

**Beijing Underground: Modernity, Aesthetics and Technology in the Subway**

**Master's Thesis**

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## Table of Contents

<b>Introduction.....</b>	<b>4</b>
<b>Chapter One: A Brief History of Underground Railways in Beijing.....</b>	<b>12</b>
<b>Chapter Two: The Past: The Underground Uncanny.....</b>	<b>28</b>
<b>Chapter Three: The Present: The Strangers in the Metro .....</b>	<b>51</b>
<b>Chapter Four: The Future is Now: Speed Obsession and the Derailment.....</b>	<b>74</b>
<b>Epilogue .....</b>	<b>95</b>
<b>Bibliography .....</b>	<b>99</b>

## List of Figures

A map of early Republican Beijing	14
Subway map of Beijing in 1987	23
Subway map of Beijing in 2000	23
Subway map of Beijing in 2008	24
Subway map of Beijing in 2015	25
Prospect subway map of Beijing in 2020	25
The well excavated	40
Entrance of the Beijing Station	50
Sihui Station, the transforming station of Batong Line and Line One	51
Two Men in the metro	52
An overview of Beijing underground spaces	61
An overview of the usage of air raid shelters in Beijing	61
Distribution of Beijing's underground housing	62
An outline of a floor plan, not to scale, of an underground residence in East Beijing	63
The Difference between a moving block system and a fixed block system	77

## Introduction

In *the Encyclopedia of Urban Studies*, there is an entry for the word subway:

The *subway*, also called the *metro* or *underground*, is generally understood as an inner urban and often subterranean or elevated passenger railway system operating with high frequency. Although mostly separated from other infrastructures, the subway is embedded in the urban fabric through its links with other systems of transportation (buses, airports, railway, etc.). Beyond that, no single and all-integrating definition of the subway can be given, as they differ widely in techniques, organization, form, and usage—making each subway system unique<sup>1</sup>.

This definition of subway is telling. First of all, it refers to an urban phenomenon. As a matter of fact, the word itself reveals the urban characteristics: subway can also be called “metro”. Metro is derived from the word metropolis, which according to OED can be defined as “the mother city or parent state of a colony”<sup>2</sup>, or used extendedly to “any large, bustling cities”<sup>3</sup>. While for the word metro, it is at first a borrowing from French. Métro in French means “the Metropolitan Underground Railway of Paris”<sup>4</sup>. Subsequently, this word can be applied to any urban underground railway systems. A brief etymological analysis unveils the immanent characteristics of the metro. That is, the metro is always related to the metropolis.

Secondly, it is a modern phenomenon. From the perspective of urban planners and city governors, underground railways provides a good solution for urban problems such as aboveground traffic jams, which are caused by industrialization and urbanization which arose in the mid-nineteenth century. On the one hand, a lot of people were drawn to cities either because of better working opportunities or due to the deprivation of their lands in the countryside. For example, in *The Housing Question*, Engels touches upon the phenomenon caused by

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<sup>1</sup> Stefan Höhne, and Bill Boyer, "Subway." In *Encyclopedia of Urban Studies, Vol. 2*, ed. Ray Hutchison (California: Sage Reference, 2010), 784.

<sup>2</sup> For full entry, please refer to <http://www.oed.com.ezproxy.cul.columbia.edu/view/Entry/117704?redirectedFrom=metropolis#eid>.

<sup>3</sup> Ibid.

<sup>4</sup> The full entry can be seen at OED Online <http://www.oed.com.ezproxy.cul.columbia.edu/view/Entry/117680?rskey=ecXq6N&result=9&isAdvanced=true#firstMatch>

industrialization, addressing that big industrial towns in the late nineteenth century were suffering from “the sudden rush of population to the big towns”<sup>5</sup>. On the other hand, the boundary of cities started to expand to adjacent towns and satellite cities. As a result, the commuting time increased, and people relied more and more on public transportation. This made underground railways a necessity<sup>6</sup>. To this end, the construction of underground railways is a solution to the urban problems caused by the industrialization and urbanization of the city, in other words, metropolis. The planning of subways could be regarded as a result of urban rationalization.

Last, the advent of underground railways goes hand in hand with technology. On January 1863, the world’s first subway was opened in London, using steam locomotives that first burned coke, and later coal<sup>7</sup>. Later in 1866, London started building their first tube line using electric traction. Following London as a model, Berlin (1871), Budapest (1896), Boston (1897), Vienna (1898), Paris (1900), as well as New York (1904)<sup>8</sup> opened their own underground railways one after another. In his book *Late Capitalism*, economist Ernest Mandel distinguishes three technological revolutions related to machine power. According to Mandel,

The fundamental revolutions in power technology---the technology of the production of motive machines by machines---thus appears as the determinant moment in revolutions of technology as a whole. Machine production of steam-driven motors since 1848; machine production of electric and combustion motors since the 90s of the 19<sup>th</sup> century; machine production of electronic and nuclear-powered apparatuses since the 40s of the 20<sup>th</sup> century---these are three general revolutions in technology engendered by capitalist mode of production since the ‘original industrial revolution of the later 18<sup>th</sup> century’<sup>9</sup>.

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<sup>5</sup> Frederic Engels, *The Housing Question* (New York: International Publishers, 1935), 21.

<sup>6</sup> Stefan Höhne and Bill Boyer, "Subway," In *Encyclopedia of Urban Studies, Vol. 2*, ed. Ray Hutchison (California: Sage Reference, 2010), 784.

<sup>7</sup> *Britannica Academic*, s. v. "subway," accessed March 22, 2016, <http://academic.eb.com/EBchecked/topic/571195/subway>.

<sup>8</sup> The chronology of the construction of underground railway in different countries is sorted by the author, according to materials from the entry “subway” in *Encyclopedia Britannica* and David L. Pike, *Subterranean Cities: The World Beneath Paris and London, 1800-1945* (Ithaca: Cornell University Press, 2005), 46.

<sup>9</sup> Cited from Fredric Jameson, “Postmodernism, or the Cultural Logic of Late Capitalism,” *New Left Review* 146 (1984), 78.

As is shown clearly, the advent of underground railways is closely related to and largely enabled by the technological revolution, especially the revolution of power machines. Furthermore, the spread of the underground railways followed the pattern of the industrial revolution, which first germinated in West Europe, especially Britain, and then spread to the U.S.

To conclude, the birth of underground railway is situated at the intersection of the metropolis, modernity and technology. However, this is just the beginning of the story. In western cultures, the nineteenth and the forthcoming twentieth century, the underground spaces enabled by subways (as well as other forms such as sewers and drainage systems, air-raid shelters and vaults) became the obsession of various cultural representations and constantly spurred on metropolitan imaginations<sup>10</sup>.

Nevertheless, existing research on the subway mainly focus on western cultures and cities. Matthew Gandy provides a picture of the Paris sewers under the Haussmannien transformation of Paris, which speaks to the urban rationalization and the dark side which came along with that<sup>11</sup>. David Ashford draws out a cultural geography of underground spaces in London, with an emphasis on the “spatial turn” in recent cultural studies<sup>12</sup>. Similarly, Hwang Haewon explores underground spaces in London as representations of a Victorian city from 1840 to 1915<sup>13</sup>. Dave Welsh focuses his attention mainly on literature and its capacity to represent underground spaces in London<sup>14</sup>. To combine London and Paris, David Pike conducted a thorough research on

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<sup>10</sup> Books on the representation of subterranean spaces in western cultures include: *Subterranean Cities and Metropolis on the Styx* by David Pike, *London Underground* by David Ashford. *The Fabric of Space* by Matthew Gandy.

<sup>11</sup> Matthew Gandy, *The Fabric of Space: Water, Modernity and Urban Imagination* (London, England: The MIT Press, 2014), 27-55.

<sup>12</sup> David Ashford, *London Underground: A Cultural Geography* (Liverpool: Liverpool University Press, 2014), 4.

<sup>13</sup> Haewong Hwang, *London's Underground Spaces: Representing the Victorian City, 1840-1915* (Edinburgh: Edinburgh University Press, 2013).

<sup>14</sup> Dave Welsh, *Underground Writing: The London Tube from George Gissing to Virginia Woolf* (Liverpool: Liverpool University Press, 2010).

underground spaces in both cities, on the shifting discourses of such spaces in the nineteenth and twentieth century<sup>15</sup>. According to Pike,

The nineteenth-century capitals of technological novelty were London and Paris. As powerhouse of the industrial revolution and the most populous city in the West, London provided images of modernity as a literally subterranean phenomenon. Paris, by contrast, provided images of a more fantastic and ambivalent modernity<sup>16</sup>.

When the subway traveled from Europe to North America, it aroused heated discussion, too. As the premier metropolis in the United States, New York City is inseparable from subway. Over the years, the metaphorical meaning of the subway has changed from the most advanced transportation to a space filled with potential crimes and danger, from an inspiration to literature and arts to a negotiating place of racial difference<sup>17</sup>.

Subterranean spaces go hand in hand with capitalist metropolis. The birth of such new spaces in return creates brand new representations, which are different from depicting such spaces as dark and filthy, bearing the potential to cause risk and danger to aboveground spaces. Instead, they have been incorporated into the everyday life of the middle class in the metropolis. In other words, such spaces always exist in the imaginary of western citizens. Underground railways, sewers and pipes as well as storage vaults have gradually become an inseparable part of western metropolitan experience and been incorporated into western discourses.

Nevertheless, the subway does not only belong to the capitalist society. After its first advent in Britain, it quickly spread to other societies. In his dissertation on Moscow's first subway line, William Kenneth Wolf reconstructs the coming-into-being of Soviet Union's first

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<sup>15</sup> David Pike, *Metropolis on the Styx: The Underworlds of Modern Urban Culture, 1800-2001* (Ithaca: Cornell University Press, 2007).

<sup>16</sup> David Pike, *Subterranean Cities: The World beneath Paris and London, 1800-1945* (Ithaca: Cornell University Press, 2007), 2.

<sup>17</sup> For works related to underground New York, please refer to Michael W. Brooks, *Subway City: Riding the Trains*, Reading New York (New Brunswick: Rutgers University Press, 1997); Dean Antony Masullo, *The Penumbra Frontier: Landscape, Modernity, and the Subterranean Imagination in New York City Literature and Culture* (PhD Diss, Nashville, Tennessee: Vanderbilt University, 2006); Sunny Stalter-Pace, *Underground Movements: Modern Culture on the New York City Subway* (Amherst: University of Massachusetts, 2013).

underground railway. By unveiling all the details such as the debates about the plan, Wolf takes the building of line one in Moscow as a case study of Soviet Union's industrialization and "how the metro was used to promote socialism"<sup>18</sup>. Similarly, focusing mainly on the aesthetics of the underground railway stations and the riding experiences of the passengers, Andrew Jenks tells a story of how Moscow underground railways serve as "an instrument of civil and social engineering"<sup>19</sup> and how they function as treating and transforming soviet subjects into docile socialist citizens.

When it comes to China however, there are no existing studies on underground railways in both English and Chinese, whether in literature, cultural geography, social history, urban planning or anthropology. Given the lack of attention on this topic in the Chinese context, my thesis will take the first step and try to fill the gap.

In his book *the Production of Space*, Henri Lefebvre lays out a perceived-conceived-lived triad (spatial practice, representations of space, representational spaces)<sup>20</sup> as his analytic framework. For Lefebvre, the perceived (the spatial practice) presupposes social spaces, and produces spaces "as it masters and appropriates it"<sup>21</sup>. While for the conceived (representations of space), it refers to "conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers, as of a certain type of artist with a scientific bent-all of whom identify what is lived and what is perceived with what is conceived"<sup>22</sup>. When it comes to the lived (representational spaces), it means "space as directly *lived* through its associated images

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<sup>18</sup> William Kenneth Wolf, "Russia's Revolutionary Underground: The Construction of the Moscow Subway, 1931-1935" (PhD diss., the Ohio State University, 1994), 2.

<sup>19</sup> Andrew Jenks, "A Metro on the Mount: The Underground as a Church of Soviet Civilization," *Technology and Culture* 41(2000): 697.

<sup>20</sup> Henri Lefebvre, *The Production of Space* (Cambridge: Blackwell, 1991), 40.

<sup>21</sup> Lefebvre, *Space*, 39.

<sup>22</sup> Lefebvre, *Space*, 38-39.



and symbols, and hence the space of ‘inhabitants’ and ‘users’<sup>23</sup>. Following Lefebvre’s triad, de Certeau elaborates how the passive, dominated users operate in a designed city in their everyday practices. For de Certeau, there is a distinction between strategy and tactics. While strategy presupposes “a subject of will and power (a proprietor, an enterprise, a city, a scientific institution)<sup>24</sup>, which mostly aligns with “political, economic, and scientific rationality”<sup>25</sup>, tactics implies the potential subversion of the powerful subject in the strategy model through everyday practices. According to de Certeau,

Many everyday practices (talking, reading, moving about, shopping, cooking, etc.) are tactical in character. And so are, more generally, many ‘ways of operating’: victories of the ‘weak’ over the ‘strong’ (whether the strength be that of powerful people or the violence of things or of an imposed order, etc.), clever tricks, knowing how to get away with things, ‘hunter’s cunning,’ maneuvers, polymorphic simulations, joyful discoveries, poetic as well as warlike<sup>26</sup>.

In this way, the strategy and the tactics echo with the dominating and dominated groups in Lefebvre’s discussion. While Lefebvre remains more pessimistic towards city dwellers, de Certeau pays close attention to their agencies and their potential to subvert the planners and governors. Although the categorization might be too simplified and leave out some in-between spaces, which might generate heated discussion, it proves useful when it comes to the topic related to underground railways. As urban infrastructure, the building of underground railways requires not only huge financial input, but also intensive research and urban planning, which is closely related to other city departments and sectors. Therefore, the role of nation-state, or municipal city government is of crucial importance. On the other hand, as urban transportation systems, underground railways serve all the citizens (ideally). It is those city dwellers that get on board on the subways and commute through the cities. They are the users of the infrastructures.

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<sup>23</sup> Lefebvre, *Space*, 39.

<sup>24</sup> De Certeau, *The Practice of Everyday Life* (Berkeley: Berkeley University Press, 1984), xix.

<sup>25</sup> *Ibid.*

To this end, a separate discussion concerning urban planners, governors and city dwellers is necessary, especially in a socialist country like China.

In what follows, my thesis will unfold according to the perspective of governors and dwellers respectively. One thing to note however, by adopting this dichotomy, I am not imposing a binary here. It is only a model to help me to think about underground railways in China and their two important aspects. In Chapter One, I will mainly focus on the history of underground railways in China. Appropriating a dominant perspective, Chapter One will bring to light the birth and the later development of the underground railway systems in Beijing. How did the decision come into being, under what circumstances? How has the underground railway been incorporated into a socialist discourse before the Reform and Opening in 1979? How did it respond and react to a neoliberal socialism afterwards? How has the underground railway system in Beijing changed as time gone by, both materially and symbolically? This chapter also serves as a basis for following chapters, which will turn to the perspective of dwellers in Beijing.

The forthcoming chapters will focus on the experiences of passengers from an aesthetic perspective. According to Robin Visser, urban aesthetics refers to “how the city is envisioned, experienced, and assessed”, both individually and collectively<sup>27</sup>. Robin Visser also emphasizes the importance of urban environment, both politically and economically, when talking about the urban aesthetics. Following Robin Visser, it is my intention in this thesis to talk about the aesthetics of underground railways in Beijing. I will deal with several different aesthetic categories in different chapters. The discussion will be organized chronologically, according to the order past, present and future.

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<sup>26</sup> Ibid.

<sup>27</sup> Robin Visser, *Cities Surround the Countryside: Urban Aesthetics in Postsocialist China* (Durham: Duke University Press, 2010), 4.

Chapter Two will focus on the past and how the past comes to haunt the present. By analyzing the popular myths as well as ghost stories concerning underground railways in Beijing, I will bring to light the urban uncanny. What is the mechanism of such an urban uncanny? How does it come into being? How does it speak to modernity and its dark side? Chapter Three will focus more on the present. It will pay attention to urban experiences in the era of high modernity, or post-modernity. How does the underground railway become a place for solitary individuals, a place for transportation and fluidity? How does the construction of the subway affect the mentality of urban citizens? How does it reflect the transitory imagination of Beijing, from a socialist capital to a global metropolis? Chapter Four targets the future. By analyzing the future plan of the subway construction in Beijing, as well as two science fiction stories featuring the railway system, I will delve into the technological sublime through the lens of the subway. The final chapter, Chapter Five, wraps up with a discussion of other underground spaces such as cheap rental housing transformed from vacant air-raid shelters, underground sewers and pipes. What kind of inspirations and insights can we get from the discussion of urban underground spaces? What potential do such underground spaces have? How can they influence our conception of modernity and post-modernity when talking about China's cities?

## Chapter one: A brief history of underground railway in Beijing

In this chapter, I would like to give a brief history of underground railways in Beijing. The construction of the railway system is closely related to the political, economic as well as social environment in China during different historical periods. Furthermore, its symbolic meanings change over time.

### 1865-1930 The precursor

From 1857 to 1860, the Second Anglo-Chinese War took place. Under the semi-colonial context, China was then forced to open its gates to accept westerners and their inventions. In 1865, Beijing had its very first railway. It was built by a British merchant named R.J. Durante right outside Xuanwu Gate. It lived a short life to bring modern technologies and innovations to the Qing court but was later torn down<sup>28</sup>.

In 1888, Li Hongzhang, a determined proponent of China's industrial and military modernization, presented the Empress Dowager Cixi with a six-car small train and suggested building a railway in her garden inside the Forbidden City. Interestingly, Cixi preferred that the train be pulled by eunuchs instead of a real engine<sup>29</sup>. Despite the weird juxtaposition of modern machines like trains and human labor such as eunuchs, the introduction of trains into the Forbidden city demonstrated the attitudes of the Qing governors towards modern and western technologies---they became more open minded.

During the ten years from 1896 to 1907, Beijing became gradually connected through railway systems to other adjacent cities such as Tianjin, Wuhan, Shenyang and Zhangjiakou, most of which were port cities or industrial cities at that time<sup>30</sup>.

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<sup>28</sup> Madeleine Yue Dong, *Republican Beijing: The City and its Histories* (Berkeley: University of California Press, 2003), 35

<sup>29</sup> Ibid.

<sup>30</sup> Dong, *Republican Beijing*, 35-36.

On January 1, 1912, Republican China was founded. It replaced the Qing Dynasty and ended more than two thousand years of imperial rule in China. It was not until 1915 that Beijing had its first encircling railway in the city. In 1915, the Minister of Transport Zhu Qiling suggested to the Prime Minister Yuan Shikai to build an encircling railway line inside the city, so as to connect all the gates of the inner city of Beijing. The spatial configuration of Beijing city was set in Ming Dynasty, during which time Beijing was divided into several zones: the outer city, the inner city, the imperial area surrounded by the inner city as well as the Forbidden City<sup>31</sup>, where the emperor dwelled. Several city gates shown in figure.1 functioned as the boundary between the inner city and the outer city, a checkpoint to divide the privileged Manchu people and Han officials from most Han residents in the city. The encircling railway connected Xizhi, Desheng, Anding, Chaoyang and Zhengyang (also called Qianmen) Gates<sup>32</sup>, and made it more efficient for people to commute in the inner city. However, according to Shi Mingzheng, it also became a hindrance for the further development of the city, since the railway line later became a physical barrier for people to move within the city and break the boundary between the inner and out city as the population in the city began to grow<sup>33</sup>. Besides that, it also brought a lot of damage to the city walls, which were built in the Ming Dynasty and were finally destroyed because of the construction of railways. Interestingly, this was just the beginning. About fifty years later, when the underground railway construction started, the same story happened again, which will become the main point of the following chapter.

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<sup>31</sup> Mingzheng Shi, “*Beijing Transforms: Urban Infrastructure, Public Works, and Social Change in the Chinese Capital, 1900-1928*” (PhD diss. Columbia University, 1993), 131.

<sup>32</sup> Dong, *Republican Beijing*, 36

<sup>33</sup> Shi, *Beijing Transforms*, 263.

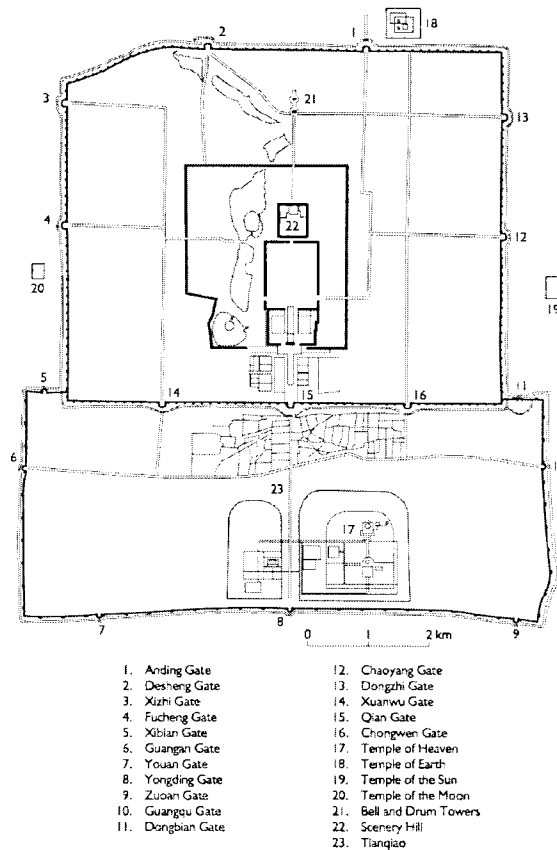


Fig.1 A map of the early Republican Beijing

The construction of railway systems inside the city, as well as the introduction of tramcars, taxis instead of rickshaws all spoke to the efforts of city governors to transform an imperial Beijing into a modern city<sup>34</sup>. According to Dong Yue, as the Qing Dynasty was replaced by the Republican China, the new municipal administration tried to “recreate Beijing’s spatial organization in order to change the city from an imperial to a Republican capital. The focus of this transformation was the improvement of transportation in the city”<sup>35</sup>. The attempts to transform Beijing had a great impact on the previous cosmology of the city, which for hundreds of years followed the rules of walling and segregating between the emperor and citizens. It not

<sup>34</sup> For the relation between modernity and change of transportation system in Beijing, please refer to *Republican Beijing* and *Beijing Transforms*, both of which offer insightful discussion on this topic. Also, Mu Liu’s *Dang Dai Jiao Tong Shi Hua (A History of Contemporary Transportation)* (Beijing Shi: Dang Dai Zhongguo Chu Ban She, 2008) touches on this topic.

