The space of the Chinese universities in transformation

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Campus border market

“Crossing the campus border is smuggling.”
Zhuhai Campus, University of Macau
40,000 tourists per day to Wuhan University for sakura
empty VS crowd crossroad in the campus
How is the space of the Chinese universities produced?
A SOCIO-SPATIAL SCENARIO: THE PRODUCTION OF SPACE
space is a social product

- Every society, more precisely every mode of production, produces a space, its own space (Lefebvre, 1991).
- Eg. Squares in classical cities, churches in middle age cities, factories in modern cities

- There is no ‘natural’ way to conceptualize space because it is produced in the context of social action (Harvey, 1989). Social structure remains the primacy in explaining spatial forms.
the production of space is a social process

- It is not the work of a moment for a society to generate (produce) an appropriated social space in which it can achieve a form by means of self-presentation and self-representation (Lefebvre, 1991). This act of creation is, in fact, a process.

- The concept of spatiality is itself imbued with a transformative dynamic: spatiality exists ontologically as a product of a transformation process, and always remains open to further transformation in the contexts of material life (Soja, 1989).
space is a tool of social production

• There is a dual relationship between people and space. On the one hand, people act according to social factors within and in reaction to a given space. On the other hand, people create and alter space to express their own needs and desires (Gottdiener and Hutchison, 2010).

• Power, the transformative capacity of people to change the social and material world, is closely shaped by knowledge and space-time (Harvey, 1989). Space occurs as a tool of power operation rather than merely an object (Foucault, 1984).
How is the space of the Chinese universities produced?

- Historical space
- Contemporary social context
- Contemporary spatial patterns
HISTORICAL SPACE OF THE CHINESE UNIVERSITIES

- indigenous scholarly institutions (-1850s)

- universities in search of modernity (1850s-1940s)
  - conservative modernization efforts
  - western missionary universities
  - radical education reform
  - universities with nationalistic spirits
  - communist revolutionary universities

- soviet academic model (1950s-1970s)
indigenous scholarly institutions

• In Tang dynasty (A.D 618-907), Shu-yuan appeared as places for collecting books, then gradually developed into private academies or scholarly societies as an alternative to official HEI.

• Influence of liberalism embedded in Buddhism and Daoism

• far from cities or towns in a quiet environment where scholars could engage in studies and contemplation without restrictions and worldly distractions.

• The idyllic ideal in the flexible organization of buildings and integration with the natural landscape

Xingxi Shu-yuan
• Song dynasty (960-1279 A.D), Confucian classics, imperial examination system, official scholars or scholarly-officials
• *Shu-yuan* from the suburb to the city with government control
• formalized and ritual rules in the organization of space: axis and courtyard, worship space, examination halls, shooting gardens
• the idyllic ideal was preserved in the layout of landscape and gardens
universities in search of modernity

• a long and even painful interaction with the West after the Opium War for Chinese intellectuals to be aware of Western advancements in science and technology and of the backwardness of China

• the most active and fertile stage in the Chinese history to explore university development patterns

• Western missionary universities
• Conservative modernization efforts
• Radical Education Reform
• Universities with Nationalistic Spirits
• Communist Revolutionary Universities
western missionary universities

- Direct evangelism of the western missionaries met great opposition. A feasible way was to call on the upper ruling strata and the intelligentsia to influence ordinary people.

- Some missionary universities focused on parochial education to teach new converts basic religious and liturgical knowledge. Some turned to medical and educational works.

- By 1949, there were twenty-one universities run or subsidized by foreigners (Min, 2004). Among the total of 205 HEIs in the country, foreign universities accounted for about 10% and enrolled about ten thousand students (Wang et al, 2007).
• American architect, Henry Murphy, planned many Chinese missionary universities and had deeply influenced the Capital Plan of Nationalist Party in Nanjing.
• The campus was zoned according to functions in western principles, with traditional Chinese gardens going across and connecting them into an integral whole.
• An obvious symbol of traditional Chinese architecture, the large roof, was added directly to the modern style.

Yenching University, 1921-1926, planned by Henry Murphy
conservative modernization efforts

- Chinese modernizers of the late Qing dynasty and early republican periods visited or sent delegations to the nations whose educational institutions were of interest and modeled their reforms directly on foreign experience.

- Western-style military and naval academies and foreign-language institutions were established by powerful scholar-officials in China, to train young people capable of dealing with the foreigners at both a diplomatic and military level.

- Aiming to absorb western techniques into a revitalized Confucian empire to deal effectively with foreign incursions
• strictly subordinate to the classical knowledge tradition and the imperial examination system
• followed the typical organization of shu-yuan, making minor changes to adapt to the educational and social requirement
• From main and subordinate axis to parallel axis
• From the model of courtyard to relatively open borders.

Imperial University of Peking, 1898
radical education reform

• Cai Yuanpei, Minister of Education after the 1911 Revolution
• the German model with its central values of autonomy, professorial self-government and academic freedom

• education goals in the 1912 legislation: utilitarian, moral, military, aesthetic, and a world view.
• The first three were considered essential to republican political and economic development, while the latter two rose above politics and were to foster a modern Chinese spirit that would replace Confucianism.

