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| **MEDIUM**  ***New Pathways for Sustainable Urban Development in China’s medium-sized cities*** |
| **Hangzhou scientific seminar** |
| **November 28th-29th, 2015** |
| **Report** |

**28th November 2015 (Day 1)**

**INTRODUCTION**

**Irene Poli**

Professor Poli (Ca' Foscari University of Venice, Italy) welcomes the organizers and participants to the workshop to reflect on new ways of sustainable urban policies in China’s medium-size cities. She then invites Hao Jinxi, the Vice-President of Hangzhou Normal University.

**Hao Jinxi**

The Vice-President expresses a warm welcome to all on the campus of HZNU on the occasion of the scientific seminar. We are here in the new campus of the University, it has been planned in several different phases of construction, and now the first phase is completed.

She comes back to the history of Hangzhou Normal University, which began in the early 20th century. There was a fast development after the reforms. And it is still developing now. With this new campus, they hope to open a new era for the future, and she stresses HNZ Normal University wish and efforts to teach students to be liberal and global and to exchange with leading universities.

She says they are also aware Chinese cities are developing fast, and they see/experience outstanding problems, e.g. crowding, traffic jams, ...

Also the area where the University is located is part of a Scientific Park which is under development and that's why there are a lot of construction all around, all in progress. This has brought to the University also a lot of inconviniences, that cannot be solved over night, but she thinks it is very valuable that Hangzhou and this University have been taken as case study by this project on new pathways for sustainable urban planning and development, becuse hangzzhou is an historical and cultural city.

She also mentions the objectives of progress in Hangzhou Normal University’s international cooperation.

She thinks the MEDIUM Project could also lead to academic publications, to a better formation of Master’s degree students with the creation of international exchanges, especially in the field of urban studies.

**Natacha Aveline**

Professor Natacha Aveline (CNRS, Paris, France) is very glad to be in this city, to be in this conference room provided by Hangzhou Normal University, which is such a good place for this scientific seminar. She is also grateful towards Prof. Weiliang Zhang, who has been involved in this project since the beginning. She admires his strong capacity to be flexible, as we all have to work together on this EU international project. He also took really good care of the young researchers that are staying in China. She also thanks the high-quality staff for organizing the seminar, Yang (assistant of Prof. Zhang) and Florent (Project Manager of MEDIUM), as well as the young researchers. Finally, she thanks the participants and the translators.

She explains that they decided not to have presentations by European researchers, except for the young researchers who work on Chinese cities so that the other European researchers can thus spend more time learning about different aspects of the Chinese city and contribute to engage in a fruitful discussion.

**Zhang Weiliang** **张卫良**

Professor Zhang Weiliang explains that Chinese cities are currently experiencing a process of fast urbanization and many changes keep on emerging. He hopes MEDIUM project will enhance exchanges and reflections on these issues as they are highly necessary and helpful. He thinks this project represents a good opportunity to develop a dialogue and research programs in relation to foreign students and professors. It provide HNZ Normal University a learning process for all: researchers and graduate students.

It's the first time HNZ Normal University is engaged in a project with the European Union (EU). This implied a number of challenges to solve, but he says they have been able to overcome all the difficulties encountered and now they can further enhance our exchange.

Also the organization of such a big event was not easy but he expressed great satisfaction that so many people turned out for the seminar.

**PRESENTATION OF CASE STUDIES**

***Swerts Elfie***

Ph.D at Paris 1, postdoctoral researcher at the University of Lausanne

***Ignazzi Cosmo Antonio***Ph.D at Paris 1, post doctoral researcher at the CNRS, UMR 8504 – Géographie - cités

**Presentation:** “Population Data, Big Data, Smart cities and Strategic Planning"

The main objectives are i) to compare the medium cities’ demographic evolution and functional profile whit the entire Chinese Urban system (1980 to 2010) and ii) to asses the demographic evolution and economic specialization of Hangzhou, Datong and Zhuhai iii) to identify medium size cities in the Chinese urban system both exploring population and economic data, (especially economic networks) integrating them in order to foresee future economic perspectives for medium size cities in this country and which policies are adopted by institutions for improving the wealth of these cities.