<sup>35</sup> Dong, *Republican Beijing*, 34.

only shook the cosmological order of the city, but also became a prelude for the following transformation and modernization of Beijing city.

### 1947-1965 The seeds

The idea of building a subway system in Beijing was first developed in 1947, when Beijing was still called Beiping<sup>36</sup>. Out of the consideration of urban planning and the long-term development of the city itself, the Beiping Government founded the City Planning Commission of Beiping on May 29, 1947. He Siyuan, the then mayor of Beiping, came up with the principle of planning “Beiping-ization on the surface, modernization internally”<sup>37</sup>. After a detailed investigation of the Beiping City, the Works Bureau of Beiping came up with a blueprint of eight separate themes, one of which concerned the transportation of the city. “In order to connect the new urban areas in west suburban and the urban areas, we need to build subway systems. The subway routes should start from the new urban areas, go into the city through Fuxing Road, go cross East and West Chang An Street. In the meantime, we should plan a branch line, beginning from Xi Dan towards north to Xizhimen Gate, another branch beginning from Tiananmen Square and expand to Qianmen Gate, ultimately to other routes within the city. Furthermore, the routes can be extended according to actual situations”<sup>38</sup>. The Works Bureau also stated that the underground railway system should be connected to the aboveground ones, which first ran in Beijing in Late Qing<sup>39</sup>.

However, the civil war between the Communist Party and the Nationalist Party disturbed the pace of urban planning in Beiping. Constant wars, the unstable environment, as well as the

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<sup>36</sup> The switch between names Beijing and Beiping actually reflects the history of the city itself. In 1937, Beijing was occupied by Japanese, and they changed Beiping into Beijing. In 1945, the war was over, and Beijing changed its name into Beiping again. In 1949, when the civil war was finally over, the Communist Party took over and made Beiping as the capital of China. In the meanwhile, Beiping was finally changed into Beijing.

<sup>37</sup> Edited by Beijing Mass Transit Railway Operation Cooperation Limited, *Responsibility and Mission: A history of the Development of Beijing Subway* (Beijing: Beijing Press, 2011), 6.

lack of money to invest in urban planning, all resulted in the abortion of subway construction in Beiping.

Finally on January 31, 1949, the People's Liberation Army (PLA) besieged Beiping and the Communist Party defeated the Nationalist Party and took over. On May 22, 1949, The Beiping Urban Planning Committee was founded. Architects and urban planners were invited to join the committee and discuss the future of Beiping. On October 1, 1949, the People's Republic of China was founded. In 1953, following The Soviet Union, China initiated its first Five Year Plan. According to that plan, which focused on heavy industry, Beijing founded its own Municipal Planning Leading Group. At the end of November in 1953, this leading group raised *the Draft of the plan for transformation and expansion of Beijing City*, in which mentioned, "in order to provide the most convenient and economic vehicles for the citizens, especially for adapting the necessity of national defense, we should plan the construction of underground railways as soon as possible"<sup>40</sup>.

In 1955, the population in Beijing kept growing, and it reached a number of more than three million. Along with the growth of the population, the traffic problem started to emerge. On the one hand, the Beijing Municipal government tried to improve the existing conditions of transportation---widening the main streets in the city, and repairing worn-out streets; on the other hand, the request of building underground railways became more urgent.

In January 1956, an investigation group was sent to the Soviet Union to learn about the underground railway construction there. At the same time, upon China's request, the Soviet Union sent a delegation of five experts to Beijing, all of whom had participated the underground

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<sup>38</sup> "The Project of Beiping Urban Planning," in *the Collection of Beiping Urban Planning Vol.1*, ed. Beiping Shi Gongwu Ju (Beipingshi, 1947).

<sup>39</sup> For more details on railways systems in Beijing, see Dong, *Republican Beijing*, 35-36.

<sup>40</sup> Drafts Related to Transforming and Enlarging Beijing, 28 September 1953, Beijing Archives, Beijing.



railway construction in the Soviet Union back in 1931. With the help of the Soviet Union, the underground railway project began in 1959 and made progress quickly.

Nevertheless, in 1960, the relationship between China and the Soviet Union began to deteriorate. As a result, the Soviet Union experts were sent back. To make things worse, the Great Leap, starting from 1959, which animated a high developing speed of economic growth, led to an unbalanced economy. Furthermore, the three-year natural disaster (1959-1961) made things worse. Facing such situations, the central government decided to suspend the underground railway project.

In 1964, Mao Zedong, then the Chairman of PRC, reemphasized the importance of underground railway system. However, his main concern was not the problem of transportation, but the urgent request for preparing for nuclear wars. Facing the degenerating international situation, in 1964, the construction of Beijing underground railway was rearranged and reincorporated into the third three-year plan of PRC.

### **1965-1981 Ride on trial**

On July 1, 1965, the project started officially. Four years after the start, the first underground railway line was completed and began trial operation on October 1, 1969, so as to celebrate the twentieth anniversary of the founding of the PRC. The operating of this line marked the first subway built in Mainland China, and predates the metros of Hong Kong, Seoul and Singapore<sup>41</sup>. Overlapped with and highly influenced by the Cultural Revolution (1966-1976), during this period, the very first subway system has always been depicted as the symbol of socialism, nationalism, as well as modernization by the governors and the urban planners. On July 1, 1965, an opening ceremony was held at Yuquan Road, several national leaders including

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<sup>41</sup> Please see Wikipedia, [https://en.wikipedia.org/wiki/Beijing\\_Subway#1965.E2.80.931981:\\_the\\_slow\\_beginning](https://en.wikipedia.org/wiki/Beijing_Subway#1965.E2.80.931981:_the_slow_beginning)

Zhu De, Deng Xiao Ping, and the mayor Peng Zhen attended the ceremony. Yang Yong, the commander of Beijing Military Region gave a speech during the ceremony,

The construction of underground railways is one of the crucial constructive issues for our capital Beijing. It bears historical meanings since it is a significant measure of reinforcing military preparation and urban transportation. The construction is a long-term plan, but at the same time, it is also a brand new plan. For those developed capitalist countries, they have started building underground railways several decades, or even one hundred years ago. For our country, it is the first time, when heaven was separated from earth (*kai tian pi di tou yi hui*). However, for those things others have, we must have too<sup>42</sup>!

From the speech above, we could see the socialist discourse playing out here. By comparing to “the developed capitalist countries”, the commander addressed that the socialist country too has the ability to build infrastructure such as underground railways. After the ceremony, all the leaders, along with the workers, soldiers who would be engaged in the construction, were organized to attend the mobilization meeting of the cadres who participate in the construction. In the meeting, mayor Peng Zhen said:

The subway is a transportation tool, a national defense project, and also a project full of political implication<sup>43</sup>.

Luo Rui Qing, the chief of the general staff of the PLA encouraged the masses by addressing,

Although we are barely experienced in constructing underground railways, it would never be more difficult than the birth of atomic bomb, the twenty-five- thousand-kilometer Long March, and the War to resist U.S. Aggression and Aid Korea. You are here to undertake this task, the whole military is supporting you. It is also a battle<sup>44</sup>!

As can be seen, the socialist ideology has been incorporated into the leaders’ speeches, and spread to the masses, mainly workers and soldiers at that time, through the way of mass mobilization, a typical way to organize and mobilize people during the Cultural Revolution. The

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<sup>42</sup> Beijing Mass Transit Railway Operation Cooperation Limited, *Responsibility and Mission*, 55.

<sup>43</sup> Beijing Mass Transit Railway Operation Cooperation Limited, *Responsibility and Mission*, 58.

<sup>44</sup> Beijing Mass Transit Railway Operation Cooperation Limited, *Responsibility and Mission*, 59.

construction of subway was considered to be a battle, a battle to compete with the capitalist countries, a battle to show the world the superiority of the socialist regime.

From 1970 to 1981, the Line One of Beijing Subway was not open to the public. Only limited individuals and foreign guests were allowed to get on board. After a visit to the underground railway system in Beijing in 1970, the Prime Minister Zhou Enlai remarked on the Report of the preparation for the Beijing underground railways, claiming: “Approved. It should start running for trial from January 1971, tickets should be restricted, and open to visiting masses”<sup>45</sup>.

Sun Xiaou, a native Beijing citizen, recalled his first ride on the Beijing subway in 1960s.

One day all the residents in our big yard (*da yuan*) got an official notification, saying that the underground railway would be operating for trial on some specific date, and all residents of our big yard could go for a free ride. This big news immediately aroused ripples in our mundane life. People just thought it was interesting, and never expected that underground railways could bring much change to our life. Nevertheless, it was really fun to ride an underground railway. Just think about that, for how many times in your life you can meet all your neighbors in one subway carriage? It was totally different from now, when you are surrounded by strangers in the subway. I can still recall that when we stepped into brand new subway carriage, it was like entering into a strange new home with all my family members. I was both excited and felt mysterious. The glimmering lights inside the carriage, the walls swiftly passed by through the glass window, the sweet voice of the female broadcaster on the train, all of which made my heart beat faster<sup>46</sup>.

According to Sun, he lived with his family on a big yard (*da yuan*) on the Fuxingmen Outer Street, which is intersecting with the Second West Ring of Beijing city. The big yard (*da yuan*), as a part of the work unit (*dan wei*) system, is the material, physical as well as the spatial manifestation of socialist China, especially during the Mao era (1949-1976). What exactly is the work unit? According to Duanfan Lu, it is “the socialist enterprise or institute – which functioned not only as workplace but also as social institution. The work unit integrated work, housing and a

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<sup>45</sup> Mu Liu, *Dang Dai Jiao Tong Shi Hua (A History of Contemporary Transportation)* (Beijing Shi: Dang Dai Zhongguo Chu Ban She, 2008), 116.

<sup>46</sup> Sun Xiao Ou, “Childhood Witness: The Construction of the Line One in Beijing,” *Beijing Document* 3 (2014): 65-68.

variety of social facilities such as nurseries, canteens, clinics and shops in close proximity within its walled compound(s)<sup>47</sup>. In other words, it is both the spatial and social unit of a socialist society. Although initially, it was designed “as a unit of production, the work unit gradually developed into the basic unit of collective consumption which integrated workplace, residence and social services”<sup>48</sup>. Sun’s family belongs to one of such work unit, which were built in the 1950s when the urban planners of Beijing wanted to transform the new socialist capital into an industrial and productive city. As a result, various bureaus were planned to be built outside the West Second Ring Road, including the military units, the educational units, etc. In this way, Sun, who lived and grew up in the big yard (*da yuan*), knew everyone in the yard. Meanwhile, back then, not everyone had a chance to take the subway. Only people being invited had the chance and honor to do so. And the inviting mechanism always worked through the work unit, which was then the dominating and most fundamental unit and organizations in socialist China.

The underground railway during this time period thus became a sign bearing different meanings. For the planners and governors, it was a crucial part of socialist progress; a big project during the Cold War Era. Facing the hostility of the Soviet Union and the U.S., China should be independent, should show its capability to develop its own underground subway system, so as to be modernized. Nationalization and modernization went hand in hand during this period.

As for the citizens, the underground railway system signified a privileged social class. People who could get access to the subway belonged to privileged categories. In order to pay a visit to underground railways, people had to get permission from their work places. This reflects a specific period in China’s history, with its specific ways to organize and to mobilize citizens.

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<sup>47</sup> Duanfang Lu, *Remaking Chinese Urban Form: Modernity, Scarcity and Space, 1949-2005* (London, New York: Routledge, 2006), 2.

<sup>48</sup> Lu, *Remaking Chinese Urban Form*, 13.

For foreigners, it had different meanings. Ever since the subway started running, it was open to foreign visitors. Along with the Great Wall and other spectacular places in Beijing, the subway became a must-see place. If the Great Wall showcased the long history and the wisdom of ancient China, then the subway stood for the rapid technological development of a new China. Its political implications are obvious.

Below is a piece of writing by Jerome A. Cohen, who first visited China in 1972 after Nixon visited China. He recalled his experience in Beijing subway with great details.

I especially wanted to ask about the most puzzling of our experiences—the subway, an experience that reminded me of the old jokes about the then new Moscow subway of the 1930s. When our escort inquired whether we would like to ride on the Beijing subway that had been under construction, I said that the newspapers had reported that it was not yet in service. Our escort said that it was already in service and that we could ride on it. At the appointed hour, while standing next to the track, we were given a long lecture about the history of the subway's development. During that time, only two trains came by, and neither had a single passenger. The next train, which we took through eight stations, also had no other passengers, nor did we see any people waiting at any of the stations. We were told they were all in waiting rooms, where conditions were more comfortable. When we got to the last stop, the Beijing railroad station, our escort still insisted that the system was in use. I embarrassed my wife by saying that we would like to wait a while for evidence that people really were using the subway. I had had doubts about some of the information we had been given on other matters and was disturbed that we could not successfully communicate about something as basic as whether the subway was in service. A bit exasperated with my determination to clarify an evident misunderstanding, my wife and a couple of others in our group went up the escalator to the main hall to wait. Down at the track, no trains came in for a time but finally one did appear with about twenty assorted workers, peasants and soldiers who seemed flustered when they encountered the escalator. With some satisfaction, our escort said: 'You see, the system is in service.' When I later asked the Foreign Affairs Association group about this mystery, our escort's leader, with the escort seated next to him, smiled and said: 'It's very simple. Our subway is not yet in service'<sup>49</sup>.

This scenario, with authentic humor, provides us a different lens through which we could look at the subway system in Beijing. As one of those "lucky foreigners" who were allowed to visit China during the Cultural Revolution, the author and his wife were escorted by local guides wherever they went and whatever they did. According to his observation, the train was empty

and there were no passengers on board. This provides evidence that the subway then was not open to the public, but only for visitors. The author's disobeying caused a hilarious scene: "twenty assorted workers, peasants and soldiers who seemed flustered when they encountered the escalator". This narration provides an angle different from China's single-sided depiction caused by the Cultural Revolution. The embarrassment, the slippage between the escort's words and what Cohen saw, reflects that the symbolic meaning has outweighed the actual function of the underground railways.

In Brian Larkin's review essay on infrastructure studies, he talks about the aesthetics of infrastructures. Borrowing linguist Jakobson's concept poetic, which means a "rearranging of the hierarchy of what signification within the speech event is dominant at any moment"<sup>50</sup>, Larkin defines the poetic mode of infrastructures means that "form is loosened from technical function. Infrastructures are the means by which a state proffers these representations to its citizens and asks them to take those representations as social facts"<sup>51</sup>. In China's case, the subway system proffers a modernized and nationalized socialist representation both for its own citizens and foreign visitors. Its own technological functions are not that important.

### **1981-now**

On September 1981, the only in Beijing finished its trial operation and opened to the public. It covers nineteen stations and is 27.6 kilometers in total. It starts from Fushouling in the Western Hills in Beijing and ends at Beijing Railway Station. In 1984, the second line opened to the public too. It has sixteen stations in total, from Fuxingmen to Jianguomen. On December 1987, the two existing lines were incorporated into Line One, running from Pingguoyuan to

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<sup>49</sup> Written by Jerome A. Cohen, September 3, 2011. <https://www.chinafile.com/missionary-spirit-dies-hard>

<sup>50</sup> Brian Larkin, "The Politics and Poetics of Infrastructure," *Annual Review of Anthropology* 42 (2013): 335.

<sup>51</sup> Ibid.

Fuxingmen, and Line Two, following the Ming city wall as a loop (The joint point of Line One and Line Two is Fuxingmen station).

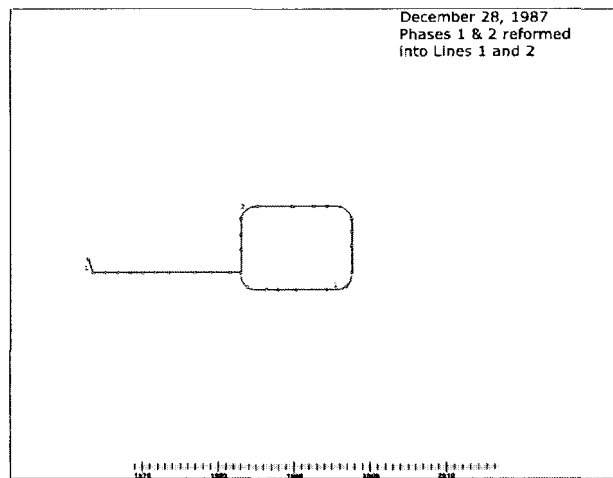


Fig.2 The subway map of Beijing in 1987

Starting from 1991, it took almost ten years for Line One to expand eastwards. In 1999, the extension to Sihui East Station was finished and in 2000, the full-length Line One from Pingguoyuan to Sihui East started operating, going straight forward from the west to the east of Beijing.

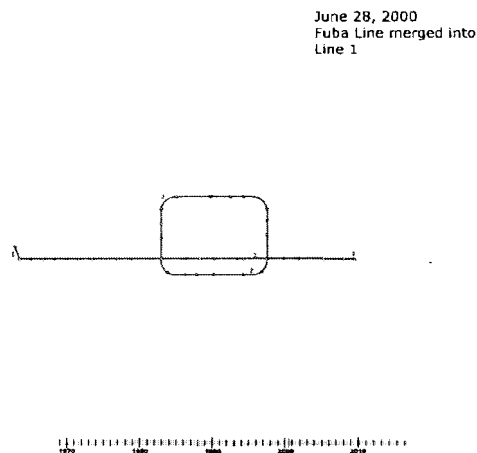


Fig.3 The subway map of Beijing in 2000

In 2001, when Beijing won the bid to host the 2008 Olympic games, Beijing added more investment to infrastructure planning. Line Thirteen, a half loop added to Line Two to and extended to the northern part of the city was opened in January 2003. Batong Line, an extended

line connecting Line One and Tongzhou, a suburb area in eastern Beijing, was opened in December 2003. As the city's first north-south line, Line Five opened in 2007. In the summer of 2008, right before the Olympic games, three new lines---Line Ten, the Olympic Branch Line and the Airport Express---opened in July 2008.

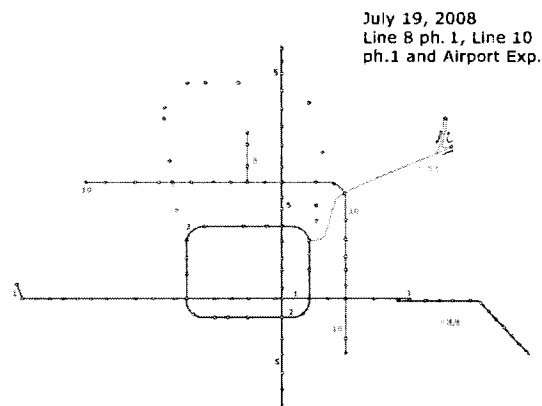


Fig.4 The subway map of Beijing in 2008

Up to the end of 2015, Beijing had eighteen lines in total, with ten lines serving the urban core and eight lines connecting the outlying suburbs that developed rapidly due to the recent fast-paced urbanization and economic developments. Right now, the eighteen lines constitute an intricate underground network, spreading to every corner of the city.

### **The future**

From 2015 to 2020, there will be nine lines added to the whole underground network. In 2020, Beijing plans to build the world's biggest underground railway system. Compared to the current map, we can see that with the new lines, the core areas of the city will be covered more completely by the subway, while the suburban areas will be extended even to Hebei Province.