• contribute to the May 4th movement in 1919, an anti-imperialist, cultural, and political movement sparking national protests and marking the upsurge of Chinese nationalism.
• the economic principles: actual needs and social reality
• reusing the old buildings
• embedding different disciplines in different places
• abandon the campus walls

• openness, freedom, diversity, fragmentation
universities with nationalistic spirits

- Sun Yat-sen’s Three Principles of the People: nationalism, people’s livelihood and people’s rights
- Serving education to economic development and nationalistic unity
- National University Council, leading the geographical and curricular rationalization of higher education
- Regional universities: cultivate professionals to support the region, supervise lower level education
• Chiang Kai-shek: promote education to restore classic culture and to consolidate the one-party dictatorship, with the worship of Confucian morality and norms.

• Imperial system to symbolize the Chinese traditional culture

• Spatial layout: the Outer Court or Front Court is used for ceremonial purposes while the Inner Court or Back Palace is the residence

• Axis: in the Front Court numbers of courtyards were connected with each other along the vertical axis while in the Back Palace the courtyard system extended horizontally.

Sichuan University, 1936

The Forbidden City
• the influence of western planning ideas on the planners in the first batch of study-abroad program
• geometric, repetitive, and decorative patterns recurrent in the western landscape planning

Northeastern University, 1929, planned by Yang Tingbao
communist revolutionary universities

- from a worker based to a peasant based revolutionary movement

- concentrate on political thought and military techniques with the aim to cultivate cadres for the communist government

- open, informal and practical principles in education

- settle down randomly in border regions along with the travel of the Communist Party in the battles

- mobile university
soviet academic influence

• nationalize all the universities to be state-run institutions

• view higher education as one part of the superstructure and be integrated with the economic base of the society

• sector-oriented university system: most non-educational central ministries established and administered their own universities to train professional manpower for the specific industries

• restructure the university disciplines according to the regional industrial development plan to improve the uneven geographical distribution of industry and university
• concentrate universities in the strictly zoned educational district in the urban fringe (eg. Yangpu District in Shanghai and Haidian District in Beijing)
• self-sufficient work unit
• different functional areas in the city but similar urban fabric
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- idyllic ideal (ivory tower, landscape)
- axis and ritual layout
- western influence of zoning and square
- self-sufficient unit
CONTEMPORARY SOCIAL CONTEXT OF THE CHINESE UNIVERSITY

From elite to mass higher education
From planned economy to market economy
University between the central and the local
From elite to mass higher education

- 1998, TANG Min (economist), ‘higher education expansion as an efficient way of promoting the Chinese economy’
- much less higher educated (university enrolment rate less than 10% in 1998, annual increase 8.5%)
- competition between laid-off workers and the young in the employment market
- stimulate domestic demand (GDP growth 8%)
- expansion capacity (pupil-teacher ratio 7)
- essential to national revitalization

- 1999, national reform on expanding higher education system
From planned economy to market economy

- national strategy from ‘using the (domestic) capital to obtain the (foreign) technology’ to ‘using the (domestic) market to obtain the (foreign) technology’
- “technology” means more than the narrow definition of technological inventions but also implies the methods of production (Wu, 2009)

- promote technology progress, assign priority to the development of technology, and bring the role of technology as the primary productive force, so as to improve the service of technology to economic construction (NPC, 1993)

- 1995, national strategy to invigorate the country through technology and education
- a shift in the methods of production, from a socialist productionist regime based on industrial surplus to a regime of flexible capital accumulation based on the service sector emphasizing the role of knowledge
• **Commercialization**
  • University-owned enterprises
  • The tradition of self-sufficient work unit
  • three models: service providers, high-tech companies, joint commercial entities

• **Cooperation**
  • University-industry linkages: the contribution of enterprises in university funding has been growing rapidly while the government funding is dropping from 80.35% in 1996 to 49.56% in 2004 (Yang, Yuan and Chen, 2010).
  • 54%-58% from government, 35%-37% from enterprises, 7%-10% from other domestic and foreign sources (MOST, 2012).

• **Competition**
  • University and research institutes
  • Inter-university
University between the central and the local

- 1995, Suggestions on Deepening Higher Education Structural Reform
- Transfer the leadership of some universities from the central ministries to local governments
- joint development between the central and the local, with the central in major decision-making and the local in daily management

- Place promotion: development zones, infrastructure improvement, prestige projects, land markets, etc.
- using market instruments to manage state assets so as to create a more competitive environment to attract foreign investors and the private sectors (Wu, 2009)

- development coalitions among the university, the government, the industry and other related important actors based on diffused entrepreneurship
CONTEMPORARY SPATIAL PATTERNS OF THE CHINESE UNIVERSITY

Spatial agglomeration
Spatial dispersion
Spatial differentiation
Spatial dispersion

- Spatial pressure due to mass higher education
- infrastructure improvement with local government support to compete for limited resources from the upper level government
- Mega campus with extra-ordinary scale

ZiJinGang Campus, Zhejiang University
Leonardo Campus, Polytechnic of Milan
Spatial dispersion

