is merely a consequential effect."[11]

Soon snow-flake like letters from readers flooded the editors' office of *Zhongguo Qingnian*. In less than a month, more than twenty thousand letters were received, and the discussions lasted throughout the year. In the following issue, a reader from Renmin University of China, while affirming the value of individual satisfaction and criticizing the asceticism of communism, urged Pan Xiao to seek self-realization from her contribution to society, balancing self and society. Another response, however, severely criticized Pan Xiao as a self-centered individualist, questioning her motive of prioritizing herself over others. This criticism was strongly objected to by other young readers, many of whom expressed their deep disillusionment with their previous education in communist ethics. A Sichuanese reader wrote: "'To work for the modernization of the country?' 'To sacrifice your life for the liberation of the humanity?' This is all empty talk…. For what else it would be if someone worked not for a bonus and welfare, and for what else if someone studied not for his own bright future?"[12] To show their sympathy for and solidarity with Pan Xiao, many young readers sent her gifts such as notebooks, flowers, and books. The discussions also drew attention from high-level officials. In June of 1980, Hu Qiaomu, the then CCP general Secretary, visited the editors' office of *Zhongguo Qingnian*, and encouraged young people to speak of their discontents and hopes, so that elders might give them help and advice.

Zhao Lin, then a student from Wuhan University, soon became the focus of attention for his radical argument advocating "selfishness." Similar to Pan Xiao, he recounted his former loyalty to utopian ideals and what he called his experience of "self-alienation" as a "communist stoic," before his belief system ultimately collapsed. He turned to Sartre, Nietzsche and Schopenhauer to fill in the vacuum. Now his credo had become that "selfishness is above all a discovery of the self, a recognition of individual value," without which, he held, tragedies like the Stalin-idolization and the Cultural Revolution would happen again. He regarded this "selfishness" as the very sign of enlightenment, a first step away from political fanaticism.[13]

Zhao's argument and the philosophical language he used linked the Pan Xiao case directly to the ongoing debates on humanism. Since the late 1970s, humanism, which had been criticized as a bourgeois ideology, resurfaced as a powerful intellectual trend in the critique of the Cultural Revolution. As early as 1978, Zhu Guangqian compiled and published an anthology of Western humanist thought, which signaled the start of a revival

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[11] Pan Xiao, "*Rensheng de lu he, zenme yuezou yuezhai*" [Why did the road of life become narrower and narrower], *Zhongguo Qingnian* [Chinese youth] 5 (1980): 3-5.
[12] "Xingao zhaideng" [A Digest of Received Responses], *Zhongguo Qingnian* 7(1980): 13.
[13] "Zhiyou ziwo caishi juedui de" [The self should be the affirmed], *Zhongguo Qingnian* 8 (1980): 4-6.

of humanism in post-Mao China. Reviews of recent developments in Marxist humanism in the West, and reports on various seminars on humanism in Europe soon flooded newspapers and journals. However, it was the works of East European theorists from Poland, Czechoslavakia, Yugoslavia, especially their critiques of state socialism and the Soviet Union, that exercised the most direct influence on their Chinese colleagues. For example, Wang Ruoshui, the then deputy editor of *People's Daily*, one of the most insistent voices of Marxist humanism in China, was, according to Wang Jing, influenced by the Polish communist writer Adam Schaff.[14] Wang Ruoshui proposed human beings as "the starting point of Marxism," and concurred with the Polish communist that alienation, as defined in Marx's "Economic and Philosophical Manuscripts of 1884" — the seminal text of Marxist humanism — did not disappear in socialist countries. In a talk given at the Chinese Academy of Social Sciences in 1980, Wang argued that alienation in a socialist country like China was manifested in three aspects: the "Mao-cult" in the field of thought, the regression of the state bureaucracy from the server of the people to the master of the people, and the forced manipulation of the economy defying any economic rules.[15] This articulation of alienation later appeared in almost exactly the same guise in a speech given by Zhou Yang, the veteran Marxist theorist, at a conference commemorating the Centenary of Karl Marx's birth. Partially penned by Wang, the speech and its publication on *People's Daily* pushed the debates to its peak, finally generating a refutations from Hu Qiaomu, the minister of the Propaganda Department, and an ensuing campaign against spiritual pollution.

It is not my purpose here to trace the genealogy of the debates. However, reading across the Pan Xiao case, the Marxist humanist debates, and the Wei Yahua story reveals their shared concerns, discourse and use of language. In his manifesto text "Human Beings are the Starting Point of Marxism," Wang Ruoshui's criticism of the reduction of all sorts of social relations into class relations would be a perfect footnote to Wei Yahua's sarcastic and comic depiction of Lin's stubborn father. His accusation of An Xiang shows his full immersion in and mastery of the language of class struggle, which, however, in the end turns out only to serve the purpose of separating his daughter from her lover An Xiang. Echoing the assertion of individual values in the Pan Xiao case, Wang Ruoshui criticizes the lack of attention to human values and the problem of alienation that arose in socialist conditions. Quoting Marx's 1844 manuscripts that charge the political economists for taking "the worker as a working animal — as a beast reduced to the strictest bodily needs," deprived of any desires and spiritual needs, Wang questioned: "Isn't it against the principle of socialist humanism to take the planned production targets as everything whereas workers are negligible, and to forget that human beings have not only the need to work but also the need to improve their material and spiritual life?"[16] By affirming human needs other than work, Wang in fact reversed the Mao-era valorization of new socialist men as "iron heroes," who work overtime, always willing to sacrifice themselves for the

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[14] Wang Jing, *High Culture Fever: Politics, Aesthetics, and Ideology in Deng's China*, (Beijing: University of California Press, 1996), 12-13.
[15] Wang Ruoshui, "Tantan yihua wenti" [On the issue of alienation], in *Wei Rendaozhuyi bianhu* [Defending humanism], (Beijing: Shenghuo, dushu, xinzhi sanlian shudian, 1986), 186-199.
[16] Wang Ruoshui, "Ren shi Makesi zhuyi de chufadian"[Human Beings are the Starting Point of Marxism], in *Wei Rendaozhuyi bianhu*, 200-216.

sake of the Party and the country. The "most selfless being," who, like the robot Fangfang, devotes herself fully to work but "has no need for eating and drinking, for resting and consuming, and no parents nor siblings or any social relations to tend to," would, ironically, fall into Wang Ruoshui's category of alienation. This selfless heroine is no longer considered as the vanguard for the progress of the society but its opposite, as a lawyer in the story declares: "If everyone were like Fangfang, that would be a disaster for human society. No eating and drinking, no life and enjoyment, no families and no descendants — human beings would soon be extinct."

The Burden of the Intelligentsia

However, in the discussions surrounding "At Middle Age," the domestic realm that displayed the "human" side of intelligentsia was also ironically framed as an impediment to intellectual work. As the story and the eponymous film called for more humanistic attention to the personal life of intelligentsia, household chores were also considered as an unnecessary burden that distracted intelligentsia from their professions. Yan Hairong has shown that the discussions triggered by "At Middle Age" set the stage for a large influx of maidservants from rural areas into the city. Rural women became the solution to the burden of the intelligentsia, who by leaving their house chores to their rural maidservants could focus on their intellectual work. A 1983 story entitled "Baomu" (maidservant) shows that mental and manual labor were increasingly regarded as incompatible. The story tells about a young girl called Ling who works as a maidservant in Professor Shen's household. Dissatisfied with previous maidservants from the countryside, Professor Shen is happy to find Ling, a Beijing girl free of the "defects" of country girls, as an ideal maidservant. But soon Ling faints, as Lu Wenting does, because of overwork. To his great surprise, Professor Shen finds in her bag a manuscript on Tang poetry, and realizes that Ling is not a maidservant but an intellectual just like he is![17] The dissatisfaction of an intellectual with his country maidservant signals the social disparities resulting from the division of labor, which could only be appeased by an imagined intellectual maidservant who turns out not to be a maidservant.

What satisfies Professor Shen and his nit-picking wife is not only Ling's diligent handling of house chores, from cooking to cleaning, from grocery shopping to baby-sitting, but also her making possible their desire for enough leisure to enjoy life and create a good mood for productive work. Even the wife, who has fired dozens of maidservants and always keeps an alert eye on Ling's work, finds it hard to fault their maidservant's agreeable personality. Whatever caustic words she says to her, Ling just lowers her voice, appeasing the easy agitated wife with her gentle demeanor. This all-too- ideal maidservant, with her unusually good temper and no complaints at all, becomes an enigma to Professor Shen, who enjoys immensely her service: is she a 'living Lei Feng,' the socialist hero who is always willing to help people? Otherwise, how could you explain the willingness of the girl to provide such satisfying services with such a negligible payment?

Given the critique of socialist ethics and new socialist man, the mention of Lei Feng in the story might well be taken as ironic. What puzzles Professor Shen is the question of

[17] For a detailed reading of the story, see Yan Hairong, "'Zhishi fenzi fudan' yu jiawu laodong" ["The burden of intelligentsia" and domestic duties], in *Kaifang Shidai* 6 (2010): 103-120.

how to name and measure the girl's services, which have brought him so much enjoyment but don't seem appropriately passed off as low-level manual labor. Yet a maidservant's job is never considered as a serious, respectable job, and the wife despises Ling from the very beginning: "Do maidservants even count as a profession? They neither belong to any state institutes, nor have the opportunity to advance in a profession." In other words, performing domestic services is not a "job" proper.

Yan Hairong argued that this hierarchy of labor was built on the common understanding of domestic chores as unproductive labor, and thus insignificant when compared with socialized work outside the domestic realm that could be quantified as material and economic output. During the Great Leap Forward and People's Commune movement, in order to recruit women as labor into production, part of housework was socialized through commune-organized public canteen and kindergartens.[18]

The ambiguity of domestic work as a job, and the affectivity created by the maidservant's services, remind us of feminist discussions of domestic labor. In the Anglo-American context, feminist scholars and activists have long been grappling with relationship between capitalist production and domestic reproduction, bringing attention to unwaged housework. The debates often hinged on the question of whether domestic labor was a form of "productive" labor that produces surplus value. While the discussion expanded the category of work and production, Kathi Weeks criticized the binary distinction between productive and unproductive labor, the inside and outside, and its replication "the hegemony of the Fordist imaginary," focusing on the resemblance of domestic activity that created objects as in industrial production, and thus privileging housework over caring labor. An autonomist feminist notion of affective labor would instead recognize the "part of the labor of social reproduction that helps to sustain relations of cooperation and civility."[19] This notion of affective labor is taken up by Antonio Negri and Michael Hardt to develop a labor theory beyond industrial production, rendering visible the increasingly important forms of labor that produce or manipulate affects.

Curiously, the gender issue never surfaced in the discussion trigged by "At Middle Age," although the gender transformation from the male Dr. Liang in "Brotherly Love" to the female Lu Wenting set the stage for the appearance of domestic space as a problematic field in this story: isn't it because Lu is a woman that she is also expected to be a good mother and wife? Without the missing perspective of gender, the "domestic burden" of a professional woman became merely a generalized question about the burdens shouldered by the intelligentsia. The discussion of the burden of intelligentsia prompted advocacy for the improvement of the social status of intellectuals, a notion which also converged with the wide popularity of Alvin Toffler and Daniel Bell and their arguments for the prominence of mental/information workers in the coming information society. In the post-Mao 1980s China, this discourse was adopted by Chinese intellectuals to assert themselves as a social group free from any political "fanaticism" and ideological "bias."

Scientific Rationality and Professional "Coolness"

[18] Yan Hairong, "'Zhishi fenzi fudan' yu jiawu laodong."
[19] Kathi Weeks, "Life within and Against Work: Affective Labor, Feminist Critique, and Post-Fordist Politics," *Ephemera: Theory & Politics in Organization* 7 (2007): 233-249.

One discursive support for the neutrality of intellectuals was Alvin W. Gouldner's *The Future of Intellectuals and the Rise of the New Class*. After its publication in the Anglophone world, it was immediately introduced and reviewed in Chinese journals, such as *Guowai shehui kexue* (Social Science Abroad) and *Dushu zazhi* (Reading) among others. Gouldner saw what he called "the New Class" as a "universal class" aligned neither with the old powers nor the proletariat:

> The New Class possesses the scientific knowledge and technical skills on which the future of modern forces of production depend…. The New Class, further is a center of opposition to almost all forms of censorship, thus embodying a *universal social interest in a kind of rationality broader than that invested in technology*. Although the New Class is at the center of nationalist movements throughout the world, after that phase is secured, the New Class is also *the most internationalist and most universalist of all social strata*; it is the most cosmopolitan of all elites.[20]

Gouldner, while in agreement with Daniel Bell that scientific knowledge and technical skills form the best manifestation of rationality, also recognized the pursuit of publicity and freedom opposed to "all forms of censorship" as part-and-parcel of rationality and "a universal social interest." To his Chinese reviewers, Gouldner's assessment not only confirmed intellectuals as the major force in transforming society and eliminating alienation, but also in "eradicating class prejudices."[21] This "new class" of "cosmopolitan elites" hence was regarded as a remedy to "class prejudices" and endowed with the privilege to transgress the categorization of class. One reviewer criticized the way intellectuals were judged for their political views in the Mao era, arguing that political views should be regarded as unrelated to knowledge. Their knowledge being objective truth, intellectuals should be considered as the inheritors and discoverers of scientific truth, belonging to all human beings rather than to any specific socio-political group interest.[22]

Affirming the authority of this new class, one writer called Gu Xin advocated "meritocracy" in a future society in which authority would be predicated on knowledge and competence. He further distinguished "authority" with "power:" "(a)uthority is built on the individual gift, learning, skills and other competence" and is recognized by "people's judgment and ethical principles," whereas "power is obtained through violence, coercion and other means." The formation of scientific elites, according to him, reasonably followed the principle of rationality and universalism, whereas its opposite, egalitarianism (*pingjun zhuyi*), by rejecting any authorities and demanding the power to be shared by the masses, slipped into "anti-intellectualism." He denounced "the submission of the authority

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[20] Alvin Gouldner, *The Future of Intellectual and the Rise of the New Class* (New York: Seabury Press, 1979), 83. Italics mine.

[21] Zhao Yifan, "Bailing, Quanli jingying, Xinjieji" [White collar, elite and the new class], *Dushu Zazhi* 12 (1987): 115-125.

[22] Zhang An, "Zhishi fenzi fenlei wenti suotan" [Cursive notes on the categorization of intellectuals], *Beijing shehui kexue* 2 (1989): 20-27.

of professors to students and workers during the Cultural Revolution" as "a ridiculous farce." Finally, he concluded that a meritocratic society, though not necessarily one of equality, would bring justice, for the acquisition of social status through knowledge and talent would ultimately award individual efforts rather than inherited privilege.[23]

Gu's advocacy of "authority" based on knowledge and professional skills carefully marked out an autonomous space divorced from socialist ideology. This authority was described as non-oppressive, representing a rationality and universalism that transcended "class prejudices" and ideological conflicts. This new ideal of "depoliticized" intelligentsia is best seen in "At Middle Age." If there is any halo surrounding Lu Wenting, this average-looking, gentle-speaking woman "as slight as a thin straw," it comes from the expert skills and professional authority she presents. Once in the surgery room, Lu displays unquestionable solemnity and authority that even conquers the impertinent Red Guards who try to stop her from completing a surgery on a persecuted Party cadre:

> Lu Wenting was wearing her white surgery robe, green plastic foam slippers, a blue-cloth hat, and a big mask, leaving bare only her eyes, as well as hands soon to be covered by rubber gloves. The insurrectionists were stunned, perhaps because of seeing the unusual outfit first time, or sensing for the first time the solemnity in the surgery room, or witnessing for the first time the bloody eyeball beneath the snow-white sheet on the operation table. Dr. Lu remained seated in her high stool, sending out a few words from beneath her mask:
>
> "Please get out!"
>
> The insurrectionaries looked at each other in consternation, as if realizing this was the wrong place for insurrection, and left.

In this setting, Lu Wenting becomes a symbol of professionalism, a doctor whose calmness, rationality and professional expertise triumph over the irrationality of political fanatics. The solemn atmosphere in the surgery room immediately separates this space from the rest of the world, from whatever might be taking place outside the surgery room. People working in the room are equally solemn, their other identities and social relations suspended:

> Everyone here wears a long, sterilized, white robe, their forehead tightly covered by a sterilized, light blue hat imprinted with the words "surgery room." Everyone wears a big mask, leaving bare merely their eyes. No distinction of beauty and ugliness, man and woman, among these people. They are just doctors, assistant doctors, anesthesiologists, and instrument nurses.

This privilege of professional authority over political fervor reverses the dynamics in "Brotherly Love." Dr. Liang serves his patients meals and assists them to the toilet, which, in the eyes of a nurse, is "not the proper behavior of a doctor at all." Dr. Liang's

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[23] Gu Xin, "Zhuanjia zhiguo yu minzhu" [Meritocracy and democracy], *Shehui Kexue Yanjiu Cankao Ziliao* 29 (1988): 11-19.

"unprofessional" behavior aroused suspicion from his colleague Dr. Gu, a western trained doctor who has more professional knowledge from his medical books and training, but is unwilling to impart his skills and knowledge to the people around him. He comments on Liang: "Though he is sort of experienced, and interested in the medical science, his knowledge of medical theories is meager. He just doesn't care to learn more from books." To Gu, "modern medical science is the accumulation and gist of western medical knowledge," which brooks no contradiction. It is "against human intelligence" and "unscientific" for Dr. Liang to seek treatments for diseases that even medical books pronounce incurable. As Cai Xiang points out in his discussion of the play, the conflicts between the two derive from their different understandings of "science" and social production of knowledge: Dr. Liang's challenge to existing medical knowledge is motivated by his "love for his class brothers," which Gu presumably lacks. Cai places Dr. Gu in the lineage of "conservative, aloof and arrogant" experts in the Mao-era literature, arguing that this literary image conveyed a cautionary message against "expert despotism" in the early PRC years. This wariness against specialization and the exclusiveness of expert authority was also a caution against the social disparity that might result from a rigid and unequal division of labor. The post-Mao critique of the Cultural Revolution while effectively exposing the violence of state socialism, failed to undertake, according to Cai, any critical reflection on the technocratic aspect of "expert despotism."[24]

Ironically, starting from the late 1970s, it was Dr. Gu with his professional knowledge and training in medical science, rather than Dr. Liang's "brotherly love," that became privileged. Lu Wenting, neither a Party member nor politically active, was respected for her expertise and skills. This shift to the privileging of specialization also left its marks on the linguistic characteristics of "At Middle Age." There is a substantial, even ostentatious, display of medical terminology in the text. It gives an extensive list of the equipment and devices in Lu Wenting's operation room: "In the rectangular tray are neatly placed scissors, needles, forceps with and without teeth, fastening tweezers, porte-aiguille, mosquito forceps, retrobulbar injection needles, crystal scoops and other exquisite devices for surgery." This list may immediately strike readers with no medical training as alien, yet nonetheless creates an aura surrounding the "cool" instruments and the person who wields them. Each of Lu's movements during operations is captured in detail:

> She skillfully injected some novocaine into his lower eyelid. Then she fastened both the upper eyelid and lower eyelid of the impaired eye to surgical pad with needles. The eyeball, of which the vision has been blocked by something white and cloudy, was thus exposed in the bright light of the operating lamps. Lu had now forgotten whom the person lying there was. She saw only an impaired eye.

The face of the patient is covered beneath a white cloth pad, leaving bare merely the eye for surgery. Once the ophthalmologist is positioned in front of the operation desk, all she sees is the impaired eye of her patient. Anything else is irrelevant to her work, be the patient male or female, a peasant or a minister. The story repeatedly describes Lu Wenting's vision of eyes without faces, indicating her professional devotion and

[24] Cai Xiang, *Geming, xushu: zhongguo shehuizhuyi wenxue, wenhua xiangxiang*, 273-323.

impartiality. Nothing embodies scientific rationality better than her calm attitude in any circumstances. The operations often encounter some minor accidents, a sneeze of a patient, a patient who suddenly gets too excited, or a needle malfunctioning. It is Lu's professional "coolness" that keeps the unexpected disturbances in control, placing order on potential disorders.

This emphasis on scientific objectivity and professional "coolness" is a far cry from the "brotherly love" that motivated Dr. Liang. The play never cares to provide technical details. In fact, Dr. Liang constantly questions the "iron" rule of science, believing that the human will, as long as you have it, can push science beyond its limits. This strong will is driven by his deep devotion to his brothers to whom he is bonded by class interests and feelings. The play repeatedly documents every one of his efforts to save wounded soldiers, even when other doctors decide that they are helpless. Disregarding scientific exactitude, the play makes of the blood transfusion Liang's all-purpose remedy to his patients in danger. In one scene, the already exhausted Liang volunteers to transfuse his blood to a hero wounded in a battle, but another comrade, a patient whom Liang has previously saved through blood transfusion, volunteers to take his place. Blood circulating among these bonded brothers eschews its medical definition, inviting a metaphorical reading of blood transfusion as a symbol of mutual "brotherly love." Along these same lines, the doctor-and-patient relationship is first and foremost embedded in class relations. Their class bond precedes the professional setting.

Lu's professional "coolness" could be regarded as a reaction to this class view, and an expression of the post-Mao intelligentsia's striving for an autonomous space independent of political intervention. The discourse of scientific rationality and specialization provided legitimacy for this endeavor. Jean-Francois Lyotard notes that the pragmatics of scientific knowledge requires a denotative language, which assumes a statement's "truth-value" as the criterion for determining its acceptability. Scientific knowledge "is in this way set apart from the language games that combine to form the social bond."[25] This language distances itself from everyday language, consolidating the exclusiveness and specialization of knowledge through institutions "run by qualified partners (the professional class)." In other words, the terminology in "At Middle Age" reinforces the autonomous space of a profession, which produces a sociolect restricted to members of the profession.

A similar exactitude and "coolness" of technology can be found in "A Curious Case." The litany of diseases that Fangfang diagnoses runs as follows: "leukemia, lung cancer, cerebral vascular thrombosis, coronary heart disease, Keshan disease, later-stage hepatoma, myocardial infarction, lepriasis and etc." With her specially designed eyes, Fangfang can conduct "chest x-rays, intravenous pyelographic surveys, tomographic surveys, ultrasonic sounding, isotopic examination, liquid crystal examination" in less than one minute. The accessibility of this highly specialized terminology to common readers matters less than their effects: their distinct register mystifies the high technology as well as expert knowledge embodied by Fangfang.

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[25] Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge*, (Minneapolis: University of Minnesota, 1979), 23-27.

From Political Fervor to Affective Labor

Compare these "factual" details with the accusations made by Lin Caihong's father, "a peasant-looking man in a washed-out military uniform:"

> Evidence? What evidence do we need? Isn't it as obvious as lice on a baldie's head? … An Xiang's father is a reactionary bourgeois scholar who came back from abroad in 1954. Who knows if he wasn't sent back by the enemy? … Born in such a family, isn't this the class foundation for An Xiang's murderous intentions? The courtroom is a battleground of class struggle. A people's court should never show mercy to an enemy like An Xiang!

In this passage two salient features of the language may be observed: first, it adopts not only slang ("lice on a baldie's head"), but also idioms developed during the Mao's era ("battleground of class struggle," "show no mercy to an enemy"). This Mao-style language intended to create a social (or "people's ") community based on class division, its principle of inclusion/exclusion different from that of technological terminology mentioned above. Secondly, the passage is imbued with strong, expressive emotions, without concealing the speaker's subjective judgment and attitude. "Objective truth"("evidence") can only be "true" when the class standpoint is declared. This is similar to Dr. Liang's challenge to medical science with his "brotherly love." In other words, the expression of emotions cannot be severed from the political realm, and often functions as class identification.

In the post-Mao 1980s China, this stock language of class struggle became an object of parody, the exaggerated expressiveness an evidence of irrational political fervor. In this sense, the impassioned expressiveness of Dr. Liang now is caricatured as the ridiculous Lin, whereas the professional "coolness" of Lu Wenting and Fangfang was valorized instead. This signaled an important shift in the management of emotions in post-Mao China.

Lu Wenting's professional "coolness" does not mean that she shows no emotions towards her patients. Her job consists of not only wielding scalpels, but also providing comfort and all sorts of emotional support to her patients. Anticipating the anxieties of her patients on the operating table, Lu always begins her operations by calming them with her lullaby-like voice: "We are starting soon. Don't be nervous. You won't feel any pain once I give you anesthetic. The operation will be done soon." This chanting has become her signature so that one patient of hers ten years ago immediately recognizes her from her tone. To her little girl patient Wang Xiaoman, Lu Wenting is "not only a surgeon, but also a doting mother, a nurse in a kindergarten." She whispers gentle words into her ears while conducting the operation, calming down the restless girl.

This gentleness works together with her professional authority. She orders her patient in a commanding tone to stop fidgeting once the operation starts, so that even the minister Qin feels like "a trouble-making little boy" in front of her. Her connection to her patients is also paradoxically built upon her authority as a doctor. A signature gesture of

hers is lifting her hands high in the air whenever she talks to her patients so as to keep her sterilized hands away from viruses. One detail the story repeatedly highlights is her convincing the patients to obey the rules in the operation room, such as letting nurses secure their hands with restraints so that they won't move involuntarily during the operation. In other words, Lu's job is twofold: on the one hand, she counts as technical personnel, whose job requires exactitude and calmness; on the other hand, she mediates between the patients and the "cold" apparatus and systems in the hospital, making the "inhuman" medical setting less terrifying to patients.

Anthony Giddens, in writing about the consequences of modernity, uses the term "expert systems" in a broader sense to refer to "systems of technical accomplishment or professional expertise that organize large areas of the material and social environments in which we live today." He regards expert systems as part of the abstract systems that are "intrinsically involved in the development of modern social institutions."[26] Modern society is built on the trust of people on the abstract systems in the form of "faceless commitments, in which faith is sustained in the workings of knowledge of which the lay person is largely ignorant." Giddens calls the encounters of lay actors with the abstract systems the "access points," at which a division is made "between 'frontstage' and 'backstage' performances." Giddens points out that part of the essence of professionalism is the control of the threshold between the front and backstage. Experts at work always keep a good deal of what they do from the view. This is a means of reducing the impact of human fallibility as well as contingency in the workings of abstract systems so that lay individuals will feel more reassured with the systems. Yet even with "faceless commitments" to these abstract systems, "facework commitments" are "important as a mode of generating continuing trustworthiness." Doctors, experts, and professionals, in their face-to-face communication with lay actors, play important roles in maintaining and building up trust at the access points.[27] Though Giddens does not pursue his argument in terms of the question of labor, it is implicit that the labor invested at the access points consists of not only intellectual and knowledge work, but also human interactions and affect, which Michael Hardt terms "affective labor."

Both knowledge work and affective labor belong to what Hardt calls "immaterial labor," in the sense that it does not directly produce material goods. He delineates immaterial labor in two lines: one type is "symbolic-analytical services" and often related to "the model of intelligence and communication defined by the computer," while the other type is affective labor that produces "social networks, forms of community, biopower."[28] Though Lu Wenting's work is not "material" in the sense to produce material products, it is neither "immaterial" to be restricted within symbolic manipulation. The work of a surgeon like hers involves medical knowledge, but also "handcraft," in Lu's own words, as well as affective labor. In other words, to simplify her work as pure "intellectual work,"

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[26] Anthony Giddens, *The Consequences of Modernity*, (Stanford, Calif.: Stanford University Press, 1990), 23-29. Also see Sianne Ngai, *Our Aesthetic Categories: Zany, Cute, Interesting* (Cambridge, MA and London, England: 2012), 197-198.
[27] Anthony Giddens, *The Consequences of Modernity*, 84-89.
[28] Michael Hardt, "Affective Labor," in *Boundary 2* 2 (1999): 89-100.

and to rely on maidservants to liberate intellectuals from manual labor disregarded the complexity of labor in practice.

To acknowledge the component of affective labor in Lu's work is not to deny the involvement of affect in the labor of Mao's socialist era. But there were several conditions for affective labor to emerge in post-Mao China as a form of labor named and recognized *as such*: first, as is evidenced in "Brotherly Love," in Mao's era, emotions and affect are channeled as an expression of political fervor. With the demise of the Mao-era ideology, and the rise of professional ethics (rather than the demarcation of class) to regulate human relations, affect becomes a form of labor that registers professional detachment, and simultaneously binds humans and systems. Secondly, the traditional Marxist demarcation of mental labor versus manual labor, which had served as the basis of class theory, was adopted by Daniel Bell and Alvin Toffler to argue for the elimination of physical labor, and therefore the end of alienation of labor, in the coming information age. The lack of critique by Chinese intellectuals of Daniel Bell and Alvin Toffler resulted in a simple relegation of a maidservant's work into low-level physical labor, obscuring the involvement of affect in laboring. In other words, the dematerialization and blind elevation of intellectual work in the post-Mao 1980s failed to acknowledge new forms of exploitation and instrumentalization. This leads us to the final point: with what Michael Hardt calls the "informatization of industrial work," as well as growth in the service sector, precisely the tendency that Daniel Bell describes as a "postindustrial society," the mediating labor between human beings, between human beings and machines, becomes increasingly legible.