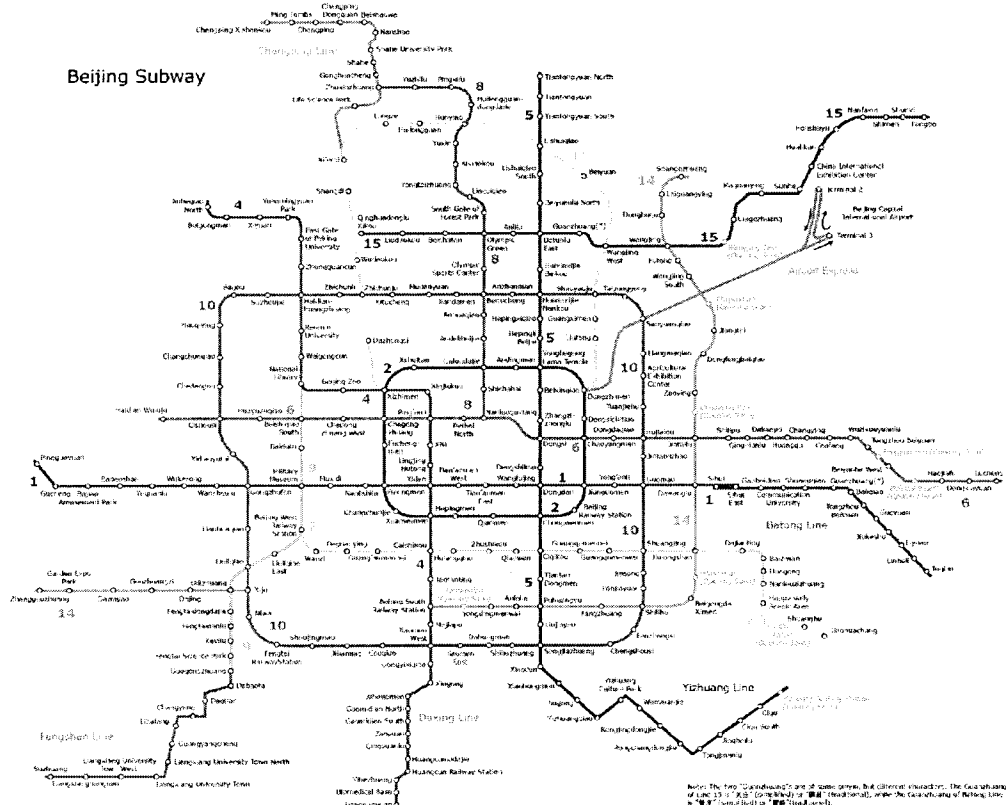


Fig.5 The subway map of Beijing in 2015

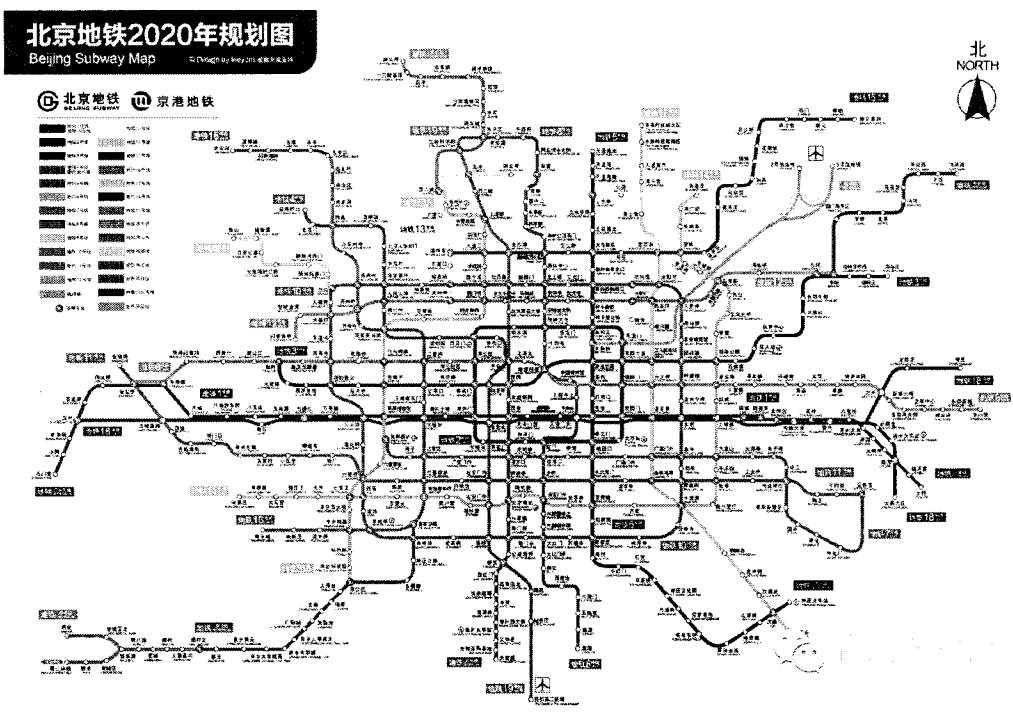


Fig.6 The prospect subway map of Beijing in 2020

The brief introduction to the Beijing subway shows the spatial configuration of Beijing city and its changes throughout history. In general, Beijing maintains its traditional configuration such as the Forbidden City, which stands at the center of Beijing. Also, after the founding of PRC, through heated debates concerning the location of the new government, the city administration and the planners finally decided to situate the government at the center of the city, right in front of the front gate of the Forbidden City. As a result, the city axis we see in Beijing now is actually a multilayered outcome, an overlap of several different historical periods. Furthermore, the construction of the subway, especially early lines such as Line One and Line Two, also reflects the aboveground spatial configurations. But at the same time, they brought damage to the aboveground architecture too.

As we can see, on the one hand, the subway system in Beijing serves as a social symbol, through which we can see how social meanings of the subway change in different historical period. In Republican Beijing and the early days of the PRC, the planning of the subway system was closely related to the process of modernity and industrialization of the city. Afterwards, when it came to the Cold War period, the subway system became important spaces for war preparation. Despite its construction, it was not open to every one. The trial operation not only indicates the gated characteristics of the subway system---only those who were approved by their work unit had the chance to take the subway, but also served as a national and socialist symbol for an isolated socialist country on the international stage. In the 1970s. After the Reform and Opening in China, the subway system in Beijing has taken on new social meanings. It is no longer a socialist symbol, but a functioning transportation system loading hundreds of thousands of people flooding into Beijing due to accelerated urbanization and economic developments. 2008 is a turning point too. In order to prepare for the Olympic games in Beijing in 2008, a lot of

lines were built and opened before 2008, urging Beijing to transform from a capital into a metropolis, which welcomes people from all over the world. Today, the subway in Beijing both functions materially and symbolically. On the one hand, it carries a huge population to commute in the city; on the other hand, it gradually has become a cultural symbol of high modernity in China. One thing is for sure: in the near future, the subway will continue to be a key element of Beijing.

## Chapter two: The Past: The Underground Uncanny

Brother Long (*longge*), a local Beijing resident in his thirties, once worked in the electricity supply department at Yonghegong Lama Temple Station on Line Five for several years. According to Brother Long, this station is among the eeriest (*xieqi*) stations in the subway system.

You have never been to the places where we work, so all you see is the platforms. As a matter of fact, the subway system is more than that. For example, I work in the transformer substation. It is located next to the ticket office, but it is deeper. You have to go deeper in order to get to the substation. The facilities of the substation are located one level down, close to the three tracks (two railway tracks for the train to run and one track to provide electricity). The switches of all the electrical facilities, as well as the transformers are all here. Some weird things once happened at this location. There is a glass separating the facilities and the switches. It is said that for one of our female colleagues, when she went down to the room and prepared to switch the power off, she looked into the glass and suddenly she saw a face emerging on the glass. She was totally freaked out. She shouted out loudly. After that she applied to change to another station.

Then he continued,

There is something else that is very weird about Yonghegong Lama Temple Station. When we stay overnight in the duty room along downstairs beside the tracks, some colleagues say they can here someone walking back and forth, and make some noises with a pair of slippers on. Also, between the two levels, there is a screen window. Sometimes the window would vibrate even when there are no winds blowing at all. *Da da da, Da da da*. It makes sounds like that.

When I asked whether he has ever had such strange experiences, he told me: “Never once have I met ghosts in the station. It is probably because my *yang qi* is strong as a young man. But for my female colleagues, I often heard about their encounters with ghosts.”

Using Brother Long’s story as an entry point, this chapter will focus on how the past comes to haunt the present in the underground space. To whom does the face belong? Who makes the sound of the slippers? How can we explain such weird experiences taking place in the subway stations? Instead of fact checking the truth-value of such stories, I would focus more on why such stories emerge in specific locations. In this chapter, I will adopt a Freudian perspective

to see such stories. I will argue that such experiences, including urban myths and ghost stories, are in fact once repressed memories, which come to the consciousness and take on the appearance of urban myths and ghost stories.

Here, I am not thinking of an individual, and how one's childhood repression comes back. Instead, I am thinking in terms of a city. How collective repressed memories of a city, which were once shrouded in the discourse and narrative of searching modernity, are now coming back in the disguise of urban legends and ghost stories. To take a step further, this chapter not only concerns the Beijing city itself, but also looks into the Great Leap and the Cultural Revolution as a whole, during which the seeds of trauma were embedded. To this end, the urban legends based on the subways serve as a lens, through which we could rethink about the early period of the People's Republic of China and how history constantly acts on the present. Also, it provides us with new contemplation on the relation between ghostliness and space. In this chapter, I would first spend some time elaborating my theoretical framework, which to a large extent is based on Freud and his discussion of the uncanny and collective repression. Then I will turn to the subway myths and legends, and figure out the mechanism of forgetting, repressing and haunting in the context of the Beijing subway.

Before moving to the underground space and its ghostliness in Beijing, I would like to make a note on the theoretical framework. Speaking of the uncanny, the repression, as well as the ghostliness, my main reference here is Sigmund Freud.

In his 1919 essay *The 'Uncanny'*, Freud points out at the beginning straightforwardly that the uncanny is a "subject of aesthetics"<sup>52</sup>, as well as a "theory of the qualities of feeling"<sup>53</sup>. Unlike beauty, the uncanny belongs to the category of negative aesthetics, which arouses

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<sup>52</sup> Sigmund Freud, *Writings on Art and Literature* (California, Stanford: Stanford University Press, 1997), 193.

<sup>53</sup> *Ibid.*

feelings such as repulsion, distress and fear. After sorting to a thorough etymological research, Freud concludes that the uncanny means “everything is *unheimlich* that ought to have remained secret and hidden but has come to light”<sup>54</sup>. One important characteristic of the uncanny is that it is actually not something brand new. Rather, it is comprised of some familiar characteristics taking on a new look. In this sense, it is a double. According to Freud,

When all is said and done, the quality of uncanniness can only come from the fact of the ‘doubling’ being a creation dating back to a very early mental stage, long since surmounted—a stage, incidentally, at which it wore a more friendly aspect. The ‘double’ has become a thing of terror<sup>55</sup>.

It is when it comes to the theme of the double that Freud brings the collective into sight, for the first time. After briefly mentioning Otto Rank and his discussion about the double, which serves as “an insurance against the destruction of the ego”<sup>56</sup>, he then turns to an example of the ancient Egyptians, who made images of the dead using long-lasting materials. According to Freud, it demonstrates “the primary narcissism which dominates the mind of the child and of primitive man. But when this stage has been surmounted, the ‘double’ reverses its aspect. From having been an assurance of immortality, it becomes the uncanny harbinger of death”<sup>57</sup>. Here for the first time, Freud introduces subjects other than children-primitive man. It is clear that for Freud, primitive man can be considered as an analogy to the child, both of whom are at an early stage of development. In what follows, he continues with elaborations and examples concerning individuals, such as his own experiences in Italy, Polycrates, and a patient of his who is an obsessional neurotic. It is not until then that the collective reappears, when he mentions examples such as superstition and “omnipotence of thoughts”<sup>58</sup>. Freud claims that,

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<sup>54</sup> Freud, *Writings*, 200.

<sup>55</sup> Freud, *Writings*, 212.

<sup>56</sup> Freud, *Writings*, 210.

<sup>57</sup> Freud, *Writings*, 211.

<sup>58</sup> Freud, *Writings*, 216.

Our analysis of instances of the uncanny has led us back to the old, animistic conception of the universe...it seems as if each one of us has been through a phase of individual development corresponding to this animistic stage in primitive men, that none of us has passed through it without preserving certain residues and traces of it which are still capable of manifesting themselves, and that everything which now strikes us as 'uncanny' fulfills the condition of touching those residues of animistic mental activity within us and bring them to expression.

This is definitely a big move, in terms of the unit of analysis. Previously, his unit of analysis has always been the individual, which is quite understandable considering his identity as a psychoanalyst who deals with his patients case by case. However, in the paragraph mentioned above, he attempts to move from the individuals to the collective, from a single man to a civilization. This move opens up the space to deal with modernity and its dark sides, such as what Adorno and Horkheimer refer to in their groundbreaking work *Dialectic of Enlightenment*. In this way, the double, the repressed that comes back can be the residues and remains of modernity, of an early stage of a civilization. Nevertheless, Freud leaves something unsolved: how does the move ever possible? Is the mechanism of a culture or a society the same as that of an individual? Is the mechanism a psychological one? Or is there anything else going on? Freud keeps this parallel unexplained until the very end of the essay, where he reiterates it once again and adds two sentences to try to build a bridge between the individual and the collective,

Our conclusion could then be stated thus: an uncanny experience occurs either when infantile complexes which have been repressed are once more revived by some impression, or when primitive beliefs which have been surmounted seem once more to be confirmed. Finally, we must not let our predilection for smooth solutions and lucid exposition blind us to the fact that these two classes of uncanny experience are not always sharply distinguishable. When we consider that primitive beliefs are most intimately connected with infantile complexes, and are, in fact, based on them, we shall not be greatly astonished to find that the distinction is often a hazy one<sup>59</sup>.

According to Freud, the uncanny of individuals and the collective cannot always separate from each other, for the reason that primitive beliefs are connected and largely based on infantile

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<sup>59</sup> Freud, *Writings*, 226.

complexes. Again, it is clear that for Freud, infantile complexes remain to be the basic unit of analysis. The parameter is always the individual rather than the collective. In other words, he considers the primitive as an infantile stage of civilization, but not vice versa. The repression of a culture or society thus seems like a mechanical aggregation and accumulation of the infantile complexes. It is nothing similar to emergent social facts in a Durkheimian way.

The gap between individuals and the collective remains in *Moses and Monotheism*, which is his last book, and at the same time is probably his most disturbing book. But it is in this book that he again picks up the issues related to collective repression and its returning as his entry point of analysis. To make a long story short, in this book Freud pokes a bold hypothesis that Moses was not Jewish but instead, he was an Egyptian, a priest of Akhenaten's cult, which was the actual founder of a monotheistic worshipping of the sun god Aton. After the death of Akhenaten, Egypt returned to polytheism. Realizing that monotheism could not survive in Egypt, Moses led his followers, who were a backward tribe of Semites into exile. After that, the Semites rebelled against Moses, killed him and returned to polytheism. However, they ended up joining another tribe that believed in monotheism, and worshiped a god named Jahve. Coincidentally, the priest of this tribe also had the name Moses. Finally, the original exiled Semites tribe returned to the practice of monotheism.

Besides the biblical backgrounds and the crucial feature of the "father" Moses, what we see here is the social practice of repression returning on a collective level. According to Freud, the tradition (in this case, it is the monotheism of Jewish religion) is never lost. It has just been repressed by the official written history. Nevertheless, the tradition found its outlet through intergenerational oral transmissions. The period of repression and incubation is thus given the name latency.



According to Freud, “the facts which the so-called official written history purposely tried to suppress were in reality never lost. The knowledge of them survived in traditions which were kept alive among the people”<sup>60</sup>. Again, he makes an analogy between individual psychology and mass psychology, claiming that “this analogy is not so startling as it appears at first sight; indeed, it is rather in the nature of an axiom”<sup>61</sup>. It is here that he introduces the concept of *traumata*, which is a “ætiology of the neuroses”<sup>62</sup>, as well as the formula for the development of a neurosis: “Early trauma-Defence-Latency-Outbreak of the Neurosis-Partial return of the repressed material”<sup>63</sup>.

It is obvious that Freud himself also realized the difficulty in establishing the analogy between neurotic process and religious events, between the individual psychology and mass psychology. However, Freud shies away from the question concerning the relationship between individuals and the collective (whether the collective is constituted by individuals inorganically or organically). Instead, he focuses on the deposit of traditions, of residues of a collective past in each person. In order to pass down the tradition as well as the repressed collective memories, Freud calls for an inheritance of memory-traces which is independent of direct communication. That is to say, when dealing with time lapses more than two or three generations, when the witnesses of traumas have died out and no one can pass down the message through oral communication, there should be such a thing as an inherited tradition that is not “carried on by word of mouth”<sup>64</sup>. This is the key precondition for Freud to bridge the gap between the individual and the collective. Even Freud himself finds this step bold yet inevitable.

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<sup>60</sup> Sigmund Freud, *Moses and Monotheism* (London: Hogarth Press, 1951), 112.

<sup>61</sup> Freud, *Moses and Monotheism*, 117.

<sup>62</sup> Ibid.

<sup>63</sup> Freud, *Moses and Monotheism*, 129.

<sup>64</sup> Freud, *Moses and Monotheism*, 160.

As expected, the bridge Freud built to fulfill his arguments has been criticized by his processors, especially those who are interested in collective memory and trauma. For sociologist Jeffery Olick, one way to fill the gap between individual and the collective memory is to resort to figures such as Bourdieu and Bakhtin, both of whose theories are capable to answer the question “how collective traumas are transmitted across generations, remaining latent and then returning in a pattern analogous to individual neurosis without being reducible to it”<sup>65</sup>. However, in the case of Beijing subway myths, we do not have to face the problem of whether there is an inherited memory since practically speaking, the repressed memories are within two or three generations and they still belong to the realm of oral communications. As a matter of fact, such oral communication plays a crucial role here since the repressed memories have been conveyed through the form of urban folklores, which I will unfold in detail later in this chapter.

Among scholars who study the Cultural Revolution in China, some scholars consider the Cultural Revolution as a catastrophe and trauma in Chinese history, considering the violence and damage it has brought to the country, both structurally and psychologically<sup>66</sup>. Others deal with its legacy aesthetically, considering how China and its people might have recovered from such traumatic collective memories and how films and literature serve as an outlet<sup>67</sup>. This chapter aligns with such arguments and will unveil the construction of Beijing subway in the context of the traumatic Cultural Revolution. I would argue that during the Great Leap as well as the Cultural Revolution (1958-1976), the necessity of building the subway system in Beijing was

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<sup>65</sup> Jeffery K. Olick, “From Usable Pasts to the Return of the Repressed,” *The Hedgehog Review* (2007): 30.

<sup>66</sup> For works discussing the Cultural Revolution in China as traumatic, please refer to Roderick MacFarquhar and Michael Schoenhals, *Mao's Last Revolution* (Cambridge, Mass: Belknap Press of Harvard University, 2006). Edited by Joseph W. Esherick, Paul G. Pickowicz, and Andrew G. Walder. *The Chinese Cultural Revolution as History* (California: Stanford University Press, 2006). Frederick C. Teiwes, *The End of the Maoist Era: Chinese Politics during the Twilight of the Cultural Revolution, 1972-1976* (Armonk, N.Y.:M.E. Sharpe, 2007).

<sup>67</sup> Please refer to Yiju Huang, *Tapestry of Light: Aesthetics Afterlives of the Cultural Revolution* (Leiden: Brill, 2014). Dewei Wang, *The Monster that is History: History, Violence and the Fictional Writing in Twentieth-Century* (Berkeley: University of California Press, 2004). Ban Wang, *Illuminations from the Past: Trauma, Memory and History in Modern China* (Stanford:

incorporated into a discourse of modernity, which aimed at process and rapid development. As a result, traumatic damage was done to old city walls, to nature, as well as to the workers involved in this project. After years of repression, they all come back and start haunting.

### **The old city walls**

When it comes to the construction of Beijing subway, the dismantling of old city walls in Beijing cannot be neglected, since the first line of the Beijing subway followed the traces of old city walls, especially the inner city walls. In what follows, I would like to spend some time elaborating a brief history of the city walls in Beijing and how they are related to and influenced by the building of the subway in Beijing. As the story unfolds, we can see that the replacement of the subway for the old city walls was initiated under the necessity of building a new socialist country, under the dominant discourse of substituting the feudal traces for modern infrastructures, mandated by the prevailing frantic development ordered by Chairman Mao during the Cultural Revolution.

City walls bear crucial significance in Beijing's history, both functionally and symbolically<sup>68</sup>. In the Yuan dynasty (1215-1368), the ruling Mongols started building their capital in 1267 and named it Dadu (Great Capital). After seventeen years, the capital was set<sup>69</sup>. Despite the Mongol rulers, the construction of the capital followed a Han tradition, which was expressed in *Zhou li: Kaogong ji* (The rites of Zhou: On craftsmanship) two thousand years ago. According to *Zhou li*, "the imperial city should be a square formed by four walls, each of them nine *li* (about 2.8 miles) long and each punctuated by three gates. Nine thoroughfares should connect the whole city from east to west and from north to south. An ancestral temple (*zu*)

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Stanford University Press, 2004). Guobin Yang, "Days of Old Are Not Puffs of Smoke: Three Hypotheses on Collective Memories of the Cultural Revolution," *China Review* 02 (2005): 13-41.

<sup>68</sup> Lu, *Remaking Chinese Urban Form*, 128.

<sup>69</sup> Shi, *Beijing Transforms*, 13.

should be built to the east of the audience hall and a temple of the earth (*she*) to the west. The city market should be located north of the palace”<sup>70</sup>. Dadu’s spatial layout did not follow this principle strictly, since it turned out to be rectangular but not square, with the north-south matrix longer than the east-west one. Furthermore, there were only two city gates opening on the northern city wall instead of three<sup>71</sup>.

In the Ming Dynasty, it changed Dadu’s name to Beiping when it made Nanjing as its capital. In order to prevent the revenge of the Mongols, Ming troops shrank the scale of the city by moving the northern city wall a little south<sup>72</sup>. During the Yongle period (1402-1425), Beiping was renamed as Beijing (the Capital of the north). In 1420, Beijing substituted for Nanjing and became the capital of Ming<sup>73</sup>. It was during this period that Beijing underwent thorough reconstruction. One of the most important spatial transformations was the building of the Forbidden City in the center of the city. In the meantime, city walls were rebuilt with bricks rather than dirt, which was the previous material of the city walls. During the Jiajing period (1522-1567), “an oblong section was added along the south wall of the existing square city”<sup>74</sup>. As a result, the original part of the city was given the name the Inner City, while the newly added part was named as the Outer City<sup>75</sup>. Since then, despite some expansions and changes, the basic spatial configurations of Beijing remained unchanged until the Republican period (1912-1948).

The growth of population in Beijing gradually led to traffic problems. As a result, in 1952, the Beijing Municipal Government made the decision to dismantle the outer city wall, so as to

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<sup>70</sup> Dong, *Republican Beijing*, 24.

<sup>71</sup> Shi, *Beijing Transforms*, 13.

<sup>72</sup> *Ibid.*

<sup>73</sup> Dong, *Republican Beijing*, 25.

<sup>74</sup> *Ibid.*

<sup>75</sup> Shi, *Beijing Transforms*, 14.

erase the spatial constrictions of the aboveground transportation<sup>76</sup>. In 1956, the dismantling of the outer city wall started. As a lot of urban construction going on, some of the construction companies began to dismantle the outer city walls, so as to get the bricks for their own use<sup>77</sup>. In January 1958, when Chairman Mao Zedong spoke in a conference at Nanning, he expressed his negative attitude towards old city walls<sup>78</sup>. Two months later, he again emphasized that Beijing should learn from Tianjin and Shanghai in terms of the demolition of the old city walls<sup>79</sup>. It is under such social condition that Beijing came up with a ten-year plan to transform the old areas in Beijing, including the dismantling of the outer city walls and the inner city walls.