• 1993, Peking University destroyed the 600m wall and developed 25,000m$^2$ commercial street.
• generate profit for the universities, incubate some spin-offs

• 2001, Peking University reconstructed the commercial street for a science park
• integrated some neighboring areas into the science park

• wall – commercial street - science park - urban extension
• the transformative role of the universities in the society
Spatial dispersion

A typology of multi campus system in China (Hua and Ge, 2013)

<table>
<thead>
<tr>
<th></th>
<th>affiliating</th>
<th>merging</th>
<th>expanding</th>
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<tbody>
<tr>
<td>time</td>
<td>1980s</td>
<td>1990s and 2000s</td>
<td>2000s</td>
</tr>
<tr>
<td>goal</td>
<td>professional training to upgrade the educational level of the local</td>
<td>develop comprehensive university for scale economy effect</td>
<td>seek enough space for campus expansion</td>
</tr>
<tr>
<td>strategy</td>
<td>dual leadership (professional works by the university and administrative works by local government)</td>
<td>Led by upper level government</td>
<td>Cooperation between university and local government</td>
</tr>
<tr>
<td>challenge</td>
<td>quality</td>
<td>integration</td>
<td>efficiency</td>
</tr>
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Spatial agglomeration

- interdisciplinary collaboration
- research centers and incubators
- multi-centricity
- Administrative structure: a medium governance level between the university and the college/department

Zhejiang University
<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Income (billion yuan)</th>
<th>Profit (billion yuan)</th>
<th>Tax paid (billion yuan)</th>
<th>Income to University (billion yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University-Owned Enterprises in Science Parks</td>
<td>1121</td>
<td>58.26</td>
<td>3.24</td>
<td>2.39</td>
<td>0.49</td>
</tr>
<tr>
<td>Total University-Owned Enterprises</td>
<td>4563</td>
<td>96.93</td>
<td>4.99</td>
<td>4.87</td>
<td>1.75</td>
</tr>
<tr>
<td>Ratio of the Former to the Latter</td>
<td>24.57%</td>
<td>60.10%</td>
<td>64.95%</td>
<td>49.26%</td>
<td>25.56%</td>
</tr>
</tbody>
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National Level University-Based Science Parks in China (86 in total)
Source: STDCMOE, 2012; compiled by author

Spatial Layout of Zhangjiang High-Tech Park
Source: Zhang and Wu, 2012
Spatial agglomeration

- Free land by the local government to attract and concentrate multiple universities in the suburban area as a catalyst for urbanization
- Higher education expansion
- University cooperation and resource sharing
- Building an urban brand by profiling the city as a centre of excellence

By April 2004, there had been 54 university towns newly established in 43 cities of China (Lu, 2005).

Population structure at XiaSha University Town, Hangzhou

- University students: 14%
- University staff: 76%
- Permanent residents: 8%
- Temporary residents: 2%

Source: http://www.hzpolice.gov.cn
Spatial differentiation  Intra-university level

- Dream of comprehensive university
- Market-oriented management
- Inter-department competition: budget, enrollment, space......

- Competition for space: expansion vs shrink of certain departments (eg. Huazhong Agricultural University)

- Fragmented plan instead of overall plan (eg. parking)
Spatial differentiation

- Sell old campus in the inner city and build new one in the outer city
- Campus expansion pressure
- Profit-driven plans for more added value
Spatial differentiation

Regional level

- preference of the universities to select places for the cross-city development of branch campuses and affiliated institutes
- the higher education resources are flowing from developed cities to the emerging cities
- the redistribution of higher education resources restructured the regional economic geography, thus might contribute to a new urban hierarchy

- Weihai campuses of Shandong University
- Weihai campuses of Haerbin Institute of Technology
- Shenzhen campuses of Beijing University,
- Shenzhen campuses of Tsinghua Univeristy,
- Shenzhen campuses of Haerbin Institute of Technology and Nankai University
- Suzhou campuses of University of Science and Technology of China
- Suzhou campuses of Renmin University of China
- Zhuhai Campus of Sun Yat-Sen University
- Changzhou Campus of Hohai University
CONTEMPORARY SPATIAL PATTERNS OF THE CHINESE UNIVERSITY

- Spatial dispersion
- extraordinary scales
- disappearing borders
- multi campus system

- Spatial agglomeration
- department clusters
- science parks
- university towns

- Spatial differentiation
- intra-university level (department competition)
- urban level (suburban campus, inner-city campus for sale)
- regional level (cross-city branch campus and affiliated institutes)
DISCUSSION

• The space of contemporary Chinese university is a mixture
• idyllic ideal, ritual layout, western ideas of zoning and square, self-sufficient unit, knowledge hub

• The space of Chinese university is not only supported and produced by social relations, but is also producing social relations.
• work unit tradition, university-community relations, university-industry relations

• The contradictory, conflictual, and political character in the processes of spatial production underlines the formation of spatial politics.
references

• NPC (the National People’s Congress of the People’s Republic of China). 1993. President Order No.4: Law of the People’s Republic of China on Science and Technology Progress.
THANK YOU!

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