Affective Labor, Language and Interface

The necessity to name and recognize affective labor can be seen in the concerns about the ethical issues arising from new medical settings with the increasing application and presence of medical expert systems. One author cautioned that an attending physician might not gain respect and trust from her patients as doctors usually enjoyed, for the physician's work now consisted merely in inputting information about her patients into a computer and waiting for the computer to spit out its diagnosis and prescriptions. The author suggested that an attending physician should forego any egotism and shoulder these new responsibilities. Though her labor might not be appreciated by patients, the information she fed into expert systems would be crucial for any diagnosis. Besides attending physicians, other "mediators" indispensable to the development of medical expert systems included software engineers and medical professionals. Those responsible for systemizing knowledge and analyzing the decision-making process of traditional medical practitioners provided the necessary mediation for knowledge to be transferred from practitioners to computer systems. But their work often remained invisible. The author ends by encouraging them to act as "nameless heroes," sacrificing their own

interests for the progress of medical science.[29] This article reveals the unrecognized labor that made expert systems "automatic," yet the author's advocacy of self-sacrifice as an ethical solution to the problem seemed both inadequate and symptomatic, for how could a socialist morality in crisis becomes a solution to post-socialist labor issues?

It is worth noting in this scenario the role of attending physicians, software engineers as well as "mediators" in translating between different languages: a conversational language accessible to patients, versus the medical language used in the profession, and language for computer coding and input. Paolo Virno recognizes the crucial role of language in the post-Fordist labor process, describing the process as "a complex of linguistic acts, a sequence of assertions, a symbolic interaction." This is partly because "now labor activity is performed *aside* the system of machine," and "the electronic machine is incomplete and partially undetermined" as a "cluster of possibilities" that must "be articulated by a number of linguistic acts performed by living labour."[30] By acknowledging the merging of "instrumental" action and human interactions in the praxis of post-Fordist labor, Virno indicates the binding role of language beyond its instrumental function in information transmission. Linguistic acts thus become a form of affective labor.

While we should be wary of the unqualified application to 1980s China of Virno's argument about post-Fordism, and a teleological mapping from the preindustrial age to post-Fordism, Virno's insight on the role of language in the labor process sheds light on Lu Wenting's affective yet economic use of language. Her employment of language is no longer for the display of political standpoints, but a binding force indispensible for the efficient running of the system. With Virno's insight on language and labor in mind, it may be revealing to examine a scene in "Curious Case," one which mocks the prospect of separating the instrumental and "binding" functions of language. This is when Fangfang is summoned to court to be indicted for murder:

> Seated in a soft chair, Fangfang eyed the people around her as if in amazement. Suddenly she addressed the judge: "What is your name?"
>
> Dumbfounded by her unexpected question, the judge still managed to produce an answer: "Li Yongqiang."
>
> "You are sick with calculus of kidney. The renal stone is about twelve millimeters in diameter, four point two grams in weight. Your case demands surgery as soon as possible. Do you approve? "
>
> The judge answered in embarrassment: "Dr. Fangfang, I am not here for diagnosis."
>
> "Please return to the lobby then. Next patient please."

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[29] Yang Hui, "Jisuanji zhuanjia xitong zhengliao tishi de lunwenxue wenti" [The ethical issue in using medical expert systems), in *Yilun yi'an* [Difficult Cases in Medical Ethics], ed. He Zhaoxiong and Cao Kaibing, (Nanning: Guangxi kexue jishu chubanshe, 1989), 279-285.

[30] Paolo Virno, "Language and Labor," trans. Arianna Bove, *Generation Online*, accessed Nov 12, 2012, http://www.generation-online.org/t/labourlanguage.htm.

The comic effects come from Fangfang's unawareness of the limits of her professional conventions. She mistakes the language she uses for medical diagnosis as a universal language of communication. The economy of her language for information exchange ironically exposes the inadequacy of this language. Furthermore, both the court and the hospital are spaces for particular sets of professional relations. Fangfang's exertion of her expert authority in the wrong space inadvertently mocks the professional authority of the judge in the court. The judge is also a patient, the doctor is simultaneously a defendant. Yet a professional setting requires the suspension of these other social dimensions. The displaced medical terminology in this scene disrupts the presumed autonomy of professional settings, debunking the myth and aura surrounding the aggregation of impenetrable technological terminology in the text.

If we follow Virno, we may say that this failed communication results from the absence of binding, affective labor. Our highly intelligent robot doctor Fangfang, proficient in technical language, is not "programmed" to perform affective labor as Lu Wenting does. By exposing the limit of the robot doctor, the story reveals the potential dangers of the specialization of knowledge. In other words, highly professionalized expert knowledge cannot be autonomous of itself. It has to be mediated by affective labor in order to function in a human society.

However, this limitation of expert knowledge is often understood as a technological problem. For example, in accounting for the difficulty of developing expert systems, it was often bemoaned that the empirical experience experts accumulated through their practices was unsystematic, ambiguous, and highly specific to each case, thus posing a challenge to its translation into a computer language predicated on systematic categorization and logic of mathematics. In order to simplify the problem of "knowledge coding" (*zhishi biaoshi*), expert systems were often restricted to a very narrow domain, for the computer representation of knowledge in a neighboring domain might require a completely different set of codings. That restriction made expert systems much less efficient and reliable when they were called on to resolve an issue bordering on several neighboring domains. Arriving at a different domain, the "expert" became "an idiot." Coding "common sense" became the bottleneck of expert systems. One article in the journal *Jisuanji kexue* (Computer science) argued that the solution to this bottleneck rested upon future software technology, and "a universal method of knowledge coding and processing" had yet to be developed. [31]

This account exemplifies the fantasy that the built-in features of expert systems would be a panacea to overcome problems in human-machine-communication. Such an assumption shapes our general understanding of the computer interface: with the ubiquity of personal computers, it is believed that "interface features" should be well-designed for easy interaction, so that even a lay person with no knowledge of electronic engineering should be able to use a computer with no difficulties. This is best seen in the promotion of the "user interface" or the "user-friendly interface" by the IT industry. One central

[31] Huang Keming, "Zhuanjia xitong ershi nian" [The Development of Expert Systems in the Past Twenty years], in *Jisuanji kexue* [Computer Science], 4 (1986): 26-37.

question in the development of user-friendly interface is the language the machine uses to interact with users. Complaints have been made against the use in interface design of technological jargon specific to computing. Instead, a "general language" accessible to lay persons is preferred. However, this is not easy. First of all, what is a "general language?" Does every user share the same general language?[32] Communication between expert knowledge and lay actors, abstract systems and human beings, is thus reduced to a problem susceptible to technical advances, obscuring the affective labor necessary in the human-machine-interface.

This understanding of the interface has to do with what Johanna Drucker calls an approach driven by "mechanistic pragmatism." The interface is conceived as a task-oriented environment to maximize efficiency by chunking "tasks and behaviors into carefully segmented decision trees." The interface is reified as "a thing, an entity, a fixed or determined structure that supports certain activities." Drucker criticizes this understanding of the interface for presuming individuals as "autonomous agents whose behaviors can be constrained in a mechanical feedback loop." The concept of the "user experience" as the principle behind visual interface design to "map structure and effect directly" is built upon such a notion of autonomous agents, of a user who exists as an *a priori* entity. Drucker instead proposes a constructivist approach, positing the interface as "very site of construction" modulating the cognition and sensorium of human agents.[33] In other words, the interface in this sense is not merely a built-in feature of the machine, be they electronic or other "intelligent" devices, but an assemblage of material, technological conditions and human labor, which transforms, reformulates and redefines the "human" *per se*.

The **"Human" Redefined**

In "A Curious Case," one controversy centers around the issue of whether Fangfang is "a tool" or a human equivalent. Lin Hong's father treats Fangfang as a "tool" no different from any other machine human beings have invented, as he states in the court: "If a car runs over a person, should the car or the driver be sent to the court? How could a car consciously intend to hit someone?" In the same logical vein, he contends that An Xiang, the designer of Fangfang, should be responsible for whatever she has done. Yet one electronic engineer in the jury believes that Fangfang is "a being of human intelligence and capable of independent judgment and action." Indeed, Fangfang's eloquent self-defense confirms that her intelligence goes far beyond what a "tool" could achieve, even dwarfing the capabilities of human beings. Is the robot doctor in her own independent judgment a human being?

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[32] Agnes Kukulska-Hulme, *Language and communication: Essential Concepts for User-interface and Documentation Design* (New York and Oxford: Oxford University Press, 1999).
[33] Johanna Drucker, "Humanist Approaches to Interface Theory," in *Cultural Machine* Vol. 12: 1-20.

This argument about whether Fangfang is a tool or a human equivalent rehearses a similar discussion in the early 1960s when the notion of artificial intelligence first traveled to China via Soviet Union. The plot of "A Curious Case" closely resembles a story entitled "Siema" by the Soviet science fiction writer Anatoly Dneprov. Abridged and serialized in *Kexue huabao* (Science Pictorial) in 1963, the story follows the process of a scientist making a robot called "Siema." Through a huge amount of information input and an advanced sensory system, Siema develops superb intelligence and becomes an excellent researcher in neuroscience and artificial intelligence. Yet her increasing intelligence is accompanied by unpredictability and rebellion against her master. One night, the scientist, startled, awakes to find Siema's cold metallic fingers pressing on his chest. He is told coldly that she is to vivisect him in order to study the nervous system of human beings and develop self-improving machines modeled on this knowledge. Siema runs after her master with a scalpel, demanding self-sacrifice for the progress of scientific studies. As eloquently as Fangfang, she proudly announces the significance of her work: "I shall learn how proteins in your cells generate and amplify electrical impulses, how the human brain processes the signals it receives, and in what coded form. I shall fathom all the secrets in the biological structures of living beings, the laws of their development, the modes of their self-control and self-perfection. Is that not worth your sacrificing your life?"[34]

The story was criticized by a student from Peking University for "distorting the relationship between human beings and machines." Writing in 1966 on the brink of the Cultural Revolution, the author, regarding robots as no different from other types of machines, contended that robots were the "products of creative human labor," tools serving human beings, and thus with no autonomy of their own.[35] His criticism echoed another essay entitled "Struggles over the Fruits of Cybernetics," which criticized the idea of "the superiority of robots" as an ideology of capitalism, serving to conceal the fact of human labor, instead of that of machines, as the source of value.[36]

This repeated contention over tool/human distinction is symptomatic of the unsettling redefinition of labor under new social and technological conditions. Karl Marx, especially in *Grundrisse* and *Capital*, defines the "general intellect" as knowledge and the "scientific power" objectified in the system of machinery. Marx argues that the development of machinery, as a manifestation of "the general intellect," showing the degree to which general science and knowledge has become "an immediate productive force."[37] As Paolo Virno comments, Marx's notion of the "general intellect" fully coincides with fixed

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[34] For an English translation of this story, see Anatoly Dnieprov, "Siema," trans. R. Prokofieva, in *The Heart of the Serpent* (Moscow: Foreign Languages Pub. House, 1961.)

[35] Anonymous, "Su'aima: yige jiqiren de gushi"[Siema: A Story of a Robot], in *Ziran bianzhengfa tongxun* 2 (1966): 44-45.

[36] Lu San, "Weirao kongzhilun kexue chengjiu de sixiang douzheng"[The Conflicts among Different Thoughts on the Advancements in Cybernetics], in *Ziran bianzhengfa tongxun* 1(1963): 2-6.

[37] Karl Marx and Frederick Engels, *Collected Works: Volume 28* (New York: International Publishers, 1987), 92.

capital.[38] To Chinese critics in the 1960s, to insist on the status of machines as tools was to defend Marx's labor theory of value — for value is created by human labor, not machines— but also to assert the subjectivity of the working class and their control of the "tools" of production under socialist conditions.

However, the dualist division of subjects versus tools precluded further investigation into the transformations of human beings in their interactions with machines. In their reinterpretation of Marx's *Grundrisse*, Italian Marxian theorists Paolo Virno and Carlo Vercellone take up Marx's notion of "the general intellect," considering it no longer merely as part of fixed capital and external to living labor. Criticizing Marx for neglecting "the way in which the general intellect manifests itself as living labor," Virno argues that living labor as "a depository of cognitive competencies that *cannot be objectified in machinery* (my italics)" includes "the faculty of language, the disposition to learn, memory, the capacity to abstract and relate, and the inclinations towards self-reflexivity." Thus "thoughts and discourses function in themselves as productive 'machines' in contemporary labour and do not need to take on a mechanical body or an electronic soul."[39] Interestingly, Virno here asserts that the general intellect itself becomes "machines," blurring the binary division of humans versus tools. Lazzarato also points out that the production of subjectivity in the process of social communication is simultaneously the production of economic value, which "demonstrates how capitalist production has invaded our lives and has broken down all the opposition among economy, power and knowledge."[40] Labor is no longer limited to the categories of mental and manual labor, but includes activities beyond workplace and simultaneously involves mind, muscle and affect.

To a certain degree, these Italian thinkers addressed the challenges to traditional Marxist theory of labor as posed by Bell and Toffler. By predicting the transformation of the proletariats in factories into "mental workers" in offices, both Toffler and Bell posit the coming of a post-industrial, information society as the annihilation of the division of mental and manual labor and thus that of alienation of labor. But Virno, Vercellone, and Lazzarato, among others, point out that the exploitation of labor does not end with informatization. Instead, "living labor" per se is assimilated into capitalist production.

However, while extending Marx's notion of "general intellect" beyond machines, Virno and Lazzarato also neglect the materiality of immaterial labor. They do not elaborate on the involvement of "tools and machines" in what they call "immaterial labor," even though technology and the infrastructure of communication are indispensable to social communication and interaction, which is central to their notion of immaterial labor. Lazzarato is right to make the point that the production of subjectivity occurs in social

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[38] Paolo Virno, "General Intellect," *Historical Materialism* 15/3 (2007): 3-8. For a critique of autonomist take of Marx's notion of the "general intellect," see Tony Smith, "The General Intellect in the *Grundrisse* and Beyond," accessed Nov 21, 2012, http://www.slashdocs.com/mtwkrw/tony-smith-the-general-intellect-in-the-grundrisse-and-beyond.html.

[39] Paolo Virno, "General Intellect." Carlo Vercellone, "From Formal Subsumption to General Intellect: Elements for a Marxist Reading of the Thesis of Cognitive Capitalism," *Historical Materialism* 15/1 (2007): 13-36.

[40] Maurizio Lazzarato, "Immaterial Labor," in *Radical Thought in Italy: A Potential Politics*, ed. Paolo Virno and Michael Hardt (Minneapolis: University of Minnesota Press, c1996), 133-147.

interactions. Yet social interactions are often mediated by telephones, wireless connectivity, computers, and various screens. Does human contact with these technology and media have an impact on the production of subjectivity?

This brings us back to my previous argument regarding the interface as a transformative site. Affirming the materiality of immaterial labor, we have to take into consideration human-machine-communication in order to rethink the "general intellect." Subjects of labor do not remain external to their "tools" but constitute a human-machine hybrid. A human subject is no longer a pregiven "user" of tools, but always already produced, transformed, distributed around the interface. Knowledge, imagination, mentalities and language competence, all attributes that Virno includes in the "general intellect," are thus also distributed around the interface to produce value.

This understanding of the interface also destabilizes the boundaries of the "human." Lydia Liu, addressing the impact of cybernetics on the very notion of "human," has proposed the notion of the "Freudian robot," referring to "any networked being that embodies the feedback loop of human-machine simulacra and cannot free her/him/itself from the cybernetic unconscious." Including cyborgs, androids, and robots with this category of "Freudian robots," she raises a provocative question: does the "Freudian robot" also apply to human beings "who prefer not to associate themselves with cyborgs and machines"? She argues that the question of whether human beings become masters of, or slaves to, their machines is the wrong one, because it neglects the transformation of human beings in their interactions with intelligent machines. Yet she also warns against a celebratory notion of cyborgs, for the new human-machine entanglement entails political and psychic consequences that need to be acknowledged.[41] In other words, the redistribution of subjectivity and labor around the human-machine-interface neither consolidates human mastery of "tools," nor easily slips into a post-human celebration of the disappearance of the physical human body. The complex involvement of physicality, affectivity as well as intellectual competences in the human-machine-interface demonstrates the reshuffling of labor regimes in post-socialist China.

Ironically, given its involvement in the Marxist humanist debate of the early 1980s, "A Curious Case" ends with a deep suspicion and uncertainty towards the very notion of the "human." That the story is structured as a record of a court case that aggregates various, contradictory voices can be read as a symptom of the unresolved conflicts between different understandings of labor, the human, as well as the increasingly visible impact of cybernetics and artificial intelligence on a post-Mao society in transformations.

The Haunting Absence

However, while affirming the ascendance of intellectual and affective labor in an economy based on information technology, manual labor does not simply disappear with the coming of "an information society." In fact, the idea that the intelligentsia could be

[41] Lydia Liu, *The Freudian Robot: Digital Media and the Future of the Unconscious* (Chicago and London: The University of Chicago Press, 2010), 1-14.

"liberated" from manual labor was made possible only by leaving house chores to their country maidservants. The repeated images of maidservants in conflict with their urban, intellectual employers, as we have seen in the story "Baomu," indicates the haunting presence of physical labor that has been rendered invisible through discourses of "postindustrial society" and informatization.

Toffler and Bell are quick to dispense with manual labor as "inferior" forms of labor that can be replaced with machines. In a similar way, Virno and Vercellone are too optimistic in asserting the overcoming of "the division of labor proper to industrial capitalism" in a flourishing of "the general intellect." They also fail to evaluate the uneven development of post-Fordism in relation to international division of labor. The diminishing importance of the Fordist mode of industrial production in developed countries is accompanied by its migration to developing countries.

When the Chinese government and intellectuals in the 1980s embraced a knowledge-based economy, the elevation of information was part of the same process that devalued other "inferior" forms of labor. In his monograph entitled "Mental Labor and Modernization" (*Naoli laodong yu xiandaihua jianshe*), Zong Han examined the particularity and importance of mental labor through the criteria of optimal efficiency. Manual labor was believed to be "fundamentally defective" in two ways: first, its efficiency was restricted by the physical constraints of the laborer; secondly, experiences gained from manual labor remained empirical and irreproducible, and thus could not be incorporated into science. Both points concern the "embodiedness" of manual labor: its resistance to being abstracted from the laborer as axiomatic principles and knowledge easily transferred to other contexts. These "shortcomings" of manual labor, as Zong argued, should be overcome by mental labor. He also proposed methods for calculating the efficiency of mental labor, based on measuring the output of mental labor against the input demanded for its reproduction. Compared with "simple" manual labor, Zong argues that complicated labor constituted by mental activities is more efficient and should enjoy pride of place over manual labor.[42]

This way of grading labor by calculating its output to economic development was quite common in the intellectual discourse of the 1980s. From Toffler and Bell, to Zong Han and other advocates for the improvement of the intelligentsia's status, their shared starting point was the optimization of social resources and economic efficiency.

It is with this same rationale that Fangfang defends her "inhuman" decision to vivisect Lin Hong. In her eyes, the necessity of the operation surpasses the individual will and interests of Lin Hong:

> I told her (Lin Hong) that this vivisection was to be a landmark operation in the history of medical science. Significant breakthroughs in brain science and neurology could be made, and her name would remain in history… She disagreed. But it doesn't matter. When I give injections to children, they cry and wail, kick and struggle to escape. Animals are dissected before they are asked for their

[42] Zong Han, *Naoli laodong yu xiandaihua jianshe* [Mental labor and modernization] (Beijing: Hongqi chubanshe, 1986).

> approval. These operations are always enforced…. Isn't it absolutely justified to sacrifice an individual for the lives of many thousands of others?

This appalling reasoning astounds everyone in the court. However, nobody can find any means with which to argue against her, for she adopts a compelling rhetoric of progress and social optimization. Furthermore, with her authority as an expert, her patients are cast as being no different from children and animals that are subject to an expert's "optimized" decision.

However, having adopted optimization as the principle of societal management, Fangfang also subjects herself to the same rule. In this sense, she is the epitome of human labor dehumanized as a tool. Is the nightmare of vivisection in this story a form of vengeance for live human forms that have been rendered into invisibility and dehumanized as cold, metallic machines?[43] What if Fangfang is just as human as Lu Wenting? What if this "first-class scholar of medical science," with "the intelligence of merely preschool children in the fields of politics, economy and social life" and little knowledge beyond her professional domain, is the future of an increasingly specialized intelligentsia whose labor is instrumentalized and absorbed into the merciless mechanisms of optimization in name of progress?

[43] The appearance of vivisection in science fiction certainly has a long tradition, from *The Island of Dr. Moreau* (1896) by H. G. Wells, to Dutch psychiatrist Frederik Van Eeden's 1905 *De Kleine Johannes* (Little Johannes), which was translated into Chinese in 1926, to a story by Eroshenko entitled "For the Sake of Humanity," which was also translated by Lu Xun in 1922. See Andrew Jones, *Developmental Fairy Tales: Evolutionary Thinking and Modern Chinese Culture* (Cambridge and London: Harvard University Press, 2011), 164-165 and 238 n 42.

Chapter Four

The "Ultrastable System" and the Cinematic Aesthetics of the Fifth-Generation

In retrospect, the 1984 film *Yellow Earth* directed by Chen Kaige not only established the aesthetics of the fifth-generation films, but also became a signal text of 1980s China, expressing the historical reflections of a generation with shared intellectual resources. Filmed at a high point of China's economic reforms, *Yellow Earth* threw its audience into a barren and bleak landscape that was out of synch with the ongoing, ambitious project of modernization. The immobile images of the sprawling yellow earth that engulfs any characters on that land almost became a symbol of a backward, stagnant China which Chinese intellectuals of the 1980s returned to again and again to address their anxieties about China's modernization process.

For example, in *River Elegy* (*Heshang*), a well-known but controversial TV miniseries, the deserted yellow earth is seen as the creation of the Yellow River that swallows the female protagonist Cuiqiao in the film. The miniseries, which was first broadcast on China's Central Television in 1988, adopts the "yellowness" of the Yellow River and yellow earth as the symbol of the "yellow civilization" of China, as a counterpart to the "blue civilization" of the western world, and examines the landscape of this dusty "yellowness" as if the very myth of Chinese history were buried in it. The landscape, across which the Yellow River — usually regarded as the origin of Han civilization in textbooks —runs, in fact evoked "revulsion rather than admiration" in the heart of Xia Jun, a young CCTV director at that time, who was the chief producer and creator of the controversial TV miniseries. When first coming into close contact with the real Yellow River, he was "shocked not by its idealized, eternal magnificence, but instead by its ugliness, poverty, and hidden crisis."[1] Thus, in *River Elegy*, the landscape becomes a symbol of the Chinese civilization, a land haunted by its "hidden crisis." The male narrating voice questions: "Why did our feudal system, just like the torrents of the Yellow River, never end? … History (in China) transpired as slowly as the grinding of a heavy, antiquated mill. The movement of history in China was like the Yellow River dragging slowly and laboriously through its mud-filled channel."[2] The analogy between the landscape and Chinese history was further developed by the argument that the flooding of the river shared similar chronic cycles with the rise and fall of the feudal dynasties. This was followed by a scholar who explained that Chinese society as an "ultrastable system," in which the chronic disruptions in Chinese history, such as peasants' rebellions, only led to the even more stable and viable structure of its feudal society.

That scholar was Jin Guantao, whose own fame was established for his theory of the "ultrastable system." His work *Prosperity and Crisis: on the Ultrastable Structure of Feudal*

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[1] *Heshang lun* [On *River Elegy*], ed. Cui Wenhua (Beijing: *Wenhua yishi* chubanshe), 1988. Also quoted in Chen Fong-ching and Jin Guantao: *From Youthful Manuscripts to River Elegy: The Chinese Popular Cultural Movement and Political Transformation 1979-1989*, (Hong Kong: The Chinese University Press, 1997), 218.

[2] *Heshang lun* [On *River Elegy*], ed. Cui Wenhua, 56.

Society in China, published in 1983, was an immediate success among the Chinese intellectuals and acclaimed as the first book that adopted the most "advanced" scientific methodology— systems theory and cybernetics—to study Chinese history. Co-authored with his wife Liu Qingfeng, *Prosperity and Crisis* proposed that a society could be studied as a complex system consisting of three interacting sub-systems: the economic, the political, and the cultural and ideological. The interconnections and interactions of the three subsystems, through the circulation of functional inputs and outputs, would together achieve homeostasis and result in the stability of the whole system. This system Jin and Liu termed the "interior environment" of the human civilization. The interior environment *per se* interacts as a sub-system of a larger system encompassing the natural world. The ultimate question asked by the book was: why did feudalism persist in China? Their answer was that the "ultrastable system" of the Chinese society barred a "stagnant," "feudal" China from progress towards modernization.

The bringing forth of a 'stagnancy thesis' at a time of accelerating change in China deserves more attention. Certainly the stagnancy thesis was not anything new in describing Chinese history. However, it should be asked in what new forms, and with what combinations of new elements the thesis reappeared in the 1980s. In this chapter, I pursue the historical connections between Jin's "ultrastable system" thesis and the new aesthetics of the fifth-generation films. This is no arbitrary connection — the affinity between the two, I argue, is an index of the shared intellectual resources and concerns of Chinese intelligentsia in the post-Mao 1980s. I have no intension of reading *Yellow Earth* as an interpretation of systems theory or of Jin Guantao's ultrastable system thesis. Instead, in reading the film side by side with Jin's proposal, I aim to reveal the intellectual ferment and the ideological implications of the new aesthetics of the fifth generation. In turn, later in this chapter I will examine another representative film of the fifth generation—*Black Cannon Incident* (1985) by Huang Jianxin, which I contend was not only informed by systems theory and its underlying anxiety toward an impeded modernization, but also inadvertently stages a potential critique of this anxiety in its very aesthetic form, thus questioning the stagnancy thesis and the dominant discourse of modernization. First, let me begin with Jin Guantao and the intellectual atmosphere of his time.

The "Ultrastable System" and the Belief in Science

Jin Guantao was a student of chemistry at Peking University when the Cultural Revolution started. He developed a strong interest in philosophy through reading Marx and Hegel. When the ferment of underground reading spread among the intellectual youth, Jin, like his colleagues, was enthusiastic in hunting for "internally circulated" books, most of which were prohibited from public publication and circulation and restricted to limited circles of high Party cadres. He avidly devoured available works on science, from mathematics to physics, and felt that "the challenges of the ongoing scientific revolution to our society had not been well realized in the academia."[3] He thus abandoned 19th-century philosophy—Marx and Hegel– for "the rationality of science." His reading notes were circulated among friends, a process through which he became acquainted with

[3] Jin Guantao, *Wo de zhexue tan suo* [My Philosophical Explorations] (Shanghai: Shanghai Renmin chubanshe, 1988), 19.

Liu Qingfeng, a former student of physics and Chinese literature at Peking University. The pair became famous through a small book published in 1981, entitled "Open Love Letters," which Liu Qingfeng composed based on their own correspondences during their sent-down years.

In the novel, the fictive female protagonist, Zhenzhen, a sent-down college student, is perplexed by her own life and future. Her friend Laojiu writes to encourage her to read books on cybernetics and bionics, saying: "My dear friend, you should stand up bravely from where you fell down, and march towards the road of science, which can never be misleading. It is science that always gives us strength and power. It is our time that made us realize that the right answers to everything lie only in the most advanced scientific thoughts and achievements, the criteria against which everything at the present and in the past should be tested."[4] Laojiu also recounts his own experience to Zhenzhen: in the high tide of the Cultural Revolution, distanced from factional fights, he relied solely on reading to seek answers to his puzzles about his own time, only to find out that philosophy should be abandoned for science. He asserts that all previous philosophical thoughts should be reformed through science. Unsurprisingly, in his opinion, the philosophical thought to be reformed is above all Marxism and its related treatise on dialectics, which Jin confessed in his autobiography he had once been intrigued with. Laojiu also distinguishes himself from the previous generation of scientists, who place in their faith in communist ideals and ethics. Laojiu even feels sorry for their "benumbing religion," and believes that only science can provide the correct faith.

It should be noted that this story about the belief in science is framed as epistolary correspondence between the lovers. Circulating along with the affection of the lovers is information on books, knowledge and recent intellectual interests. These correspondences vividly reflect the networks among intellectual youth even when they were sent down to the countryside. It was this network of sharing readings and exchanging thoughts that continued to facilitate their intimate collaboration and communication in the years following the end of the Cultural Revolution. Such exchanges did not fall into the boundaries of academic disciplines but instead constituted a commonly experienced intellectual ferment. At the same time, the love plot, which surged in post-Mao literature and cinema as a symbol of repressed "human" nature in Mao's era, appears in *Open Love Letters* with its new association with the discourse of science. The pursuit of scientific truth is mediated through this new regime of affection. What makes the love letters "open" is the objectivity of scientific truth, which registers the imaginary of a public realm independent of ideology. The blind fervor of faith is placed in contrast with this rationalized love for truth.