The process of tearing down the city walls lasted for more than ten years. In 1965, when the Municipal Government decided to build underground railways, in order to save the cost and minimize demolition of the houses, the government decided to follow the traces of the city walls and to dig an underground tunnel from the roots of the city walls<sup>80</sup>. As a result, the city walls served as the material indexes of the layout of the very first underground railways in Beijing. For the first phase of the subway construction, the southern part of the inner city wall, Xuanwumen Gate, Chongwenmen Gate were torn down. For the second phase, Jianguomen Gate, Dongzhimen Gate, Andingmen Gate, Xizhimen Gate, Fuxingmen Gate were all demolished<sup>81</sup>. From 1900 to 1969, old city walls were gradually torn down because of various reasons, such as building railways, building subways and developing sewage systems<sup>82</sup>.

The official discourses formulate the demolition of the city walls as something good for the general development of Beijing city. During the Cultural Revolution, dismantling the city

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<sup>76</sup> Jun Wang, *Beijing Record: A Physical and Political History of Planning Modern Beijing* (Singapore: London: World Scientific Press, 2011), 244.

<sup>77</sup> Wang, *Beijing Record*, 250.

<sup>78</sup> Wang, *Beijing Record*, 242.

<sup>79</sup> Ibid.

<sup>80</sup> Wang, *Beijing Record*, 400.

<sup>81</sup> Wang, *Beijing Record*, 401.

wall necessitated a mass mobilization that was full of political ideology. Furthermore, it echoed the deteriorated relation between the Soviet Union and China, and finally, it became a task to prepare for warfare. It is reported that in 1969, from October to November, there were three hundred thousand citizens participating in the demolition, and it lasted for several years during the Cultural Revolution<sup>83</sup>. During that period, the city walls were always framed as the hindrance to the urban development<sup>84</sup>, and tearing down the city walls was considered as a way to recycle useless materials and reincorporate them into the construction of a new modern city. It was a period when everybody was eager to get rid of the old---old traditions, old landscapes, as well as old thoughts, and to embrace the new.

In a poem written by Wang Dongcen, which describes his experiences in participating in the voluntary work of dismantling the city walls in 1960 with students from a local college in Beijing, he recalls,

Groups of lively young people,  
Are pulling down the city walls,  
And carrying the bricks away;  
With their singing and laughers,  
Awakening the ancient city walls.

The ancient city walls,  
Have been lying dormant for years,  
Overgrown with thorny bushes;  
Covered with mud and dust.

Once the guard of feudal emperors,  
The walls bore bullets and shells of imperialism  
For so many years;  
Who know how many sufferings they have sustained.

Today, they have turned up and over,  
Marching to the forefront of the construction of the motherland;

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<sup>82</sup> For a list of the city walls and gates destroyed during the Republican Beijing and the PRC Beijing, please refer to the Appendix of Beijing Record.

<sup>83</sup> Wang, *Beijing Record*, 299-300.

<sup>84</sup> "The City Walls that Limit the Development of the City", *People's Daily (Renminribao)*, August 9, 1958.

‘I have never imagined  
That I could serve socialism.  
Isn’t it remarkable?  
That I can witness such a bright and great world?’

They look as youthful as young girls,  
Cast away the dilapidated turrets.  
The square bricks  
Have stood up from among the mud.  
Revealing their smiles.  
When they hear the young girls say:  
Use them to build small blast furnaces,  
Use them to build gas generating ovens,  
They jumped high with joy,  
Determined to play its due role in the new era  
And in the technical innovation drive<sup>85</sup>.

In this poem, the author fleshes out the sharp contrast between old and young: the old city wall versus the lively young people. Furthermore, he focuses on the shift of meanings of the city walls themselves: from the old guard of emperors and the shells of imperialism to the servants of socialism. The transformation of meanings is accomplished through changing material forms. The dismantling of the city walls is thus justified because a new era is coming, a new socialist era, which embraces technology and innovation, which is urged to discard old fortresses and boundaries. In this way, within ten years, most of the old city walls (both the inner city walls and the outer city walls) were pulled down. Since the early subway started from the roots of the city walls, it serves as an underground extension of the city walls.

However, the city walls never fully disappeared and vanished. They exist today through a different form. First of all, they are still there symbolically. Recall that subway Line One was built based on the roots of the inner city walls. As a result, the naming of the stations just follows the gates and it has never changed in more than forty years.

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<sup>85</sup> The original Chinese version of this poem is from Wang Dongcen: *My Work at the Metropolitan Planning Committee in History of Planning*, 1<sup>st</sup> edition, compiled by the Beijing Municipal City Planning Administration and the Party Records

If we take a close look at the map of Beijing subway once again, we will find out that most of the stations on Line Two, which is the first cycle line in Beijing, are named after each gate of the inner city walls. Starting from east, the intersection of Line One and Line Two, the Fuxingmen Gate, and follow the stations in a clockwise order, there are Fuchengmen Gate, Xizhimen Gate, Andingmen Gate, Dongzhimen Gate, Chaoyangmen Gate, Jianguomen Gate, Chongwenmen Gate, Qianmen Gate, Hepingmen Gate, Xuanwumen Gate. If one contrasts their order with the map of Beijing in the Qing Dynasty, it is easy to find out that the routes of Line Two overlap with the inner city walls from that time, and the names of the gates remain the same.

In this way, the symbolic presence (by names of the stations) and the physical absence (by the fact that the walls have been torn down) speak to the phantasms of the old city walls. They become, according to Marilyn Ivy, “a site which had to be overcome in order to be modern, and a site which could never be fully relinquished for that very reason”<sup>86</sup>.

The phantasms of the city walls bring the uncanniness into play (though in the form of subway), when the frightening element related to the city walls is actually “something repressed which recurs”<sup>87</sup> and “something which ought to have remained hidden but has come to light”<sup>88</sup>.

The uncanniness mainly comes from some wide-circulating myths and ghost stories in the subway. Subway has its own myths. Most of them are not free-floating signifiers; they are attached to specific locations. According to the interviews conducted with staff working in the subway stations as well as some heated online discussion<sup>89</sup> about strange experiences in the Beijing subway, most of the stories take place in some specific places. People reported

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Collection Office of the Beijing Municipal Institute of City Planning & Design, December 1995. The translated version comes from Wang Jun, *Beijing Record*, 336.

<sup>86</sup> Marilyn Ivy, “Dark Enlightenment: Naito Masatoshi’s Flash,” in *Photographies East: The Camera and its Histories in East and Southeast Asia*, ed. Rosalind C. Morris (Durham: Duke University Press, 2009), 240.

<sup>87</sup> Freud, *Writings*, 217.

<sup>88</sup> *Ibid.*



encountering ghosts, faces without bodies, hearing cries of women, hearing sounds without seeing anybody or anything at the following stations: Yonghegong Lama Temple, Beixinqiao on Line Five, Fuxingmen, Beijing Railway Station, Jianguomen on Line Two, Babaoshan, Gongzhufen on Line One. Although a rough calculation does not explain everything, but it does imply something. Going back again to the subway map of Beijing, we can find out that except Babaoshan and Gongzhufen, other haunted locations almost overlap the inner city walls and gates. This cannot be mere coincidence. One possible explanation is when tearing down the city walls was celebrated during the Great Leap and the Cultural Revolution, a period full of political frenzy; when the dismantling of the old traces was justified in a discourse of searching modernity, of economic development, of turning a backward nation into an advanced socialist country, a memory of loss and violence was also imprinted in people's mind, in a subtle and implicit way. They were repressed but never lost. They were exiled but never dispelled. When the subway started running, they all come back in an uncanny way. To this end, the ghost stories and myths related to the subway are the double of the earlier demolition. They were repressed during the Cultural Revolution, during a period when collective memory was highly manipulated and controlled by the government. Now they recur, exactly at the same locations. This doubling, according to Freud, can be dated back to an earlier stage, which incidentally "wore a more friendly aspect"<sup>90</sup>. In this case, the early stage of the doubling is the mass movement to pull down the city walls, which was driven by political frenzy and did not encounter many protests. As time goes by, the residue of the collective memories turns into ghosts, beginning to haunt the underground spaces.

### **Beixinqiao Station on Line Five: the taming of nature**

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<sup>89</sup> Most of the discussions can be seen at Tianya BBS, Douban Community, and Zhihu Community, all of them are active online communities favored by netizens in China.

Back in 2003, when workers were digging tunnels and preparing for the construction of Line Five in Beijing, they encountered a well. It was discovered at the station Yonghegong Lama Temple. According to a reporter from Beijing Youth Daily, the well is to the northeast side of the Beixinqiao Street crossroad, right at the southeast part of the pit excavation. The bricks of the well looked different from normal ones. Each of them has a mark in the middle. Water kept pouring out of the well. The person in charge of this construction site then asked workers to stop excavation and reported it to the local Cultural Relics Department. One hour later, staff from the department came to the spot. It was said that after primary examination, the diameter of the well was 1.2 meters, and it was all made of old bricks. Furthermore, a modern, iron-made flashlight was found, from which the staff inferred that this well had once been well protected<sup>91</sup>.

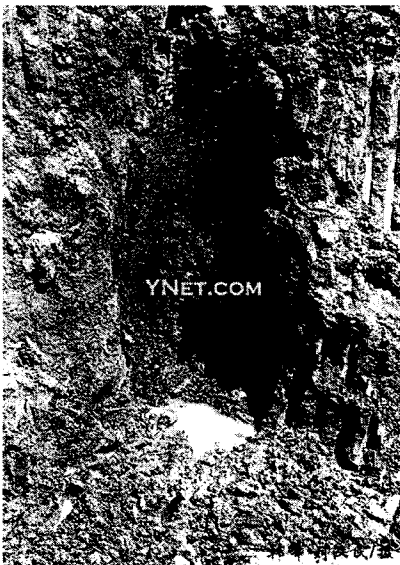


Fig. 7 The well excavated. Photo credit to Han Feng, Liu Hanmin<sup>92</sup>

At the end of this news story, it was said that experts were still researching this well. The construction would not resume until they came up with some detailed results after careful research<sup>93</sup>.

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<sup>90</sup> Freud, *Writings*, 212.

<sup>91</sup> This piece of news was originally published on *Beijing Qingnian Bao (Beijing Youth Daily)*, on 17<sup>th</sup> June 2003. The online version of the report can be found at <http://news.sohu.com/71/14/news210171471.shtml>.

This piece of news, although left open-ended, aroused heated discussion among local residents and reminded them of an aged local legend, about a well near Beixinqiao Street, which afterwards became the subway station Beixinqiao Station on Line Five.

When Liu Bowen, the adviser and strategist of Zhu Yuanzhang, who later became the first emperor of Ming Dynasty (1368-1644) and was titled Ming Taizu, was sailing north and about to arrive in Beijing, he encountered the Dragon King. The Dragon King learnt that Liu was going to build the capital city of Ming in Beijing, which was his own domain. So he claimed that in order to compensate him, he should give positions for each of the Dragon King's nine sons as well as grandsons. Liu promised to do so. Then his boat continued to sail northwards and finally arrived in Beijing. After the completion of Beijing city, it was set as the capital of the Ming Dynasty. But Liu forgot his promise. One day the Dragon King and his family came to the court and asked him to keep his promise. Liu then "positioned" his sons and grandsons on ornamental pillars, shadowed walls. As a result, they were stuck and became statues. The Dragon King was furious but he realized that he was not strong enough to fight against Liu, so he left, determined to revenge. On the next day in the morning, Liu learnt that the water in all wells and rivers had dried up and people were suffering a lot. Liu soon realized that this was the Dragon King's revenge. In order to fight back and protect the people in the city, Liu asked Gao Liang, a brave soldier to defeat the Dragon King. The method was simple: Gao Liang would be sent to Xizhi Gate, where he should hurry toward west and should meet two persons busy pushing carts attached with two pouches of water and trying to push them out of the city. Upon seeing them, Gao should use a spear to slit the water pouch attached to the left side of the cart and turn around and rush back, since the left one contained the sweet water and the opposite contained the

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<sup>92</sup> This picture comes from <http://news.sohu.com/71/14/news210171471.shtml>.

brackish one. One crucial thing is that Gao should never look back when he started running back after he finished the task. After knowing what to do, Gao headed towards Xizhi Gate, where he met a couple pushing a cart with pouches of water as expected. He then rushed towards the cart and thrust his spear into the water pouch and dashed away. However, he was in such a hurry that he made a fatal mistake---he chose the right one instead of the left one, which later resulted in the fact that Beijing had many salty wells. The Dragon King was outraged about this unexpected attack. He waved his hands and large amounts of water gushed out of the pouch and stopped Gao from running away. Shocked by the scene Gao forgot Liu's warning and looked back. As a result he was drowned. Liu saw everything since he was standing on the city tower and keeping an eye on what was happening in the west. He saw the flood was rolling towards the city gate and he immediately asked the soldiers to close the gates. Thus, the water did not come into the inner city. Instead, part of it flowed south following the waterway. Part of it went underground. As a result, the wells and the rivers were filled with water, and Beijing no longer suffered from drought and thirst.

Nevertheless, this is not the end of the story. The stubborn Dragon King did not give up. He snuck underground through the streams and found a well close to a newly built bridge. He carried the water with him so that when it was unleashed it would pump upward, drowning the city. Noticing water running into the specific well, people hurried to Liu and told him the news. Realizing what had happened, Liu took Shen Wansan, a poor beggar, to the well and asked him to press the water. He put his begging bowl face down into the well. The water gradually diminished and the Dragon King was trapped. The poor Dragon King yelled at Liu and asked if he could ever come out again. Liu said that he could when the nearby bridge grew old. However,

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<sup>93</sup> This piece of news was originally published on *Beijing Qingnian Bao (Beijing Youth Daily)*, on 17<sup>th</sup> June 2003. The online version of the report can be found at <http://news.sohu.com/71/14/news210171471.shtml>.

he named the bridge near the well Beixinqiao (which could also read as Buxinqiao), which means a bridge that would never grow old<sup>94</sup>.

According to Hok-lam Chan, there are several different versions of this legend, which reminds us of Levi Strauss and his analysis of myths. However, it is not the focal point of this story. Despite various versions, the constant motif of this legend is the scarcity of water in Beijing, ever since it was build about one thousand years ago. The myth here, which largely focuses on the Dragon King and the water problem he brought, is to some extent a faithful reflection of Beijing's shortage of water. As Chan addresses, "besides the protracted droughts caused by the unpredictable continental climate, the paramount problem that beset Peking was inadequate water supply exacerbated by excessive demand and together with other man-made constriction obstructions"<sup>95</sup>, which is not only unsolved but also worsened today when Beijing is facing pressure from the dramatic increase of population and the rapid growth of urban infrastructure such as subways.

A theme underlying this genealogy of stories related to water in Beijing is the tension between nature and humans, although the essence of nature has changed during distinct historical contexts. Back in Ming Dynasty, the natural landscape in Beijing was a space filled with animated spirits and gods, such as the Dragon King. In the modern era, nature gradually becomes a demystified fact, a passive existence, which would be transformed and penetrated by modern technology.

In 1966, Lotus Pond, a natural lake inside Beijing, was filled in by 4.9 hectares because of the earth dug derived from the torn-down city walls<sup>96</sup>. Similarly, in 1970, due to the construction

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<sup>94</sup> This story is a simplified version about Liu Bowen and planning of Beijing in Hok-lam Chan's book *Legends of the Building of Old Peking*, in which he elaborates in great details the wide circulating folklores related to Beijing since 1200s. Hok-lam Chan, *Legends of the Building of Old Peking* (Hong Kong: The Chinese University of Hong Kong, 2008), 221-231.

<sup>95</sup> Chan, *Legends*, 156.

<sup>96</sup> Wang, *Beijing Record*, 427.

of the subway, Taiping Lake, a natural pond outside the northwest city walls, was filled up with excavated earth, too<sup>97</sup>.

Along with the more apparent damage of aboveground lakes and ponds, underground water systems are heavily influenced by the construction of the subway, too. Considering Beijing's geographical location as well as geological conditions, the building of underground tunnels is difficult because of underground water. The destruction of underground water systems is narrated by mass media in China as the overcoming of natural difficulties through advanced technology. In an article entitled *To deal with underground water during subway construction is no longer a problem for us today* published in 1997 in *Guangming Daily*, one of the most officially authoritative newspapers in China, the journalist features an engineer Wang Heng, who invented a specific technique to control the pouring underground water and later was proved to be quite useful and efficient<sup>98</sup>. Similarly, in another article published in *Guangming Daily* in 1999, named *The Water Battle under Changan Avenue*, the reporter explicitly set up a binary between nature and human activities. When talking about how engineers and workers deal with underground water near Wangfujing Station, the reporter says,

The bustling East Changan Avenue, which is also called Chinese Number One Avenue, is crowded with people and vehicles. Twenty meters below the street, a battle related to the subway has already begun. More than three thousand staffs from the Sixteenth Beijing Subway Department are sweating profusely to build the main artery of our capital Beijing. Since Wangfujing Station is located at the alluvial backbone area of old Yongding River, there is a large amount of underground water at this site. As a result, to build subway station here is like 'giving the emperor a heart surgery', and even a tiny negligence will lead to a fatal disaster. In order to ensure the success, the technical group tested for so many times and finally was able to solve all the difficulties. 'Now we are confident to announce that we are successful in building the Wangfujing Station which has arrived at the international technical standard', says an expert consultant of the subway team<sup>99</sup>.

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<sup>97</sup> Ibid.

<sup>98</sup> Tianqi Wang, "To Deal with Underground Water during Subway Construction is No Longer a Problem for us Today," *Guangming Daily*, December 1, 1997, Wang Tianqi.

<sup>99</sup> Wang Yanshi, Wang Liwu, Yang Shengrong, "The Water Battle under the Changan Avenue--A record of the construction workers of Fuba Line in Beijing," *Guangming Daily*, 1999 January 1. It is originally in Chinese and is translated by the author.

This piece of news serves as a good example to see human's attitude towards natural landscape in an urban context. First, the author makes an analogy between Beijing and the human body, or to be more precise, the emperor's body, since Beijing is the capital of China. Then he adopts a pathological discourse by considering the subway system as the main artery of Beijing and the building of Wangfujing Station as a heart operation of the emperor's body. In this way, he turns a city into a human body and holds a mechanical belief that we humans can fix the body through operations. As a result, the natural landscape becomes passive, waiting to be transformed by humans using advanced technologies. In this way, human beings, especially the constructors of urban infrastructures, are put into an antagonistic relation towards natural environments in the urban contexts. In order to build the underground railways, the aboveground lakes and ponds are gone, filled up by mud and dust of the old city walls. The underground water suffers, too. It becomes the hindrance on the way to modernization. It becomes something to which we have to fight against. A mythological narrative has gradually given way to a scientific discourse, in which the tension between nature and human has never vanished. It is a process during which "myth turns into enlightenment, and nature into mere objectivity"<sup>100</sup>, according to Horkheimer and Adorno. It is a crucial step towards rationalization and modernization.

The antagonistic attitude towards nature, as well as the epistemological shift towards nature actually became explicit since the Great Leap, when large-scale land reclamations, huge hydropower projects, as well as nationwide deforestations were carried out under the command of Mao. According to Judith Shapiro, 1949 to 1976 was an intensive period in China's history when the Communist Party not only remold human nature, but also worked to "reshape the nonhuman world, with severe consequences both for human beings and for the natural

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<sup>100</sup> Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment* (New York: Continuum, 1991), 9.

environment”<sup>101</sup>. Deeply rooted in Mao’s revolutionary philosophy was the belief that through human will and human agency “material conditions could be altered and all difficulties overcome in the struggle to achieve a socialist utopia”<sup>102</sup>; there was the determination to conquer nature, to finally win the battle between human and nature. Such ideology has deeply influenced China and it is not surprised that even twenty years after Mao’s death the official media was still adopting a similar narrative and treating nature as the enemy, as the opponent over which we should win a battle.

Nevertheless, the elder animistic thinking about the natural world has not completely gone. When Beijing was occupied by Japanese in the 1930s, the Japanese did not believe in the story related to Liu Bowen and the Dragon King, so they forced local residents to drag the chain, which was said to be the chain to bind the dragon. Unexpectedly, the chain looked endless. A lot of people helped to drag it and there was no end. The chain ended up scrawled over on the street, like the body of a dragon. At one point, there were some strange noises coming from the well, accompanied with pouring black water. Everyone was scared by the strange scene. So the Japanese just let people to put the chain back into the well and never touched it again.

During the Cultural Revolution, in order to respond to Chairman Mao’s request Bit down Cow Ghost Snake God (*niugui sheshen*), the Red Guard (*hongwen bing*) tried again to pull the chain. It ended up the same as last time. Ever since then, no one dared to touch it any more<sup>103</sup>. The well, along with the dragon, was just left underground and unmoved.

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<sup>101</sup> Judith Shapiro, *Mao’s War Against Nature: Politics and Environment in Revolutionary China* (Cambridge; New York: Cambridge University Press, 2001), 2.

<sup>102</sup> Shapiro, *Mao’s War*, 3.

<sup>103</sup> A lot of Beijing residents claim online that they have heard about the story from their grandparents or parents when they were young. And some say that some of their relatives have once participated in the activity to drag the chain during these two periods. For full discussions about this, please go to Baidu BBS online version <http://tieba.baidu.com/p/1513227262>. There is another version in Tianya, an online community popular in China <http://bbs.tianya.cn/post-16-564756-1.shtml>.



In 2005, when the well was discovered near Beixinqiao subway station, the old legend came back. People believed that this well was the one where the Dragon King was trapped. No one was for sure that whether the story was true or not. Also, there was no official conclusion about whether this well was related to the story. What we know is that afterwards Line Five changed its routes in order to protect old cultural relics both aboveground and underground<sup>104</sup>.