Morphological and economical criteria data on population have been collected adopting satellite images aiming to delimitate the spatial boundaries of precise urban areas; within each agglomeration perimeter the population (and its economical and sociological characteristics) of Districts and towns Xian, Qu, Xianjishi and Zhen) is aggregated. The “agricultural” agglomerations or part of agglomerations are removed.

To asses if Chinese Medium Cities demographic evolution is different from the Megacities and Small Towns, cities have been grouped in four different classes of demographic trajectories adopting the method of ascending hierarchical clustering (AHC). All classes increase their population, but some diverging changes in cities weight in the system are observed. The two key results are that the largest cities are resilient and that a group of booming small towns has been as well. Regarding the three MEDIUM case studies, the weight in the system of Hangzhou is slightly increasing while Datong and Zhuhai maintain their size in the system. In term of economic profile, Hangzhoueconomy appears as diversified. The innovative tertiary activities are overrepresented and only 24% of the workers engaged manufacturing activities. The national average is of 28%, and the Yangze Delta region average is of 37%. The mining activities are overrepresented in Datong (22% of the workers, whereas the national average is of 3.5%). Only 12% of Datong employed population is engaged in manufacturing activities. Lastly, Zhuhai is specialized in manufacturing activities (35% of the workers).

Despite the fact that China hosts among the most gigantic cities of the world, the Chinese urban system is characterized by a low levels of inequality of city sizes, and an important number of small and medium cities. It may be explained by the liberalization of the Hukou system and decentralization reforms.

As concluding remarks, we need 1) complementary data and field on Hangzhou, Datong and Zhuhai (it will be a part of Antonio’s post-doc) 2) to precise the impact of decentralization reforms on the development and on sustainability of medium cities.

A question is still open : how do we define what is a medium city in China ?

Supporting an intense collaboration between the University of Lausanne and the CNRS, a fundamental aspect is completing and enhancing the ORBIS database, which was created in 2003, allowing analysis of information on corporations at a global scale.

The dataset encompasses approximately 800,000 companies covering numerous sectors of activities. Owner companies and subsidiaries are linked to one other by approximately 1,2 million of financial links.

To aggregate the data within comparable cities, each of the 800,000 individual firms was precisely located in a metropolitan area; the links were aggregated by metropolitan area using their origin and their destination city.

The database contains information concerning the company names, location, level and nature of filiations, turnover, number of employees and the NACE codes (Statistical Classification of Economic Activities in the European Community). These last represent the specific sector of activity of each firm.

Each company of a group (both owner and subsidiaries companies) is qualified according to its business activities. The great advantage of statistics performed adopting these codes is basically that they allow a comparison at the world level with the ISIC codes of the UN.

As a main consequence, it is possible a wide use of these codes in classifying data according to kind of economic activity in the fields of economic and social statistics, such as for statistics on national accounts, demography of enterprises, employment and others.

The main hypothesis is that some regional systems have progressively created dense groups of interrelated cities and that firms take advantage of these “host regions” supported by very integrated urban systems, in which some world cities in each region serve as “bridges” to the global system.

Cities and business networks constitute a “duality” in which the latter now have a greater potential to structure the former. In return, businesses locate their headquarters and plants near the highly differentiated resources and markets offered by urban territories.

Global economic networks reinforce these city systems. In setting up their subsidiaries and production units and in generating internal and external exchange networks, multinational corporations position each territory and each city within a complex system of interdependencies. Synergies develop in particular locations through agglomeration economies and between different locations through network economies.

The economic and social strength of cities and nations interact, forming a national system that is able to integrate cities into the globalization system. This particularly benefits home headquarters that receive investments, workers from across the nation and knowledge spill-over.