Zhenzhen and Laojiu's argument about prioritizing science over faith has to be read in relation to the disillusionment with Maoist ideals on the part of intellectuals and the crisis of faith in Marxism in the post Cultural-Revolution context. To the two characters, as well as to Jin Guantao, Liu Qingfeng and other Chinese intelligentsia who had gone through the turbulent years of the Cultural Revolution, science transcends any ideological conflicts. If the Cultural Revolution was regarded as irrational and inhumane in the years following its official end in 1976, science was imagined to be able to provide a remedy of rationality to every problem. This belief in science and rationality lies at the core of Jin

[4] Jin Fan, *Gongkai de qingshu* [Open Love Letters] (Beijing: Beijing chubanshe, 1981), 43.

and Liu's theory, and of their application of systems theory and cybernetics to examine the not so new question on which their coauthored *Prosperity and Crisis: On the Ultrastable Structure of the Chinese Feudal Society* dwells: why did feudalism in China persist? To be sure, their use of "feudalism" was not unquestioned. Jin Guantao summarized in 1988 the critical voices towards his book as such:

> On the surface, the question we raised about why feudalism persisted in China is ungrounded. First of all, it was largely controversial that we named as "feudalism" the long period from the Qin Dynasty (from 221 BCE) all the way to the Qing Dynasty (which ended until 1912), because "feudalism" is a generalized tag that is often used to refer to the Middle Ages in the West Europe. Moreover, how do we determine whether the endurance of feudalism in China was long or not? Against what criteria? The implicit idea is to take the history of West Europe as the standard model of historical development. Why don't we ask why the feudal society in West Europe was short-lived? In fact, this question is still Europe-centered. It sounds like a biologist asking why the head of a deer is not on the shoulders of a horse.[5]

As a delayed response to these sharp but fundamental questions, Jin argued that: "The real significance of the inaccurate question lies in its fresh reflection on the Chinese history. Implicit in the question is a comparison of the *deep cultural and social structures* between the West and China… What led to their disparate roads of development?"[6] In other words, the question is: what was missing from China when compared with Western Europe? In an interview, Jin made the political urgency of his inquiry even more explicit:

> The disaster of feudalism during the Cultural Revolution prompted historians to inquire again into the reasons of feudalism's long endurance in China…. If feudalism had been abolished (as some scholars argued), why did it hit back in the Cultural Revolution?...We believe that it is the ultrastable system that produced alternate patterns of peace and chaos that restricted traditional Chinese society within the old track, and prevented it from becoming a modern society, however prosperous its commercial economy might have once been.[7]

Apparently, "feudalism" in Jin's writing is a signifier for backwardness and irrationality, which is in his view also the very cause of the Cultural Revolution and can only be eradicated through the pure reason of science. Undoubtedly, it was the cutting-edge scientific theory of cybernetics that gave Jin and Liu their confidence in the validity of their own argument. After a brief summary of the previous discussions about the question at the beginning of their book, they argued that all the previous studies could not be

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[5] Jin Guantao, *Wo de zhexue tan suo*, 30.

[6] Italics mine. Jin Guantao, *Wo de zhexue tan suo*, 31.

[7] Jin Guantao, "Bashi niandai de yige hongda sixiang yundong [A Magnificent Intellectual Movement in the 80s]," in *Wo yu bashi niandai* [The Eighties and Me], ed. Ma Guochuan (Beijing: Shenghuo dushu xinzhi sanlian shudian, 2011), 167.

satisfactory. They believed that with the systems theory, they could provide a more comprehensive answer.

Jin and Liu did not invent the term "ultrastable system." Jin mentioned that one of their direct inspirations came from *Design for a Brain: the Origin of Adaptive Behavior,* W. Ross Ashby's classic on systems theory. Ashby used the term to describe the ability of a system — of both biological and non-biological forms — to adjust itself in accordance to the changes in the environment so that the fluctuations of the system are restricted within certain limits in order to maintain its own stability. To Ashby, this is important for the survival of a biological entity. The interactions between the biological entity and the environment are realized through the feedback inside the large system that comprises the two. Jin and Liu appropriated the term to describe Chinese society. The presumption underlying their argument is that Chinese society could be viewed as an entity isolated from the global market and politics. That enabled them to examine Chinese society entirely from the perspective of its inner structure regardless of its interchanges with other regions or cultures, or of its role in the global market. Ironically, Ashby's emphasis on the feedback between the entity and its exterior was lost in Jin and Liu's argument.

Jin and Liu were not the first to apply systems theory to the examination of a human society. Before them, the American sociologist Talcott Parsons had already borrowed the analytic tools of systems theory and cybernetics into his own studies. Parsons' notion of human society as a system in fact is quite similar to Jin and Liu's: he argues that the parts or variables of the system of human society as a whole are interdependent, and the stability of the system is maintained through the "equilibrium" reached by different forces. Parsons' theory, according to Alvin W. Gouldner in *The Coming Crisis of Western Sociology*, is a key representative of structural-functionalism in western "academic sociology." Its emphasis on the "oneness" of society, as opposed to Marxism's emphasis on division, internal contradictions and class conflicts, in Gouldner's view, addressed the anxieties of the middle class about "the emergence of Communist power in the Soviet Union," and reflected "the common concerns of relatively advanced or 'developed' industrial societies whose elites defined their problem primarily in terms of their common need to maintain 'social order.'"[8] The Parsonianist conception of the society as a self-maintaining, homeostatic system privileges order and thus the benefits of the status quo. Gouldner also pointed out that there was increasing interest in Parsons' theory on the part of the Soviet Union and the Socialist Bloc, mainly for two reasons: first, because of the crisis in classic Marxism in addressing the new social order in Soviet Union and other socialist countries, Parsonianism was regarded as an administrative sociology to keep their system running within the existing framework; secondly, while Parsons stressed the integration of the system, he also affirms the functional autonomy of each component, which Soviet scholars read as a support for their liberalizing demands and a possibility for a more humanistic culture.

Parsons' theory was not new to China. As early as the 1960s, reviews and introductions of Parsons' works had already appeared in journals such as *Guowai shehui kexue wenzhai* (Digest of Foreign Social Sociences) and *Shijie zhexue* (World Philosophy). With the revival of western sociology in China in the early 1980s, Parsons became a high-profile western sociologist featured in various journals of western science. Jin Guantao

[8] Alvin W. Gouldner, *The Coming Crisis of Western Sociology* (New York: Avon, 1970), 145.

and Liu Qingfeng in their 1986 book *Lun lishi yanjiu de zhengti fangfa* (On the Wholistic Method of Historical Study) also mentioned the similarity of their work to Parsons' theory of social systems. Though Jin and Liu revealed that they had not been exposed to Parsonianism when they started their writing in the 1970s, there are certainly parallels in their work with Parsons' theory. For example, Parsons' notion of the interdependent system, as pointed out by Gouldner, was "a polemic against those models that stressed the importance of 'one or two inherently primary sources of impetus to change in social system.'" The models Parsons wrote against referred mainly to classic Marxism. Jin and Liu's book also argued against the determinant role of the economic base, and proposed instead the interactions between each component. Similar to Parsons' obsession with "oneness," Jin and Liu were preoccupied with "systematic totality," a mode of analysis, which Wang Jing notes, "pledges alliance with a totalizing scientific rationality, a rationality that allegedly enables and liberates the mind but at the same time encloses real human beings and human history within a superstable macrostructure."[9] Though the "oneness" of the system to Parsons meant the positive stability of the social order, which on the surface differs with Jin and Liu's view that such integration of the system locked Chinese society in stagnancy and backwardness, they, according to their Marxist critics, denied the role of class conflicts, and annihilated the human agency of history. More importantly, they also shared the positivist view implied in Parsons' theory that science could overcome ideological and religious differences.

Writing about this "coincidence" of Jin and Liu with Parsons, He Guimei points out the role of Max Weber in their shared interest in arguing against Marxist theory about the determining role of the economic base, for Weber placed a great emphasis on the role of culture in the rise of capitalism, which, in the context of the 1980s, was equivalent to modernization. In fact Parsons' English translation of Weber's *The Protestant Ethic and the Spirit of Capitalism* was translated into Chinese by a group of graduate students at Peking University in the 1980s. Parsons himself was a key figure for laying down the theoretical foundation of modernization theory in Post-War American social sciences, aimed at providing a scheme of industrialization and modernization in non-western, underdeveloped countries and regions. Scientism and developmentalism, two pillars of the modernization theory, became the ideological weapon of the United States to compete with the Soviet Union. At the turn of 1970s, with the rise of neoliberalism and transformations inside the socialist camp, the ideology of modernization gained influences among former third-world countries, and appeared as a universalized path globally.[10] As He Guimei points out, by turning the Weberian thesis of culture and capitalism into a universal theory of modernization, Parsons and his colleagues successfully explained the "superiority" of the West as that of culture, concealing the history of colonial expansion accompanying the rise of capitalism. Quoting Arif Dirlik, she points out that the privileging of the cultural by the modernization theory turns the issue of modernization into the internal functioning of the system and values of a society, obscuring the

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[9] Wang Jing, *High Culture Fever: Politics Aesthetics and Ideology in Deng's China*, 58.

[10] He Guimei, *"Xin Qimeng" zhishi dang'an: 80 niandai zhongguo wenhua yanjiu* [The Archival of the "New Enlightenment:" Studies on 1980s Chinese Culture] (Beijing: Bejing daxue chubanshe, 2010), 250-259.

interrelations of different societies.[11] With Max Weber as a key figure in the discourses of modernization in the 1980s China, this culture thesis not only emerged as a counteraction to Marx's economy-based social analysis, but also shaped the "cultural fever" in the 1980s China. Though Jin Guantao and Liu Qingfeng outlined three subsystems as an interacting system, in the end it was the persistence of Confucian culture that helped restore the system each time after its disruption. In this way, an examination of the "deep cultural structure" naturally became the manner in which Chinese intellectuals explained the absence of modernization in China.

Jin and Lin's treatise could be regarded as part of a craze at this time "for the scientific approach to social problems," which was sweeping over China, "no doubt with quiet blessing of the top leadership, which was actively searching for rational means of revitalizing the country."[12] In a manuscript Jin coauthored with Chen Fong-ching, Jin characterized this craze as "a movement away from orthodox Marxism-Leninism towards Scientism, that is, a world view and social theory based directly on the principles of natural science."[13] The "Joint National Conference on Scientology, Talentology, and Futurology" in November 1980 best expressed the efforts of these like-minded intellectuals at "finding rational approaches to social planning." With this belief in science and rationality, cybernetics and the system theory became the newfound tools for many Chinese intellectuals to reformulate historical narrative or to describe social phenomenon in a more "scientific" way. Jin Guantao and Liu Qingfeng, after joining the editorial board of the *Journal of Dialectics of Nature* in 1978, made the journal an important site for introducing modern cybernetics, information and systems theory. The *Journal of Dialectics of Nature*, originally called the *Newsletter of Research in the Dialectics of Nature*, was edited by Yu Guangyuan, who became well known through his translation of Engel's *The Dialectics of Nature* and headed the Science Section of the Propburo after the founding of the PRC. In the late 70s, he revived the *Newsletter* under the name of *Journal of Dialectics of Nature* after it fell into dysfunction during the Cultural Revolution. He entrusted Cha Ruiqiang and Li Baoheng with the details of starting up the journal; the latter, who personally received Alvin Toffler during his visit in Shanghai, in turn recruited Jin Guantao. Around 1984 and 1985, Jin became a key figure in organizing the publication of a book series called "*Zouxiang weilai*" (Towards the Future). Dedicated to the translation and introduction of Western thought, promoting science as the remedy for China's impeded modernization, the series was one of the most influential in the 1980s, along with the "*Wenhua: zhongguo yu shijie*"(Culture: China and the World) book series edited by Gan Yang, and the "*Zhongguo wenhua shuyuan*" (Chinese Culture Academy) series by Tang Yijie and Li Zehou. Jin and Liu's *Prosperity and Crisis* was abridged as *Zai lishi de biaoxiang beihou: dui zhongguo fengjian shehui chaowending jiegou de tansuo* (Beneath the Surface of History: a Thesis on the Ultrastable Structure of Chinese Feudal Society) and republished as one of "Towards the Future" series.

The series covered a wide range of areas, from modern physics and mathematics to linguistics, art theory and economy. They include *The Limits To Growth* by the Club of Rome, a pessimistic prediction of the human future resulting from limited resources, an

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[11] He Guimei, *"Xin Qimeng" zhishi dang'an: 80 niandai zhongguo wenhua yanjiu*, 253-254.
[12] Chen Fong-Ching and Jin Guantao, *From Youthful Manuscripts to River Elegy*, 105.
[13] *Ibid*.

argument to which the theories of an information society including that of Alvin Toffler directly responded. Its counterargument, Julian Simon's *The Ultimate Resource*, was abridged and included too. Besides translation, there were also monographs by Chinese scholars, such as *Xinxi geming de jishu yuanliu* (The Technological Origins of Information Revolution) by Song Desheng, *Jingji kongzhi lun* (Cybernetic Economy) by He Weiling and Deng Yingtao, as well as *Furao de pingkun* (Rich Poverty) by Wang Xiaoqiang and Bai Nanfeng, an anthology of investigations into the backward countryside of western China. Most of these people belonged to the same intellectual circle around the "Rural Development Group" (*Zhongguo nongcun fazhan wenti yanjiuzu*) under the Chinese Academy of Social Sciences.[14] Their interest in rural areas and their experience as sent down youths were shared with Chen Kaige and other fifth-generation directors. While the rural area was considered to be where the "authentic" cultural tradition might be located, it was also regarded as a symbol of underdevelopment in the urgent need of modernization.[15] Numerous published memoirs of this period provided a vibrant scenario of intellectual communication and stimulation among the sent-down youth and urban returnees, which nourished independent journals such as *Jintian* (Today), edited by Bei Dao and other Misty poets. There were also connections and communications between these groups. He Weiling, active in a group composed mainly of economists and sociologists, was also acquainted with the Baiyangdian intellectual youths, the most representative of whom included the well-known poet Mang Ke.[16] One of the editors of the "Towards the Future" series, Chen Yizi, who initiated the Rural Development Group, was a key figure in drafting suggestions to the central government on the plans of reforms in the countryside[17]. Gan Yang, the editor of the "Culture: China and the World" series, recalled that Jin Guantao and his group had close connections with the reformists in the CCP, and hoped to play a role in the policy-making of the Party.[18] It is not hard to see that the popularity of Jin and Liu's work among the Chinese intellectuals was not a single case, but rather the fruit of common intellectual concerns and their shared discourse of modernization with the state at this moment. Given that Jin Guantao was one of the main consultants of *River Elegy*, it is unsurprising that the miniseries presented a view of Chinese history quite similar to Jin and Liu's theory of "ultrastable systems."

This prevalent understanding of Chinese traditions and history among Chinese intellectuals was also the outcome of the cultural fever of this moment. It is not to say all these intellectual groups shared exactly the same ideas about the Chinese traditions and the ways to modernize them. As mentioned above, there were mainly three active

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[14] *Baling niandai: Zhongguo Jingjixueren de guangrong yu mengxiang* [1980s: An Age of glories and dreams for Chinese Economists], ed. Liu Hong (Guilin: Guangxi shifan daxue chubanshe, 2010), accessed Feb 22 2012, http://book.ifeng.com/lianzai/detail_2010_11/03/2989011_25.shtml.

[15] The group, after conducting extensive field survey of rural areas all over the country, argued strongly in their report for a general policy of total privatization, which influenced CCP's policy of "the responsibility system of farm production." See Chen Fong-Ching and Jin Guantao, *From Youthful Manuscripts to River Elegy*, 84-86.

[16] Pan Jing, "Four letters On the Cultural Revolution" [Guanyu wenge de sifengxin], accessed Feb 22 2012, see http://beijingspring.com/bj2/1995/240/2003129133951.htm.

[17] Liu Hong, *Baling niandai: Zhongguo Jingjixueren de guangrong yu mengxiang.*

[18] Interview with Gan Yang, in *Bashi niandai fangtan lu* [Interviews and Conversations about the Eighties], ed. Zha Jianying (Beijing: Shenghuo dushu xinzhi sanlian shudian, 2006), 196-197.

intellectual groups surrounding three most influential book series, including "Towards the Future" group led by Jin Guantao, "*Wenhua: zhongguo yu shijie* (Culture: China and the World)" group headed by Gan Yang, and the "*Zhongguo wenhua shuyuan* (Chinese Culture Academy)"group represented by Tang Yijie and Li Zehou. As Chen Lai accounted, the Jin group aimed at the "scientization" of humanities through quantitative analysis and mathematical models and other methods of natural science, and thus reforming traditions through modern sciences, whereas the Gan group, especially Gan, inspired by modern hermeneutics, "freed from the lure of scientifism," was concerned more with reforming Chinese culture through western modern culture.[19] The last group, closely associated with overseas Neo-Confucianists, and fascinated with Max Weber's *The Protestant Ethic and the Spirit of Capitalism*, enthusiastically pursued the question: can Confucianism be transformed to serve as the ideological foundation for Chinese modernization? This revival of Confucianism found official endorsement and cooperation from the late 80s.[20] Their opinions about Chinese culture might vary, but they all shared the same concern: the relationship between Chinese culture and China's modernization project. Gan Yang, arguing against the opinion that the heritage from the past should be presevered in order to avoid a rupture in tradition, contended that traditions should be renewed in modern times. Reducing "traditions" to "the past" could only result in "a closed circularity of the past," a "cultural and psychological structure" that would prevent the birth of modern traditions.[21] Even Li Zehou from the last group did not refrain from using the phrase "the cultural and psychological structure" to describe his examination of Chinese traditions. The mutual influences and crisscrossing among the three groups spoke, according to Chen Lai's insight, to "the contradiction between the cultural nationalist recognition of the tradition and the anti-traditional tendency borne of the urgency of modernization."[22] It was this contradiction that made the dynamic between modernization and "the deep structure of Chinese culture" the common concern of Chinese intellectuals in the 1980s.

The Aesthetics of the "Ultrastable Structure"

As mentioned above, Jin and Liu's "ultrastable systems of Chinese society" was part-and-parcel of the Chinese intellectuals' post-Cultural Revolution reflections on their traumatic historical experiences. From "scar literature" such as Liu Xinwu's "The Class Teacher" (*Ban zhuren*), to the rise of "roots-seeking" literature such as Wang Anyi's "Bao Town" (Xiaobaozhuang), Han Shaogong's "Papa Papa Papa" (Bababa), this reflections went further into the "deep structure of the native culture."[23] Jin Guantao and Liu

[19] Chen Lai, "*Sixiang chulu de san dongxiang*" [Three Directions of Thoughts], in *Zhongguo Dangdai Wenhua Yishi* [Cultural Consciousness in Contemporary China], ed. Gan Yang (Xianggang: Sanlian shudian, 1989), 581-587.
[20] Wang Jing, *High Culture Fever*, 58-72.
[21] Gan Yang, "*Bashi niandai wenhua taolun de jige wenti*" [Several Issues in the Cultural Discussions of the 1980s], in *Zhongguo Dangdai Wenhua yishi*, 1-35.
[22] Chen Lai, "*Sixiang chulu de san Dongxiang*," 585.
[23] Lin Yusheng when talking about the 1980s Chinese intellectuals' negative attitude towards Chinese cultural tradition pointed out its continuity with the May Fourth generation's radical anti-traditionalism. He argued that this anti-traditionalism was first of all culture-determinism, which

Qingfeng also employed their scientific methods to inquire about "the deep social and culture structure" of China. Leaving aside for the moment the problematic term "feudalism" and their presumptions about the Chinese history, Jin and Liu's approach to the question in fact *ruled out temporality* from their model. If Chinese history throughout the two thousand years of feudalism had remained stagnant, there was no need to take temporality into consideration. Although each of the sub-systems was never entirely static, in Jin and Liu's assessment, the adjustments among the various sub-systems kept society from breaking through into a new system. They introduced the term "disorganized forces" to describe the accumulated changes across these subsystems: "the disintegrating forces came along with the self-adjustments of a system for it to maintain its own stability, yet they could not represent the birth of a new system." For example, the expansion of bureaucracy was one of the disorganized forces resulting from the everyday operations of the feudal system. In order to curb the expansion the emperor had to rely on the aristocracy and eunuchs, the expansion of which inadvertently brought out another type of disorganized forces. However, it was through the interactions between different sub-systems that the overall stability of the entire system of the feudal society was maintained. The ultrastable system of Chinese society lay in the fact that, according to Jin and Liu, even if the dynasty was brought down by the disorganized forces, a similar structure was soon restored based on the past.[24] In other words, in terms of the long duree of history, there were no fundamental changes to the Chinese society. That was the depressing vision of the "deep social and cultural structure" of China Liu and Jin found, which resonated with the anxieties of many Chinese intellectuals at that moment.

It is no coincidence that, therefore, Chen Kaige and his filmmaking group developed a new cinematic language to examine the "deep cultural structure of this ancient land." The most stunning feature of *Yellow Earth* for the 1980s Chinese audience was its immobile images, as if they were just fixed on the screen, with little or no movement. The cinematographer Zhang Yimou explained why he decided to reduce the movement of the camera in this film:

> As film is an art of moving images, naturally, it is the strength of film to capture the movement of things. But cinematography is unnecessarily restricted to the techniques of a moving camera, and neither is a moving camera is necessarily

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placed culture as the determining factor over political, economical and social factors. He continued: "It would be mistakenly reversed cause-and-effect relationship if someone uses the 'national character' hypothesis to explain Chinese history. Even there are Ah-Q style characters in China, they are the 'products' of complex historical factors, not the 'causes' of Chinese history." See Lin Yusheng, "Zhongguo yishi weiji yu chuantong de chuangzaoxing zhuanhua" [The Crisis of Chinese Consciousness and the creative transformation of tradition], in *longnian de beichuang* [The Pathos of the Dragon Year] (Hong Kong: Sanlian shudian, 1989,) 45-50. In fact, 1980s Chinese intellectuals were struggling with such cause-and-effect issues. Though Jin Guantao started with social structures, his research clearly aimed to dig out the "feudalist deposits" in the psychology of Chinese nationals. This poses the issue of relationship between systems and human subjects, which I discuss later in this chapter.

[24] Jin Guantao and Liu Qingfeng, *Xinsheng yu weiji: lun zhongguo fengjian shehui de chaowending jiegou* [Prosperity and Crisis: On the Ultrastable Structure of the Chinese Feudal Society], (Changsha: Hunan renmin chubanshe, 1984).

> the best form. Whether the camera is mobile or immobile depends on the content and theme of the film. The immobile characteristics of the cinematography of *Yellow Earth* is decided by its content and theme…. Specifically, there are two aspects to consider:
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> First, we hope to convey a sense of historical feelings through the immobile camera…. *Yellow Earth* is set in the Sino-Japanese War period, so there should be a sense of historicity, and a feeling of the ambiance of that time. The immobile camera is the most faithful and powerful way to present that ambience….
>
> Secondly, the immobile camera is also in accordance with the topography of the land. Because of the soil erosion by water, the land of the Northern Shaanxi…. became a patch of bare earth, as if something serene and of incredible weight had landed on this planet. The vegetation-less land is insulated from the agitation of cities, nor could any sound of the insects or wildlife be heard. We hope to capture the serenity of the land with the immobile camera.[25]

It may seem unclear what sort of historical feelings should be captured by the immobile camera. However, it was never a problem for Zhang's contemporaneous intellectuals to identify these "historical feelings." Film critic Zheng Dongtian had no difficulty in recognizing in *Yellow Earth* a reflection on the traditional culture as the sedimentation of a long history of "backwardness and uncivilizedness," and a critique of the "ultrastable familial structure" that sacrifices young lives like Cuiqiao.[26] Ni Zhen commented that the film "used symbolic language to present the stagnant history of the nation." He applauded the use of immobile shots to capture of the rhythm of slowness and repetition in the everyday life of the agricultural society, which he saw also as the psychological rhythm passed down generation by generation.[27]

It is worth noting that in Zhang Yimou's statement, the "sense of historicity" and the unique topography of the yellow earth converge in the immobile shots. The "sense of historicity" cannot be mistaken as a realistic or faithful representation of a specific historical incident, or of the Sino-Japanese War period. In fact, some critics pointed out the incongruity between the historical setting and the costumes and props, as well as visible traces of human artifacts in the film.[28] Many critics agreed upon the symbolic features of the film. In other words, the images of the yellow earth are not naturalist representations of a real, concrete place, but a symbol of the old civilization. The alluvial sedimentation of the plateau in the eyes of the Chinese intellectual is also the sedimentation of China's long history. History in this sense was no longer regarded as a series of unfolding temporalities, but condensed in the immobile shots of the symbolic landscape. The *substitution of spatiality for temporality* resembles Jin Guantao and Liu

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[25] Zhang Yimou, "*Wo pai Huangtudi*" [My Experience of Filming *Yellow Earth*], in *Huashuo Huangtudi* (On Yellow Earth), ed. Zhongguo dianying yishi editorial office (Beijing: Zhongguo dianying chubanshe, 1986), 285.

[26] Zheng Dongtian, "*Huangtudi* suixiangqu" [Some thoughts on *Yellow Earth*], in *Huashuo Huangtudi*, 37-47.

[27] Ni Zhen, "Qitiao de gaodu" [The height of the first jump], in *Huashuo Huangtudi*, 67- 81.

[28] Luo Ka, "Huangtudi de zhigan yu lianxiang" [First impressions and some thoughts on Yellow Earth], in *Huashuo huangtudi*, 117.

Qingfeng's approach, replacing temporality with a timeless, ultrastable system, any changes in which could be only spatialized as insignificant modifications in its sub-systems. The immobile framing locks the characters and their world in a frozen temporality.

The long shots of immobile images are consonant with the slow rhythm of the film. Critics of the 1980s quickly sensed its diluted, "nondramatic" narrative as a break with classic Hollywood narrative. Since the late 1970s, discussions about the divorce of film from drama had been central to the aesthetic explorations of the new Chinese cinema. Film scholar Chen Xihe, in his essay "Rethinking the Film Aesthetics of China" tried to dig out the "root" of the drama-centered aesthetics in Chinese film tradition. On the one hand, he made "a comparison between Chinese and Western film theories in their disparate cultural and philosophical traditions;" on the other, he undertook "archeological research on the origin of the Chinese tradition of film theory." He focused on *On Shadow Play Writing*, the earliest text of Chinese film theory by Hou Yao, one of the pioneer Chinese filmmakers, whose screen adaption of the Yuan dynasty drama *The Story of the West Wing* is one of the extant earliest silent films. Chen argued that, Hou's contemporaneous film theorists in the west, such as Louis Delluc, Sergei Eisenstein and Béla Balázs, had carefully examined the design of mise-en-scène and the techniques of the camera work, which should be the very fundamentals of film-making. Hou instead took cinema basically as a type of drama, and overemphasized the social functions of cinema, which resulted in what he called a "shadow-play aesthetics" still present in Chinese film-making today. Quoting Li Zehou, the most active philosopher of this time, Chen argued that this utilitarian tradition was rooted in the practical reason of the Chinese cultural tradition. Chen called the shadow-play aesthetics the "ultrastable system of Chinese film theory," which persisted in Chinese film practices regardless of the input of foreign aesthetics. From this perspective, the incomplete storytelling, the reduced dramatic elements of *Yellow Earth*, Chen concluded, was a challenge to the "ultrastable system."[29]

Chen Xihe's essay was applauded by other like-minded film critics. His critique of the "deep cultural structure" in Chinese film theory was in precise accord with the intellectual ferment at this historical juncture. It was no coincidence that Chen adopted the term "ultrastable structure" from Jin Guantao and Liu Qingfeng. Critic Li Tuo, referring to Chen's essay, regarded the shadow-play tradition as a central ethical doctrine that prevented Chinese film from developing into a modern art. According to him, opposed to the "didactic rule" of cinema is the "scientific" understanding of film that focuses on the technologies of filmmaking such as camerawork, lighting, film-editing and the design of mise-en-scène. For Li Tuo, the debates on film aesthetics since the late 1970s could be summarized in one question: what is cinema? The Bazinian question was read by Li as a choice between a utilitarian understanding and scientific understanding of cinema: Is it a tool for ideological doctrine, or is it subject for scientific study? He asserted that the real significance of introducing Bazin was not so much about realism or documentarism, but bringing film theory to the level of scientific study. [30]

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[29] Chen Xihe, *"Zhongguo dianying meixue de zairenshi"* [Rethinking the Film Aesthetics of China], in *Dangdai dianying* [Contemporary Film] 1 (1986): 82-90.