It still haunts, when an aged well was discovered at the subway construction site, when Line Five has changed its routes after that. To borrow from Freud,

It seems as if each one of us has been through a phase of individual development corresponding to this animistic stage in primitive men, that none of us has passed through it without preserving certain residues and traces of it which are still capable of manifesting themselves, and that everything which now strikes us as ‘uncanny’ fulfills the condition of touching those residues of animistic mental activity within us and bringing them to expression<sup>105</sup>.

One thousand years ago, although the rulers took control of the dragon, it was not permanent control. Similarly today, it is still not. The recursive urban legend related to the well in Beixinqiao thus adds to the uncanniness of this subway station. Furthermore, it reveals the constant tension between nature and human’s attempt to transform nature in an urban context. Although the shift during and after Cultural Revolution renders a rationalized nature that is more aligned with a passive object waiting to be transformed rather than an animated existence, the tension remains.

This chapter concerns the ghostliness of underground spaces. Focusing on some widely circulated ghost stories and legends, this chapter brings to light the uncanniness of underground spaces caused by once repressed collective memories and traumatic experiences when the PRC

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<sup>104</sup> The news about changing routes can be found in an article by Hu Qifeng, Peng Li, named The Cultural Relics remain untouched by adopting shielding tunneling techniques, which is published on *Guangming Daily* in 23rd March, 2005.

<sup>105</sup> Freud, *Writings*, 217.

was first founded. In the following chapter, we will travel from the past to the present, and delve into how underground spaces are related to everyday experiences in a bustling metropolis.

### Chapter Three: The Present: The Strangers in the Metro

In 2013, the passenger capacity of Beijing subways hit ten million per day. Having the biggest passenger capacity per day, Beijing subway system thus has become the busiest underground transportations system in the world<sup>106</sup>. Being a subway system which has a history of no more than sixty years, the rate of development is astounding. Today, the crowdedness of Beijing's subway even has come to be one of the most distinguishable characteristics of Beijing, together with its infamous air pollutions and fogs.

In a famous online community called Douban Community, there is a popular article entitled *The Guide for Riding Beijing Subway during Morning Rush Hours*, in which the author adopts a mocking but helpless tone to teach people how to deal with the rushing crowd in the subway during rush hours. Altogether, there are four parts: preparations, techniques, teamwork and friendship. The message conveyed in this article is that to get into the subway during rush hours is similar to fight a battle. If one want to win, then one not only has to be well-prepared before the train comes, but also has to have some practical techniques (such as to believe in the principle: if your feet are on the train, then you have already succeeded. The only thing you need to do then is try to get your body on, with the belief that the space is like the water within a sponge. The harder you squeeze it, the more water you get.) Furthermore, remember that you are not alone in this battle, so that is why to choose a good teammate becomes crucial for the final victory. The author lists some dos and don'ts when choosing who you would follow in the line. According to the author, when you make a good choice, you don't even need to walk yourself, you will be sent into the train by other people easily. Finally, the author encourages people to make friends with the pushers, whose main job is to push people into the carriage during rush

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<sup>106</sup> This piece of news comes from the Observer (*Guancha zhe*), for more details, please refer to [http://www.guancha.cn/Project/2013\\_03\\_14\\_131915.shtml](http://www.guancha.cn/Project/2013_03_14_131915.shtml).

hours so that the door can be closed and the train can move. “Be nice to the pushers, who are always old local Beijing men (*lao daye*). They can help you when you are stuck in the crowd and facing the potential danger of not being able to get on board”<sup>107</sup>.

Despite its mocking tone and humor, it is but a true reflection of the Beijing subway. Imagine ten million people moving underground in Beijing, and you are only one of them. The development of the subway in Beijing goes hand in hand with the development of the city itself. In last chapter, we deal with the questions related to the past, and how the past comes to haunt the present. In this chapter, we will switch to the present, and see how subway enables us to consider Beijing’s present as a fast-faced metropolis enabled by some structural transitions of the nation as a whole and the consequences of that transition. In the first part of this chapter, I would like to focus on everyday experiences of passengers in the subway in general, so as to offer a panoramic underground picture in Beijing. Drawing on Simmel, Benjamin as well as Edgar Allan Poe, I intend to sketch out the mental life of the metropolis mediated by the subway. Here, the passengers serve as an urban type, who are lost in the crowd and only feel at home when they are in the crowd. In the second part, I would zoom in and focus on the hominess and homelessness germinated in underground spaces. I try to diverge from the subway for a while and look into another form of underground spaces---the vacant air-raid shelters. Starting from Benjamin’s famous flaneur, I would like to bring to light a new category of urban dwellers who are enabled by the transformed air-raid shelters. I would argue that similar to the flaneur, such a group of people is also brought to life by a new urban spatial form. Furthermore, they find themselves marginalized and unfit in the metropolis because of social, political as well as economic transitions.

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<sup>107</sup> For the detailed information about this guide, please go to <https://www.douban.com/note/136747138/>.

In a recently released video named “Beijing Subway Theater”, photographer Zhang Xinghai has transformed Beijing subway into a stage on which people coming from all different social background and social classes play a role. The video lasts for four minutes, and is constituted by fifty-eight shots focusing on underground physiognomies, which were taken during the last ten years. However, it is not only about images, but also about sounds. Zhang has recorded various sounds and noises in the subway, including the jarring and sharp voice of the female broadcaster claiming the train is coming, the kitsch pop songs sung by wandering singers with hoarse voices, the disquieting quarrelling sounds of two local Beijing women, the hysterical woman’s shouting to defend her own territory on the train and warn others “do not push me”, as well as the police’s shouting towards the thieves “Stop and stay here!” followed by rumbling footsteps and deep gasps. The image and the sound incorporate well. The introduction of background sounds brings the audiences back to the underground environment quickly, adding liveliness to the still portraitures. There are panoramic shots, which serve to set the stage of the underground theater.



Fig. 8 2012.11.12 The Entrance of the Beijing Station. People are lining up for the security check at the entrance.



Fig. 9 2012.11.15 Sihui Station, the transforming station of Batong Line and Line One, it is infamous for its morning rush hours.

On this stage, people's faces fill the whole picture. They are rushing, pushing, waiting, panicking. The middle-aged man standing in the front constitutes a large proportion of the image. His face is distorted. And also, he is out of focus. As a matter of fact, it is hard to tell where the focal point is. The whole picture is out of focus. It conveys a sense of vagueness. Vague faces, vague facial expressions. No one is in focus. People are just passersby in the subway.

Another picture that catches my attention is one that captures two men standing in front of the closed door of one train (Fig.10). Two doors divide the picture into two geometrically symmetry parts. The coincidence that two men standing in front of each door makes the image a combination of two portraits. The one on the left is a straight portrait, while the one on the right is a quarter profile. They both look unfriendly, conveying a sense of questioning and being offended by the camera.



Fig. 10 Two men in the metro

The demarcation of the picture and the portraiture style make it a typification of the crowd, with each person serves as an urban type, a specimen in the underground spaces. In an earlier article written by the photographer, “the Adventure in the Beijing Subway”, he says,

Besides crowdedness, Beijing subway is a very interesting space, a stage on which the people from the middle and lower social classes play a significant role. It is filled with all kinds of beggars, wandering singers, travellers, immigrant workers, thieves, security guards, policemen, students, drunkards, barbers, chefs, punks, company men, sick men, heartbroken women, flirts, scavenger, homeless old men, couples, dwarfs. Sometimes there are also overaccessorized ladies, as well as tall and slim models. They are all in such a hurry. They fleet on this stage, and disappear into the crowd as soon as possible<sup>108</sup>.

In Wordsworth’s *the Prelude, Book Seventh, Residence in London*, he describes the kaleidoscopic spectacles of London as:

Above the press and danger of the crowd,  
 Upon some showman's platform. What a shock  
 For eyes and ears! what anarchy and din,  
 Barbarian and infernal,--a phantasma,  
 Monstrous in colour, motion, shape, sight, sound!  
 Below, the open space, through every nook

<sup>108</sup> For more details, please refer to the Adventure in the Beijing Subway, 2012, Zhang Xinghai. <http://bbs.tianya.cn/post-39-1139915-1.shtml>

Of the wide area, twinkles, is alive 690  
 With heads; the midway region, and above,  
 Is thronged with staring pictures and huge scrolls,  
 Dumb proclamations of the Prodigies;  
 With chattering monkeys dangling from their poles,  
 And children whirling in their roundabouts;  
 With those that stretch the neck and strain the eyes,  
 And crack the voice in rivalry, the crowd  
 Inviting; with buffoons against buffoons  
 Grimacing, writhing, screaming,--him who grinds  
 The hurdy-gurdy, at the fiddle weaves, 700  
 Rattles the salt-box, thumps the kettle-drum,  
 And him who at the trumpet puffs his cheeks,  
 The silver-collared Negro with his timbrel,  
 Equestrians, tumblers, women, girls, and boys,  
 Blue-breeched, pink-vested, with high-towering plumes.--  
 All moveables of wonder, from all parts,  
 Are here--Albinos, painted Indians, Dwarfs,  
 The Horse of knowledge, and the learned Pig,  
 The Stone-eater, the man that swallows fire,  
 Giants, Ventriloquists, the Invisible Girl, 710  
 The Bust that speaks and moves its goggling eyes,  
 The Wax-work, Clock-work, all the marvellous craft  
 Of modern Merlins, Wild Beasts, Puppet-shows,  
 All out-o'-the-way, far-fetched, perverted things,  
 All freaks of nature, all Promethean thoughts  
 Of man, his dulness, madness, and their feats  
 All jumbled up together, to compose  
 A Parliament of Monsters. Tents and Booths  
 Meanwhile, as if the whole were one vast mill,  
 Are vomiting, receiving on all sides, 720  
 Men, Women, three-years' Children, Babes in arms<sup>109</sup>.

London for Wordsworth, is a city full of all kinds of sounds and images, types and specimens. It is a city full of phantasmagoria. Similarly, Beijing subway for Zhang Xinghai, is a space as such, too. It is a lens through which to show the spectacle of a metropolis, which is filled with all kinds of different people. They are all men of the crowd. Just like in Edgar Allan Poe's "Man of the Crowd", when the narrator followed an old man for two nights and finally gazed his face, he said, "This old man is the type and the genius of deep crime. He refuses to be

<sup>109</sup> William Wordsworth, *The Complete Poetical Works* (New York: Bartleby.com, 1999).



alone. He is the man of the crowd. It will be in vain to follow; for I shall learn no more of him, nor of his deeds”<sup>110</sup>.

However, the underground space in Beijing not only serves as a stage to display all kinds of human specimens, it is also a place where the dialectics of individuality and collectivity, strangeness and familiarity plays out.

Just recall your daily experience taking a subway. You buy a ticket (or a card), show your ticket or swipe your card, enter into the station, wait for the train to come on the platform, get on board, get stupefied, or stare at your cellphone screen. You are so special, since you have your own destination, you have your own underground routes, you are thinking about your own stuff. At the same time, you are just one of them, who rush into the station, stretch their necks to look at the train, eagerly step across the yellow line on the platform in order to get a good position when the door opens.

As French anthropologist Marc Auge argues,

That nothing is so individual, so irremediably subjective, as a single trip in the subway, yet nothing is so social as one such trip, not only because it unfolds in an overcoded space-time, but also and especially because the subjectivity being expressed during the passage and that defines it on each occasion is an integral part, as are all the others, of its definition as a total social fact<sup>111</sup>.

Following Mauss and his concept of social fact, Auge here considers riding the metro, the newly popular and unique urban scene which transforms almost everybody’s living experiences in the metropolis, as both an individual and collective behavior, as “collectivity without festival and solitude without isolation”<sup>112</sup>.

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<sup>110</sup> Edgar Allan Poe, *Collected Works of Edgar Allan Poe: Tales and Sketches 1831-1842*, ed. Thomas Ollive Mabbott (Cambridge, Massachusetts; London, England: The Belnap Press of Harvard University Press, 1978), 515.

<sup>111</sup> Marc Auge, *In the Metro* (Minneapolis: the University of Minnesota Press, 2002), 35-36.

<sup>112</sup> Auge, *In the Metro*, 30.

Georg Simmel, one of the most renowned sociologists, once remarked on the transformations public transportation brought to urban lives,

Generally speaking, what we see of a *person* is interpreted by what we *hear* of him, the reverse being a much rarer case. Therefore one who sees without hearing is far more confused, undecided, upset than one who hears without seeing. This must have an important bearing on the sociology of the big city. Compared to the traffic in the small town, the traffic in the city creates an infinitely greater proportion of cases of seeing rather than hearing others; this is so not only because a great proportion of encounters on a small-town street involve either acquaintances with whom we exchange a few words or those whose appearance allows us to reproduce their entire personality, not only the visible part, but, above all, because of the fact of public transportation in the big city. *Before the development of buses, trains and streetcars in the nineteenth century, people were quite unable to look at each other for minutes or hours at a time, or to be forced to do so, without talking to each other.* Modern traffic increasingly reduces the majority of sensory relations between human beings to mere sight, and this must create entirely new premises for their general sociological feelings<sup>113</sup>.

Although here I would like to emphasize that for modern traffic, especially subways, it is not always right that sense relations between human are reduced only to sight, yet Simmel was right, and is still right, that the birth of public transportations changed and kept changing people's social relations in public spaces. In a Beijing subway, people are forced to look at each other because of limited spaces. It is through such eye contacts or the shield of eye contacts that a dialectics of nearness and remoteness plays out among strangers.

The unity of nearness and remoteness involved in every human relation is organized, in the phenomenon of the stranger, in a way which may be most briefly formulated by saying that in the relationship to him, distance means that he, who is close by, is far, and strangeness means that he, who also is far, is actually near<sup>114</sup>.

The unity of near and far is enabled by the scant physical spaces of the underground public transportation and the large number of passengers living in a metropolis. However, it is not merely a story combining nearness and remoteness. It is also a story unifying strangeness and

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<sup>113</sup> This passage comes from Georg Simmel, *Soziologie*, and this translated version comes from Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19 Century* (Berkeley and Los Angeles: The University of California Press, 1986), 75.

<sup>114</sup> Georg Simmel "The Stranger." in *The Sociology of Georg Simmel* edited by Kurt H. Wolff (New York: Free Press, 1950), 402.

familiarity. While we are in the subway, on the one hand, we may feel that the strangers are close to us, for that “we feel between him and ourselves common features of a national, social, occupational, or generally human, nature”<sup>115</sup>.

Last summer I lived in Beijing for two months. Riding the subway constituted a large proportion of my daily life (because Beijing is such a big city, the commuting time in Beijing is at least one hour. People always make fun of Beijing’s crazy long commuting time by telling a joke that it takes less time to travel from Tianjin to Beijing than within Beijing). Every night I had to take the subway and go back to my living place, which was located in the suburban area in Beijing. I was tired when I got on the train, in despair too, by the long and boring commuting time. However, whenever I got into the carriage, I saw it full of people like me, who just finished one day’s work, with exhaustion written on their faces, and headed home. At those moments, I felt like that all the passengers, all the strangers who did not know each other before, suddenly formed a community. Sometimes an eye contact, a bitter smile, we could understand each other. However, that sense of familiarity was just like a sparkle, it died out quickly as I came to the realization that everyone in this carriage is far from me, because such features we share in common are not limited only to our relations, they “connect us only because they connect a great many people”<sup>116</sup>.

After shedding lights on a panoramic view of the mental life in the underground spaces in a metropolis, I will now turn to the concept of home in underground spaces in Beijing, and see how subways as well as other forms of underground spaces germinated and driven by modernity have given birth to new categories of urban dwellers who abandon their own homes and take the seemingly most un-homey places to be their homes.

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<sup>115</sup> Simmel, *The Stranger*, 406.

<sup>116</sup> *Ibid.*

At the beginning of the film *Spring Subway* by director Yibai Zhang in 2001, the audiences follow the camera, standing inside the first carriage, looking into the darkness and void. The train keeps going, left everything behind. It enters the station, it stops, loads passengers, it starts again, it goes into the darkness. Then follows some shots capturing the passengers. Those who are inside the carriage, out of focus. Heads, unidentified heads everywhere. Those who are moving fast on the platform, this time feet, numerous feet. Then comes to sight a young man's face. He has confused eyes and prominent cheekbones, He sits in the subway. You can read nothing out of his eyes. Suddenly he started talking, "Three months ago I lost my job. Since then everyday I come here and take the subway one time after another. It saves money. I enjoy such kind of feeling---happy-go-lucky, without disturbance, only freedom, and their companion". The camera then focuses on several strangers in the carriage, which will later become the heroes and heroines of this film. Then the man continues, "I am not brave enough to tell Xiaohui the truth. Even I myself don't understand what exactly I am afraid of".

This is Jianbin, who came to Beijing to make a living seven years ago with his girlfriend Xiaohui. He recently lost his job, but he was afraid to tell Xiaohui since he did not want Xiaohui to look down upon him. As a result, he takes the subway together with Xiaohui as usual, and sees Xiaohui off and gets to work. He would then stay inside the subway for a whole day, pretending he is at work. In a sense, the subway becomes his home. Everyday, he would take the same cycle line and spend most of his time in the subway. He is afraid to go home, the home of him and Xiaohui. In this sense, his home, the coziest and warmest place where he shares intimacy with his lover, becomes the strangest place for him. In contrast, he feels at home when he is in the subway, shrouded by strangers who do not know his past, as well as his embarrassing present. He feels quite safe to be hidden in the crowd. The constant movement of the train, as well as the

changing people around him, all of which are strangers, echoes a lot with his psychic states: uprooted, solitary and unsafe. He felt dislocated in the city. He can only make meaning out of his life through constant moving, by focusing on here and now, on the present. No past, no future.

In this way, Jianbin is a flâneur, who feels at home in the subway. However, the flâneur in Paris the nineteenth century by no means equals a man who has lost his job and wanders around in the subway in China at the beginning of the twenty-first century, due to different social, political and historical contexts. For Benjamin, the flâneur emerged at a certain historical turning point of Paris. He was the last noble man. He was a residue of the past. On the one hand, he did not want to be integrated into the newly emerging bourgeois category; on the other hand, he found that he could never go back. As a result, he was displaced, he could only stroll the streets. As Benjamin says, “the street becomes a dwelling for the flâneur; he is as much at home among the facades of houses as a citizen is in his four walls”<sup>117</sup>. According to Richard Pope, Walter Benjamin’s writing on the flâneur is an elegy for them, who are “the last vestiges of the aristocracy fighting back against bourgeois democrats, eventually subsumed into the relentless force of the market”<sup>118</sup>.

If for Benjamin, the flâneur and arcade serve as allegories through which we could discuss historicity and modernity, then in China the allegories should be wanderers such as Jianbin on the subway. By delving into wanderers in the subway, as well as other forms of underground spaces, we are thus looking into an ongoing transition in contemporary China, which has given birth to such kind of dislocated people, whatever they be called migrant workers or Rat Tribes.

One crucial precondition for the flâneur to stroll around in the city is the appearance of arcade---the precursor of department store, as well as the gas light, both of which were enabled

<sup>117</sup> Walter Benjamin, *Charles Baudelaire: A Lyric Poet in the Era of High Capitalism* (London: Verso, 1973), 37.

<sup>118</sup> Richard Pope, “The Jouissance of the Flâneur: Rewriting Baudelaire and Modernity,” *Space and Culture* 13 (2010): 6.

by modern technology and industrialization. The combination of such two inventions together gave birth to some special passageways, which “are lighted from above, are lined with the most elegant shops, so that such an arcade is a city, even a world, in miniature”<sup>119</sup>. It is within such spaces that the flâneur feels at home. It is hard to imagine people spending a large amount of time strolling on the street before Haussmannian Paris, a time when the city was dark, filthy, and full of danger. In other words, a new category called the flâneur is largely enabled by new urban spaces.

Similarly, in China there is a group of people who have come into being enabled by new urban spaces, especially underground spaces. They are labeled as the Rat Tribe. According to the mass media, “rat tribe” is a neologism referring to people living in underground air raid shelters. “These places do not receive any sunlight and are hot, humid and fetid. Nobody pays attention to these second-class citizens who share a room with rats”<sup>120</sup>. So who constitutes the Rat Tribe? Who chooses to live in vacant air-raid shelters in Beijing?

According to the data provided by the Beijing Municipal Bureau of Statistics, in 2011, the number of permanent residents in Beijing is more than two billion, among which the migrant population is about seventy four million. It is reported that there are approximately one million people living underground, among which 95.3 percent do not have permanent residence register in Beijing (Beijing *hukou*). That is to say, underground population in Beijing constitutes approximately 4.95 percent of all the permanent residents in Beijing and 13.47 percent of the migrant population. According to another survey focusing on underground dwellers in Beijing,

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<sup>119</sup> Benjamin, *Charles Baudelaire*, 37.

<sup>120</sup> Dan Yan, ““Rat Tribe” Lives in Shadows of China’s Cities,” July 24, 2014, accessed December 6, 2015, from <http://www.theepochtimes.com/n3/812893-rat-tribe-lives-in-shadows-of-chinas-cities/>

70.8 percent belong to the agricultural household register<sup>121</sup>. As for the education, only 19.8 percent of the population has received college degree.

The underground spaces the Rat Tribes dwell in used to be air-raid shelters, which were built during 1969-1979, when the Cold War was going on and the relation between Soviet Union and China deteriorated. In 1980s, the shelters became vacant. In the 1990s, the Beijing government came up with the policy of using the shelters as a way to administrate them (*yi yong cuguan, yidong yangdong*). As a result, the government encouraged the development of air raid shelters by renting them to whoever wanted to use them. Inspired by the large demands of cheap living places for migrant workers in Beijing, some tenants started to turn the air raid shelters into underground guesthouses<sup>122</sup>.

In 2002, In *the Regulation of the Air Raid Shelters in Beijing*, Article Fifteen claims that the government encourages and supports enterprises, institutions, social communities as well as individuals to invest in the construction and development of the air raid shelters project. In this way, air raid shelters will be managed and used by the investors, and all the profits belong to the investors. Following this regulation, the vacant underground spaces were thus appropriate for various usages, such as underground shopping malls, guesthouses as well as storehouses.