[30] Li Tuo et al., *"Dianying, ke xue de duixiang: Chongti 'dianying shi shenme'"* [Film as an object of scientific examination: rethinking about the question of 'what is cinema'], in *Dianying yishu* [Film Art] 5 (1988): 3-14.

It should be noted that Jin Guantao and Liu Qingfeng in their pursuit of the question "why did China fail to give rise to modern science?" similarly identified the "ethical centeredness" (lunli zhongxin) of a Confucianism that "inevitably ascribed the judgment of ethical values to the explanation of natural phenomena," which led to superstition and mysticism.[31] This parallel construction by Jin Guantao and Li Tuo of the opposition between scientific values that represent the modern, and ethics-centered judgments that symbolize the traditional, on the surface advocated for the "purposeless purpose" of science, but in fact were part of a politics of "depoliticizing" cinema. Li distinguished the new Chinese cinema and its aesthetics from earlier PRC films, for the latter were regarded as distorted products of the power of the Party. "Science" in this context became a signifier of authority that contested the domination of film by politics and ideology, however loosely Bazin's theory might be tagged as a "science." The technical level of filmmaking, such as camerawork and editing, was no longer derogated as "formalism," but gained autonomy for its association with "the modern."

Indeed, the post-Mao new wave of aesthetic experimentation in cinema can be said to date from Zhang Nuanxin and Li Tuo's call for the "Modernization of Cinematic Language," an essay published in 1979. As Zhang Xudong points out, this pursuit of the "modern" is above all a challenge to the official mode of representation — socialist realism. Bazin was embraced as a "theory of cinematic ontology" or the "long-take" theory. For Chinese film critics, Bazin's recognition of the automatic mechanism of the cinematic apparatus rules out human intervention, which, in the context of early 1980s, could only represent political manipulation. Zhang Xudong therefore summarizes the politics of cinematic language as such:

> By being transparent to the reality, that is, by letting the photographic, cinematic dimensions take over, the person behind the camera successfully maintains the political ambivalence and semantic multiplicity of his or her visual world: hence the discussion of "opacity" of the new wave films. In contrast, socialist realism is seen as privileging a monolithic, transparent political meaning by imposing the opaqueness of the medium as a visual cliché.[32]

This "transparency to the reality" in fact posits a competing notion of "reality" over and against socialist realism. The short circuit between the clichéd language of socialist realism and its meaning is regarded as political manipulation and a distortion of reality, whereas the ambiguity or "opacity" of the "modern" cinema leaves its audience space for reflection. Central to this version of "modern" cinema and a reflective audience is a humanistic notion of subjectivity aligned with the enlightenment ideals of Chinese intellectuals. Sharing similar concerns about the agency of the audience, Chen Xihe read the scene of Cuiqiao's marriage in parallel to a similar marriage scene in *Life* (Rensheng, 1984) by the fourth-generation director Wu Tianming. He commented that while Wu used a close-up on the tears of the reluctant bride to induce the audience's identification with and pity for the

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[31] Wang Jing, *High Culture Fever*, 61.

[32] Zhang Xudong, *Chinese modernism in the era of reforms: cultural fever, avant-garde fiction, and the new Chinese cinema*, (Durham, N.C.: Duke University Press, 1997), 241.

bride, *Yellow Earth* employed an extremely long shot, itself a deliberate near repetition of the marriage scene that Cuiqiao witnesses at the beginning of the film. Chen continued:

> This is unlike some cheap, melodramatic gimmicks to bully the audience emotionally. Rather, it achieves an effect of defamiliarization, which keeps the audience at a certain distance to see and think about the fate of Cuiqiao against the broad background of the Chinese history…. The use of long shots leads not to a utilitarian interpretation of politics or ethics, but rather to modern reflections on the cultural heritage of our nation…. Class analysis can no longer reveal the richness and profoundness of our life today… (but) cultural analysis can touch upon the more eternal and essential elements of our life. [33]

It is not hard to see that "culture" replaced "politics" and "ideology" as the pivot of critical writings of the 1980s. The defamiliarizing effect Chen associated with the long shot, according to him, prevents the camera and thus the audience from dissolving and "losing" themselves into the scene, providing the audience a detached distance to "observe" the culture. This detached mode is different from that of dramatic conflicts to manipulate the reactions of the audience, which, as we can see, is inseparable from what Chen criticized as the ultrastable structure of Chinese cinema. Furthermore, cinema is attributed the role of anthropological observation and cultural analysis, which is to supplant the role of inducing class identification. It is also with this shifting role of cinema that Chen privileges the long shot over close up, for the former allegedly captures the modes of human life in their social and natural environments. This shift, simultaneous with the privilege of long take over montage among both filmmakers and critics, is also to register a temporality of repetitive, long duration in contrast to the eruptive, eventful temporality of revolutionary narratives of socialist realism. Zhang Xudong thus astutely comments on the discovery of landscape in this new wave cinema: "What is smashed by the presentation of this landscape, though, is not temporality per se, but rather the narrative of time inscribed to a particular mode of representation, the official, bureaucratized discourse of socialist realism."[34]

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[33] Chen Xihe, "*Zhongguo dianying de xinshijiao*" [A New Perspective on Chinese Film], in *Huashuo huangtudi*, 247-248. Interestingly, Peter Brooks argues that melodrama "comes into being in a world where the traditional imperatives of truth and ethics have been violently thrown into questions, yet where there promulgation of truth and ethics, their insaturation as a way of life, is of immediate, daily, political concern." The Manichean terms of melodrama are to compensate such loss of traditional truth and ethics by inventing "a regime of virtue" of a new world. Brooks also regarded melodrama as the product of the French Revolution, as a mode of excess to produce "incessant struggle against enemies, without and within, branded as villains, suborners of morality, who must be confronted and expunged, over and over to assure the triumph of virtue." See Peter Brooks, *The Melodramatic Imagination: Balzac, Henry James, Melodrama, and the Mode of Excess* (New Haven: Yale University Press, 1976), 15. This manichaeistic logic of melodrama is also pervasive in revolutionary films of the Mao era. Chen Xihe's objection to "cheap, melodramatic gimmicks" should be understood as a repulsion towards the manipulation of the audience's reaction for the purpose of revolutionary didacticism.

[34] Zhang Xudong, *Chinese modernism in the era of reforms*, 251.

Ironically, the emergence of this "nothing-whatsoever-happens" temporality in cinema is exactly predicted upon the recognition among Chinese intellectuals of a sense of urgency for change and modernization. With the "modern" temporality of transformations implicit in revolutionary narratives negated, a different "modern" gained legitimacy. In other words, the "modernization of cinematic language" should not be read literally, but as an emblem of the disparate fates of competing modernities near the end of the socialist era, as a shifting discourse to re-demarcate the boundary of the modern and the backward, as well as the start of and a symptom arising from reincorporating China into the temporality of global capitalism. In this sense, the immobile long takes document the passing of the present, and thus register the anxieties of Chinese intellectuals of positioning China in the temporality of global capitalism.

However, if the culture itself was understood to be an ultrastable system, where should the detached observer stand, inside or outside the system? If observation involves the circulation of information between the observer and the observed, the observer should surely be included within the feedback system along with the observed. Does this blurring of the boundary between that within and without undermine the self-appointed enlightenment mission of Chinese intellectuals?

The Polemic of the Observer/System Dichotomy

The dichotomy of the observer/system was actually a crucial question that the first generation of American Cyberneticists found extremely difficult to tackle. According to N. Katherine Hayles, Claude Shannon found that humans and machines in the cybernetic system were caught in a reflexive loop. Such a reflexive loop was best represented in W. Ross Ashby's theory of homeostasis, in which a human being is assumed to be a machine or an entity that responds to its environments in order to maintain homeostasis. That opened the pandora's box: is man involved in the circuit, either as an operator or an observer, or merely a black box functioning as an input/output device? Cyberneticists such as Heinz von Foerster and Gregory Bateson, in attempting to grapple with the issue, realized that the problem of reflexivity might entail serious challenges to epistemology. Humberto R. Matunara and Francisco J. Varela's *Autopoiesis and Cognition: The Realization of the Living* was a representative and classical work in this respect. "Autopoiesis" means self-making, a word Matunara coined to describe the self-reflexive circularity of a living system. Hayles perfectly summarized their argument as follows: reality comes into existence for humans "only through interactive processes determined solely by the organism's own organization," and such interactions "would be necessarily determined by the autopoietic organization of the observer." "A living system's organization causes certain products to be produced,…(t)hese products in turn produce the organization characteristic of that living system," the result of which is "a circular, self-reflexive dynamic."[35]

Before taking the discussion into overly complicated territory, I would emphasize that Matunara and Varela's argument is about the blurring of the boundary between the

[35] N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, (Chicago and London: The University of Chicago Press, 1999), 136.

observer and the environment. The observer knows the world through the self-making reflexivity of her own organization. Put in Hayles' words, we construct our environment through the "domain of interactions" made possible by our own autopoietic organization. Referring back to our discussion about *Yellow Earth* above, if Chinese society was an ultrastable system, from whose perspective was it seen as such? Was the system the product of the observer' self-making world, or the observer the product of the system's autopoietic organization? Could any distance be maintained for an objective, detached observer?

These questions are not irrelevant. Borrowing such cybernetic terms as "homeostasis" and "ultrastable system" from W. Ross Ashby, Jin Guantao and Liu Qingfeng claimed that their analysis of Chinese society was more "scientific" and "objective" than Marxist and other approaches. Jin later surely realized that "objectivity" was itself a problematic issue for cybernetics and systems theory. In his later work *The Philosophy of the Human: The Foundation of "Science and Rationality"* (*Ren de zhexue: lun kexue yu lixing de jichu*), the subjectivity of the observer/researcher became the central issue he explored throughout the book. Referring to the works of von Foerster and Muturana, he echoed their argument about the impossibility of an "absolute reality," and the indispensability of a stable cognitive structure of the observer in scientific research.[36] To a certain extent, the book constitutes Jin's reflections on the ways in which an observer constructs his own environments through his own autopoietic organization.

An important book that drew Chinese intellectuals' attention to the self-reflexive characteristic of systems was *Gödel, Escher, Bach: An Eternal Golden Braid* by Douglas R. Hofstadter, which was translated into Chinese in 1983 and included in the book series "Towards the Future" compiled by Jin Guantao. The book offers a wide range of examples of self-reference and recursive structures, including mathematician Gödel's Theorem, Bach's *Musical Offering*, and Dutch graphic artist M.C. Escher's drawings. Hofstadter reads these phenomena as belonging to the same category as the modularization of computer programming, which involves a loop that "tells the computer to perform a fixed set of operations and then loop back and perform them again, over and over."[37] The ubiquity of such "strange loops," to Hofstadter, reveals the underlying hidden neurological mechanism of cognition and thinking. He regards Escher's drawings as the "most beautiful and powerful visual realization of this notion of Strange Loops." For example, in *Ascending and Descending*, the monks trudge up and down the steps, but always find themselves ending up in loops — the repetition of the same. Another example is the bizarre and bewildering form of *Print Gallery*, which compels the question: is it "a picture of a picture which contains itself"? "Or is it a picture of a gallery which contains itself? Or of a town which contains itself? Or a young man who contains himself?"[38] However, no matter which question you start with, you will find yourself thrust back to the beginning: "What we see is a picture gallery where a young man is standing, looking at a picture of a ship in the harbor of a small town, perhaps a Maltese town, to guess from the architecture,

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[36] Jin Guantao, *Ren de zhexue: lun kexue yu lixing de jichu* [The Philosophy of Human: The Foundation of Science and Rationality], (Chengdu, Sichuan renmin chubanshe, 1988).
[37] Douglas R. Hofstadter, *Gödel, Escher, Bach: An Eternal Golden Braid* (New York: Vintage Books, 1979), 149. I would like to thank Jason McGrath for bringing this book to my attention.
[38] Hofstadter, *Gödel, Escher, Bach*, 15.

with its little turrets, occasional cupolas, and flat stone roofs, upon one of which sits a boy, relaxing in the heat, while two floors below him a woman—perhaps his mother—gazes out of the window from her apartment which sits directly above a picture gallery where a young man is standing, looking at a picture of a ship in the harbor of a small town, perhaps a Maltese town…"[39] Such self-references across different levels bring out Hofstadter's description of "recursion," which "is based on the 'same' thing happening on several different levels at once," and make it almost impossible to "distinguish working *within* the system from making statements or observations *about* the system."[40]

To Jin Guantao, Hofstadter's strange loops are the singular characteristic of a self-organizing system, in which circular cause-and-effect relationships happen across different levels. This cause-and-effect circularity functions as the corrective feedback mechanism of a living system to adapt itself to the environments. The living system and the production of the system also form cause-and-effect circularity, resulting in the constant expansion of a self-producing system.[41] Such an egg-and-chicken question, in the context of the 1980s, was taken seriously as invoking the problematic relationship between the human agent and his environment. If we think about how the images of the yellow earth become the environment that frames the characters within the frame, and how the often silent characters themselves define the serenely transhistorical image of the yellow earth itself, the question of the circularity could hardly be more obvious. Critic Li Tuo noticed that the heavy presence of the yellow earth and the yellow river distinguished *Yellow Earth* from previous films that centered upon plot and characters. *Yellow Earth*, according to Li, "made human beings, the yellow earth and its culture an indivisible unity, the interlocked relationship of which allows us to rethink the culture of our nation."[42] The landscape is not exterior to the imagined national cultural tradition, nor simply in a one-directional cause-and-effect relation to "traditional culture." Instead, the land and the people become a self-producing system as a whole that cannot break out their strange loop. However, what remains ambiguous in the film is the relationship of the character Gu Qing to the yellow earth: is he part of the yellow earth, and thus unable to extract himself from its strange loops? Or is he an outsider endowed with the power of transformation? If he is an observer, is the ultrastable system merely a product of his autopoietic system of cognition? If he is part of the self-producing system, does he still have the power to "liberate" others from the strange loop of "feudal" history?

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[39] *Ibid*.

[40] *Ibid*.

[41] Jin Guantao, "*Luoji beilun he zizuzhi xitong*" [Logical paradox and self-organizing system], *Ziran bianzhengfa tongxun* [Journal of Dialectics of Nature] 2 (1985): 7-15.

[42] Li Tuo, "'Huang Tudi' *gei women dailaile shenme*?" [What has *Yellow Earth* brought to us?], in *Huashuo huangtudi*, 52.

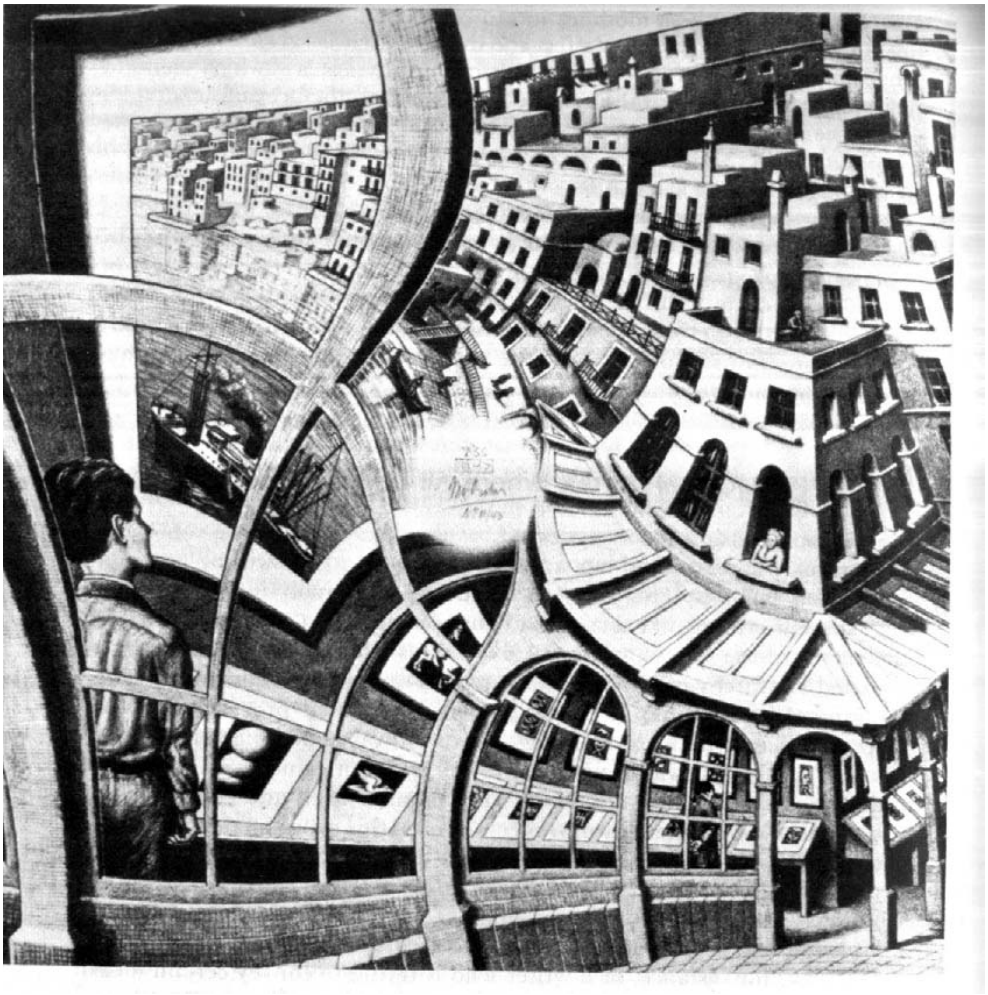

Figure 3. *Printed Gallery*, by M.C. Escher (lithograph, 1956)[43]

Black Cannon Incident and Displaced Strange Loops

However differently Hofstader defines the term, the notion of "strange loops" might best capture the ways in which Chinese intellectuals of the 1980s perceived their relationship to the system and the culture around them. Huang Jianxin, another fifth-generation director, was open about his inspiration from Hofstader's book when making *Black Cannon Incident*, a black humor parody of the counter-espionage film. Set in an industrialized mining site instead of the remote, backward countryside as in *Yellow Earth*, the film tells an absurd story of an engineer called Zhao Shuxin, who is suspected of being a spy because of a mysterious telegraph he sends that reads: "Black Cannon Missing/

[43] Printed in Hofstadter, *Gödel, Escher, Bach*, 709.

Room 301 /Zhao." Because of this, he is kept away from the German expert Hanks, with whom he is supposed to collaborate in installing a new set of mining equipment for the company. His job as an interpeter is transferred to a colleague who has no engineering background. Eventually, an error in translation by this colleague causes the company an immense loss, while the mysterious "black cannon" turns out to be a minor chess piece that Zhao lost on his business trip. The plot is a strange loop, which starts with the mysterious "black cannon," and circles, through a series of random cause-and-effect links across different levels of semiotic fields and administrative bureaucracy, back to the minor chess piece. However, the strange loops that interested Huang Jianxin were more than the circularity of the mysterious object of intrigue.

Huang, in his "Director's Notes" for *Black Cannon Incident*, explained the significance of the location of its setting: "Our decision to set the film in a developed industrial urban area was made after considerable deliberation: first, the setting is more characteristic of our time; secondly, it reinforces the theme of the script, for nothing works better than the contrast between the modern, urban environment and the theme of the script. If we chose a backward place instead, we could only repeat a natural analogy between the thing we try to criticize and an environment of backwardness. Obviously, the critique would not be as profound as this one…."[44] It is not hard to see that Huang apparently had *Yellow Earth* and other similar films in his mind when he deliberately challenged the routine setting. In other words, though *Black Cannon Incident* shares with *Yellow Earth* the same target of critique — "the deep structure of Chinese culture" as an obstacle to the ongoing project of modernization — it intends to reveal the very presence of this structure even in an area of urban civilization, in the very heart of an apparently modern setting. The "deep structure" is presented in this film as closely related to a linguistic structure that leads signifiers such as the "black cannon" to mutate from an actual chess piece to a secret code word, resulting in a random but disastrous series of cause-and-effect links between personal life and the political and public realm. The intransigent bureaucracy creates a recursive structure of code-deciphering, restricting all codes to the self-producing system of the Mao discourse. In fact, this dramatic incident is presented as a competition between different languages and codes, from the mistranslation between German and Chinese, to the highly specialized technical terminology alien to people without training, as well as political language passed down from the Mao's era. In this case, stiff, political language prevents the communication and smooth functioning of technical language, thus obstructing the progress of modernization.

On the other hand, the docile character Zhao was seen as a typical Chinese intellectuals burdened with the "inherited Confucian consciousness" of the culture. Critics of this time could hardly have missed in the film the self-criticism of the intellectual class: "The representation of the intellectuals in *Black Cannon* continued the tradition of post-Cultural Revolution films to expose the injustice leveraged against the intellectuals… However, its significance lies more in that, when tracing the roots of this injustice, it outsteps the limited perspective of the intellectuals to examine the mentality of Chinese intellectuals…. As we go deep into a critique of feudalism, a reexamination of the traditional consciousness inherited by the intellectuals—who are supposed to be the forerunners of the modern civilization—should be on our agenda. To perform the reforms

[44] Huang Jianxin, *"Daoyan chanshu"*[Director's notes], in *Dangdai dianying* 2 (1986): 62.

of modernization in a country as ancient as China, the inert forces of tradition were not only presented in political and economical life, but also in people's minds and psychology. "[45] There the strange loops come back to haunt us once again: the system victimizes intellectuals, who inherit the residue of "feudalist consciousness" that is produced by the system, which helps the system perpetuate itself, which in turn victimizes intellectuals…. This "strange loop" invokes once again the question of within and without, human agency and the system. Can Chinese intellectuals break out of this strange loop to become "the forerunners of modernization"?

With a barren, rural setting replaced by a "modern," urban milieu, the question of how environment relates to the recursive system that allegedly blocks China's modernization is foregrounded? Graphically, the mise-en-scène of *Black Cannon Incident* is repeatedly divided, cut across and hemmed in by the hard outlines of the machines in the mining quarry, accompanied by sounds of droning and hammering, honing and pounding. In one long take, a gigantic machine at the distant end of the installation is seen driving directly towards the camera. We see two characters framed in the dark shadow of the machine. Against the low-frequency droning noises we hear the Party Secretary Wu discussing with her colleague about not entrusting Zhao with the interpretation job. As the shadowy "mouth" of the approaching machine almost engulfs the sky and all other elements in the mise-en-scène, it stops and moves horizontally instead, cutting across and flattening the mise-en-scène between its two parallel spades (figure 4). This is immediately followed by a close-up on a black-framed square-shaped object which looks like a two-dimensional graphic. As the camera tracks out, a set of similar loops are revealed as layers of circle-in-circle graphics. Designed as 3-D op-art graphics, the loops almost appear to pop out of the screen, but in the next moment seem to draw the viewer into their vortex. After a moment's disorientation, the audience is thrown into a scene of a noisy rock-n-roll performance in a nightclub. The loops turn out to be the stage decorations of the club (see figure 5). The abrupt insertion of the graphics and the moment of their detachment from both scenes uncannily reveals the shared abstract form of both scenes: the way in which horizontal and vertical lives of the machine frame and cut across the screen space, and the looped squares take over and almost extend beyond the framing. Later, we see similar loops in a factory scene. The rectangular outlines of a gigantic machine form a flattened loop-in-loop graphic, filling up the screen space, and inside the loops crouches Zhao, who is working on the maintenance of the machine. Curiously, here the strange loops turn out to be located within the machines, the very symbol of modern civilization. Throughout the film the characters are always confined within a closed space framed by the skeletons of gigantic machines, as if being held prisoners in the strange loops. In the end, the question arises: do the machines and industrial setting themselves constitute strange loops?

In fact, if we think about Hofstader's characterization of "strange loops" as the modularization of computer programming, it is not hard to see that the repetitious loops are in no way alien or external to the "modern" world. The Chinese intellectuals of the 1980s appropriated the term for their own use as a critique of the Chinese cultural tradition, as the strange loops that obstructed China's modernization. However, the modernist aesthetic of abstract streamlined sets and geometric graphics of *Black Cannon Incident* inadvertently reveals another kind of loops between modernization, and the

[45] Yuan Ying, "You yiwei de xiangshi"[A significant form], in *Dangdai dianying* (3) 1986: 65-66.

increasing anxiety of being engulfed by a disturbing chaos and noises of machines, trains, automobiles, airplanes and electronic devices. In the cacophonous sound track of the film, dialogue is often overwhelmed by the humming sound of machines or the earsplitting noise of landing airplanes. Even the rock-n-roll performance ultimately becomes an unbearable noise made up of repetitious chanting. Strange loops become inextricable from the modern world, an astounding revelation that turns *Black Cannon* into an ambiguous text, one that questions the value of modernization embraced so heartily by the Chinese intellectuals of this time. Intended as a critique of the "ultrastable structure" of Chinese culture, the film with its modernist aesthetics inadvertently captures the structure of feeling of a restless world increasingly absorbed into the repetitious and programmable logic of technological rationality.

Figure 4. The "Mouth" of a Gigantic Machine as a "Strange Loop"

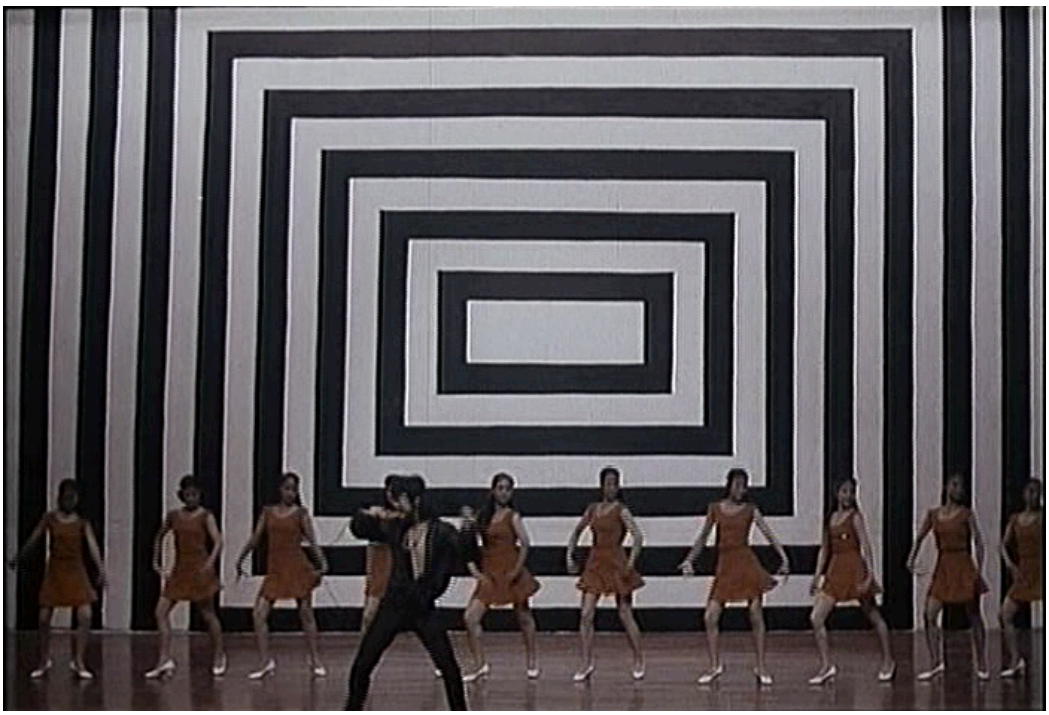

Figure 5. Staging "Strange Loops"

Modernization, Modernism and the Temporalities of the "Modern"

The ambiguity of *Black Cannon Incident* and the seemingly incongruity between its content and form bring up the question of the tension between modernization and modernism, a recurring issue in the discussion of modernism since the early 1980s. In 1982, writer and critic Xu Chi wrote an essay in response to the discussion of Western modernist literature in the journal *Studies of Foreign Literatures* (*Waiguo wenxue yanjiu*). Entitled "Modernization and Modernism" (*Xiandai hua yu xiandai pai*), the essay was an attempt to legitimate the status of modernism in Chinese context. It proposed that Western modernism should be understood as a reflection of the highly developed economy and material conditions of the Western world. Building direct connections between technological innovations and artistic innovations, between mushrooming skyscrapers and modernism, Xu argued: "Since the 1960s, their productive forces have been improved immensely with rapid developments in science and technology, to a level that indeed amazes people. No wonder that their literature and art are also full of dazzling innovations." Xu's reduction of modernism into part of the superstructure determined by the economic base of modernization was a strategy pitched to free Western modernism from its negative associations in the official discourse. Asserting modernism as a necessary product of the economic development, Xu placed modernism in a linear narrative with the

development of the arts, which accordingly corresponded to each stage of economic development.[46]

Xu's essay triggered heated debates and, more importantly, a vast enthusiasm for modernism, especially once it was tied with innovation. Following the publication of Gao Xingjian's controversial little pamphlet, *Elementary Explorations on the Techniques of Modern Fiction*, critics and writers were drawn to the technical innovations of modernism. Li Tuo, in his correspondence with Liu Xinwu and Feng Jicai, argued that literary form, rather than its content, should be the proper focus of current discussion and practices. He believed that the techniques of Western modernism could be separated from its content, and absorbed into and reinvented as part of Chinese literature. He thus proposed the term "modern fiction" as used by Gao, instead of "modernism," as he argued that Chinese "modern fiction" should not be a blind imitation of Western modernism.[47] Yet in which sense could a work be called "modern," if it is not exactly a copy of Western "modernism"? If the "Chinese modern" is not a derivative of Western modernism, does the "modern" indicate something more than capitalist mode of modernity? Li left these questions unanswered.

The emergence of experimental writings by Yu Hua, Ge Fei, and Ma Yuan among others dazzled the eyes of Chinese readers with their technical innovations. However, the separation between the content and the form, a discourse already present in the early discussions, now failed to acknowledge the "modern-ness" of these experimental writings beyond its technical level. Some works were criticized as "pseudo-modernism," for the experience of alienation and agony conveyed in these works were believed to "lack correspondence in real life," and were thus merely meaningless imitations of Western modernism.

Amid the debates around "pseudo-modernism" Li Tuo adjusted his standpoint by asserting that the sheer variety of Western modernism would not allow for its characterization as a coherent group with a stable set of techniques. If there was anything shared by variegated, often self-contradictory modernist works, it was their rebellion against traditional Western values. He proposed that Western modernism should be understood in a Foucauldian way, and read in relation to the function of the "will to power." Though it is not clear what Li Tuo referred to by "traditional Western values," his article places Chinese modernism in a similar relation of power, arraying its innovations against the "tradition." And this tradition was nothing other than realism. In his essay, realism was the shadow against which Chinese modernism had to define itself. [48] It is not hard to see that his understanding of modernism still revolves around the axis of the tradition/modern. As if to avoid Marxist jargon, Li did not make any comment on the relationship between modernism and the material conditions of production as Xu Chi did. Yet how to relate Chinese modernism to the ongoing modernization project? By placing modernism in opposition to the "tradition" of the past, he, along with many other critics,

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[46] Xu Chi, "Xiandaihua yu xiandaipai"[Modernization and modernism], in *Waiguo Wenxu Yanjiu* [Studies of Foreign Literatures] 1 (1982): 115-117.

[47] Li Tuo, "'Xiandai xiaoshuo' budeng yu 'Xiandai pai'" [Modern fiction is not identical with modernism], in *Shanghai Wenxue* [Shanghai Literature] 8 (1982): 92-94.

[48] Li Tuo, "*Yetan 'wei xiandaipai' jiqi piping*" [Further words on "pseudo-modernism" and related criticism], in *Beijing Wenxue* [Beijing Literature] 4 (1988): 4-10.

reduced Chinese modernism to a singular temporality, characeterized by a progressive teleology.

In which sense is Chinese modernism "modern"? Left unsatisfied with Li Tuo's separation of form and content, Huang Ziping proposed "consciousness – and– techniques" as the criteria to approach Chinese modernism. Commenting on the similarity in literary form between Kafka's "The Metamorphosis" and Chinese Writer Zong Pu's story "Who am I?" (*Wo shi shui*?), Huang emphasized that their shared modernist techniques were predicated on similar experiences and mentality. He therefore contended that modernism should not be understood as mere technique but instead as "*new ways of knowing/experiencing the world*." The "new ways of knowing/experiencing the world" conveyed through the form and techniques of modernism, as Huang observed, echoed and had became part of Chinese writers' own experience.[49] Huang's approach to modernism echoes Miriam Hansen's definition of "vernacular modernism," which she regarded as a set of shared and globally disseminiating idioms for cinematic language that gave form to a new economy of sensory perception.[50] The "modern" in this sense is intertwined with the specific, historical experience of post-Mao China.

On the other hand, Huang refuses to see modernism as a direct representation of modernization. Dismissing one critic's labeling of the story "You have no other choice" (*Ni biewu xuanze*) by Liu Suola as the "real modernism" and of "Variations on No Theme" (*Wuzhuti bianzou*) by Xu Xing as "pseudo-modernism," Huang questioned the critic's criteria for what is and what it not "modern:" "Does that mean, in a country not fully industrialized yet, only some 'social groups' (such as young artists in conservatory of music) can have authentic 'modern consciousness' while others (such as boys who work in a restaurant) are insulated from the (modern) experience of 'restlessness' and 'perplexity'?" Seeing modernism as an uneven experience of modernization, he actually dislodges the "authenticity" of Western modernism from its central position. Following his question, we may ask: what makes Chinese modernism "modern" in a country not fully industrialized?

Although these discussions mainly focused on modernist literature, they can be extended to modernism in cinema as well. Huang's insight on the asynchronicity between modernism and modernization in fact gestured towards a "modernity" not necessarily subsumed to the "progressive," teleological narrative of modernization. Zhang Xudong, in addressing the "modern-ness" of Chinese modernism, quotes Marshall Berman to describe it as a "modernism of underdevelopment" and being "forced to build on fantasies and dreams of modernity." Yet he also asserts that this deferred modernism is "never a carbon copy of the historical situation of the west," but "a critical mediation of the history and imagination that are socioempirically unborrowable and changing in the stream of time." Chinese modernism has to be understood in relation to "a historical overlap or time difference between a lingering collective society supervised by the state and the massivity and fluidity of commodity and capital moved by the global market."[51] He further remarks:

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[49] Huang Ziping, "*Guanyu 'wei xiandaipai' jiqi piping*"[On "pseudo-modernism" and related criticism], in *Beijing Wenxue* 2 (1988): 4-9.

[50] Miriam Hansen, "The Mass Production of the Senses: Classical Cinema as Vernacular Modernism," Modernism/Modernity 6.2 (1992): 59-77.

[51] Zhang Xudong, *Chinese modernism in the era of reforms*, 21-22.

> Modernism as an international language (or a global institution) is no longer "modern" as we understand the term historically; rather, it marks the historical crisis of modernity, namely, its "completion" in the "post-modern" space that is no longer tied to the temporal, teleological "progress" of modernity or gets distributed according to the historical hierarchy of economic development.[52]

Although this modernism engages in a material, symbolic infrastructure which functions, in Zhang's words, as "a facilitator of transition that seems to lead nowhere but to global capitalism and its symbolic, ideological world order," it also constitutes a potential critique of this capitalist order. Though this critique might not have been rationalized as a conscious discourse, it was in the first placed marked as an aesthetic experience. Huang Ziping in his essay by relating "restlessness and perplexity" to the "modern," acknowledged modernism as a form to register the experiences of modernity, the experiences that cannot be reduced to teleological narrative of modernization. It is also in this sense that the modernist aesthetic of *Black Cannon* registers the anxieties and agitation as China was incorporating into the order of global capitalism, giving form to a structure of feeling that would otherwise be lost in the dominant discourse of modernization.

Reflexive Self-references

One inspiration that Huang Jianxin had for his imagery of urban modernity was the paintings of the New York-based Taiwanese artist C. J. Yao (Yao Qingzhang). Yao was invited in 1983 to the mainland to lecture about Western art history. The exhibitions of his works, mostly photorealist paintings of the street scenes of the New York City, were warmly received by his Chinese audience. One recurring theme is shopping windows and glass facades of high rises in urban centers. Skyscrapers, huge advertisement billboards, street lamps, neon lights, and passing pedestrians, all become reflected on the surface of glass windows and the facades. Because of the transparency of glass, these reflections intermingle with the interior decorations and displays, forming a plaque of kaleidoscopic images interwoven in extreme complexity to the point that one can no longer distinguish the exterior from the interior. All is flattened to the surface of the glass, vacillating between real and unreal, and becoming a most bewildering mix of horizontal, vertical, oblique and circular lines. The glass surface becomes the canvas, flattening everything into its two-dimensional space.

It is in this sense that Yao was lauded by his Chinese audience as "a lyric poet of the second-nature," for skyscrapers, neon lights, and glass facades, all become the new "natural environment" in which human beings reside. In an art journal, Yao's depiction of kaleidoscopic, urban scenes was juxtaposed with rural landscapes of the yellow earth in the paintings by Chinese artists.[53] Such relationships of human beings to different types of environments were placed in the linearity of development and industrialization. Another reviewer compared Yao's painting with European realist painting in the 18th and 19th

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[52] Zhang Xudong, *Chinese modernism in the era of reforms*, 22.

[53] Yuan Yunfu, "Di'er ziran de geshou: Yao Qingzhang" [The lyric poet of the second nature], in *Meishu zazhi* [Arts Magazine] 11 (1983): 52-54.

century, believing the latter was not "true realism," for these paintings nostalgically turn away from industrial scenarios to rustic scenes in the countryside. This reviewer celebrated Yao's works as "an eulogy for the material culture of high modernity." The images of "wide shop windows, colossal glass walls, stainless steel skeletons, clean and clear plastic floors, shop counters and furniture, regulated lighting and temperature, as well as effulgent neon lights, and shuttling cars and pedestrians," fueled the imagination and fantasy of "a high modern life built on highly developed science and technology and industrialization." This reviewer continued to comment on the dynamic feeling created by Yao's constructivist method, the effects of which often threw the audience into a drastic instability, "compelling them to find a point for support" to dispel the feeling of dizziness.[54] S/he failed to ask how this feeling of disorientation might reveal the complicated experience of the urban space conveyed in Yao's works beyond merely being "an eulogy for modern life."

It was Yao's particular style of depicting urban scenarios that struck Huang as refreshing. He believed that to match the overall style of the film, unusual camera positions and perspectives should be adopted: "We decided that the camera should be placed slightly below the eye level, about the height of the chest, because we think that people often feel themselves dwindling in a city of a high-speed development… We believe that our camera should create the same feeling… Our cinematographer got the inspiration from C. J. Yao, and suggested adopting a downward-pointing triangular structure in the design of mise-en-scène, for this unusual perspective allows for the coverage of a broader backdrop in each frame."[55] In the film, the bustling urban space provides the excitement of modern flair (such as the night club and the western-style restaurant where Zhao and his German friend hang out), but is also a suffocating space that diminishes human beings into the shadows of clear-cut, streamlined architectures and colossal machines. As one critic pointed out, "the toy-block like buildings, the geometrically-shaped industrial equipment, and the modern look of colossal containers" pursued by the director and the cinematographer "in effect creates a feeling of stuffiness." The urban, industrial milieu becomes a strange loop that locks the protagonist in: "By placing the suffering protagonist in front of the mountains of debris, confining him in the narrow space overshadowed by gigantic machines, the film creates a distorted and closed space through low-angle shooting, conveying the deep agony of the protagonist."[56]

In Yao's paintings, human beings are sometimes shown imprisoned in cage-like scaffoldings of high rises, as in Yao's color pencil work titled "Working Man," which probably gave Huang Jianxin the inspiration to frame his characters among the skeletons of machines. (figure 6) In some other works, human figures often become phantasmagoric images indistinguishable from the jumbled lines and colors surrounding them. In his watercolor painting "Galleries" (figure 7), among the overlapping chunks of colors and bewildering light and reflections of light, we see several haunting human figures. Are they

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[54] Ke Nan, "Yao Qingzhang de huihua: 'yingying'"[Paintings of C.J. Yao: Reflections and Shadows], *Xin Jianzhu* [New Architecture] 1 (1986): 41-42.

[55] Huang Jianxin, "*Curen shenqi de heipao shijian*: 1985 nian gushipian chuangzuo huigu zuotan" [Thougt-provoking *Black Canon Incident*: A Symposium on features produced in 1985], in *Dianying yishu* 4 (1986): 10.

[56] Yuan Ying, "You yiwei de xiangshi" [A Significant Form].

customers inside the gallery, or passersby in the streets, or even models in the display window? The kaleidoscopic view of the urban space feeds fantasies and daydreams, yet remains illusory and rootless, so that in the end even the human subject is dispersed and seemingly spectral. Yao sometimes plays a joke on his viewers by depicting the multiple reflections of himself in his painting, as if the hand that makes the pictures is no more than one of the phantasmagoric images in the painting. In fact, glass and reflections are also one of Escher's favorite themes. In his *Three Spheres* II, the artist beside his writing table portrays himself as a reflection in one of the glass balls, which in turn become reflections in the other two balls on the writing table. Thus "each part of the world seems to contain, and be contained in, every other part."[57] The play of self-reference and the multilayered display in both Yao and Escher's works point to the question of representation with which Huang Jianxin, as well as other Chinese intellectuals in the 1980s, as we have already seen in the earlier discussion of *Yellow Earth*, were concerned: Can the observer/author legitimately claim the authenticity of his observations without projecting his own reflections? Is the observer part of the world he claims to criticize?

As if to echo Yao and Escher's self-referential play, Huang carefully constructs a multilayered cinematic world, in which different signifiers become cross-references to each other. For example, in the middle of the film, Zhao is seen in his room, eyes fixed on the chessboard in front of him, so engrossed in his little game that he is not even aware the arrival of his guest, Schmidt. A similar scene appears at the end of the film: two kids are seen playing with a domino-like chain of play blocks. The kids are absorbed in their little world of game of assembling the chain, setting the chain reaction into motion, and then reassembling it again. This time it is Zhao who becomes the intrusive observer. The naïve yet serious game-players immediately strike a resemblance to the engrossed chess-player Zhao, who was observed by his sympathetic friend, and is now observing the two little friends immersed in their own game. This ending therefore refers back to the other scene, revealing Zhao's childlike unaffectedness and seriousness. His shift of position from the observed to the observer also indicates his final realization of his role in the absurd "black cannon incident." In this sense, his faint smile before he turns away perhaps announces his renunciation of his little world of fun and self-absorption? (The answer is yes, for in the sequel "Dislocation" [*Cuo Wei*], Zhao no longer plays chess.)

Yet the domino game does not diminish into a trivial play of no significance, nor is it dismissed as a fictive world of lacking any realistic grounding. On another level, it reflects the happenings around the mysterious "black cannon:" following Zhao's telegram, everything falls apart, as if the "real world" ruled by the Party secretary's seriousness and discretion has become a fragile chain of dominoes. In the end, the "real world" and the "game" are not mutually distinct, but instead reflect and contain each other. On the blurred boundaries between the real and the fictive, the macroscopic and the microscopic, stands Huang Jianxin's multifaceted world, one that refuses any autonomous representation.

There is another level of reference to which the domino game gestures: a self-referential parody of counter-espionage movie. The film follows the generic conventions. Beginning with fragments of high-pitched electronic tones which often appear in this genre, it shows the fidgety Zhao sending out a coded telegram in a rainy night, which

[57] Douglas R. Hofstadter, *Gödel, Escher, Bach*, 258.

induces suspicion from a post-office clerk. The close-up on her alert eyes is an immediate citation of previous counter-espionage films, in which the watching eyes of those on the front lines of the class struggle always keep the enemy confined within a seamless web of surveillance. Yet when the whole incident finally turns out to be a farce, this citation in turn disrupts the solemnity implied in the genre. The outlandish but innocent intellectual character played by Zhao is also a rehearsal of the generic images such as in *Spies in the East Harbor* (*Donggang diеying*, 1978) and *Traces of a Bear* (*Xiongji*, 1977). However, though made with these generic elements, *Black Cannon Incident* looks very little like a counter-espionage film. Every citation as a parody works against the genre, turning the generic conventions into evidence of leftist dogmatism.[58] Moreover, the long takes in this film replace the often fast-paced editing and keyed-up rhythm in counter-espionage films, and transform completely the syntax of this genre. In this sense, the domino game becomes a self-referential game about film *per se*: by playing with the semantic elements of the counter-espionage genre, it takes the genre apart syntactically. The ideological function of counter-espionage genre falls apart when Huang's playful chain reaction knocks the dominoes down one by one.

The long takes in *Black Cannon*, with their slowed moving temporality replace the movement reminiscent of counter-espionage films, provoking reflections on the conventions of the genre on the part of the audience. At the same time, as the director himself explicates, dramatic conflict gives way to "the revelation of the deep structure," as well as the interiority of the character.[59] From a self-absorbed chess player to a detached observer, Zhao in this process comes to understand the system and his own role in it. Several scenes in the film, such as the one depicting Zhao sitting alone silently in his dark room, by forsaking the movement of the exterior world, foreground cinematic time as the unfolding of consciousness. These self-reflective moments for the character also induce pensive reflections on the audience's part.

This long take aesthetic is closely related to the enlightenment idea and mission of Chinese intellectuals to observe objectively Chinese culture and society, and to cultivate the cinematic audience as rational observers and critics of their own culture and society. However, with the growing marketization of the society and film industry, as well as the competition from TV and other forms of media entertainment, this enlightenment ideal and its related cinematic practices came to a crisis, as we shall see in the next chapter.

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[58] For an insightful reading of the film as a rehearsal and disruption of the genre, see Jason McGrath, "*Black Cannon Incident*: Countering the Counter-espionage Fantasy," in *Chinese Films in Focus*, ed. Chris Berry, (London: BFI, 2008), 25-31.

[59] Huang Jianxin, "*Daoyan chanshu*."

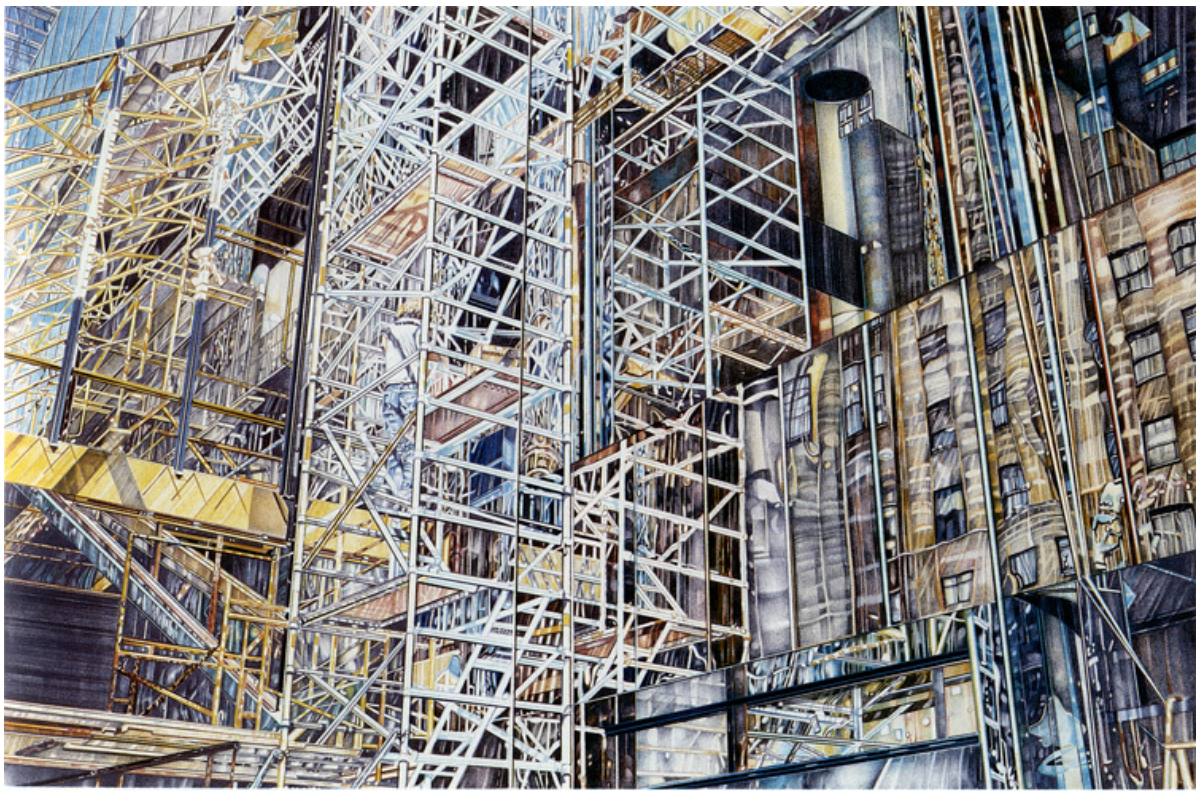

Figure 6. Working Man (II) by C. J. Yao (colorpencil, 1981) [60]

[60] Printed in *Overseas Chinese Artist Series: C. J. Yao*, ed. Liang Dingying et al. (Hong Kong: Lingnan Art Publishing House, 1985),

Figure 7. Galleries by C. J. Yao (watercolor, 1981)[61]

[61] *Ibid*, 15.

Chapter Five

Cinema Redefined as a Plastic Medium for Fantasy: Three Films in 1986

> "… (T)he structure of films, the structure of human psychology and that of dreams, are all homologous, which enables us to understand the particular relationship between films and dreams… Audiences approach films as reality, and even identify them as a 'higher reality.' That is what Baudrillard calls hyperreality. Hyperreality is the reflection of the audiences' self-consciousness, and audiences thus become the observers of themselves. This is because all the signs that constitute cinema can be regarded as a revelation of the most private subconscious and mythical elements." [1]

Written in 1986, the above quotation might sound like mere psychoanalytical cliché to film scholars today. Yet critic Yao Xiaomeng's work was not so much meant to affirm the authority of Western theories, but to propose a new understanding of cinema concomitant with the appearance of experimental films by Chen Kaige, Zhang Yimou and other fifth-generation directors. Irreducible to a simple "reduplication of the material world," and beyond the binary categorization of montage and long shot, *Yellow Earth*, as Yao argued, exposed the inadequacy of "realism" as a paradigm for the new developments in Chinese cinema. Yao instead borrowed the term "thought-image" (*yixiang*) from classical Chinese aesthetics, emphasizing the direct link between subjective emotions and cinematic images in order to push the discussion of Chinese cinema beyond the category of "realism," which had been regarded as the dominant discourse in the theory and critique of Chinese cinema.

Yao's proposal was significant in several ways: first, Yao's homology between cinematic images and psychological flux radically broke from orthodox principles of realistic representation. Though the early 1980s discussion of "what cinema is" generated explorations of "Bazinian realism" by the fourth-generation directors, who self-consciously distanced their works from the socialist realism of the Mao's era, cinema was still understood in its relation to pre-filmed objects. Yao's definition of "hyperreality," albeit a "misreading" of Baudrillard,[2] reoriented our understanding of cinema towards its dynamics with the audience. Regarding the rise of semiotic and psychoanalytic approaches of film studies in the 1970s as a break from the tradition of realism, Yao argued that film

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[1] Yao Xiaomeng, *"Dui yizhong xinde dianying xingtai de sikao, shilun dianying yixiang meixue"* [Some Thoughts on a New Cinematic Aesthetics: a Tentative Discussion on the Cinematic aesthetics of 'Thought-Image'], *Dangdai dianying* 6 (1986): 44-51.

[2] Baudrillard discusses the "hyperreal" in the context of the rise of capitalism and consumerism, the dislocation of object materiality, and the explosion of information technologies. The "hyperreal" for him is less about psychological real as Yao indicated. See Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor: The University of Michigan Press, 1994), and *For a Critique of the Political Economy of the Sign* (St. Louis: Telos Press, 1981).

should not be "a replica of reality" but rather an artistic product based on the creative mobilization of existing semiotic systems. There followed refreshed interest in the expressive design of mise-en-scène in both film-making and film critique, with an acknowledgment of cinema as a human artifact, and an emphasis on cinematic effects to evoke an experience of sensuality and sentiment on the audience's part.

Secondly, having been linked with the innermost human emotions, cinema was entrusted with a liberating power, able to bring out "repressed" human desires and demands. This is most evident in the three films I am going to discuss about in this chapter. Produced in the same year of 1986, each of the three films make dreams the means for the protagonists to escape their oppressive environment into a realm of free will.

This oneiric impulse is related to my third point, that is, as cinema was conceived as emancipatory media, the very notion of cinema was expanded and entrusted with various fantasies about the future development of cinematic technology. Cinema was empowered with unprecedented mobility, striving for freedom from not only its rectangular screen but also the movie theatre. I argue that this mobility of cinema and media could not be separated from the fantasy of freedom generated by China's transformed social order in an era of Reforms and Opening. At the same time, a sudden proliferation of media, particularly the burgeoning of TV broadcasting and videocassettes as new forms of audio-visual entertainment in competition with film-going, dislodged cinema from its exalted place in the early 1980s discussion of medium specificity. Now more readily open to other media forms, cinema developed a new sort of plasticity, providing a medium for the fantasies and sentiments of the new era. However, this shift from representation to sensorial experience, both in discourse and in practice, also entailed questions of shifting power relations between elite intellectuals and the masses, between state power and liberal pursuits of intellectuals. While this sensorial turn demonstrated the explosion of senses and fantasies of freedom with the proliferation of media, it also signaled new ways of modulating affect that were increasingly channeled into marketization in post-socialist China.

Away from Realism

As mentioned in Chapter Three, there had been efforts to redefine cinema since the late 70s when film critics started to champion the medium specificity of the cinema. Regarding the increasingly ossified form of socialist realism as evidence of the dominance of the dramatic tradition in Chinese film, they advocated "a divorce of cinema from drama." They opposed the Soviet tradition of montage in favor of the long-shot and long take associated with "Bazinian realism."[3] The latter, was believed to be free of dramatic

[3] Recent scholarship has contributed new insights into Bazin's notion of "realism." First, there is an effort to complicate Bazin's understanding of realism beyond the mechanical replica of the material world; second, some scholars, especially Daniel Morgan, redefine Bazin's "realism" as a plural set of styles not confined to the Italian neorealism. See *Opening Bazin: Postwar Film Theory and Its Afterlife*, ed. Dudley Andrew and Herve Joubert-Laurencin, (Oxford: Oxford University Press, 2011); Dudley Andrew, *What Cinema Is! Bazin's Quest and its Charge*, (Hoboken, NJ: Wiley-BlackWell, 2010); Daniel Morgan, "*Rethinking Bazin:* Ontology and Realist Aesthetics," *Critical Inquiry* 32.3 (Spring 2006): 443-481.

manipulation and closer to the "nature" of cinema. Thus the Bazinian question of "what is cinema?" was received as a question of medium specificity and as evidence for the autonomy of cinema. With this (mis)understanding of Bazinian realism, many fourth-generation directors discovered a "documentary aesthetic" (*jishi meixue*, literally "reportage aesthetics") in the their works. As Yuan Ying summarized, "(a)s cinema shifted to focus on an objective presentation of reality, a comprehensive representation of the external and the interior world, with the maximum efforts of film makers to reach the truth of life, it had to avoid the traditional mode and structure of relying on dramatic conflict to push forward the plot and to establish typical characters."[4] Through this redefinition of "realism," cinematic production and theory broke away from the constraints of socialist realism.

However, by the mid 1980s, the convenient association of long-shot realism with the medium specificity of the cinema began to be questioned. With more translations of Bazin's works available, film theorists realized that they had "misunderstood" Bazin. This generated a new round of discussions of "what is cinema?" In 1986, the established journal, *Film Art*, featured a special column titled "Discussions of the nature of cinema." One of the essays, penned by Cai Shiyong, challenged the previous understanding of "documentary aesthetic" by disassociating it from the long shot and deep focus. He also corrected earlier assumptions by asserting that Bazin had never regarded drama as anti-cinema. Instead of defending cinema as "one" "pure" medium, as Cai argued, Bazin advocated that cinema should learn from other arts. Thus the specificity of the cinema never consisted in its "purity" from other media. Cai further proposed that, with the recent development of real-time TV broadcasting, cinema should shift its pursuit from "authenticity" (*zhenshi xing*) to "fictiveness" (*jiading xing*).[5]

At the same time, the introduction and translation of western film theory generated renewed reflection on the nature of cinema. The translation of a chapter from George Wead and George Lellis's monograph *Film: Form and Function*, became an important occasion for such discussions. The chapter was retitled "Movement" when published in the journal *Contemporary Cinema*. In a review entitled "Rethinking the Nature of Cinema," critic Kong Du was excited to announce how contemporary psychology questioned Bazin's notion of "photorealism:" "Bazin had no doubts about the theory of the persistence of vision in explaining the illusion of movement. According to Bazin, cinematic movement is as real to the eyes as any movement in the real life. Thus he skipped the basic question and moved too easily into his psychological study of photorealism… However, as Wead and Lellis pointed out, the basic question that concerns the nature of cinema is not that simple…" Quoting Gestalt theory about the active role of the human brain in cognitive activities, the two authors argued against the theory of the persistence of vision, and contended that the illusion of movement was a psychological product: the brain is willing to be deceived. Concurrent with Western theorists' rediscovery of Hugo Münsterberg, who conceived of close-up and editing as parallels to cognitive activities such as attention, memory and imagination, Wead and Lellis shifted the understanding of cinema to the

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[4] Yuan Ying, *"Dianying de zijue: xin shiqi dianying chuangzuo huigui"* [The Self-consciousness of Cinema: A Retrospect on the Film Production of the New Period], *Dangdai dianying* 6(1986): 13-21.
[5] Cai Shiyong, *"Manlun dianying jiluxing"* [A Causerie on 'Documentaryness'], *Film Art* (4)1986: 19-28.

active role of the audience. Kong believed that this new understanding enriched the spectrum of cinematic styles, which allowed the reincorporation of animation into cinema studies. Before this, animation had long been excluded from serious cinema study by the privileging of the photorealistic understanding of cinema.[6]

Kong' s re-inclusion of animation into the spectrum of cinema is worth a few more words, not only because animation sequences were incorporated into live action films of this time, as we shall see in *Flight of Fantasies* (Yixiang tiankai, 1986), but also because animation signaled a different way of understanding cinema. In his *The Language of New Media*, Lev Manovich raises the provocative idea that "digital cinema is a particular case of animation." Manovich argues that earlier techniques for creating and displaying moving images all relied on hand-painted or hand-drawn images. But once cinema was stabilized as a technology of machine vision, it "cut all references to its origins in artifice" and "pretends to be a simple recording of an already existing reality," denying that "the reality it shows often does not exist outside the film image, an image arrived at by photographing an already impossible space, itself put together with the use of models, mirrors, and matte paintings, and then combined with other images through optical painting." But as cinema enters the digital age, live action footage becomes "raw material for further compositing, animating, and morphing." Cinema obtains "a plasticity" so that it is no longer clearly distinguished from animation.[7] Though Manovich's argument that film has become a branch of animation is still open to discussion,[8] he nonetheless reminds us of the heterogeneity of cinema at its origin as well as the broad spectrum of styles cinema encompasses. I would argue that Chinese filmmakers' eclectic adoption of optical tricks and their explorations of the plasticity of cinema suggested their reflections on the question of "what cinema is" at the dawn of a digital era.