In 2004, there was a peak of renting air raid shelters to migrant city dwellers and the underground dwellers increased year by year. In 2010, the department of housing construction in Beijing issued *the Regulation of Renting Commercial Residential Buildings*, in which using air raid shelters as residential spaces is strictly banned. Since then, the government started to drive the dwellers out of the air raid shelters. However, since there are a lot of grey areas underground,

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<sup>121</sup> Before 2014, there is a distinction between agricultural and non-agricultural household registers, which contributes to the rural-urban dichotomy in Chinese society.

<sup>122</sup> Please refer to Gideon S. Golany, *Urban Underground Space Design in China: Vernacular and Modern Practice* (London: Associated University Presses, 1989).

nowadays there are still approximately one million people living underground in Beijing nowadays.

According to Zhang<sup>123</sup>, up to 2013, altogether the underground spaces in Beijing occupy 6704.96 square meters. The normal basements constitute 4435.26 square meters, while the air raid shelters constitute 2269.7 square meters<sup>124</sup> (see fig. 11). In general, the normal basements are used for storage while the air raid shelters will be altered for accommodation.

Fig. 11 also shows that the usage rate of air raid shelters is slightly more than 50 percent.

表 1.1 北京市属地下空间基本情况

	地下空间		普通地下室		人防工程	
	数量	面积 (万平方米)	数量	面积 (万平方米)	数量	面积 (万平方米)
共计	34483	6704.96	22266	4435.26	12217	2269.7
在用	24028	5185.16	18731	3947.06	5297	1238.1
使用率	69.68%	77.33%	84.12%	88.99%	43.36%	54.55%

Fig.11 An overview of Beijing underground spaces

表 2.1 北京市在用人防工程公益化利用现状

	数量	面积(万平方米)	所占比例(%)
住人工程	2623	232.33	49.52%
汽车库	1566	345.32	29.56%
仓储	569	58.8	10.74%
办公场所	199	55.42	3.76%
宣教场所	57	8.47	1.03%
其他用途	54	8.24	1.02%
社区活动场所	43	4.92	0.31%
餐饮场所	37	4.52	0.70%
娱乐活动场所	35	3.3	0.66%
应急物资库	31	3.08	0.59%
商市场	28	6.83	0.53%
健身活动场所	23	3.75	0.43%

Fig.12 An overview of the usage of air raid shelters in Beijing

As is shown in Fig. 12, the total area used for accommodation is 232.33 square meters, constitutes 49.52 percent of all the air raid shelters in Beijing.

<sup>123</sup> Lin Zhang, *Beijing Shi Ren Fang Gong Cheng Gong Yi Hua Li Yong An Quan Wen Ti Yan Jiu* (Capital University of Economics and Business, Beijing, 2014), 1.

<sup>124</sup> In Beijing, the first floor underground is normal basement, while the second floor underground is air raid shelter.



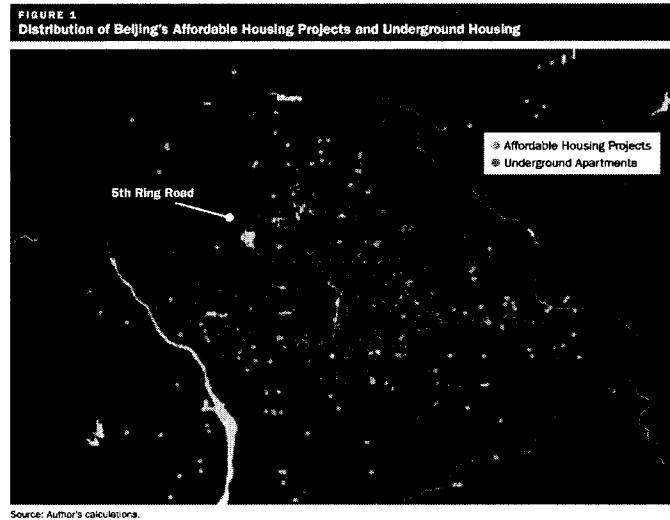


Fig 13. Distribution of Beijing's underground housing.

It is reported that a lot of air raid shelters were renewed by private contractors so as to accommodate more people and maximize the profits. As an example, figure 14 shows an outline of a floor plan (not to scale) of an underground residence in East Beijing (*Dongcheng qu*). The irregular underground space has been cut into more than fifty cellars. Also, there is only one shared toilet for all the residence, the number of which could reach two hundred at its peak.

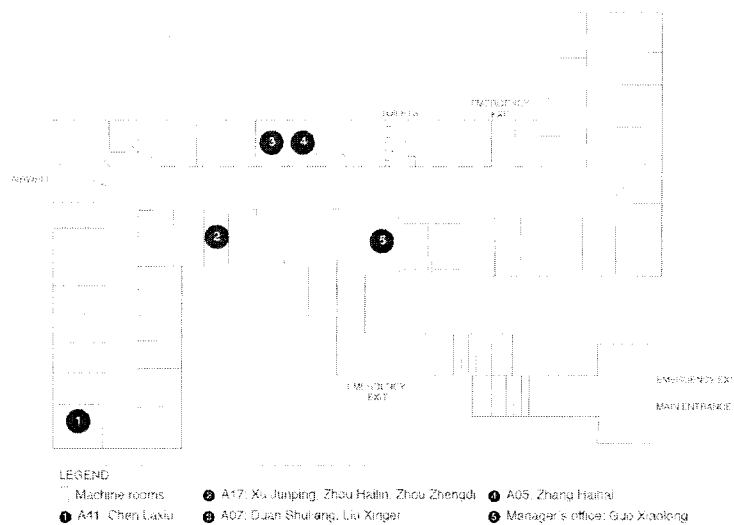


Fig. 14 An outline of a floor plan, not to scale, of an underground residence in East Beijing<sup>125</sup>.

<sup>125</sup> This map is drawn from <http://projects.aljazeera.com/2015/01/underground-beijing/>.

To dwell in such marginalized spaces in the city, this group of people is dislocated. It is a structural displacement, caused by the urbanization process of China and its efforts to transform from an agricultural-based country into an industrial-based country.

Ever since the Reform and Opening in 1979, the spatial mobility in China has accelerated, with an almost one-dimensional flow from rural to urban China. Peasants constitute the main group of this domestic migration. Right after the founding of the People's Republic of China (1949), Chairman Mao Zedong initiated a three-decade revolutionary communism plan, prioritizing heavy industry over agriculture. As a result, "agricultural production is collectivized under the system of people's communes, and five hundred million peasants are mobilized to produce the surpluses needed for investment in the new state-owned industries"<sup>126</sup>. After Mao's death in 1976, Deng Xiaoping took over and launched the Reform and Opening, starting with the de-collectivization of agriculture. Since then, peasants have taken their own risks and earned their own money. On the one hand, the commoditization of lands in China has driven the local government to ask for peasants' land. On the other hand, the rapid development and urbanization in main cities are in need of more low-end labor powers. It is under such situation that peasants started to leave their lands, rushing to big cities in hoping for better living conditions and working chances. A socialist subject has thus given place to a neo-liberalist one, who fights and strives for his or her own success and future<sup>127</sup>.

However, seemingly open cities are full of structural and social barriers, which are invisible and disguised under the narrative of the Chinese neoliberalizing dream. As a technique of governing the population, the household registration system (*hukou zhidu*) starting from 1958 has divided Chinese citizens into two categories---the agricultural and the non-agricultural.

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<sup>126</sup> John Friedmann, *China's Urban Transition* (Minneapolis: University of Minnesota Press, 2005), xiii.

Along with this delineation is an invisible wall in cities which prevent peasants taking roots by depriving their rights to buy houses, to enjoy the welfare system and so on<sup>128</sup>. In this way, although people in rural China are encouraged to leave their lands, they are never ensured to have a secure place in cities, both physically and socially. They are in a real dilemma. They are, indeed, strangers in the city<sup>129</sup>. As a result, there is “the spread of a multitude of practices of self-interest and self-animation associated with neoliberal logic”<sup>130</sup>. In the meanwhile, the de-collectivization and privatization are actually “socialist from afar”, since state continues to take control and regulate self-interest from a distance<sup>131</sup>.

Similar to Jianbin, Rat Tribe people only live in the present, in here and now, both from a micro-level perspective and a macro-level one.

### **Temporary resting places (*zanzhu di*): the loss of time underground**

In an article named *How does it feels living in the basement?* the author Suiyi tells his own experience living in a basement near Dongzhi Men in Beijing<sup>132</sup>. In this interesting self-narration, he plays much emphasis on the crucial role of tube light as well as the deprivation of natural light, both of which lead to a loss of time in the basement.

Another problem of living underground is, one loses his sense of time. At night when I shut the door and the light, the whole room is completely merged into darkness. The lapse of time seems disappeared in such darkness. However, it is only through the lapse of time that human being acquire sensory knowledge. As a result, the darkness in the basement

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<sup>127</sup> Li Zhang and Aihwa Ong, “Introduction: Privatizing China: Powers of the Self, Socialism from Afar,” In *Privatizing China: Socialism from Afar*, ed. Li Zhang and Aihwa Ong (Ithaca: Cornell University Press, 2008), 1-21.

<sup>128</sup> The following authors have discussed a lot about the invisible walls during urbanization in China. Kam Wing Chan, *Cities with Invisible Walls: Reinterpreting Urbanization in Post-1949 China* (New York: Oxford University Press, 1994). John Friedmann, *China's Urban Transition* (Minneapolis: University of Minnesota Press, 2005). Dorothy J. Solinger, *Contesting Citizenship in Urban China: Peasant Migrants, the State, and the Logic of the Market* (Berkeley: University of California Press, 1999).

<sup>129</sup> Please refer to Li Zhang, *Strangers in the City: Reconfigurations of Space, Power, and Social Networks within China's floating population*. (Stanford, California: Stanford University Press, 2001).

<sup>130</sup> Zhang and Ong, *Privatizing China*, 2.

<sup>131</sup> Zhang and Ong, *Privatizing China*, 3.

<sup>132</sup> According to the author, he is now conducting a living experiment, which contains three stages. First, be a couch surfer for one month and search for ten different couches. Second, moving in to a basement in Beijing and living there for one month. Third, finish the first draft of *A guide book of sleeping out on the street in Beijing*. Now he is going through the second stage, and he wrote a report called *How does it feels living in the basement*; in which he describes in detail his underground living experiments.

thus erases the sense of time. It is common that when I wake up I have no idea how long I have slept, since I cannot judge according to the change of natural light. The only thing I can do is to make a rational judgment according to the numbers shown on the screen of my cellphone. In order to regain my sense of time in underground spaces, as well as to bring back the sense of connection with the outer spaces, I decided to hang curtains on a concaved wall inside my room. Furthermore, I would like to put a timed light behind the curtains. For example, at seven o'clock in the morning, the light will turn on automatically. In this way, I can simulate a window inside my room. This faked window thus can erase the depression brought about by the space. Meanwhile, the artificial light can fabricate the lapse of time<sup>133</sup>.

Likewise, users in Zhihu also highlight the light condition underground.

The light is not good underground. Light can never compensate for the loss of sunlight, no matter from what perspective---the temperature or the psychological one. Since there is no natural light, the room remains dark when the light is off. So I can never really be awake without the light<sup>134</sup>.

In the basement, the light is on twenty-four hours. One never knows when it is daytime and when it is nighttime. I was caught in a black out twice. It was all dark, a pitch-blackness<sup>135</sup>.

In chapter Nine *Time in experimental space*, Tuan argues how space and time are interrelated in everyday life. For Tuan, the sense of time such as past, present and future is closed tied up with space. In this way, a clearly articulated space contributes to “a sense of clearly articulated time”<sup>136</sup>. Furthermore, “space also has a temporal meaning at the level of day-to-day personal experiences”<sup>137</sup>. In spaces underground, where sunlight is absent, people thus lose their biological sense of time. As a result, whenever they enter the underground spaces, moving from aboveground to underground, they will face a crisis of time. Dwelling underground, people are exposed to a vacuum of time, a termination of time. Interestingly, the lost time underground echoes with another temporality of most underground dwellers, which will be discussed in detail later.

<sup>133</sup> This article is originally in Chinese, and is translated by the author.

<sup>134</sup> This answer is provided by an anonymous netizen, for more details please refer to <http://www.zhihu.com/question/27992530/answer/48908070>. The English translation is provided by the author.

<sup>135</sup> This is an answer of user Shangguan wuming, for more details please refer to <http://www.zhihu.com/question/27992530/answer/48908070>. The English translation is provided by the author.

<sup>136</sup> Yifu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 119

From the discussion above, we can see that a clear distinction has been drawn between living experiences underground and that aboveground. The sharp contrast between artificial light versus natural light, between the lost of time versus a sense of time, all serve as markers for a line between two spaces.

As a result, it is hard for them to develop a sense of belonging in such underground spaces. Therefore, people take underground dwellings only as a temporary resting place. It could be anything but home.

I don't know most of them. It is a temporary resting place for me, and I won't live here for a long time. I lived here for half a year and moved out<sup>138</sup>.

People move in and out frequently here (underground). It is quite usual that two days later I can never see the familiar face again<sup>139</sup>.

In this sense, the underground space is a void place, where people come and go frequently, without much communication, and without being rooted.

### **Home---temporary resting place---home**

The physical conditions have triggered people's perception of underground spaces, most of which depict such spaces as depressing and unhomey. Consequently, no one prefers to live underground for a long time. For underground dwellers, such spaces are just temporary resting places, and there is nothing like home. What is home then?

Chen Laxiu, a fifty-year-old female underground dweller, has two homes---one back in her hometown, a remote and small town in Guizhou; one in the near future, position undefined.

Chen Laxiu knows one thing about living in Beijing: It's better than farming. The fifty-year-old comes from the coal-mining town of Liupanshui, in Guizhou province. There, her family had a little over an acre of land but three sons — not enough to support all of them once her children married. A few years ago, her youngest son moved to Beijing,

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<sup>137</sup> Tuan, *Space and Place*, 126.

<sup>138</sup> This is a quote by a designer called Shangguan Wuming. He posted this online. For more details, please refer to <http://www.zhihu.com/question/27992530>. The English translation is provided by the author.

<sup>139</sup> This is a quote by an anonymous user in Zhihu, an online Q&A community like Quora. For more details, please refer to <http://www.zhihu.com/question/27992530>.

and early last year, Chen and her husband followed him and haven't looked back. 'Farming is hard work,' she says while sitting on her tiny bed. 'You work in the fields and then you're still not free, because you have all these other chores to do. Here, I work my hours and then I'm off.' Chen and her husband found jobs cleaning subway stops on the same line — the new Line Six, which runs east-west through the center of town. She keeps the Dongdaqiao stop clean and he works the Hujialou one. Their basement dwelling is a few stops farther east, near the Fourth Ring Road. 'Of course our home back in Guizhou is much better. There's no comparison,' she says, laughing at the thought. 'We have a courtyard and six bedrooms. Here we just have four-square meters. But we don't plan to stay here forever. It's a safe place to sleep at night and watch some television serials off a disk'<sup>140</sup>.

In Chen's story, there is a sharp contrast between home and the underground space. Her home in Guizhou is spacious, with a courtyard and six bedrooms; while in Beijing, the dwelling place is only four-square meters---spaciousness versus narrowness. Although claiming that "there's no comparison", still she left behind her home determinedly, without any regrets. The reason for her determination is that she believes in the near future, she will finally manage to move out of this narrow space. "But we don't plan to stay here forever". Her comments mark the temporary characteristics of the underground space.

Chen is but one case among tens of thousands of the floating population, who left behind their spacious home in exchange of inch of temporary land in Beijing, the signifier of the modern, the advanced and a better future.

In a recent interview, anthropologist Xiang Biao depicted migrant workers in Pearl River Delta in southern China as a suspended group.

They never live within a community, a social field, or even a physical space. They never get embedded. Instead, they keep their lives through constant jumping, like the humming bird, a tiny little bird that can only keep suspending in the air through a high-frequency-vibration of their wings<sup>141</sup>.

Xiang then goes further to elaborate the state of being suspended by saying:

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<sup>140</sup> Ian Johnson, "The Rat Tribe of Beijing." January 24, 2015, accessed on December 5, 2015, from <http://projects.aljazeera.com/2015/01/underground-beijing/>

Suspending has a crucial implication. What is that? Philosophically speaking, people do not give a second thought of their lives, of here and now. Everything happening right now is for a certain goal in the future. You have to work hard. If not, you cannot achieve that goal in the future; nevertheless, what is in the future, whether one can make it or not, there are issues totally unknown to them. Everything they do aim to transcend here and now. DO IT NOW. One works for now, despite that the work itself is not interesting. One only works for a better future. Kids in China are forced to learn to play the piano, as well as to draw, only for extra scores or become famous in the future. All the things going on now are meaningless themselves; they are all means but not ends<sup>142</sup>. However, the ends are not defined. The essence of this is not the pursuit of the future, but a negation of the present. That is what I call suspended: to pull oneself out of the ground, suspending in the air<sup>143</sup>.

Chen's story speaks to the state of suspension quiet well. Leaving her hometown, she and her husband work hard in Beijing, hoping to move out of the underground dwelling someday in the future. Bearing in mind the future, they are able to suffer for here and now. Nevertheless, the future is totally unknown and undefined.

Similarly, in his book *the Otherness of Self: A Genealogy of the Self in Contemporary China*, Chinese anthropologist Liu Xin brings to light the issues of temporality through three different historical stages in China. Based on his readings of both ethnography and fiction, Liu presents his "analysis of time in contemporary China", which in his opinion is not only about the concept of time, but related to the "conditions of possibility of being, as a mode of social existence, which has an irreducible dimension of time"<sup>144</sup>. According to Liu Xin, in the traditional moment of modern China (roughly before 1949), much emphasis is placed on the past, which is considered as a "source of spiritual energy for the present"<sup>145</sup>. "This mode of time lags because the present can and may only be legitimized by making reference to the past; this mode

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<sup>141</sup> Biao Xiang, "Chinese People are like Humming Birds, Vibrating Their Wings so as to Suspend in the Air," *Jiemian*, December 17, 2014, accessed on December 30, 2015 from <http://www.jiemian.com/article/215429.html>

<sup>142</sup> The extra score here is related to the national entrance exam system (*gaokao*) in China, in which children can get extra scores if they have specialties. With the help of extra scores, their ways towards first-tier universities in China would be easier.

<sup>143</sup> Xiang, "Chinese People".

<sup>144</sup> Xin Liu, *The Otherness of Self: A Genealogy of the Self in Contemporary China* (Ann Arbor: The University of Michigan Press, 2002), 138.

<sup>145</sup> Liu, *The Otherness of Self*, 144.

of time nags because the dead curse and bless the life of the living”<sup>146</sup>. In this genealogical continuum, “the weight of the past is heavier than that of the present or the future”<sup>147</sup> since the past---the ancestors---is the source of wellbeing.

While during the Maoist Revolution (roughly 1949-1979), a different mode of time took place. During this period, the value of past was downplayed and denied. Instead, the present was regarded as “an unavoidable step toward the future of a mature socialism”<sup>148</sup>. In this way, “a past exists only as part of the present, which is in turn determined by the future of communism”<sup>149</sup>.

When it comes to time after Revolution (roughly after the Reform and Opening in 1979), Liu Xin claims that “time has lost its depth, and the world has become one of constancy and instantness”<sup>150</sup>. Time in contemporary China has lost trace of “an internal logic of temporal change”<sup>151</sup>. With the past downplayed and the future valorized, the present moment denies “the possibility of change in time”<sup>152</sup>. To this end, people only live in *today*, a word “no longer pregnant with either ‘yesterday’ or ‘tomorrow’ ”<sup>153</sup>. It is the today-ness which “have become nothing else but today itself”<sup>154</sup>, the present-ness.

Back to Chen’s story, we find that she is stuck in the middle of a time chain. Looking back, there is a home left behind, a home that is spacious and warm, but also a home she never wants to return to. Looking forward, there is an imaginary home, a home that does not exist yet, which might probably never come into being in the future, due to the structural barriers discussed before. As a result, Chen only lives in today, for here and now.

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<sup>146</sup> Ibid.

<sup>147</sup> Ibid.

<sup>148</sup> Liu, *The Otherness of Self*, 150.

<sup>149</sup> Ibid.

<sup>150</sup> Liu, *The Otherness of Self*, 161.

<sup>151</sup> Liu, *The Otherness of Self*, 162.

<sup>152</sup> Ibid.

<sup>153</sup> Liu, *The Otherness of Self*, 163.

<sup>154</sup> Ibid.



Chen's story, as a prototype of migrant workers, or rather floating populations in contemporary China, unveils a typical temporal politics in China. With great social and political transformations happening in thirty years, China today has become an experimental field, within which juxtapositions of diverse spaces and times are common scenes. On the one hand, there are still vast rural areas and large number of peasants, who depend for their life on their own lands; on the other hand, there is fast-paced urbanization and globalization, with big cities such as Beijing growing into metropolises quickly. In between, there are suspended people, who leave their homey home---a sign of the past, the backward, and the lag in time, to big cities, which for them stand for a hopeful future. By this means, the suspended group takes the spatial difference as a linear temporal order. Their solution to race against time is to move spatially, only to find out they are held off in the present forever. In this sense, the domestic modernization or even post-modernization in China, shares the same proposition of globalization, which "turns geography into history, space into time"<sup>155</sup>.

In this chapter, we pay attention to the present, the ever-lasting present through the lens of the subway and its crowd. The crowd, the fleeting people, the strangers crammed in one carriage, all become a hallmark of Beijing, a newly emergent modern metropolis in Asia. While the crowd in the subway echoes with the reflection of Simmel, Benjamin and Edgar Allan Poe, all of whom have touched on metropolis experiences in western societies, the Chinese case shows its specificity through the wanderer in the subway, as well as the Rat Tribe living underground in Beijing. Their structural and social displacement in Beijing speaks to fast-paced urbanization in contemporary China. They are stuck in the middle, in the present: no way to go back, and no way to go forward.

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<sup>155</sup> Doreen Massey, *For Space* (California: Sage, 2005), 5.