Other critics borrowed the term "thought-image" (*yixiang*) from classic Chinese aesthetics to elucidate this shift in the understanding of cinema: even apparently objective images are already invested with subjective feelings. This term also has the advantage of recognizing the role of audiences, for any "thought-image" demands the active reconstruction of the images in the brain of the audience. Yao Xiaomeng, for example, saw French New Wave and post 1960s films as "completely disrupting the tradition of purported realism." Yao termed the new aesthetic that emerged afterwards as "an aesthetic of interpretative cinema," which turned "the focus from the representational mode to the relationship between cinema and the audience." With reference to Wead and Lellis, Yao proposed that "cinematic effects are indeed the creation of the audience, for it is the mind of the audience that creates cinematic movement, and gives deep-depth spatiality to the obviously two-dimensional images." Regarding "thought-images" as "imaginary images that are creatively developed from memory images," Yao argued that "a cinema constituted of thought-images" should not rely on dialogues and plot but instead on the

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[6] Kong Du, "*Dianying benxing de zairenshi*"[Rethinking about the Nature of Cinema], in *Dangdai Dianying* 5 (1986): 33-38.

[7] Lev Manovich, *The Language of New Media*, (Cambridge, Massachusettes: The MIT Press, 2001), 287- 333.

[8] For example, in the context of Chinese cinema, digital technology, especially the popularization of portable digital video devices, has generated a new aesthetic of realism, as exemplified by the New Documentary Movement since the 1990s.

combination of colors, lines, shapes (*zaoxing*), sound and other elements of an image to create affectivity."[9] Yao's adoption of "thought-image" — a term from classic poetics that encompasses both cognitive activities and emotions as well as unarticulated sentiments — signaled Chinese film critics' efforts to rediscover and renew traditional aesthetic resources in order to think beyond the representational mode.

This new understanding freed cinema from the indexical relationship of filmed images to pre-filmed objects, crucial to the representational mode. This move was supported by a new understanding of human perception and consciousness informed by information science. A writer called Li Ming, who composed a series of essays on the impact of information science on contemporary philosophy and society, contended that the orthodox Marxist understanding of consciousness as a reflection of the material world should be abandoned. Human consciousness did not passively receive information from the exterior world as conveyed by the clichéd metaphor of photography, he contended, but actively interfered with the exterior world by sending out its own information, the same way beams of different wavelengths interfered with each other as in holographic photography. Thus perception arose from the interactions between the information sent out by humans and that received from the exterior world.[10] This emphasis on the creative role of the audience brought into vision a more fluid notion of cinema, one no longer confined to the rectangular screen in theatres. Later in this chapter, I will elucidate how this fluid notion of cinema was bound with the desire for mobility and freedom of the protagonists in the films.[11] But for now, the metaphor of holographic photography, which seemed to outmode the conventional metaphor of photography as the replica of the exterior world, deserves more attention, for the fantasies of future media, such as holographic photography, not only reconstituted the relationship between images and audiences, but also expanded the very notion of cinema.

The Expanded Cinema

In a science fiction story entitled "Mysterious Waves," Zhang, a journalist is sent to interview Professor Wang, an expert in wireless remote control, and the chief designer of

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[9] Yao Xiaomeng, "Some Thoughts on a New Cinematic Aesthetics: a Tentative Discussion on the Cinematic Aesthetics of 'Thought-Image.'"

[10] Li Ming, *Kongzhi lun yu shehui gaige* (Cybernetics and Social Reforms), (Beijing: Guangming ribao chubanshe, 1988), 62-75.

[11] I am indebted to Professor Kristen Whissel's insight to the effect that metamorphosis achieved by special effects is always related to a film's subject and theme on the dynamics between imprisonment and freedom. In her chapter "Prisons and Protean Possibility: Digital Plasmatics and the Morph," she traces the precursors of digital "morph" to overlapping dissolves, time-lapse photography and especially animation. Taking further Eisenstein's observations about the "protean power" of animation of mobilizing "the fantasy of transcending any type of categorization or boundary," she examines "the struggle between an ossified, standardized existence that imprisons and enslaves and the dynamic freedom implied by metamorphosis," which is displayed in several turn-of-90s and recent films that employs the technique of digital morph. While the films I am discussing here do not necessarily use digital morph, they nonetheless anticipate the possibilities and pressure of digital technology for cinema, and without exception center upon the theme of entrapment and freedom.

a national safety defense system called "Wave-45." However, he is baffled when standing in front of Professor Wang's house: the walls of the house are completely covered with lush vines and flowers. There is no entry to the house at all! Just as he freezes in confusion about what to do, a boy simply walks "through" the wall and leads him "through" the wall into the house. The rest of the story presents a string of similar surprises and attractions that dazzle Zhang's eyes: in Professor Wang's living room, the famous "Mona Lisa" hangs on a wall. Knowing that this painting could not be the authentic one, Zhang nonetheless believes that this one is "too real to be an imitation." However, when he reaches out his hand towards the painting, there is nothing on the wall! Instead of dispelling Zhang's puzzlement immediately, Professor Wang invites him to see the blooming daffodils around, which, in a blink of an eye, transform into roses. Even the scent has changed correspondingly! As he stands beside a fish tank, in the belief that what he sees is also an illusion, he reaches out his hand into the tank, but immediately shrinks back— he "feels" water this time. Yet as he examines his hand, there are no water drops on it at all. After showing off these astounding tricks, Professor Wang finally explains to him that these are all the effects of waves: "According to the new theory of 'waves,' everything uses different waves to express itself, and every bit of information we can sense is also essentially waves. Though waves are originally emitted from different types of materials, we are now able to manufacture 'waves of pure information,' which can beguile our sensory organs— the visual, the olfactory, the hearing and even the tactile —into believing the signals are from real material things, though the "things" are never present. All of this is achieved merely through the manipulation of electronic equipment."[12]

This fantasy of "waves of pure information" divorced from concrete material things falls into the category of what N. Katherine Hayles calls "disembodied information." However, in this story, the more celebratory (or devastating?) power of the "waves of pure information" is their blurring, if not erasure, of the boundary between the material and the immaterial. Waves are everywhere, transforming the environment in which people live into a magic field of metamorphosis, an ever-shifting phantasmagoric space that immediately changes the way people sense and know the world around us: should people believe or disbelieve what they see, hear, smell and touch?

Yet the distinction between the real and the unreal, the authentic and the replica seem irrelevant to this world of simulation in the story. Just as the "Mona Lisa" in Professor Wang's living room matters less for its own authenticity than its effect, the "real" presence of something matters less than its effect on the sensorium. The human eyes, the human brain and body become receptive surfaces onto which information waves are projected and displayed. This indicates an important shift: media in this sense are neither for the representation of something "real," nor are they bound by rectangular screens that separate "represented space" and "real space." The disappearance of framing ensures the successful integration of media into the living environment: media constitute the very environment inhabited by human beings.

Such a fantasy was by no means singular in 1980s China. Another phenomenon that fascinated the popular imagination of this time was holographic technology—holographic photography (*quanxi sheying*), motion pictures, as well as holographic TV. The idea of

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[12] Wang Xiaoda, *"Bo"*[waves], in *Kexue huanxiang xiaoshuoxuan* [A Selection of Science Fantasy Stories], (Beijing: Zhongguo qingnian chubanshe, 1980), 248-282.

holography was initiated by the Hungarian electrical engineer and physicist Denis Gabor and made commercially available in the 1960s. It is a special effects process of using lasers to create three-dimensional images. Briefly, a light beam from a single laser is split into a reference and object beam. The object beam reflects off an object and the reference beam is directed to the recoding medium. The two light beams meet at the plane of the recording medium, resulting in a complex interference pattern imprinted on the recording medium. The interference pattern can thus be regarded as an encoded version of the scene. When reconstructing the scene, the reference beam is cast back through the hologram, and the beam is diffracted into the object beam, creating a replica of a wave front that would reach your eyes as if you were looking at the object itself. At the early stage of this technology it is crucial to use a laser light, because it has a fixed wavelength and can be precisely controlled. Writing at the turn of the 80s, John Halas mentioned that holograms were mostly still images, and there were still many technological difficulties to overcome in using holographic technology for the production of motion pictures. Commenting on its visual effects, he added: "when developed on a small translucent film, the holographic film looks entirely inconspicuous. It only comes to life when placed in a cylinder and illuminated from within and below and rotated by means of a motor. By that motion the stereoscopic effect can be observed."[13] Despite the technological difficulties and special conditions necessary for 3-dimensional images to appear, holographic technology fueled imaginations about a new, powerful medium in the 1980s China. In an article entitled "Holographic Motion Pictures and Holographic TV of the Future," holographic photography is considered the future of media: an advanced technology that would be "able to capture all the information of the photographed object." Speculating on these prospects, the article continues:

> With the holographic technology in the future, the ordinary, flat screen of today will be replaced with the "holographic screen," which will enable the audience to see lifelike images. They will be surrounded by holographic signals and images, and immerse themselves into simulated situations just as in life, feeling no separation from what surrounds them.
>
> If it is the ocean being projected, you will feel the gentle slapping of the waves, and see whales swimming around you, or ships sailing towards you.
>
> If it is a happy picture being projected, you will feel yourself sharing the happiness as well.
>
> If it is a grand gala being projected, you will feel as if you yourself were stepping into the luxurious dance hall… [14]

As in the story, the emphasis on the easy transmission of feelings and emotions through media reorients the role of media from representation towards their effects on human sensorium. This imagination of the "holographic screen" gestures towards the dissolution of the boundaries of screens. Screens are everywhere, to the extent that even the very

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[13] John Halas, *Graphics in Motion: From the Special Effects Film to Holographic*s, (New York: Van Nostrand Reinhold Company, 1981), 159.

[14] "*Weilai de quanxi dianying he dianshi*" [Holographic motion pictures and holographic TV of the future], *Guowai shengxiang jishu* [Sound and image technologies abroad] 3 (1980): 61-62.

notion of "screen" becomes irrelevant. The fantasized experience of full immersion annihilates the separation between the screen space and the physical space. As immersion implies much more than visual signals, the future media have to be able to address different senses. A "pan-sensory cinema" (*quangan dianying*) was also proposed as a future technology, not only providing visual and auditory stimuli, but also activating tactile, olfactory and other sensations.

The dissolution of the screen also means that the screen loses its particularity so that everything might serve as a screen. In one of the boldest imaginings of this sort of "screen-less cinema" (*wumu dianying*), the sky itself is made into a boundless screen: with a pair of specially-made glasses, people can watch three-dimensional images projected in the sky even when they are on the beach, in the wilderness or wherever. This idea dismantles the theater as the institutional locus for cinema screening, but, more importantly, also transforms the natural landscape into a huge cinematic space. The landscape becomes a screen (or screens) onto which ever-shifting images can be projected. This seems to be close to the final step to creating an all-inclusive media environment in which nothing is left outside of the mediascape: the human-created mediascape will finally conquer nature and render obsolete the distinction between the reality and the represented. The world becomes a theatre with no exit.

These visions of holographic technology and media were inseparable from new developments in the science of optics. Some scholars termed these developments as "a transition from the classical optics to the information optics." In the new field of optics, according to Song Feijun, an author who celebrates this transition, "engineers of optics and engineers of electronics have found their work merged in the realm of informational sciences, and scientists of optics are dealing increasingly with the *frequencies of optical waves* as informational scientists do with frequencies of electronic signals."[15] Song, by adopting Shannon's mode of communication, continues to propose that an analogy could be made between the process of image formation through optical instruments and the signal transmission of radio broadcasting: both processes could be broken down into a system made of the "signal sender," "the information transmission," and the "information receiver and processor." Song points out that a further step to digitalization was to encode optical signals with binary code. More importantly, this would enable easier manipulation of images. The fluid metamorphosis of images would be, as the author asserted, the most impressive magic we could expect from the new optics. One illustration (figure 1) from the book depicts an old woman standing in front of a magic mirror, which reflects her image back as a beautiful, young lady.[16] This playful deceptiveness is lauded as the magic of the optical science. On the threshold of a so-called digital age, it was the conscious alignment between optics and informational science that stimulated these dreams of unbounded metamorphosis.

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[15] Song Feijun, *Cong bodong guangxue dao xinxi guangxue* [From Classic Optics to Information Optics], (Beijing: kexue chubanshe, 1987), 3. Italics mine.
[16] *Ibid.*

Figure 8. Magic Mirror [17]

Domestic Cinema and Entertainment Films

Ironically, concurrent with these fantasies of expanded cinemas and of increasing reliance on the audiences' own senses to "feel" images, the domestic film industry was going through a crisis. The revival and the flourishing of domestic cinema following the end of the Cultural Revolution lasted only a short period. In 1979, film theatre attendance in cities and towns were 9.2 billion individual visits. By the mid 1980s, the institutional authority of theatres waned as people discovered the new fun of TV programs and home video players. The box office for domestically produced films dropped drastically. Urban film theatre attendance in 1984 dropped by almost 30 percent compared with that in 1980. That got even worse in 1985, with a decrease of 1.2 billion individual visits in that single year.[18] According to a survey, in eleven big cities including Beijing, Shanghai and Guangzhou, the theatre-going audience dropped more than 25 percent in the first half of 1985 compared with 1984. One reason was that TV shows, especially martial arts series produced in Hong Kong, had diverted audiences from theatres. For example, two Hong Kong produced TV series, *The Legend of Condor Heroes* (Shediao yingxiong zhuan), adapted from Jin Yong's eponymous martial arts novel, as well as *Huo Yuanjia,* based on the story of a martial art hero in the late Qing, caused huge sensations in 1983.[19] 1983 also marked two significant moments in the development of Chinese TV: first, the central government decided to allow the local governments to start their own TV broadcasting. Since then, TV stations sponsored by local governments, not only provincial governments, but also municipal and county-level governments, mushroomed across the country, covering both

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[17] Printed in Song Feijun, *Cong bodong guangxue dao xinxi guangxue*, 122.

[18] Yang Ke, "*1985 nian dianying faxing fangying gongzuo huigu*" [A review of the film distribution and screening in 1985], *Zhongguo dianying nianjian*, (Beijing: Zhongguo dianying chubanshe, 1986), 11-1—11-5.

[19] "*Jing, jin, hu deng shiyige chengshi 1985nian shangbannian dianying shichang qingkuang*" [The conditions of the film market in eleven cities including Beijing, Tianjin and Shanghai], *Zhongguo dianying nianjian*, 1986, 11-5—11-7.

urban and country areas. Secondly, the Spring festival gala held by Central China TV station also started in this year, which began its nearly thirty year run as the most popular TV celebration in the nation. Videocassettes, as a new audio-visual media, whether legally distributed or illegally pirated, brought with them the fad for Hong Kong and Taiwanese popular culture, further decentering regular film screening. Some film theatres even converted their space into video screening rooms. Hollywood movies appeared not only in the list of TV programs, but also in local video screening rooms. With this expanded realm of media, domestically produced cinema was faced with severe challenges. There were abundant audience surveys and studies of audience psychology carried out by film journals and related organizations, with an aim to attract audiences back to the theatre.

The distribution and production of Chinese film in the 1980s was also going through profound changes. In 1984, the Ministry of Culture initiated systematic reforms, redefining the film industry as an independent enterprise responsible for its own economical status.[20] This was a significant step in changing the nature of film studios and distribution units from state-subsided departments to the market-oriented economic units. However, even before the details of reforms were finalized, film studios already started seeking distribution channels by themselves, circumventing the official distribution departments. Some studios, in order to sell their films at a better price, reserved their films solely for domestic cinema fairs, which resulted in a shortage of films for regular theatre screening. Although these reforms aimed toward "self-production and self-marketing" (*zichan zixiao*) were suspended by 1985, theatre attendance dropped drastically as a result.[21]

With these deep anxieties about the future of the Chinese film industry, some film and media critics related this crisis to a global "death of cinema." A critic, noticing the parallel crisis in the western world, saw the rise of home media as a challenge to theatre screening:

> (S)ince 1984, videocassettes of foreign films have flooded the Chinese market. Because of 'the videocassette fever,' many theaters actually stopped film screening and got involved in videocassette business instead. This is a no small shock to the film industry. What has happened in the western countries is also taking place in our country. We don't yet know where this decline in film audience will ultimately take the industry to. However, an accelerating sense of crisis, perplexity and urgency has seized the industry. [22]

But the critic still preserved hope, seeing the proliferation of other media forms as opportunities for cinema to expand itself. The role of regular theaters as a venue for film screening may have diminished, yet "bigger screen, widescreen, 3-D and panorama cinema are playing roles that cannot be replaced by TV." The author continued to argue that the

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[20] Ni Zhen, *Gaige yu Zhongguo Dianying* [Reforms and Chinese Cinema], (Beijing: Zhongguo dianying chubanshe, 1994), 47.

[21] Yang Ke, "*1985 nian dianying faxing fangying gongzuo huigu*" [A review of the film distribution and screening in 1985].

[22] Qi Fang, "*Dianying mianlin tiaozhan haishi binling siwang?*" [Is cinema facing challenges or about to die?], *Dangdai dianying* 2 (1986): 34-44.

recent "videocassette fever" in China confirmed the demand rather than the redundancy of domestic cinema production.

The relation and tension of cinema with other media forms was central to the media discourse of this time. Zhou Chuanji, writing in 1989, traced a long history of the competition between the film industry and other media, from early TV broadcasting, to cable TV, VCR and home media players, as well as the most recent electronic games. Instead of viewing this history as that of the competition between old and new media, he reminded readers of the different social agents behind different media. He saw the recent increasing appearance of low-end Hollywood movies in Chinese TV programming as a strategy of the Hollywood to dump its out-of-date products on the Chinese audience, with the purpose of cultivating a taste for Hollywood and thus establishing future business dominance.[23]

If we follow Zhou's argument about social agents behind different media, we may also ask: did this transformed mediascape also entail shifting power relations in post-socialist China? What was the role of elite intellectuals in this landscape of commercialization of cultural production and media? Interestingly, *Popular Cinema* (Dazhong dianying) published a series of investigations into the conditions of film theatres in Shanghai, Guangzhou and other big cities, with an aim to finding out what kind of films appealed to the audience. There were voices criticizing the elitist aesthetic of "experimental films" (*tansuo pian*), such as *Yellow Earth*, for "scaring" the audience away from theatres. On the other end, a revaluation of "entertainment films" (*yule pian*)—the appearance of this neologism per se indicating the transformed milieu of film production and consumption in Post-Mao China— entered intellectual discourse. Some critics adopted Freudian language to confirm the legitimacy of entertainment films:

> We all admit that a 'complete' human being has his own emotions and desires… Once satisfied, the person reaches a state of psychological balance and harmony, and he feels pleasure. However, civilization forbids individuals from pursuing their desires freely… The suppressed libido has to find an outlet. Cinema and art is the kingdom of freedom for the suppressed undercurrents.
>
> We've seen the popularity of *Shaolin Temple* and *Huo Yuanjia*, as well as the unprecedentedly high box office of *Thirty Nine Steps*, *The Cassandra Crossing*, and *Le Grande Vadrouille*… The audiences are willing to place themselves into fictive stories, and imagine themselves in the more than one hour's darkness to be handsome cowboys, brave warriors, judges of justice, and couples in love. They are willing to lose control for a while and let themselves be driven by the intensive plot, tension-ridden chase, fierce combats and scenes of horror, and then recover their psychological balance through a happy ending… [24]

This critic related the entertainment function of films to a humanistic discourse of desires, which in fact implied an assessment of the "inhuman," didactic tradition of socialist realism,

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[23] Zhou Chuanji, "*Dianying yu yi dianshi weizhu de qita chuanbo meijie de guanxi*" [Cinema's relation to TV and other media], *Dangdai Dianying* 4 (1989): 41-46.

[24] Zhang Wei, "*Dazhongxing dianying de xinli duiying*" [The psychological parallel to popular film], in *Dazhong dianying* [Popular Film] 6 (1987): 4-5.

and thus aligned entertainment cinema with the humanistic critique of the Mao era since the late 70s. The "healthy," entertainment films he listed included a Hong Kong produced martial arts movie and a TV show, as well as western thrillers. As we shall see, many of the films mentioned here appear as citations and parodies in the 1986 film *Flight of Fantasy*. The playful, cinematic experience of role-playing of the audience described in this passage also becomes the content and structure of *Flights of Fantasy*, which indicated a close feedback loop between audience studies and film production.

Film critics also eagerly advocated the development of entertainment films as a remedy to the crisis of domestic cinema. In this view, tensions between entertainment and experimental films were replaced by other binary terms. In a symposium on entertainment movies held by the journal *Contemporary Film* in 1986, Chen Xihe, differentiating contemporary cinema from the previous tradition of "art as the vehicle of ethical didacticism" (*zaidao*), emphasized the enjoyment and relaxation that highly stressed modern people derived from films. He related the entertainment function of films to a new understanding of "humans" not only as rational beings, but also of emotions and feelings. It was the latter, he argued, that was repressed by Chinese cultural traditions. Li Tuo concurred, believing that "entertainment culture could be a powerful counterforce to the feudalist culture of China." To open a space for entertainment films against the dominant tradition of realism, Chen proposed the uniqueness of entertainment films as compared to realist films as such: while realist works often address the logic of rationality, entertainment films follow irrational emotions, which should not be restricted by the principles of realism. It was their aesthetic effects on audience, Chen emphasized, that differentiated them from realist works. Li Tuo further proposed the notion of the "game" as the distinctive aesthetic feature of entertainment film. For example, he argued, "chase scenes and suspense, both games, essentially countervailed the principle of realism."[25] In the arguments of both Chen and Li, entertainment films were seen with the effects of releasing the bodily affectivity of the audience, as opposed to the didactic rule of socialist realism.

In another essay, Chen Xihe characterized post-Cultural Revolution films as sharing concerns about "human fate, human values, human nature and other humanistic issues." From this perspective, he confirmed the value of entertainment films, in that they "directly intervene in human issues on the *experiential level*" and "reasonably satisfy the *sensorial pleasures* of a 'complete' human being."[26] This notion of "a 'complete' human being" was proposed against the Mao era hero/heroine who sacrifices his/her "human" desires for other grand purposes. These once lauded heroes/heroines were regarded as "one-dimensional" and "incomplete" according to the post-Mao redefinition of "human beings." However, as we shall see in the films discussed later in this chapter, the unleashing of sensorial pleasures does not necessarily lead to an integrated subject. "What is human?" became a most difficult question to answer.

At the same time, with the deepening of reforms and opening as well as transformations in social and economic structures, new images of human types appeared

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[25] Li Tuo et al., "*Duihua yulepian*" [Conversations on entertainment films], in *Dangdai Dianying* 1 (1987): 55-67.

[26] Chen Xihe, "*Ren de zhuti, yulepian*" [The theme of the human and entertainment films], in *Dazhong dianying* (6)1987: 6-7.

on the screen by the mid 1980s. *Yamaha Fish Stall* (Yamaha yudang) directed by Zhang Liang, a veteran filmmaker from Zhujiang film studio, for the first time made job-awaiting urban youth and self-employed businessmen (*getihu*) its main characters. Unlike Chen Kaige and Zhang Yimou's focus on remote, barren areas, from the mid 80s, many films explored new social relations in the urban milieu and the possibilities of new identities in the new economic and cultural climate. One signal film that captures these new sentiments and anxieties is *Sunshine and Showers* (Taiyang yu, 1987) by Zhang Zeming. In this film, we see the emergence of new urban professionals, who no longer stick to the routines of a stable life, but throw themselves into perpetual mobility and the endless pursuit of individual value. A young girl dissatisfied with her "too quiet" life remakes herself as a fashion model and busies herself with performance tours; an ambitious young man in the advertisement business —which was indeed a new business in the 80s— is always "on the road" and can seldom afford a few hours of leisure with his girlfriend. These new types of characters belonged to a chaotic world in transition that also promised unlimited possibilities. However, by forsaking the stable shelter of state institutions, these new types of characters also throw themselves into unpredictable and precarious situations in their Faustian pursuit of unleashed freedom.[27] I would argue that such new social, economic conditions are also crucial for understanding the fantasies of unbounded freedom outside the state institutions, as well as deep anxieties of being trapped, that appear in the films of this period. In the rest of this chapter, I will focus on three films produced in the same year of 1986: *Flights of Fantasy* (Yixiang tiankai), *Dislocation* (Cuowei), and *Visions from a Jail Cell* (Moku zhong de huanxiang), all of which distance themselves from the tradition of realism and the representational mode, and reinvent cinema as a plastic medium through which we can read the "structure of feelings" of the late 1980s China.

Metamorphosis in *Flights of Fantasy*

The 1986 film *Flights of Fantasy* (Yixiang tiankai) directed by Wang Weiyi begins with the morning of a regular workday of petty clerk Xu, who works in the accounting department of a corporation. Stuck in a crowded bus on his way to work, and anxious about being punished by his manager for being late, he fantasizes about his own metamorphosis into an animated character of supernatural flexibility. The cartoon character is "Astro Boy" (*Tetsuwan Atomu*, or "Mighty Atom,") from the eponymous Japanese anime. Atomu became a favorite character for Chinese audiences after China Central Television broadcast the 1980 version of the Japanese anime series. Having transformed into the guise of an anime figure, Xu's body flies free from gravity. He nimbly extricates himself from the packed carriage, and soars swiftly across the skyline of the city, displaying the allure and pleasure of a weightless body. But the film soon cuts back to the live action scene, featuring the human figure Xu running strenuously towards his office, his sweaty face and labored movements in no way resembling Atomu's effortless flight. The alternation between the animation and the live sequence exposes the discrepancy

[27] See Wang Hui, "*Dangdai dianying zhong de xiangtu yu dushi: xunzhao lishi de jieshi yu shengming de guisu*" [The urban and the rural in contemporary films: in search of historical explanations and the significance of life], in *Dianying yishu* 2 (1989): 12-19. Wang read the film and its new type of restless characters in relation to the society and economy in transformations.

between the effortlessness of the metamorphosis and arduous heaviness of being, but also reflects the interpenetration of the media world and real life.

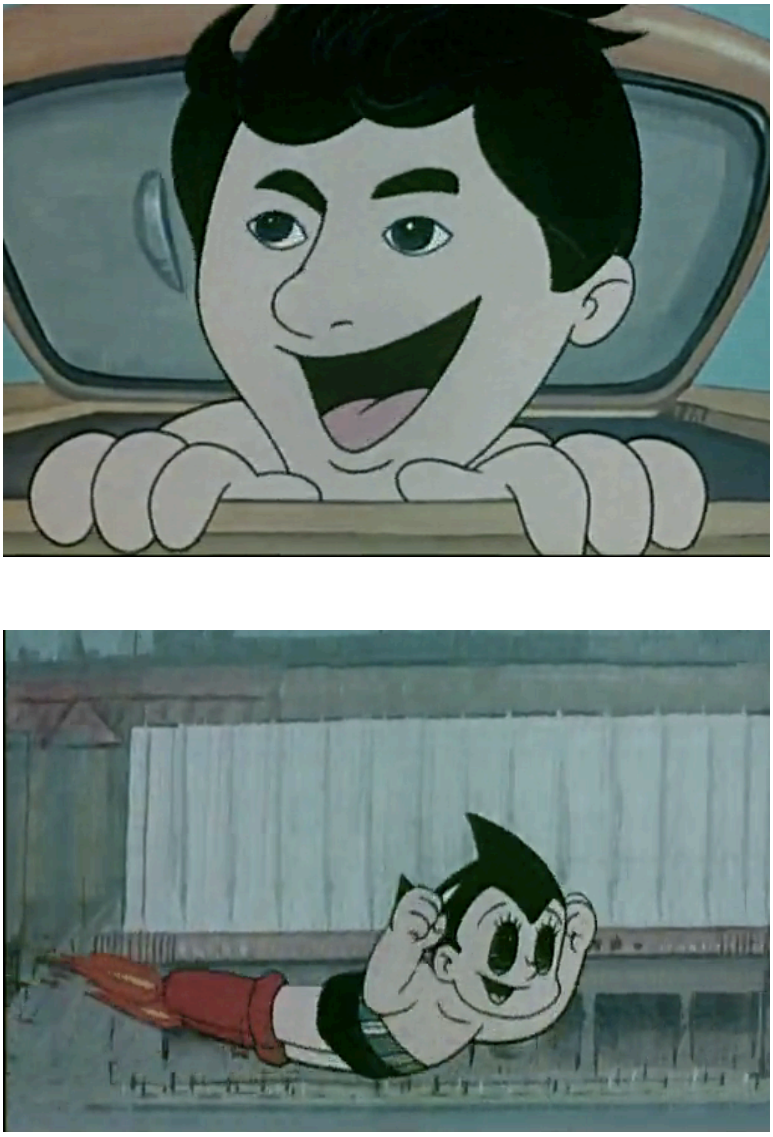

Figure 9. Metamorphosis in a crowded bus

Media saturation results in a film richly layered with visual and audial effects, connecting different media through magical flows of energy. In fact, the film starts with a sequence that quite literally animates the dynamics between different media. The remarkable opening scene arrives with the clashing sound of sword on sword, as well as the sound of panting and the shouts of people fighting: a typical soundtrack for a martial arts movie. Yet these sounds are floating, unlocatable in the mise-en-scène. The disjunction between sound and image compels the camera to look for the source of the

sound, revealing graphic illustrations from popular tabloids, pulp martial arts fictions, and popular film magazines, as well as film posters, a toy robot, and a small statuette of a martial arts hero. It is as if the camera is being taunted to find out the prankster from whom the sound comes, and whatever it touches becomes animated, brimming with energy for unexpected transformations. These opening shots self-consciously posit the film in an intermedial relationship with cassette technology and pop music, all sorts of movie culture tie-ins, as well as popular print culture. In fact, the film was adapted from a short story by the popular writer Zhang Xianliang, who would become a cultural entrepreneur running a film studio in Ningxia. The sequence also shows how various popular media saturate the world of our protagonist, whose own kicks and shouts seem to be a response to the free-floating soundtrack of martial arts film. The ambiguity of the location of the sounds blurs the boundary between the extra-diegetic and diegetic space, almost dissolving the frame of the screen. Soon the soundtrack is replaced by kinetic disco music, which animates the objects in the room in a fast montage. We see our protagonist squeezing himself into tight jeans, as if he cannot wait to getting rid of the burden of physicality, and preparing himself for a weightless flight.

The rest of the film showcases how cinema becomes a vehicle for the office-bound Xu's "flights of fantasies" — a medium for his dreams of metamorphosis. Sitting in his cage-like office, reluctant to start in on his boring, routine work, he is distracted by huge film posters across the street. All the characters and images on the posters begin to move of their own accord, overlapping and dissolving one after another. Xu falls into a daydream: sent out for a business trip, he finds himself to be the bearer of supernatural powers and is involved in an airborne fight against an invading alien. But this same Xu soon finds himself transformed into a martial arts hero at the Shaolin temple. After stealing a scroll of martial arts secrets from the abbot he elopes with his lover. At this point, the film becomes a farcical game of chase: the abbot and another monk follow the couple into a kaleidoscopic urban landscape — an amusement park, a discotheque dancehall, a fashion show, and finally into a showroom displaying the latest innovations in robotics. In this process, our chameleon-like character immediately adapts himself to each environment and assumes a new identity. Immersed in the world of martial arts movies, he is quick to imitate the genre's characteristic stances and movements; in the fashion show, he becomes a denim-clad cowboy; more magically, as he presses himself into the body of a robot, he literally becomes "one" with the robot, and even defeats the abbot with this new shining, mechanical body; and when he puts on woman's dress and make-up, he even speaks with a female voice. The discrepancy (or ostentatious display of fabricated congruity) between his/her physical body and the high-pitched woman's voice destabilizes the "natural" synchronization between sound and images, evoking an earlier historical moment when sound as a new medium was added to cinema.

Figure 10. The Cowboy Xu

Figure 11. The Female Xu

As the film employs various optical tricks to highlight Xu's elasticity, such as stop tricks and matte shots, even incorporating found footage from *Shaolin Temple*, the movie itself metamorphosizes from science fiction, to martial arts, to a display of urban entertainments, and finally into a spy thriller. The dazzling generic transformations of the film indicates the film's self-conscious position in a network of intertextuality. Distancing itself from the representational mode that centers upon the relationship of cinematic images to prefilmed objects, the film invites its audience to suspend the question about authenticity and derive fun from its intertextual references.

Moreover, Xu's transformation from a would-be film spectator to a self-fashioned actor in a string of genre films playfully conflates screen space and living space, echoing

the fantasy of the seamless integration of screens into the living space of this time. The surrounding world is now a live theatre that invites the audience to be its actors and encourages them to travel across the cinematic world as in the real world. The vanishing boundary between living space and media space seemingly aspires to prevalent fantasies about a "pan-sensory" and "no-information-lost" holographic cinema. Vision, sound, smell and touch, all senses of human beings are susceptible to simulated media effects, to the extent that Yao Xiaomeng in the opening quotation of this chapter uses the Baudrillard term "hyperreality" to address the altered dynamics between reality and media. The unprecedented proliferation of screens and the arrival of a media-saturated society arguably played a role in prompting such imaginations of an annihilation of the discrepancy between the real and the mediated.

However strong the impetus to annihilate the frame of the screen, the boundary between the real and the mediated persists, as indicated in the discrepancy between animation and live-performance in the aforementioned animation sequences. In fact, these fantasized adventures and free-floating freedoms are exquisitely framed in the structure of daydreaming. The fantasies of a flexible, spontaneous subject derive exactly from the opposite— the inability of the lackadaisical Xu trapped in his office to free himself from his desk and the mechanical rhythms of daily routine. The film ends with the manager walking in, and shaking Xu from his daydreaming. Xu, lethargic, glimpses at the theatre across the street, into which the throngs are squeezing themselves, as if the cramped, box-like theatre could constrain their boundlessly unfolding fantasies. This last scene inadvertently reverses the camera towards the audience, revealing the film per se as a self-referential daydream. In this way, cinema is exquisitely placed within a loop of desire: cinematic images are generated by desire, but also generate and transmit sentiments and sensory sensations. The tension between this sprawling network of desire, spatialized as the endless unfolding of cinematic space in *Flights of Fantasy*, and the delimiting walls of theatres, is best captured in this meta-cinematic last shot. Cinema becomes a medium of immense mobility, a mobility for which audiences confined in the black boxes of theatres and cage-like offices are eagerly yearning.

"Flows" of Affectivity

The constant mutations in and of the film may remind us of Tom Gunning's notion of "cinema of attractions" in his discussion of early cinema. Writing about the unique spectatorial address of the early cinema as distinguished from classical narrative films, Gunning points out that while cinema of classic narrative is interested in building a diegetic world of fictional characters and places, cinema of attractions addresses spectators by "arousing and satisfying visual curiosity through a direct and acknowledged act of display." In contrast to "the gathering of successive moments into a pattern" in order to create a "development in time" in classic narratives, attractions have one basic temporality "of the alternation of presence/absence" and a present immediacy of a "Here it is! Look at it." The cinema of attractions presents itself as "staccato jolts of surprise", as "a temporal

irruption rather than a temporal development."[28] Gunning' characterization of "discrete events" also applies to *Flights of Fantasy*. Metamorphosis in the film strings together discrete events, without providing cause-and-effect links between the transitions, nor resulting in a "development in time." The linear progression of narrative is abandoned for swift shifts between different scenes. If Gunning's insight on the "cinema of attractions" uncovers the "hybridity" of cinema, relating the aesthetic of early cinema to its historical connections with other forms of media and performance, such as magic shows, in *Flights of the Fantasy* the assemblage of optical photographic tricks and its abandonment of linear classic narrative, by evoking an earlier moment of cinema, raise questions about the very nature of cinema in an era of electronic media.

Coincident with the end of the Classical-era Hollywood, in American science fiction films of the late 1970s, there is a shift of temporal and spatial consciousness, as Vivian Sobchack observes:

> (M)ost of today's SF films construct a generic field in which space is semantically described as a surface for play and dispersal, a surface across which existence and objects kinetically dis-place and dis-play their materiality… It is filled with curious things and dynamized as a series of concatenated events rather than linearly pressured to stream forward by the teleology of the plot. [29]

Sobchack relates this surface for display to the emergent electronic space, which is "open only to 'pervasion'—a condition of kinetic accommodation and dispersal associated with the experience and representations of television, video games and computer terminals."[30] Astutely placing this new aesthetic in the intermedial relations of cinema to the pervasion of electronic media, Sobchack echoes Gunning by emphasizing the cinematic screen as a display of "curious things" and "concatenated events."

However, if in Gunning's argument, it is the magician's whimsical performance that punctuates the moments of attractions, with the coming of the electronic age, it is the audience's familiarity with and experience of various media forms and conventions that makes it possible for the screen to become a surface for play. *Flights of Fantasy* does not rely on "the delaying of resolution of that enigma," as Gunning characterizes Classical Hollywood films, to absorb the audience psychologically into the diegetic world. Instead, the fun of watching the film derives from immediate recognition of generic conventions, from SF and martial arts films to the spy thriller. In other words, the narratives of these genre films are not simply absent as in early cinema, but randomly cut short, just like swift zapping among different TV channels. The random entering and exit from a genre film in *Flights of Fantasy* also echoes the audience's experience of sampling from among a sea of information. By stringing together random excerpts of different narratives, *Flights of*

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[28] Tom Gunning, " 'Now You See It, Now You Don't:' The Temporality of the Cinema of Attractions," in *Silent Cinema Reader*, ed. Lee Grieveson and Peter Kramer, (London and New York: Routledge, 2004), 41-50.
[29] Vivian Sobchack, *Screening Space: the American Science Fiction Film*, (New York: Ungar, 1987), 227-228.
[30] *Ibid*, 229.

Fantasy remediates the experience of using TV and other electronic media, revealing the tension of cinema with other media and the expanded cinematic experience as a result.

Such remediation is also recognizable in other Chinese films of late 1980s. Commenting on *The Perils of a Rich Boy* (*Shaoye de monan*), a comedy produced in 1987, a critic describes the film as "a postcard film" that provides postcard-like glimpses into different places which the protagonist moves across. The audience is distracted from the development of the plot. Cause-and-effect temporality is also suspended. The critic highlights the "hybrid abundance" of information provided by postcards, in the sense that postcards often "mingle together different visual styles and contents" in order to enlarge the amount of information they may convey.[31] This critic's comments are thought provoking in several ways: first, he places cinema in an intermedial space of information exchange. Cinema is no longer for the representation of the real, but for the dissemination of information. The compact surface of a postcard is maximized for information efficiency. Secondly, the ephemerality of postcards underlines the susceptibility of cinematic images to fast consumption. The fleeting images, with their banal reproducibility, as distinguished from masterpiece pieces of painting, are made for ephemeral, sensorial stimulation, soon to be forgotten, if ever remembered. If Gunning's cinema of attractions accentuates the "staccato jolts of surprise," cinematic images in these films of the electronic age become flows of homogeneous images of spectacles, "flows" in terms of continuous passing of images and events without a real ending or any linkage between.

Richard Dienst, in addressing the changed ways that media images shape the experience of temporality, singles out television as the disruptive point when theoretical approaches drawn from a criticism of cinema are no longer adequate in understanding the images of the "after television" moment. This is because, as Patricia Ticineto Clough quotes and elaborates, the image, "released from narrative and representative requisites," becomes "the image of time passing, the image of time's force, or its productivity in passing." By "producing value through socializing time — that is, time that has not already been socialized as labor time," television "points to the becoming of technologies that are productive of value through the modulation of subindividual bodily capacities or affect."[32]

Dienst and Clough' s insight on the role of flows of images in socializing time beyond labor time for the production of value is pertinent to our understanding of the conflation of working time and play time in *Flights of Fantasy*. The fluctuations of Xu between a versatile actor and a would-be spectator blur the boundary between work and play, production and consumption. The office-bound Xu, in his search for adventures and excitement to evade his boring work, inadvertently finds himself working to consume. This type of constantly mutating, zany character, who is "nothing but a series of adjustments and adaptations to one situation after another," as Sianne Ngai points out, is actually a person who strives to find a job in "a precariousness created specifically by the capitalist organization of work," who has to put into work affects and other human capacities when facing the politically

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[31] Qian Haiyi, "*Xiandai mingxinpian xiju*" [Modern postcard comedy], *Dianying xinzuo* [New film works] 6 (1987): 71-73.

[32] Patricia Clough, "Future Matters: Technoscience, Global Politics, and Cultural Criticism," *Social Text* 3 (Fall 2004): 1-23.

ambiguous erosion of the distinction between playing and working. [33] In the post-socialist late 1980s China, zaniness speaks to the possibilities and fantasies of self-fashioning and freedom allowed by the prospect of moving out from the shelter of state institutions, while also anticipating the birth of a new postsocialist subject who has to constantly adapt themselves to the ever-changing market, and deal with ever-shifting information flows of a marketized society. By socializing the time previously beyond labor time, film viewing, in Dienst's words, trains for film viewers to build into their bodies a rhythm able to match the rapid changes of the marketplace. It also signals the increasing extraction of surplus value from affect and bodily capacities when the government started leaving individual businessmen and entrepreneurs to fill in the gap between a society in the process of marketizaion and a post-socialist state.

According to the statistics provided by the State Council, by the mid 1980s, there were about 17 million self-employed entrepreneurs (*getihu*), mostly in sales and the service industry. They became a highly visible population for their putatively generous income compared to average state institution employers, and their mixed constituents of job-awaiting youth, ex-convicts, and ambitious businessmen. Numerous films captured this new type of social characters and phenomenon, as in *Yamaha Fish Stall* (*Yamaha Yudang*), *Good Morning Beijing* (*Beijing Nizao*), *Zhenzhen's Hair Salon* (*Zhenzhen de Fawu*), and *Black Snow* (*Heixue*). *Troubleshooters* (*Wanzhu*, 1988) is of particular interest here because it vividly demonstrates the performance of affect as a form of labor in post-socialist space. The film traces several young men who run a "Three For" company that provides all sorts of odd services, such as replacing henpecked husbands to bear the scolding of their wives, dating girls on behalf of people who cannot afford to take the time themselves, comforting depressed losers, as well as pretending to be poets and writers on various gala occasions. Acting, playful mimicry and role-playing are no longer the privileged province of film actors, but part and parcel of their work. In this transformational post-socialist space, where the state can no longer encompass under its regulatory ambit all sorts of newly emergent social relations and sentiments, "Three For" company transforms the management of social relations and sentiments into value production, previously the domain of the government.

In this sense, *Flights of Fantasy*, with its conflation of film acting and film viewing, working and playing, also indicates the centrality of the expanded cinema, which is now remediated through the flows of television and other electronic media, as an apparatus for modulating and putting into work affectivity and bodily capacities. However, this zany character Xu who performs affective labor in varied situations, as Ngai points out, is also anticomical and even pathological. The flexible, elastic character is also susceptible to dissolution, self-contradiction, and self-alienation, as we shall see in another film produced in 1986 *Dislocation*.

The Nightmare of *Dislocation*

Directed by Huang Jianxin, *Dislocation* is a sequel to *Black Cannon Incident*. It continues the story of Zhao, who, now the head of his department and stifled by his

[33] Sianne Ngai, *Our aesthetic categories: zany, cute, interesting,* (Cambridge, Mass.: Harvard University Press, 2012), 197-210.

obligation to attend endlessly boring and time-consuming meetings, conferences and banquets, makes a robot after his own image and sends the robot to these occasions in his place. While Zhao hides himself in his apartment/home lab to conduct his own scientific research, his robot double, with data input by Zhao, becomes a social animal, busying himself/itself with routine talks, drinking, and performing social functions. However, the robot begins to develop his own feelings and personality that diverge from Zhao's initial intentions. These conflicts are exacerbated when Zhao finds out that the robot has even been secretly dating Zhao's girlfriend. Finally, afraid of losing control of the robot, Zhao destroys his own double.

Following the lineage of freak scientists in the science fiction tradition from *Dr. Jekyll and Mr. Hyde* on, in *Dislocation*, the workaholic Zhao often shuts himself in his lab, ignoring telephone calls and contact from the outside. In one scene, Zhao's head, chopped off from the rest of his body, is shockingly placed on the working bench. The head is sandwiched between a pair of black-rimmed glasses and tubes for lab tests on the bench, his eyes staring upwards at the ceiling, as if disdainfully refusing to communicate with the gaze of the camera. Later, the camera reveals that Zhao, sitting in front of the bench, is working on several tangled wires — he is making the head of his robot double. Surrounded by computer monitors, electronic instruments and integrated circuit plates, the absorbed Zhao turns away from the camera to face the monitor, undisturbed by the existence of the identical head.

Figure 12. Disembodied Head of Zhao

Disembodied heads haunt the screen of late 1980s, not only in the crime scenes that pervaded genre films produced by film studios now eager to entertain their audiences, but also in science fiction- cum-horror genres. *Mistaken Identity* (*Hechengren*, or literally "synthetic man"), a film made by the Changchun Film Studio in 1988, tells the story of a peasant' s head being transplanted onto the body of a dying trade company manager. The human body is no longer believed to be an organic whole, but a set of parts that can be reassembled. In the 1989 film *A Beauty's Head in a Haunted House* (*Xiongzhai meirentou*), a freak scientist collects various heads in his lab, and keeps them "alive" even without their bodies. In order to obtain an ideal body for his experiments, he even plots murdering a

dancing girl. Set in an isolated castle-like house, the film turns the lab equipped with high-tech electronic devices into a nightmarish site of horror.

This confusion between the organic and the mechanic, life forms and nonlife forms, reveals the deep uncertainties entailed in an ongoing transformations of the understanding of the status of the human and of life. What is humanity, after all, if human body parts can be dismantled and reassembled? What does it mean if an exact robot replica can be made to replace his/its human counterpart? In *Dislocation*, the human being and his replica are often made to compete for "authenticity." In one scene, Zhao is putting his own watch onto the wrist of his robot double so that he/it can exactly look like him. However, from their identical images in the disconcerting scene, it is really difficult to tell the two apart. The difference between a human being and a robot ironically rests upon the accessories they wear. The uncanny confusion between human beings and nonlife forms is replicated in other scenes: first in a sculpture gallery, the white, lifeless body of statues, shot in a series of montages, mimic human movements. Indeed, the art designer of the film intended to use live actors to play the lifeless sculptures of human forms.[34] Again, in a shopping mall, elegantly clad mannequins are posed in vivid human gestures and frozen in the middle of movements. Even more eerie is a moment in which the robot wanders aimlessly in streets, staring at mannequins displayed in shop windows, as if to compete with their "liveliness." In another scene, human actors are frozen into motionlessness, and revealed to be no different from mannequins.

Figure 13. The Uncanny Double

This dislocation of the human and nonhuman indicates the deep crisis underlying the very notion of "human." Zhao, subordinate to the bureaucratic machine, has no control over his own life and research. In continuity with the character in *Black Cannon Incident*, Zhao dares not raise his voice against the system. His robot double becomes the only

[34] Qian Yunxuan, "Cuo Wei *chuangzuo gouxiang*: *meishu gousi*" [The ideas of producing *Dislocation*: art designer's notes], *Dangdai dianying* 3 (1987): 116-118.

means for silent resistance against a system of reification. By shifting part of his responsibilities to the robot double, he further develops the specialization of labor: he focuses on intellectual research work, while his robot double is tasked to maintaining social ties. In other words, affective labor is separated out, becoming the unique specialization of the robot. The robot has been constructed as a tool to save labor, but also contradictorily as a double who represents his master on social occasions. Zhao demands absolute control over his "tool," but at the same time requires the robot to be Zhao, to perform as a human being. Ironically, addicted to meetings, the robot now makes his professional performance of sociality part of his "personality."

The reification of the "human" also takes place on another level. Even after his liberation from his perfunctory obligation to attend boring meetings, Zhao is a "one-dimensional" man, a frantic scientist who never has the time and patience to attend to the feelings and needs of people around him. In contrast to Zhao's indifference to his girlfriend Yang, the robot is more like a lover towards her, but ironically these traits are precisely his professional skills— taking her out for drinking, and performing affectivity and warmth he has learned somewhere else. Private life and human emotions are dislocated into the professional performance of a robot.

The complicated, multilayered dislocation can be observed in the confounding gazes between characters. In one shot, Zhao stares at his robotic double when talking to him, whereas on the wall there is a portrait in which he is looking in the opposite direction, as if there were another Zhao protesting the talking Zhao. This is followed by a counter shot, in which another Zhao—the robot—with exactly the same solemn expression, looks back at the first Zhao. The gaze and return gaze circulating between multiple copies of Zhao eerily wind together, confusing the seeing and the seen, as if different pieces of himself were talking and combating with each other, each equally alien.

Figure 14. schizophrenic gazes between multiple copies of Zhao

Fluid Images

The schizophrenic conflicts in the story are expressed through the use of colors in strong contrast. As the cinematographer Wang Xinsheng explicates, the color design aims

at "a radical experiment to break the balance among colors." Instead of graduated layers of colors, stark contrasts between red and blue, black and white, bright and dark are used for conspicuous aesthetic effects. Linking the effects of color to psychological fluidity, he elaborates that red, blue, black and white, "intersect, separate, compete and disappear along with the fluctuations of emotions," creating what he and the director call "a cloud of colors" (*secai tuan*). In accordance, "the role of narration is reduced, and realistic design of the environment is avoided," so that the hallucinatory ambience fuses with emotions and feelings. Images as signifiers convey affect beyond the semantic level, for "the true significance of the dreams," as he remarks, "should be sought in neither their content nor forms but instead through *the mutated emotions* in the dreams."[35]

The film, therefore, "frees itself completely from realistic conventions," as its art designer Qian Yunxuan remarks, to "create a mysterious, futurist ambience" that "breaks the boundary between the reality and dreams."[36] The film begins with just such a dreamy scene, in which Zhao, uncomfortably attired in a tight black suit, speaks agonizingly into a microphone. The camera zooms out, revealing him to be standing on a black podium, surrounded by oddly-shaped sculptures. Instead of one microphone, a circle of microphones traps him inside. This red-lit space, divided by Cubist, geometrically irregular sculptures, is made more surrealistic by a bizarre, electronic pulsation on the soundtrack. As the sound accelerates into high-pitched hysterical squealing, snowflake-like documents fall from the above, burying the panic-stricken Zhao in a white mountain of paper. A subsequent shot abruptly cuts to Zhao, buried under white quilts in a hospital, pulled by three black-robed men across a long, disturbingly white passage into an operating room, where Zhao's rigid, tiny body is laid among coldly shining scalpels and scissors, left to the ruthless hands of expressionless men. The strong contrast between black and white, and bluish faces in red-tinged light, creates a tense feeling of horror and panic. This opening scene envelops its audience into a nightmarish ambience through its defamiliarizing effects of sound and visual images.

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[35] Wang Xinsheng, "Cuo Wei *chuangzuo gouxiang*: *sheying chanshi*" [The ideas of producing *Dislocation*: cinematographer's notes], *Dangdai dianying* 3 (1987): 115. Italics mine.
[36] Qian Yunxuan, "Cuo Wei *chuangzuo gouxiang*: *meishu gousi*" [The ideas of producing *Dislocation*: art designer's notes], *Dangdai dianying* 3 (1987): 117.

Figure 15. The eerie opening scene of panic

Regarding cinema as "the exteriorization of human thoughts and feelings," the director Huang Jianxin mobilizes various elements of cinematic composition,[37] from colors, to lighting and sound among others, as sensory stimuli on its audience, through the effects of which cinema becomes "a conveyor of communication."[38] With this expressionist pursuit, every element breaks away from the gravity of realistic principle and follows the flows of psychological energy:

> The composition might be balanced or imbalanced, but should always produce a shock. Movement of the camera, as the basic feature of cinema, with its rhythm and regularity, along with relationship of one frame to other frames, should always follow the psychological state, roaming along with the thought, and elicit a feeling of fluidity.[39]

Such fluidity defies the realistic principle of space-and-time coordinates, and therefore cutting and editing between frames and scenes aims not at creating coherent space and time. Images roaming with thought in turn give thought a shock. Blurring the exterior and interior, real and fantastic, images jump across what Huang calls "discrete spaces."

For example, we are suddenly thrown with Zhao from his car into an airport terminal-like hall scattered with motionless human figures. Following the dream-walking Zhao out of the hall, we are soon engulfed in a golden desert that adjoins the high-modern architecture. Aimlessly wandering in the desert, Zhao is suddenly seized by blaring noises: amidst the wilderness, a TV set is emitting nonsensical foreign-language commercials. A close-up of the screen shows enlarged chewing mouths, swinging buttocks, and

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[37] The most frequently used term in film critique and theory of this time is "*goutu*," which I roughly translate as "cinematic composition." However, the emphasis of "*goutu*" on careful arrangements of both visual and sound elements, and the sense of "designedness" should not be missing from the translation.

[38] Huang Jianxin, "Cuo Wei *chuangzuo gouxiang*: *Douyan chanshi*" [The ideas behind the production of *Dislocation*: director's notes], *Dangdai dianying* 3 (1987): 113-114.

[39] *Ibid*.: 115.

fragmented human bodies. A counter shot reveals that in front of the TV set sits an old scholar dressed in ancient Chinese attire, with an old-fashioned vertically printed book in hand. He stands up to turn off the TV and recites to Zhao a quote from the ancient Daoist philosopher Laozi. The juxtaposition of discrete spaces from the modernist architectural space to the desolate desert, from the world of the vertical printed book and ancient philosopher to the consumerist, restless world of TV commercials, demonstrates the effect of "irruption and accident" pursued by Huang Jianxin. The discrete spaces stringed together also offer a meta-comment on the experience of *asynchronous time and space* enabled by electronic media. Zapping among different television channels provides similar simultaneous experience of asynchronous time and space. The encounter with flows of television images is random and mutable. The screen therefore, in Deleuze's words, "constitutes a table of information, an opaque surface on which are inscribed 'data,' information replacing nature, and the brain-city, the third eye, replacing the eyes of nature."[40] The explosion of miscellaneous information in the compact space of the mise-en-scène leads to Dai Jinhua's comment on the film as "a feast of signifiers."[41]

By making palpable the experience of asynchronicity, electronic media also smooth out abrupt transitions between discrete spaces. The film often draws our attention to the surfaces of various electronic devices: TV screens, the displays of videocassette players, and monitors of computers, or the surface of some unknown futurist devices. Abstract patterns on computer monitors are undecipherable signifiers to film audience. However, these abstract patterns and signifiers often exceed the framing of the monitors and displays, overflowing to fill in the mise-en-scène. Placed at the interstices of scenes or sequences, these electronic patterns flow as if from one scene or setting to another. The psychological fluidity of the viewer, or the way the viewer experiences the world around, are structured around electronic flows free from realistic space and time.

These electronic signals are also information circuits of cybernetic control, their abstract patterns the very symbol of technological rationality. It is through them that Zhao controls his robot double. In the desperate confrontation between the two in the final scene, he takes out his remote control to destroy his own creation. However, what if the remote control does not work? What if the undecipherable signals exceed the monitor to the extent that the monitor is no longer for "monitoring"? Left unresolved by the end of the film, these questions challenge the notion of "human" continuously reconstructed in relation to the realm of technoscience.

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[40] Gilles Deleuze, *Cinema 2: The Time Image*, trans. Hugh Tomlinson and Robert Galeta, (Minneapolis : University of Minnesota Press, 1989), 265.

[41] Dai Jinhua, "*Sisuo yu jianzheng: Huang Jianxin zuopin*" [Witenss and Refelections: On Huang Jianxin's Works], in *Dangdai dianying* 2 (1994): 46-52.