## Chapter Four: The Future is Now: Speed Obsession and Derailment

1. A typical Monday morning, rush hour, Zhou Xing get on board the subway as usual. The carriage is overloaded with passengers. Zhou cannot move. People around him stink, like polar bears in the zoo. Zhou's workplace is not far from his home. It only takes seven or eight stops to get there. However, today, the train does not stop. It keeps going. It does not take long for passengers to sense the abnormality. They soon find out that there are no stops at all. All they can see through the window is absolute darkness. The panic inside the train grows.

2. Zhou Yuan finally wakes up. He can hear the sound of winds hitting his eardrums. It hurts. The carriage is broken. Noises. He tries hard to recall what has happened. There seemed to be several shocks, maybe crashes, maybe blast. But the train keeps going and does not stop. He looks down to the lower bunk, and sees his parents. They are all dead, viscera exposed in the open air. Zhou cries. He goes down from his bunk and checks his parents' dead bodies. He finds some debris of Dim Sum on his parents' clothes, mixed with blood and vomit. He feels hungry, so he picks up the debris and starts eating them.

Above are opening scenes of two separate science fiction novels. The former one is *The Subway (Di Tie)*, while the latter one is entitled *The High-speed Train (Gao Tie)*. The author of these two is Han Song, a prestigious science fiction writer in China. Han Song is famous for his dark and creepy settings as well as his realistic styles. He once said that his novels always deal with the alienation of human beings driven by technology<sup>156</sup>. The settings of these two novels seem similar, both of which start with an accident. For *The Subway*, it is about one train that never stops. It keeps running and people inside the train mutate into other species and begin eating each other. For *The High-speed Train*, it begins with a crash. The car had a severe

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<sup>156</sup> This can be found in his interview published on the City Magazine. An electronic version can be seen at <http://www.3body.com/thread-119-1-1.html>.

accident but it does not stop. It keeps running and no one can get off. People are trapped in the train.

For Han Song, this parallel comes not without a reason. According to him, the motivation for him to write these two books is deeply embedded in the science-fiction-ness and the in-understandability of the reality in contemporary China.

The huge estrangement; the alienation and mutation experienced by both human and animals, which are brought about by the entanglements between a five-thousand-year agricultural civilization and the fast-paced industrialization and informatization; the gap between China and the rest of the world as well as the necessity for the two to communicate, all that above contribute to the clashes and conflicts. It is like encountering extraterrestrial civilization in a dark tunnel abruptly<sup>157</sup>.

This could partly explain his fondness for clashes, on a metaphorical level. Nevertheless, the literal meaning of a clash cannot be neglected. That is to say, science fiction does come true. On July 23, 2011, two high-speed trains collided on a viaduct in the suburbs of Wenzhou, Zhejiang Province. With the two trains derailed each other, four cars of the latter train fell of the viaduct, causing forty people killed and more than one hundred and ninety injured. This accident becomes the first fatal crash involving high-speed railway cars in China, and the third-deadliest high-speed railway accident in world history<sup>158</sup>.

Only two months after that, on September 27, 2011, there was a rear-end collision on the Shanghai subway. Two trains collided between Yuyuan Station and Laoximen Station in Line Ten, with two hundred and seventy one injured, twenty of them severely injured.

Both of Han Song's books were completed before these accidents, which adds a certain degree of uncanniness to his already eerie enough stories. Looking back, Han's science fictions

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<sup>157</sup> This is a translated version of Han Song in an online panel entitled *The Chinese Science Fiction Coming to the World Stage* among Han Song, Liu Cixin (another renowned science fiction novel writer in China). A Chinese version can be found at [http://blog.sina.cn/dpool/blog/s/blog\\_5aefdc820101fjuv.html](http://blog.sina.cn/dpool/blog/s/blog_5aefdc820101fjuv.html).

<sup>158</sup> For more detailed information of this accident, please refer to Wikipedia Wenzhou Train Collision [https://en.wikipedia.org/wiki/Wenzhou\\_train\\_collision](https://en.wikipedia.org/wiki/Wenzhou_train_collision).

appear as a curse on the railway system in China. At the same time, it is not a curse. It is a precursor, which uncovers the vulnerability of human beings in a technology-dominated context.

Using Han's science fictions as a starting point, this chapter deals with how the possible future intrudes into the present, thus causing danger and panic related to technology. Here I would expand the range of this thesis a little bit so as to include both underground railways and aboveground ones. What is at stake here is the technological progress of the railway system and its resultant dark side. I will start by introducing the obsession with speed of China's railway system and the reason behind that. I would argue that in a neoliberal era, the fantasy of speed is gradually shifting from a mere Enlightenment quantization, which considers number as the canon, to a neoliberal entrepreneurship, which rather emphasizes competition instead of exchange. After that I will focus on a high-speed railway accident, and how such an accident happened through an assemblage, which is constituted by various media and technologies. Finally, I would close this chapter by referring to the technological sublime, the mixed affects brought to life by technologies like high-speed trains.

### **The Speed**

In 1993, the average speed of China's railway was 48km/h. Due to the rapid development of airplane and highway systems in China, which became outstanding because of their fast speed, the railway system gradually lost its market share. Spurred by this disadvantage, the Ministry of Railway initiated the China Railway Speed Up Campaign in 1997. Techniques such as double-tracking, electrification and installation of continuous welded rail have been applied. By 2007, there had been six rounds of speed up campaign in China, and the average speed of commercial train service increased from 48km/h to 70km/h. In addition to the technological improvement of the existing rail tracks, China started to build high-speed rail (HSR) system after 2004. High-

speed rail in China refers only to railway with train service at the speed of 250km/h or higher as internationally recognized or with 250km/h or higher newly built speed lines<sup>159</sup>. In 2016, it is reported that China now has the world's longest HSR network with over 19,000km of track in service, which is more than the rest of the world's high-speed rail tracks combined. It is planned that by 2020, China will have 150,000 kilometers of railway, including 30,000 kilometers for high-speed trains<sup>160</sup>. In 2011, right before the collision in Wenzhou, the highest speed of China's high-speed rail cars has already hit 350km/h. Because of the accident, it was then required that all trains running on the high-speed rails should slow down. Even so, the obsession with speed still haunts the mass media and weaves into the official narratives.

Speed seems to be the only concern, not only for the news reporters, but also for the designers as well. I can recall my first experience of taking a high-speed train. It started operating on December 26, 2009, running between Guangzhou and Wuhan. Along the way, the broadcaster would repeat the same content so many times: the highest speed of this train can reach 350 kilometers per hour. It seems like that without the remainder, passengers would forget they were riding on a train that fast. Furthermore, in the front of each carriage, right beyond the first row of seats, there was a LED screen, on which the real-time speed was displayed all along the way. The numbers changed all the time, red and jarring. The speed indicator here serves both as an index and a symbol, in a Peircean way. Index, because of the numbers are physical manifestations of the speed of the train, which is conveyed through electric signals and finally transformed into well-organized dots displayed on a screen. Symbol, because of the cultural meanings attached to it, because of the involvement of interpretant—the effects of these digital figures. As people who cannot fail to pay attention to such bold figures, passengers have their

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<sup>159</sup> For more detailed information, please go to <http://baike.baidu.com/view/3743.htm>.

own interpretations: maybe pride, maybe fear. One thing for sure is that for the Chinese government and the official media, this speed is definitely something to be proud of.

The obsession with speed is not limited to high-speed railways. It also extends to underground railways. One crucial difference for underground railways is that the main concern is not the speed of the train, but the departure interval between two trains. Most of the underground railway systems are using Communication-Based Train Control signal system (CBTC), which within itself has several different categories. Figure 15 shows the difference between a moving block system (a) and a fixed block system (b). The latter one means the track will be divided into many intervals by signal lights. As a result, only after train 2 enters into block 3 could the signal 1 turn green, so that train 1 would get the permission to go into block 1. However in this way, the time intervals between two trains are too long to afford the passenger capacity of the subway, which is always overloaded because of the rapid increase of passengers. While for the moving block system, there is a set safe distance ( $d_n$ ) between train 1 and train 2, which can be adjusted automatically according to the distance between these two trains. The safe distance ( $d_n$ ) includes the braking distance when the speed of the train decreases to zero, and an extra safe distance SM. An absolute advantage of the moving block system is that it can reduce the time interval between two cars so as to enable more trains running within the same time period<sup>161</sup>.

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<sup>160</sup> This piece of information come from a biz video online, entitled *China to Build 30,000 Kilometers High-speed Railways by 2020*, Accessed April 20, 2016 <http://english.cntv.cn/2016/01/12/VIDExvHxQhfEiwLpNyD5zQ1X160112.shtml>.

<sup>161</sup> The different mechanisms of two signal systems as well as the illustration all come from <https://www.zhihu.com/topic/19650434/top-answers>.

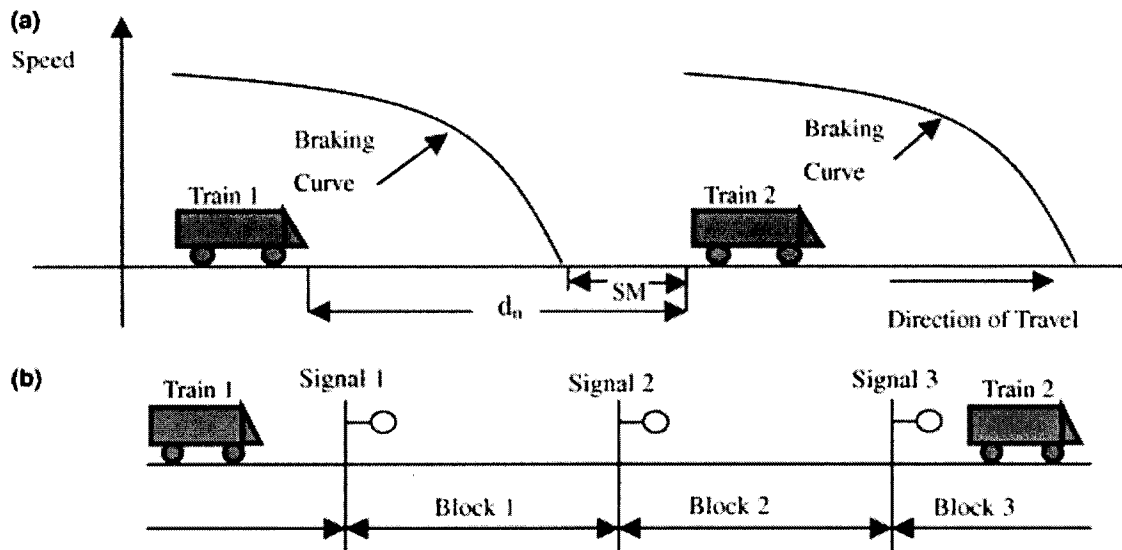


Fig. 15 The Difference between a moving block system and a fixed block system

As we can see, for both the high-speed railway and the underground railway systems, speed is of crucial importance. What underlies the desire to speed up is the obsession with numbers, is the tendency to shift from quality to quantity, is the concern for mere statistics that indicates how fast the train could run, how short the time interval of two trains could be, and how long the railway network can extend to. Everything can be simplified into numbers: the speed of trains shown on the LED screen in a high-speed railway train, the time interval displayed on the screen inside the subway stations. They become the most and foremost issues grabbing people's attention. They become the calibrator of everything. They become the cannon.

At first glance, this symptom is nothing new. In *Dialectic of Enlightenment*, Horkheimer and Adorno flesh out the strong penchant for quantization as a mark of Enlightenment. "For Enlightenment, whatever does not conform to the rule of computation and utility is suspect"<sup>162</sup>. Also, "formal logic was the major school of unified science. It provided the Enlightenment thinkers with the schema of the calculability of the world. The mythologizing equation of Ideas

<sup>162</sup> Horkheimer and Adorno, *Dialectic of Enlightenment*, 6.

with numbers in Plato's last writings expresses the longing of all demythologization: number became the canon of the Enlightenment"<sup>163</sup>. For Horkheimer and Adorno, "to the Enlightenment, that which does not reduce to numbers, and ultimately to the one, becomes illusion"<sup>164</sup>. Such quantization principle can be seen in the case of Chinese railway systems, where quantities always outshine qualities.

In an article entitled *How Great is China's High-speed Railways? They have got Eight World's Number Ones!* published in People's Daily (*Renmin Ribao*), one of the most official newspapers in China, the author summarizes the achievements of China's high-speed railways as following:

The highest speed—486.1 kilometers. This is the speed of jet airplane. On December 3, 2010, the new generation China Railway High-speed (CRH)<sup>165</sup> CRH 380AL hit the speed of 486.1 kilometers, which is the world's fastest speed.

The highest speed in the rail test—605 kilometers. In December 2011, in the national high-speed railway lab, the train hit the speed of 605 kilometers.

The world's single high-speed railway which has the longest operation length—Jingguang High-speed<sup>166</sup>.

Similar narratives can be found in descriptions related to underground railways. In a documentary TV series named China's Mage Projects (*chaoji gongcheng*) made by CNTV<sup>167</sup> in 2012, one episode is dedicated to the underground network in Beijing. The narrator opens this episode by saying, "A project related to underground railway network is being carried on in underground Beijing. It will be one with the largest scale ever in the world history". Then he continues, "To 2020, a three-dimensional subway network with thirty-one lines in total and one hundred kilometers altogether will cover the whole city."<sup>168</sup> In this way, future values always

<sup>163</sup> Horkheimer and Adorno, *Dialectic of Enlightenment*, 7.

<sup>164</sup> Ibid.

<sup>165</sup> This is the name for China-designed multiple units trains.

<sup>166</sup> Renmin Ribao Weixin Gonghao, "How Great is China's High-speed Railways? They have got Eight World's Number Ones!" October 20, 2015, accessed April 20, 2016 [http://news.ifeng.com/a/20151020/45746819\\_0.shtml](http://news.ifeng.com/a/20151020/45746819_0.shtml).

<sup>167</sup> CNTV stands for China Network Television, which is an official national web-based TV broadcaster.

<sup>168</sup> A complete version of this episode can be found at [https://www.youtube.com/watch?v=Djm6G\\_vpC8I](https://www.youtube.com/watch?v=Djm6G_vpC8I).



overweigh the present ones. In these two cases, the numbers become fetishized. They become the new myths.

If there were something different between the Chinese railway cases and the quantification of Enlightenment, I would say it is the obsession with rankings in a neoliberal era. In Foucault's lecture *the Birth of Biopolitics*, he mentions the neo-liberal epistemology is one that puts every domain into an economic grid. It is a return to *homo economicus*, not "a partner of exchange" but "an entrepreneur, an entrepreneur of himself"<sup>169</sup>. Following Foucault, Wendy Brown gives a more elaborate explanation: "Today, *homo economicus* maintains aspects of that entrepreneurialism, but has been significantly reshaped as financialized human capital: its project is to self-invest in ways that enhance its value or to attract investors through constant attention to its actual or figurative credit rating, and to do that across every sphere of its existence"<sup>170</sup>. At the same time, competition has replaced exchange to be the basic form of human capital<sup>171</sup>. "This subtle shift from exchange to competition as the sense of the market means that all market actors are rendered as little capitals (rather than as owners, workers, and consumers) competing with, rather than exchanging with each other"<sup>172</sup>. In this way, the exchange, the equation transforms into a competition, a competition for the highest, for the longest, for the fastest, for whatever can turn into the ranks which are represented by numbers.

Following Wendy Brown's argument to look at the outcome of neoliberalism, and such financialization and entrepreneurization in a state level or a city level, the obsession with ranking related to the railway system in China become understandable. The expansion of railway systems in China on the one hand serves to accommodate the increase of passengers for sure, on the other

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<sup>169</sup> Michel Foucault, *The Birth of Biopolitics: Lectures at the College de France 1978-1979*, trans. Graham Burchell (New York: Palgrave Macmillan, 2008), 225-226.

<sup>170</sup> Wendy Brown, *Undoing the Demos: Neoliberalism's Stealth Revolution* (New York: Zone Books, 2015), 33.

<sup>171</sup> This argument can be found on both page 33 and 36 in Wendy Brown's book, *Undoing the Demos*.

<sup>172</sup> Brown, *Undoing the Demos*, 36.

hand however, it also serves as financialized capitals for China as a fast-paced developing country trying hard to attract foreign investments. The improvement of infrastructures in China increases the potential value of the whole country in the global market. When we move to a city level, the mechanism works in a similar way. Local underground railway systems play a crucial role in attracting investment. Here, the temporality shifts. In a neo-liberal era, everything points to the future. The pursuit of better urban planning, more improved infrastructures, as well as better education and social policies is more increasingly configured as strategic decisions and practices related to enhancing a country or a city's future. The mechanism is obvious when we look at the narrative techniques used in mass media, either newspapers or TV programs. So here rankings are always related to the future. The future matters more than the present.

However, the neoliberal style of entrepreneurship comes not without any risks. Quite the opposite, the hallmark of such entrepreneurship are the high risks beneath its surface--the undercurrents of it. Unlike the barter or exchange system, in which one gets what one want immediately through exchange, entrepreneurship is more align with investment, which is always related to a time lapse, a deferred and uncertain retribution. Risk is embedded in such kind of investment. Foucault elaborates such entrepreneurship by using migration as a perfect example.

Because migration obviously represents a material cost since the individual will be earning while he is moving, but there will also be a psychological cost for the individual establishing himself in his new milieu. There will also be at least a loss of earnings due to the fact that the fact that the period of adaptation will certainly prevent the individual from receiving his previous remunerations, or those he will have when he is settled. All these negative elements show that migration has a cost. What is the function of this cost? It is to obtain an improvement of status, of remuneration, and so on, that is to say, it is an investment. Migration is an investment; the migrant is an investor. He is an entrepreneur of himself who incurs expenses by investing to obtain some kind of improvement<sup>173</sup>.

As is shown, entrepreneurs have to make some sacrifices, materially or psychologically, in order to exchange for some potential benefits in the future. In this sense, the investment always

comes with a cost, as well as risks. In the Chinese railway case, the cost is devastating. It is people's lives. In order to attract foreign investments in a global market, the Chinese government is investing on railway systems in an unprecedented scale, which focuses too much on the quantity at expense of the quality. As a result, it leads to the two accidents I mentioned at the beginning of this chapter. In what follows, I would focus on the cost and risk and turn to one of the collisions—the derailment accident in the suburb of Wenzhou.

### **The Derailment**

On July 23, 2011, 7:50 A.M. train D301 departed from Beijing South Railway Station slowly. The destination was Fuzhou, a city situated at the southeastern coastal area in Fujian Province. Following the train schedule, D301 would arrive at Fuzhou Station at 9: 26 P.M. after thirteen hours and thirty-six minutes' travel.

On the same day, at 4:36 P.M. train D3115 departed from Hangzhou South Railway Station on time. There was a thunderstorm. If everything went well, as expected, the train would arrive at Fuzhou South Railway Station at 9:45 P.M. after eleven stops along the way.

According to the schedule, D301 would arrive at the departure station of D3115 at 4: 46 P.M., ten minutes after D3115 set off. However, on that day, D301 did not arrive until 5:20 P.M.

Although airplanes and normal trains are famous for their high delay rate in China, this is not the case for high-speed railways trains. Punctuality is the hallmark of high-speed railway trains, which have replaced the airplane and thus become a more trustworthy transportation.

At 7: 15 P.M., D3115 got closer to Yongjia Station. The rain grew heavier, along with frequent lightning. At 7: 50, the train drew up at Yongjia Station, three minutes behind the set schedule. There should be only one-minute stoppage time, but on that day the train stopped at Yongjia Station for twenty minutes. Jiang Xiaomei, the conductor of D3115, called the driver

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<sup>173</sup> Foucault, *The Birth of Biopolitics*, 230.

and engineer through interphone to ask about the prolonged stoppage time. She was told there was a large-scale black out because of the thunderstorm. Jiang immediately notified the steward and let her spread the message to passengers through broadcast in the train.

At 8: 12 P.M., D301 stopped at Yongjia Station, right next to D3115. This was a station at which D301 should not stop.

At 8: 15, D3115 received the departing signal and set off from Yongjia Station, but it ran rather slowly. Five minutes later, the broadcast said the train was arriving in Wenzhou South Railway Station.

At 8: 24 P.M., D301 received the signal to leave Yongjia Station.

At 8: 38 P.M., passengers heard the broadcasting saying that the train was approaching Wenzhou.

Then came the devastating clash, along with a black out. Both trains were in darkness, except some dim lights coming from the emergency light. Passengers on both trains were shocked.

The accident triggered heated discussion quickly. People's anger accumulated. In the meantime, everyone was asking: how could such a tragedy happen?

There were mainly three different opinions concerning the cause of this accident.

Some officials quickly responded to the accident by attributing it to the terrible weather conditions that day, claiming it was the thunderstorm that directly caused the delay of D301<sup>174</sup>. In other words, it was a disaster caused by natural factors.

Apparently people did not buy this theory. Wang Mengshu, a fellow of the Chinese Academy of Engineering and a professor of Beijing Jiaotong University, posted a fatigue driving

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<sup>174</sup> Linzong Pan, "7.23 is caused by the lightning," *Dianqi Zidonghua Jishu Wang*, April 7, 2012, accessed April 15, 2016 <http://www.dqjsw.com.cn/diangongdianzi/bileiqi/108763.html>.

theory, claiming that the driver of D301 might be the key actor in this fatal accident. According to Wang, although most high-speed trains were using the blocked signal systems which to a large extent could be operating without a driver, yet one of its restrictions was that when facing an emergency incident, the automatic braking mechanism would not work. As a result, the response of human beings would play an important role. Wang continued by analyzing that the privatization of the railway rear-service department was trying to maximize drivers' working time by minimizing their resting time. So it became quite usual for drivers to keep working for a long time without taking a rest or sleep. To conclude, Wang believed that the driver of D301, Pan Yiheng, might probably suffer from fatigue driving and did not respond fast enough to the emergency<sup>175</sup>. This argument triggered dissatisfaction since Pan had died in the accident with the brake handle pierced into his chest. It was said if it was not him that pushed the manual brake to the end by giving up the precious two seconds to escape, at least two more carriages would be damaged in the accident<sup>176</sup>.

Some people attributed it to the design flaws embedded in the signal systems using by this high-speed railway line. In a press conference held on July 28, five days after the clash, Shanghai Railway Administration Director An Lusheng claimed that according to the preliminary research, the signal system malfunctioned because it was struck by lightning. The signal light, which should turn red stayed green, thus passing the wrong signal to the conductor. In the same afternoon, the corporation which was responsible for the signal system posted an apology letter on their official website, saying "everything can be attributed to the technology problem"<sup>177</sup>.

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<sup>175</sup> Zheng Cui, "Professor Wang Mengshu Claims that Fatigue Driving Might be one Reason for the Accident," *Caixin Wang*, July 24, 2011, accessed on April 20, 2016 <http://china.caixin.com/2011-07-24/100283076.html>.

<sup>176</sup> "The Driver of D301 Gave up his Chance to Live and Pushed the Brake," *Jinghua Daily*, July 26, 2011, accessed on April 20, 2016 <http://news.qq.com/a/20110726/000203.htm>.

<sup>177</sup> "The High-speed Train Clash Pokes Question to the Monopoly of the Enterprises Directly Controlled by the Central Authorities," *Jingji Cankao Bao*, July 29, 2011, accessed on April 20, 2016 from <http://news.sina.com.cn/c/2011-07-29/011122895848.shtml>.

However, most people held the opinion that what beneath the technological surface is the sloppy management related to many departments and sectors involved in the whole railway system, including the monopoly of the State-controlled enterprises in the markets as well as the corruptions within the bureaucracy system in China. A netizen commented,

Frequent vicious accidents are not limited to the derailment of these two trains. Instead, it is the derailment of the whole country, the derailment of the whole bureaucracy, the derailment of the whole rotten system. Millions of people are forced to be confined within this train, a train on its way to hell<sup>178</sup>.

Han Han, a famous young Chinese writer, remarked in his own blog,

In such a society, everybody feels wronged: those who have private properties, those who don't, those who have power, and those who don't. In a country where everybody feels wronged, derailing is happening within every social stratum. The derailment of the whole country, the derailment of the whole polity, leaves innocent people on this train<sup>179</sup>.

In this sense, Han Song's story comes into reality. The fictional world starts to intrude into the reality. The boundary blurs.

### **An assemblage**

Four months after the clash, the Ministry of Railways in China finally published an official diagnosis of the accident, in which the process of the accident was restored after listening to different parties involved in the accident.

On July 23, 2011, around 7: 30 P.M., lightning hit the power supply network along the railway routes near Wenzhou South Station, directly creating surge voltage on the signal cable. Under the combined effects of surge voltage and direct current, the fuse F2 of the train control center stopped working. Before fusing, the signal light was green since no train was occupying the interval controlled by Wenzhou South Railway Station. As a result, the light remained green when D3115 finally entered the interval. The lightning also caused a signal problem connecting

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<sup>178</sup> Ying Shi, "The Dark Politics behind the High-speed Railway Accident in China," *Mingzhu Zhongguo*, August 2, 2011, accessed on April 20, 2016 <http://www.minzhuzhongguo.org/ArtShow.aspx?AID=21929>.

the railway electro circuit and the control center, leading to a displaying abnormality at the computer-interlocking terminal in Wenzhou South Railway Station.

At 7: 39 P.M., the man on duty at Wenzhou South Railway Station spotted the displaying mistake on the screen, and immediately called Zhang Hua, the person in charge at the control center of Shanghai Railway Bureau and reported the problem to him. At the same time, he notified workers to fix it as soon as possible. Teng Anci, a worker belonged to the signal work area of Wenzhou South Railway Station arrived at the station and confirmed the malfunction of the displaying equipment. He then noted it down in the register book by hand, and reported it to the command center of electric service located in Hangzhou.

At about 7: 45 P.M., Teng entered the equipment room, finding out the red alarms of several tracks. At about 7: 55 P.M., engineer Chen Xujun arrived at the equipment room and asked Teng if he had registered on the notebook. Chen then asked Teng to stay there and he went into the equipment room to check. He found out, too, about the red alarms and replaced two malfunctioning track circuit transmitter with two standby ones.

At 8: 15 P.M., Chen saw that the red alarms were no longer shining, so he told Teng to erase the record he left on the register book. But at the same time, the red lights came back, so Chen told Teng not to do that. Chen reinstalled the transmitter and the light then turned green. After that, Chen received a phone call from the command center in Hangzhou and was asked to examine other equipment carefully. Chen went back to the equipment room and found two communication work plates were problematic too. The red alarm was still shining. So he took down these two plates and put the standby plate of the third one and put it in the place of the second one. But after that the red alarm was still shining. Chen immediately called the location of Dispatching Management Information System (DMIS) and inquired about the possible reason.

Then he went back to equipment room and took down the receptors of all three red alarms. At the same time, the light on the second work plate turned green. Chen stayed in the equipment room and kept watching. Until the time when the accident happened, the handwritten record on the register book had not been eliminated by Teng.

At 8: 03 P.M., after receiving the notification about the malfunction, Yuan Jianjun, the leader of the work area of Wenzhou South Railway Route along with his six colleagues went to the tracks and examined the signal system there. At 8: 30 P.M., after receiving the confirmation from Yuan, the person on duty at the signal work area of Wenzhou South Station finally eliminated the record on the registration book. He wrote: after the examination by workers, the uplink of Wenzhou South to Ou Hai, and the downlink of Yongjia to Wenzhou South proved to be in good condition, and have been put in use again (温州南~瓯海间上行线, 永嘉~温州南下行线经工务人员徒步检查, 工务设备良好, 交付使用).

At 7: 51 P.M., D3115 entered into track three in Yongjia Station (four minutes behind the set schedule).

At 7: 54 P.M., Zhang Hua found out that the status shown on the Centralized Traffic Control (CTC) (which was located in Shanghai and belonged to Shanghai Railway Bureau) was different from the one at the computer-interlocking terminal in Wenzhou South Railway Station. The latter shown the problem while the former shown everything was fine. According to related regulations, he gave the command to turn the Decentralized Autonomous Control Mode into a manual mode, which means to transform from an automatic mode to a man-controlled mode.

At 8: 09 P.M., Yang Xiangming, the assistant of the dispatching office of Shanghai Railway Bureau, notified the driver of D3115 that something went wrong with the automatic signal



system, and that he should stop and switch to the visual driving mode and then continue to drive slowly.

At 8: 12 P.M., D301 stopped on track one (thirty-six minutes behind the schedule) and waited for the signal.

At 8: 14: 58 P.M., D3115 set off from Yongjia Station. At 8: 17: 01 P.M., Zhang Hua notified the driver once he saw right signal light in the interval he should turn into visual mode and should keep going with a speed under 20 km/h. Between 8: 21: 46 to 8: 28: 49, the driver failed to turn into visual mode for three times because of the malfunction of the electric circuit on the track.

Between 8: 22:22 to 8: 27: 57, the driver of D3115 called the train dispatcher six times, and the one on duty at Wenzhou South Station called the driver three times. None of these were successful.

At 8: 24: 25, Zhang Hua gave a command to D301 on track one, and let it set off from Yongjia Station to Wenzhou South Station, under the condition of the automatic block system.

At 8: 27: 57, the watch keeper at Wenzhou South Railway Station called the driver of D3115. The driver reported that there was no signal on the signal system, and also that he could not get in contact with the dispatcher. At the same time, he failed to turn into visual mode.

From 8: 28: 43 to 8: 28: 51 and 8: 28: 54 to 8: 29: 02, the driver called the dispatcher twice and failed. At 8: 29: 26, after a stop of seven minutes and forty seconds, D3115 turned into visual driving mode successfully.

At 8: 29: 32, the driver of D301 received a call from the technique person from Wenzhou South Station, telling him to pay more attention since D3115 was in the same interval with D301.

At 8: 30: 05, D301, with a running speed of 99km/h, crashed into D3115, which was running at the speed of 16km/h<sup>180</sup>.

As is shown in the report, various mediums and the transaction of different kinds of information played an important role throughout the process. The China Train Control System (CTCS) includes mainly three parts. One is the Train Control Center (TCC) located at different stations. The trains are receiving commands and giving feedbacks directly to TCC at each location. Another is the Automatic Train Protection (ATP) system on the train. In a normal status, the drivers need not to drive themselves. They only need to keep an eye on the screens and diagrams before them and give out commands at appropriate time. Also, they have to step on a pedal once thirty seconds so as to inform the dispatcher that they are still alive<sup>181</sup>. At the same time, the drivers still stick to the pointing and calling method as a guarantee of safety<sup>182</sup>. It is through a repetitive and almost mechanistic way of body training and discipline, that human bodies are finally adjusted to follow the tempo of machines. The last part is more diffused. It is the tracks along the way, including signals transmitting through the tracks as well as the signal lights at different intervals of the tracks. Also, the communication devices play a crucial role here. The Global System for Mobile Railway (GSM-R) is responsible for transmitting information among the driver and the dispatcher in the central control room, as well as the watch keeper in the station.

Similar to what Michael Fisch describes in his PhD dissertation about the Japanese railway system, the Chinese high-speed railway system is also using “an autonomous decentralized

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<sup>180</sup> The report was originally in Chinese. The author translated it into English and selected the most relevant information. To see a complete Chinese version of the report, please go to [http://www.chinasafety.gov.cn/newpage/Contents/Channel\\_5498/2011/1228/160577/content\\_160577.htm#\\_Toc312855798](http://www.chinasafety.gov.cn/newpage/Contents/Channel_5498/2011/1228/160577/content_160577.htm#_Toc312855798).

<sup>181</sup> “The Drivers of the High-speed Railway Cars would Step on a Pedal Every Thirty Seconds,” *Xinjing Bao*, February 11, 2015, accessed April 15, 2016 <http://finance.sina.cn/china/gncj/2015-02-11/detail-ichmifpx7731720.d.html?from=wap>.

system complying to the principle of a networked of distributed functions”<sup>183</sup>. As a result, there are usually three levels: the dispatcher in the central command room (in this case is located in Shanghai), the watch keeper at each train station (in this case the Wenzhou South Railway Station), and finally the driver. It is a huge and diffused network, with uncountable transmissions of information going on.

When considering the whole system as a distributed network rather than an organicist model consisting of several parts, we have gained more space to think of how mistakes came into play and what different roles various mediums came into play and finally contribute to an accident as such. Building on Deleuze and Guattari’s concept of assemblage, Jane Bennett defined an assemblage as an

*Ad hoc* groupings of diverse elements, of vibrant materials of all sorts. Assemblages are living, throbbing confederations that are able to function despite the persistent presence of energies that confound them from within...Assemblages are not governed by any central head: no one materiality or type of material has sufficient competence to determine consistently the trajectory or impact of the group. The effects generated by an assemblage are, rather, emergent properties, emergent in that their ability to make something happen is distinct from the sum of the vital force of each materiality considered alone. Each member and proto-member of the assemblage has a certain vital force, but there is also an effectivity proper to the grouping as such: an agency of the assemblage<sup>184</sup>.

In the case of the derailment, nonhuman elements such as the lightning, the thunder, the tracks, the electrons travelling through tracks, the signals transmitting by fibers and wireless networks, the green and red signal lights on the track, as well as the human elements such as handwritings, the dispatcher, the on-watcher, the engineer as well as the driver, are all elements in this assemblage. They worked together but also independently. Each of them was independent element in the assemblage. For example, for natural elements such as lightning, thunder and

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<sup>182</sup> The pointing and calling method is first applied in Japan. It is a way to remind the drivers to focus and concentrate by calling out the status aloud and by pointing to the indicators. It is still a popular way of training in China, for both subway drivers and high-speed railway train drivers.

<sup>183</sup> Michael Fisch, “*On the Train: An Anthropology of the Technosocial in Contemporary Japan*” (PhD diss., New York, Columbia University, 2009), 31.

<sup>184</sup> Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 23-24.

electrons, they did not only belong to this specific system. Similar for the dispatcher and on watcher at the station, they were responsible for all trains running through that specific area. So they also belonged to other systems. It is the combination and union of all these elements that gave birth to the effects, though a negative one. It is the disruption of the tracks, the suspension of the electrons, and mistransmission of the signal, the cutoff of communication between human actors that finally led to the clash. It is an emergent effect.

### **Media**

To think of the derailment as an assemblage allows for more space to consider of the role various media have played in the network. Jane Bennett's attempt to decentralize human agency and at the same time to emphasize nonhuman actors speaks a lot to German media theorist Friedrich Kittler and his media materialism. "Media determine our situation"<sup>185</sup>, says Friedrich Kittler at the beginning of his groundbreaking book *Gramophone, Film, Typewriter*. By saying this, Kittler highlights two points. First, the material structures of technology matters more than the meanings and messages they convey<sup>186</sup>. Second, building on that, it is not a subject-centered approach. In contrast, "it reverses traditional procedures by reconstructing humanness from the machine world, rather than vice versa"<sup>187</sup>.

Looking back at the assemblage once again, it is not difficult for us to find out multi-layer media underneath that. First of all, there is handwriting as the media. Recalled that the on-watcher at the signal work area of Wenzhou South Station was requested to record the malfunction by hand, so as to leave material traces of that. Then there is the radio system, both the broadcasting system on the train and the one connecting the driver, the dispatcher as well as

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<sup>185</sup> Friedrich Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford, California: Stanford University Press, 1999), xxxix.

<sup>186</sup> Nicholas Gane, "Radical Post-Humanism: Friedrich Kittler and the Primacy of Technology," *Theory, Culture & Society* 22(2009): 25.

<sup>187</sup> Gane, "Radical Post-Humanism," 29.

the on-watcher. In the former situation, it is an agent for public communication, is to disseminate messages as soon as possible to all the passengers on the train; in the latter situation, it is a point-to-point model, It works only to send specific messages to certain receivers. It is a process of selecting information. For the drivers in the driving room, they are under constant monitoring by the closed circuit television (CCTV). The video recording and sound recording techniques are converged in one device: CCTV. Besides all such media above, the biggest informational infrastructure is the train control system. Information is digitalized, stored, transmitted and displayed through computers. All information is mediated through the computer. This is a manifestation of what Manovich defines as new media, “computer-mediated forms of production, distribution, and communication”<sup>188</sup>.

All together, the media related to the trains constituted an infrastructure meant to convey and transmit information, though in different forms. The train, on the one hand, served as a nodal point where several different forms of media met; on the other hand, as a part belonged to an even larger network, a network created by computer technology.

### **Technology**

Although Jane Bennett’s assemblage might contribute to a notion of distributed agency, emphasizing emergent properties as well as the attempt to decentralize human actors in a network, yet I remain skeptical toward such approaches especially when thinking of the accident as such. A dehumanized thinking might disguise the tension between human and technology in such case, which is a crucial concern, especially when we are now transmitting from an industrial society into an information technology society, one that is largely supported by all kinds of technologies. On the one hand, humans have the ability to invent more advanced and updated technologies and are always in awe of them; on the other hand, human are alienated by

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<sup>188</sup> Lev. Manovich, *The Language of New Media* (Cambridge: MIT Press, 2002), 19.

their own creations and are in constant fear of such technologies. This is the case for the high-speed railway in China. It evokes a sense of technological sublime. As a newly emergent urban spectacle, people are astounded by them as audiences. They are overwhelmed by the speed, “the absolutely great”<sup>189</sup>. However, terror comes hand in hand with the astonishments. People feel under total control of such high-speed, like what Han Song describes in his novels--boarding a train that will never stop.

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<sup>189</sup> Immanuel Kant, *The Critique of Judgement*, trans. J.H. Bernard (New York: Prometheus Books, 2000), 106.

## Epilogue

On July 21, 2013, the heaviest rainstorm in sixty years hit Beijing. In a twenty-hour period, the flood affected 56,933 people, who had been evacuated later. It killed seventy-nine people, caused at least ten billion RMB economical loss. In total, more than 1.6 million people were affected by the flood<sup>190</sup>.

The aboveground construction site of Line Six collapsed because of the heavy rain. One train operating on the Airport Line was struck at Sanyuan Qiao station<sup>191</sup>. Among the seventy-nine people who died in this flood, several of them died in their underground apartments. Wang Jing, who lived in an underground apartment in Fengtai District, was waiting for her husband to come home and have dinner with her when a large volume of water started flooding in. After realizing what had happened, she and her younger brother tried to move towards the door. As her brother made his way with difficulty to the exit, he felt an electric shot. Then the room was in total dark. “My sister must have felt it too, because suddenly she disappeared from my sight. I guess she fainted”<sup>192</sup>. He went back and forth three times in order to find his sister, but in vain. When finally he was rescued he was told that his sister had fainted, and then drowned in the water.

Different from Wang Jing, a large proportion of people died outdoors. Some of them were drowned in the water, some were flushed away by the floods, while some others were killed inside their own cars under highways or viaducts<sup>193</sup>. Tons of blames and critiques pointed to the urban drainage system of Beijing. The disaster exposed the tension between weak and backward

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<sup>190</sup> For more details on the flood, please refer to [https://en.wikipedia.org/wiki/July\\_2012\\_Beijing\\_flood](https://en.wikipedia.org/wiki/July_2012_Beijing_flood).

<sup>191</sup> For more details, please refer to <http://baike.baidu.com/view/9023313.htm>.

<sup>192</sup> “A 33-year-old Female Drowned in the Basement,” *Xinjing Bao*, July 27, 2012, accessed April 20, 2016 <http://news.163.com/12/0727/07/87DG1QB80001124J.html>.

<sup>193</sup> “Beijing was Caught in a Heavy Rainstorm,” *Wangyi News*, July 28, 2012, accessed April 20, 2016 <http://news.163.com/special/7yuebeijingbaoyu/>.

city facilities and infrastructures and the fast-paced development in Beijing. As crucial infrastructures, the drainage system broke down, thus causing large amounts of loss, both lives and live hoods.

Water, as an indispensable element of urban fabric, turned into a demonic existence in this accident, causing damages and scars wherever it flew. However, water could not flow everywhere, it could only follow existing channels, trenches and avenues. As a result, it flew into subway stations and tunnels, which caused the breakdown of the running lines; it flew into vacant air-raid shelters, which were then occupied by immigrant workers who lived underground in order to save money.

In the meantime, the tragedy also unraveled the fact that water was unable to flow where it should have gone. Due to the poor drainage system which was first established in fourteenth century, and later had been partly transformed and improved during Republic Beijing, water which should have gone underground ended up gathering aboveground and finally deprived people of their lives. It is this dislocated water that took people's lives and triggered the chaos. Water in this context, both materially and symbolically, served as the manifestation of underground spaces. It was a running thread, weaving together several different forms of underground spaces within an urban fabric.

This rainstorm speaks to infrastructure studies. A common argument concerning infrastructure is that infrastructures are always taken for granted, and they seem invisible until they break down. In her well-known article "The Ethnography of Infrastructure", Susan Leigh Star points out one main characteristics of infrastructure: it "becomes visible upon breakdown"<sup>194</sup>. She then continues,

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<sup>194</sup> Susan Leigh Star, "The Ethnography of Infrastructure," *The American Behavioral Scientist* 43(1999): 382.



The normally invisible quality of working infrastructure becomes visible when it breaks: the server is down, the bridge washes out, there is a power blackout. Even when there are back-up mechanisms or procedures, their existence further highlights the now-visible infrastructure. One of the flags for our understanding of the importance of infrastructure came with field visits to check the system usability. Respondents would say prior to the visit that they were using the system with no problems-during the site visit, they were unable even to tell us where the system was on their local machines. This breakdown became the basis for a much more detailed understanding of the relational nature of infrastructure<sup>195</sup>.

Underground infrastructures fit into this category well. People might use subways to commute everyday. They are so familiar with such transportation tools that they do not even realize their existence. It is only when it malfunctions, that people come to the realization of its existence. As for the drainage system, it is even more invisible. Urban dwellers do not have contact with it directly in their everyday life. However, their life relies on it. All their everyday dirt, the used water, the garbage go through pipes and flow underground, through twists and turns, through the blood veins of a city. It is when it breaks down, when it refuses to function that we learn its existence. We learn that infrastructure can attack<sup>196</sup>. It can take away people's lives.

Furthermore, in this case, we learned that infrastructures are not isolated. Quite the contrary, they are related with each other. They constitute a network. Star highlights the embeddedness of infrastructures, claiming, "Infrastructure is sunk into and inside of other structures, social arrangements and technologies"<sup>197</sup>. In a similar vein, Julie Chu urges us to think of infrastructure as systems, relations and assemblages.

Whether taking the shape of system, network, or assemblage, infrastructures usually have at least two things in common: (1) they configure lines of contact, circulation, and partitioning in social life, and (2) they are distinctly other-regarding in their operation. Specifically, as relations of relations, infrastructures typically manifest as second-order agents of distribution; they are partial objects always gesturing to other flows and transactions for their completion as meaningful social forms<sup>198</sup>.

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<sup>195</sup> Ibid.

<sup>196</sup> Julie Chu, "When Infrastructures Attack: The Workings of Despair in China," *American Ethnologist*, 41(2014): 351.

<sup>197</sup> Star, "The Ethnography of Infrastructure," 381.

<sup>198</sup> Chu, "When Infrastructure Attacks," 353.

Considering the rainstorm and its aftermath in this way, the underground tunnels, the pipes, as well as the underground dwellings, they are all connected.

This thesis is only a start, a start at looking at underground spaces, railways systems, connected infrastructures and their interaction with city dwellers. It is an attempt to investigate the urban network on an aesthetic level: the urban uncanny and the technological sublime. It is the first step to examine the network in a temporal manner. As is shown in the thesis, the past, the present and the future are all connected. The past keeps influencing the present, in a haunting way, while the imagined future is a projection of the present, containing people's fear towards technology. Most importantly, it is also a step towards considering urban infrastructures as assemblages and thus reflecting on their vulnerabilities when encountering with human beings in general and with city dwellers, in particular, in Beijing and elsewhere.

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