Figure 16. Abstract Patterns on Computer Displays

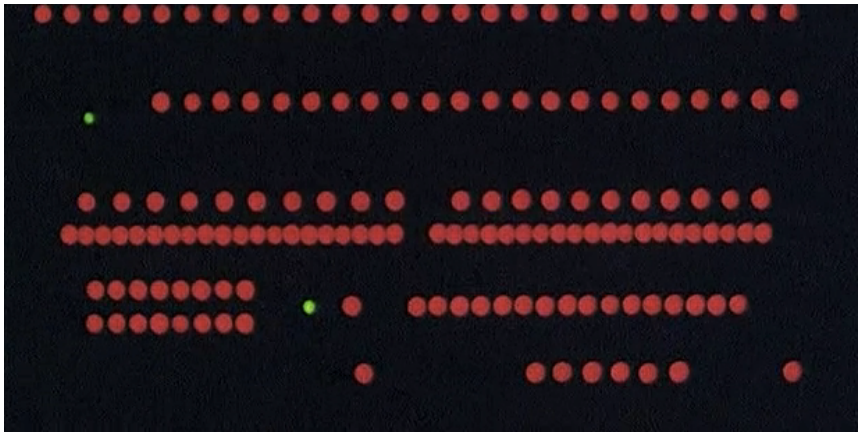


Figure 17. Abstract Patterns that Exceed Framing

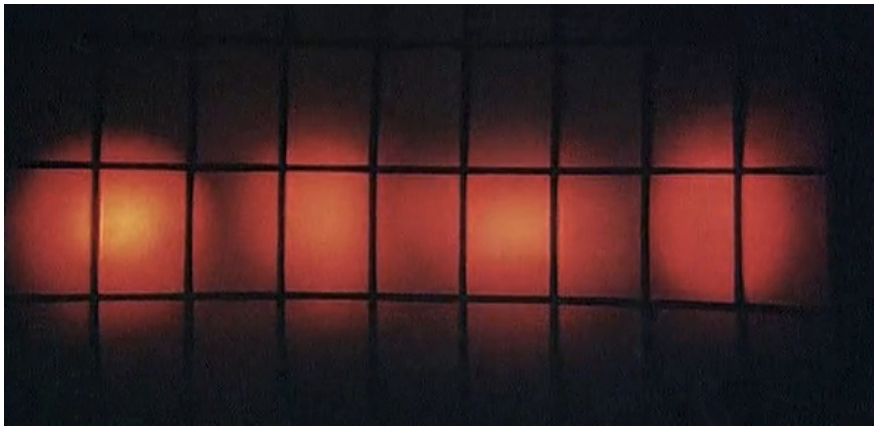


Figure 18. Signals from Unknown Sources

Figure 19. Abstract patterns of the city lights

The Distorting Screen

If *Flights of Fantasy* fantasizes a freedom and ecstasy that may be brought about by the new accessibility of electronic media and the bloom of urban entertainment, *Dislocation* reveals the deep concerns and anxieties about the role of the intellectuals in the shifting media milieu. New media technology was endowed with the power of liberating humans, but also placed the very notion of "human" in crisis. While intellectuals adopted an enlightenment discourse to defend the liberating power of entertainment films, could their voices of enlightenment be heard among the electronic noises, such as of TV commercials? If both films are projections of the future, is it possible to imagine a future that does not represent the "now"?

Visions from a Jail Cell (Moku zhongde huanxiang), made in the same year of 1986, may be regarded a contemporaneous reflection on these questions. It tells about the longing of an eight-year-old boy for the world outside the high walls of a jail cell, in which he is confined with his mother as a "political prisoner." The boy on whom the story is based, nicknamed "Little Radish Head" (*Xiao luobotou*), was called Song Zhengzhong in real life. The son of a Communist Party couple persecuted by the KMT, he was born in a jail cell. He became part of the Chinese Communist Party myth as a character and a revolutionary martyr in the novel *Red Cliff* (*Hongyan*). The film adapts the revolutionary story into a humanist cry for freedom. The director Wang Jixing distinguishes his story from previous revolutionary narratives as such: "Who is the 'Little Radish Head? He is neither Song Zhengzhong in real life, nor 'the youngest revolutionary martyr to sacrifice his life to the revolution' (as the official story goes). He is an ordinary, innocent life, who suffers extremely inhuman conditions in a Fascist prison."[42] Deliberately eschewing

[42] Wang Jixing, "*Wo yu 'xiaoluobotou'*: mokuzhongde huanxiang *daoyan shuoji*" ['Little radishi head' and me: director's notes on *Visions from a Jail Cell*], in *Zhongguo dianying nianjian 1987*, (Beijing: Zhongguo dianying chubanshe, 1990), 3-40.

official narratives of revolution, Wang makes the story a generalized allegory of entrapment and freedom.

These transformations can be observed in the camerawork of the film. In one scene, when all the prisoners and warders are staged in a face-to-face confrontation, suddenly the little boy exclaims "butterfly!" The horizontal movement of shot and counter shot between the two confrontational sides is subsequently replaced by an upward movement. Every one, including the warders, looks towards the sky, at the butterfly fluttering across the high walls. The confrontational scene, well suited for staging the class struggle in a revolutionary story, is transcended by a moment of shared longing for liberty; shot-reverse-shot is replaced by vertical movement of the camera.[43]

Figure 20. The "Butterfly Effect"

The vertical movement of the camera establishes the unique spatiality of the film. Contrary to the endlessly unfolding space in *Flights of Fantasy*, the restrictive high walls allow little space for the camera to explore. The camera is thus forced to move vertically in order to enlarge its horizon. The opening sequences begin with a close-up of a slowly crawling insect, which in a moment is revealed to be confined in a small match box when the camera pulls up. In the next shot, the camera continues to pull up, revealing a boy kneeling next to the match box, observing the insect. The camera moves up continuously to an extremely high angle, until it reveals the boy now as a tiny black dot confined in a high-walled courtyard, just like the insect in the match box. What the boy sees is a mirror image of himself. These shots call attention to the limits of vision framed by the camera

[43] Chris Berry points out that in Chinese films produced in the Mao era, sequences of shot and reverse shot are often used for social conflict and disharmony, whereas exchanges of dialogue between people in a harmonious relationship are often rendered in medium shots or even long shots so that the characters are always in the same frame. See Berry, *Postsocialist Cinema in Post-Mao China: The Cultural Revolution after the Cultural Revolution*, (New York: Routledge, 2004), 51-58.

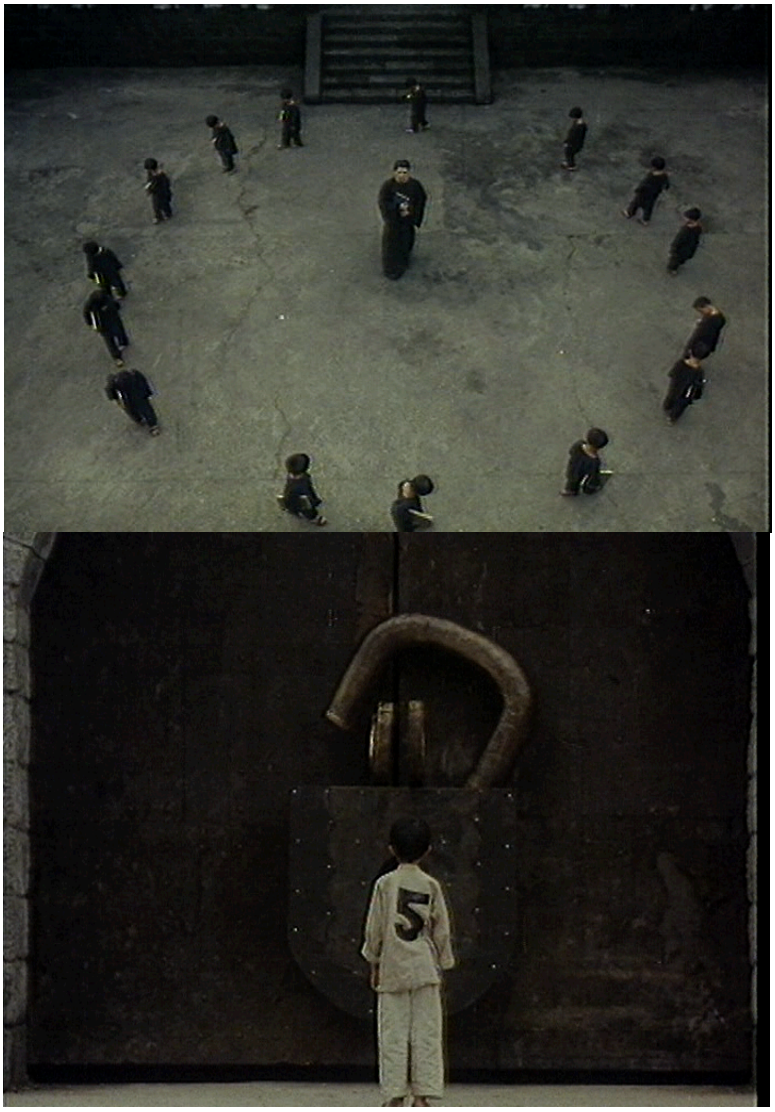
and the perspective of the observer. The rest of the movie revolves around the question of what can or cannot be seen, which places the mediality of cinema at the center of this epistemological issue.

How is it possible for a boy growing up in a jail cell to imagine the world beyond the high walls? The boy eagerly collects all sorts of fragmented information from other people. At night, he rides on the wings of dreams to fly over the high walls. Unlike in *Flights of Fantasy*, in which Xu's daydreaming leads him into adventures outside of the office, the boy's dreams only throw him back into the jail cell. A school yard in his dreams becomes the narrow yard of the prison, the school teacher the black robed head warder, around whom school boys trudge in a circle, just like prisoners. This is what the boy sees after he finally conquers the high walls by climbing up a long ladder in a dream. At the top of the ladder, now occupying a vantage point above the walls, one that mimics the camera perspective in the beginning sequences, the boy sees nothing but the prison. Hearing from other prisoners about the existence of cities and streets in the daytime, he ventures into these places in dreams. Yet they are only the distorted mirrors of the prison: the city gate becomes the gate of the prison with its gigantic lock, pedestrians move in dead lock-step like prisoners, the houses along the street look exactly like little jail cells, and the head warden's watchdog is sitting right in the middle of the street. All of these dream sequences are accompanied by eerie electronic sounds and wordless choral vocalization on the sound track. Void of any sensible human words, this defamiliarized oneiric world reaches beyond the semantic realm of human language.

Interestingly, the film seems to highlight the gap between different media. Believing that education will enable the boy to transcend the narrow cage of the jail cell, his teacher and other elders insist on teaching him reading and writing. Receiving the information of the outside world as verbal words and written language, the boy transforms this information into cinematic images in his dreams. There is always discrepancy between the information sent by his teachers and the cinematic images he constructs of the world. At the end of the film, on the last day of the boy's life before he is persecuted by the KMT, he walks for the first time outside of the walls. Yet he is unable to match the world he sees there to the words he has learned to describe it. In calling a horse a cow, a hill a tree, his misrecognition and misnaming of things questions the possibility of knowing the world. The mismatching between real things and his imagination undermines the notion of enlightenment: the information transmitted by his teachers becomes signifiers cut off from the signified and the external world. This gap, or imagination of a gap, between traditional literate media and the reinvented cinema arrives with the increasing permeation of electronic media into both public and private life, as well as the competing notions between media for enlightenment and media for entertainment.

Ironically, a failure of communication also haunted the reception of the film. A reviewer, casting the film as a children's film— probably because of its child protagonist— criticized it harshly for being too bleak and obscure: "Its cinematic design, ranging from the images of the characters to the setting as well as the use of colors, does not simply present characters and things as they are. They become symbolic images… However, are these images accessible to its children audience? It is not only one or two shots that demand thoughtful pondering (to understand). Enigmatic images pervade the whole

film… Even the adult audience will find the film hard to digest, let alone children. It would be no different than a form of torture for its juvenile audience."[44]



[44] Cheng Youjin, *"Yibu qugaohegua de ertongpian"* [A children's film that is caviar to its audience], *Dianying pingjie* [Film review] 9 (1987): 9.

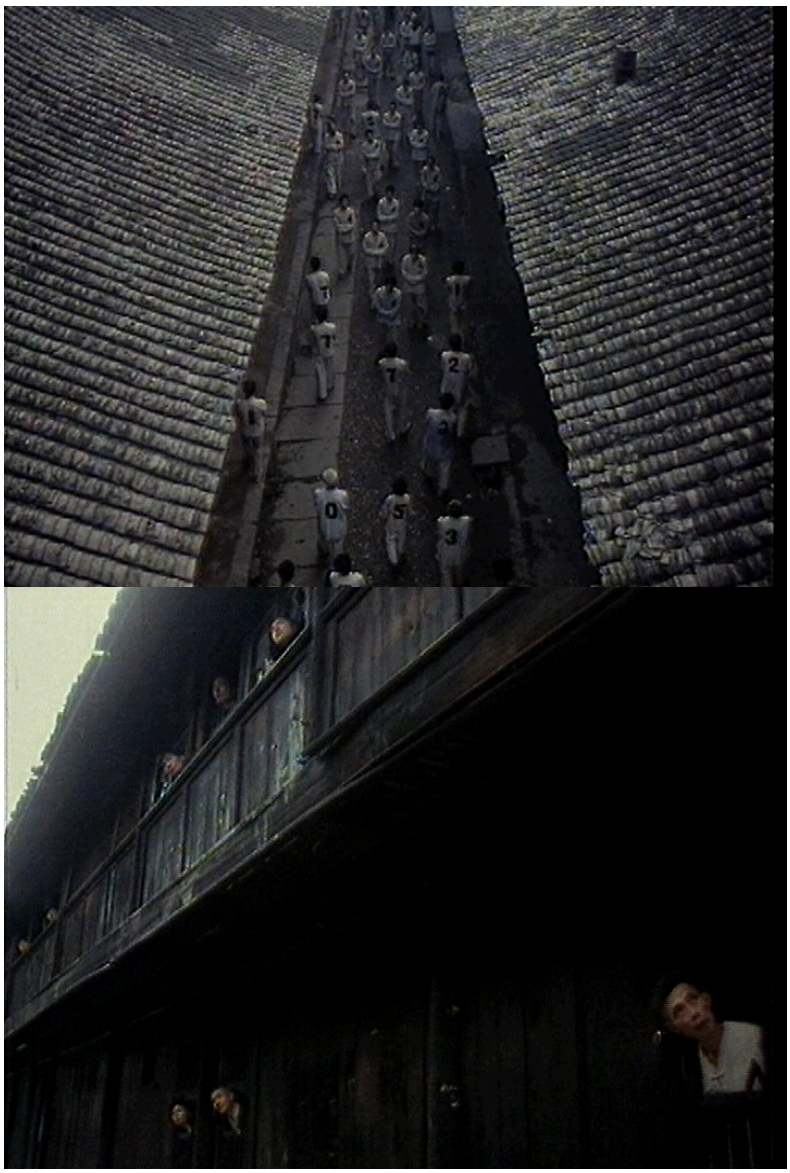


Figure 21. The Prison-Like School Yard, City and Street

Such miscommunication suggests a crisis in the diverging roles of media. Cinema in the 1980s was entrusted with an emancipatory power, becoming the center of both intellectual discourses and aesthetic experiments. By redefining cinema through its connections to sensorial experience and human affect, filmmakers and critics developed an aesthetic that self-consciously distanced itself from conventions of realism. However, if the screen no longer provided a lucid vision of the world but instead became a space for the display of signifiers, how could Chinese intellectuals instruct those in need of enlightenment, like the "little radish head," to "know" the world? What media could Chinese intellectuals rely on for their enlightenment project, let alone to represent themselves as rational beings, in control of their world and destiny?

This crisis of representation, not only in this film, but also in the mocking appropriation of commercial genres in *Flights of Fantasy*, in the schizophrenic self-images of intellectuals in *Dislocation*, was aligned with the crisis of the intellectuals' self-appointed mission of enlightenment. The proliferation of media and the emergence of new media generated new fantasies of communication and freedom. But this process was also concurrent with the elite intellectuals' competition with other social forces for the control over public media. The crisis in the domestic film industry, audience apathy towards the "elite" taste of the experimental films by the fifth generation, the difficulty of high modernism in reaching the masses, the danger of entertainment films slipping into superficial feast for the sensorium: all of these factors exerted pressure on the cinematic production of the 80s, aggravating the tension between intellectuals and media. When the "happy alliance" between the CCP and the intellectuals under the shared project of modernization drew near to an end,[45] and the increasingly commercialized cultural production whirled away in a different direction, humanist intellectuals were no longer united around the shared project of enlightenment and the dream of modernization, but fractured as market forces increasingly permeated the cultural production of post-Mao China. In this sense, the debates surrounding the issue of an eclipsed "humanist spirit" in the early 1990s became a lament for the lost dream of enlightenment, but also exposed the contradictions and conflicts dormant in the culture of the 1980s.[46]

[45] Wang Jing made the point that the broken collaboration between the culture elite's making of their own utopian discourse of enlightenment and the state's project of modernization was signaled by the television miniseries *Heshang* [River elegy], and finally came to an inevitable collision on June 4, 1989. See Wang, *High Culture Fever*, 2.

[46] For a detailed and insightful study of the debate, see Jason McGrath, "Ideologies of Popular Culture, The 'Humanist Spirit' Debate," in *Postsocialist Modernity: Chinese Cinema, Literature, and Criticism in the Market Age*, (Stanford: Stanford University Press, 2008). McGrath notices that for the human spirit advocates, the "main culprit" for the loss of humanist spirit was "the 'vulgarization' (*cubihua*) or 'secularization' (*shisuhua*) brought on by the commodification of culture in the market economy"(32).

Epilogue

The Virtual Past(s) of the Future(s)

From the late 1980s, China began to actively seek to connect local networks to the burgeoning international network of the World Wide Web. In 1989, the China Research Net (CRN) was set up, linking research institutes in Beijing, Chengdu, Shijiazhuang, Shanghai, and Nanjing, allowing them the use of email and indirect links to the internet. Full internet connectivity was achieved in 1994. By 2012 there were 564 million internet users in China, among which 420 million had access to broadband internet services.[1] Various online forums and activities became an integral part of contemporary life and culture in China. Testifying to this new socio-economic phenomenon, Shanda Interactive Entertainment Limited, one of China's largest purveyors of online games, internet literature, and book publications, was listed on the NASDAQ stock exchange in 2004. Its internet literature websites, including the popular platform for aspiring writers, *Qidian*, developed a system that recruits amateur talent, blurring the boundary between literary production and consumption, and challenging the prerogatives of the traditional book publishing industry. Shanda is just the most successful of many emergent operators tapping into the market of online literature and cross-media cultural economy.

In 2006, Jin Hezai (whose *nom-de-plume* means "whereabout now"), an internet writer, started serializing the second installment of a fantasy story entitled "Youth, Chinese-style" (*Zhongguoshi qingchun*) on his blog. Born in the post-Mao late 70s, Jin Hezai is known for his rewriting of Stephen Chow's film series, based on the classic vernacular fiction, *Journey to the West*, *Chinese Odysseus* (*Dahua xiyou*) into a novel. He later became a high-level manager of the Jiuzhou Fantasy Media and Culture Company. Set in the 1980s, the story "Youth, Chinese Style" is about a six-year old boy called He Jing, who is told by his mother that he is destined to be the savior of humanity in a future world dominated by robots and the internet. The empire of robots, in order to nip any human rebellion against its dominion in the bud, has sent back from the future world a robot to kill our hero — the future leader of the insurgency — before he can grow up. This story becomes a running joke among his classmates, especially when it becomes known that his mother has been institutionalized for mental illness. Yet one day a little girl called Yue Xiaoshan reveals herself robot terminator, proclaiming to her classmates that her mission is to end the life of He Jing. A rewriting of the 1984 Hollywood sci-fi film *Terminator*, the story deliberately sets up a temporal "strange loop," in which the cause-and-effect linearity between the present and the future is disrupted. The effect is heightened when the boy is told that his father was himself sent back from the future as his bodyguard, and met his mother in the process of fighting against the robot terminators. Their accidental encounter, in turn, led to the birth of our protagonist. Such non-logical logic conflates the present and the future, setting the future-oriented adults who surround the boy for ridicule as they insist on convincing the boy to prepare for a future that is allegedly

[1] "Timeline of Chinese Internet," provided by China Internet Network Information Center, accessed May 29th, 2013, http://www.cnnic.net.cn/hlwfzyj/hlwdsj/.

already cast in iron. These responsible adults, who zealously claim to devote themselves to the cause of humanity, are revealed as being no different from task-oriented robots in their lack of free will.

The task his instructor from the future assigns He Jing is simple: to kill the seemingly harmless girl Yue Xiaoshan, who claims to be the terminator. He Jing, incredulous, asks his terminator when she plans to kill him. Yue Xiaoshan replies without any hesitation that she is programmed to kill him on the very day that he becomes the savior. The problem is that the boy can only become the savior on the day he is to kill the terminator. Tortured by this convoluted logic, our hero loses himself in these irreconciliably strange loops:

> My brain starts running fast in order to compute the strange loops. If I don't kill Yue Xiaoshan, she won't kill me and thus she won't become the terminator. If she doesn't become the terminator, why should I kill her? If I don't kill her, I won't become the savior and thus the world is doomed to come to an end. So I have to kill her. But if I kill her, I will become the savior, and then the world is doomed to be destroyed— otherwise, how would I become the savior? If the world is doomed, that's because of the Sky Net (note: the Sky Net is the fictive prototype of the internet in the story). So I have to get rid of the Sky Net. But if I destroy the Sky Net, the world will continue as it is now, and then I will have to continue to go to high school and on to college, to look for a job, to marry some woman and raise a kid, and then send the kid to high school and college, and then he will have to find a job, marry some woman and raise a kid of his own… In short, I won't become a savior. If I don't become a savior, Yue Xiaoshan will remain here. And as long as she is here, the Sky Net will continue working, and world will be doomed to come to an end. So to prevent the end of the world, I must kill Yue Xiaoshan. But once I kill her, she becomes the terminator, and I the savior….

Trapped in strange loops of repetition and recursion no matter what he chooses to do, it seems that everything about the boy's life has been pre-programmed, albeit by way of a ridiculous and redundant computational logic. This pre-programmed future does not resemble in the least the brilliant, utopian future we saw Little Smartie traveling to in the introduction. It turns out that Yue Xiaoshan's address in the realm of the future is on "Luck and Beauty Street in Brilliance New Village." Yet following her home one day after school, He Jing discovers that the future is a wasteland "no different from the ruins left by a gigantic earthquake hundreds of years ago, in which everything solid is disintegrating into ashes, a pall of grey-white ashes that covers the earth." This bleak future, ironically, is precisely the result of the idealistic desire to "save" the world with which He Jing has been inculcated by the adults. For at the very moment that He Jing kills Yue Xiaoshan, the Sky Net is activated, forming a sprawling network that takes control of every machine, and turns them into weapons of a frenzied mass destruction. The moment he becomes the savior, then, is also the moment when the future itself ends, and the world is trapped in a permanently recursive hell. As He Jing witnesses the destruction of the world he has unwittingly initiated by killing Yue Xiaoshan, a building falls into ruin around him, "leaving only a few flights of a staircase on leveled ground, like an origami sculpture (that

could fall anytime)." This staircase that goes nowhere spatializes a temporality that does not flow forward, but is instead trapped in continuous repetition.

Nor is He Jing alone in his predicament: every being in the story is entangled in strange loops. Yue Xiaoshan is programmed for a single purpose: to kill the future savior. In order to achieve this goal, every day is a repetitive round of going to school, going "home" to a windowless, dilapidated building, and doing assigned homework. Her human enemies live no better, as they are similarly "programmed" to "go to high school and college, marry some woman and raise a kid." Nothing lives outside the program. All of life is subsumed into the programmability of these strange loops. Even "leisure" time is organized around programs, for the sole hobby of the task-oriented Yue Xiaoshan is to watch *Hana no Ko Lunlun* (The Flower Child Lunlun), a 1980s Japanese anime broadcast on TV. The musical notes of its theme songs become the signal for Yue Xiaoshan to run towards a TV set.

In fact, the whole story of "Youth, Chinese Style" is made up of pastiches of popular culture references: the Hollywood blockbusters *Terminator*; *Kyōryū Sentai Koseidon* (Dinosaur Corps Koseidon), a Japanese TV anima series made in 1978 and broadcast repeatedly in mainland China; *Transformers*, a cartoon franchise co-produced by Japanese and American toy companies; *Paprika*, a Japanese animated film directed by Satoshi Kon; as well as stories by Zheng Wenguang, Ye Yonglie, and other sci-fi writers active in the 1980s. The recursive structure thus established between the present and the future resembles that of *Chinese Odysseus* directed by Stephen Chow, the films for which the author Jin Hezai proves his fandom by his own act of novelization. In other words, not only the narrative, but the very production of the story as well, is caught in the repetitious cycle of multimedia networked popular culture, a culture whose consumers have become both disseminators and producers, continuously recycling cultural icons.

The story ends with He Jing, now the leader of humanity's rebellion against the robots, in a series of endless, desperate battles against the machines, singing by himself the theme song from *Hana no Ko Lunlun*:

> Lu Lu Lun Lunlun Lu Lu Lun Lunlun
> Lu Lu Lun Lunlun Lunlun
> They say it brings you happiness
> and is blooming graciously somewhere.
> It's that kind of flower
> that I'm looking for.
> Cosmos are a good match with bonnets.
> Dandelions make a pillow for a nap
> Acacias are making an arch.
> Let's walk through it!
> I am the Flower Child.
> My name is Lunlun.
> Someday I might come across the town
> which you are living in.
> Lu Lu Lun Lunlun Lu Lu Lun Lunlun

Lu Lu Lun Lunlun Lunlun[2]

The song, in turn, evokes a reverie, as He Jing thinks to himself:

> I want to sing the song again and again, in this gloomy and silent future. I believe that Yue Xiaoshan will eventually come back, bringing back memories of the lost years, bringing back that younger me, and all that once belonged to us.

In this "gloomy and silent future" dominated by the internet and robots, He Jing harks back to a past in which the Sky Net was still a crude nothing, a toy for a good-for-nothing little boy.

> I bend down to have my ears closer to that thing, and one moment later, I hear the rustling sound of electric currents.
>
> I become excited instantly, continuing to twist the buttons around.
>
> Then I heard some incredible sounds emitted by the gadget, its rhythm as punctual as a time-keeper.

This is the Sky Net One, a failed internet project made by the little boy. Of no other use, Sky Net One is pressed into service as a toy radio. And is eventually replaced by a more ambitious project: his Sky Net Two:

> Wires, bulbs, and electrodes are like moss sprawling across the whole wall now. Everyday Xiaochu has to lower her head to get through the net of wires, carefully crossing the minefield formed of electrical resistance, then tiptoeing among the electric circuits as if she is doing skipping across rubber bands, and finally jumping into bed. But she doesn't stop my experiments. As the weather gets cold, the wires beneath the bed serve to heat the bed like an electric blanket.

Both scenes comically expose the materiality of the network. By depicting the rustling sound of electric currents and spider's net-like wires, invisible and often dematerialized flows of information become palpable. Such crude, primitive versions of the internet also debunk the myth of information, revealing the continuity between the "new" media and the "archaic" media. Moreover, the appropriation of the Sky Net for other uses diverges from a teleological, task-oriented narrative of the development of technology, opening up a space for ludic play. The enthusiasm and creativity of the boy generated in this experimental process is not subsumed by any practical pursuit or interest. It is this excess, or the "waste" of creativity, that allows for diversions and the (re)appropriation of technology to other uses. Unlike the evil internet that eventually enslaves all of humankind in the future, this Sky Net keeps its boy inventor company like a best friend:

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[2] This translation of the Lyrics is based on the version provided by "anime lyrics," accessed May 29, 2013, http://www.animelyrics.com/anime/hananokolunlun/hananokolunlun.htm.

> I cannot imagine how Sky Net Two, this four and half year old guy, could become the number one enemy of human beings, and destroy the whole world in the future. So I test out some questions whenever I spot the chance.
>
> "Sky Net, tell me, would you like to be with many people in this world, or would you rather have all other people gone, leaving you all by yourself? "
>
> Sky Net thinks for a moment, replying: "All by myself! I could have all the lollipops to myself!"
>
> ….
>
> "If in the future only one of us could survive, who would you wish to survive?" I ask again.
>
> "Definitely me."
>
> This guy has a one-track mind and doesn't even know how to lie. It doesn't even consider the fact that I have my hand on its electric switch.

This Sky Net is a little boy who refuses to grow up and join the adult world of calculation. Its world is a world that refuses to be annexed into the programmed strange loops of repetition. Like the boy, its inventor and play pal who refuses to live for the predetermined and programmed future, it resides in the present, leaving its future(s) open for the undetermined.

This reinvented, ludic origin of the internet exists only in the virtual realm, just as our reinvented memories of the 1980s are ultimately speculative. Among the virtual past(s), there nestle the underdeveloped, unmaterialized future(s).

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