This brings to the conclusion that the regionalization of the world is not simply an issue of cities since the hierarchy of cities according to their multinational firm networks approximately matched their country’s status, whether central, semi-peripheral or peripheral.

As a matter of fact, the exploitation of the ORBIS database concerning the corporations present in China will be helpful for developing a database of firms’ networks covering all the direct and indirect subsidiaries. Then, knowing the exact location of each firm, we can aggregate these networks at the city level.

The statistical analysis aims to analyze if companies follow territorial logics in developing their activities, if strategies differ from one group to another and between different sectors, the way the companies expand their activities over several industrial sectors and how cities are connected through the companies they host.

Concerning medium cities it will be interesting to investigate which companies operates in these cities, if they are predominantly private or public and in which sectors they are specialized. Addressing these questions is important to understand in which kind of international/national network medium size cities are involved, what are the differences between firms operating in medium and large cities and, finally, if medium cities located closer to larger agglomerations are benefiting from their geographical position.

**Zhang Weiliang** **张卫良**

“The 40 years of Hangzhou: urban strategy and environmental dilemma” 杭州40年：城市战略与发展困境

**Zhang Weiliang**, PhD in history, is a professor of history and director of Institute for Urban Studies, affiliated to the school of Humanities of Hangzhou Normal University. His main interest is in urban history, urban sociology and heritage. His researches have focused on the British economic history and urban history. He currently works on the issues of urban strategy, urban slum, and urban sustainability.

**Presentation**：Urban strategies not only determine the direction of the decision-making about a city’s development of the future, but also represent the wisdom about how to develop a city. Looking retrospectively to the last 40 years of Hangzhou development, huge changes, which are closely associated with a series of urban strategies that were adjusted continuously, can be observed. Hangzhou has grown from a medium-sized city to a megacity in a few decades and its urban space has evolved a lot. Marco Polo also travelled to Hangzhou; at the time the city was concentrated around the West Lake, and still West lake is the city centre. In 1985 the city had only 1 million inhabitants, now in the city centre alone they are more than 4 times this number. The city has developed also according to functional distribution (e.g. in the West side, West lake scenic spots and agriculture have been maintained, while commercial areas have been developed more on the East side).

Hangzhou represents an epitome of China’s other medium-sized cities. One key factor of this kind of rapid growth is the adjustment of the Hangzhou Municipal Government’ urban strategies, which means Hangzhou has seized several significant opportunities for urban development. The presentation of Prof. Zhang discusses the relationship between the development and the urban strategies of Hangzhou considering four aspects to explore the internal logic of urban development.

First of all, in the aspect of urban spatial evolution, there are three distinct phases of Hangzhou: the conservation of traditional urban space, the breakthrough of traditional urban space and the establishment of a big city. For example, in 1997 six towns (in Xioshan and Yuhang districts) have been annexed to the city and the population has grown of 1.3 million and the administration boundaries have expanded towards East and West. The city offers considerable advantages, e.g. the vicinity to big cities such as Shanghai, Nanjing, and being the capital of Zhejiang provice, with a long history and rich cultural heritage (like the West Lake,...).

While in the industrialization phase Hangzhou grew really slowly compared to other cities, several industrial zones have been established.

This "special" expansion is due to two main reasons: first, the local government purchases new land and second, the local government wants to meet China economic development goals.

A second aspect considered is the relationship between urban spatial evolution and political games: Hangzhou urban space changed in accordance with the national policies and the implementation of the urban strategies of Hangzhou satisfying the rules of political games in a sense.

The third aspect considered by Prof. Zhang has to do with the developmental dilemmas, e.g. dramatic traffic congestion, the disequilibrium between residential area and industrial distribution, problems of administration efficiency and city identification, which resulted from the rapid expansion of urban space. Moreover, Hangzhou is not a Special Economic Zone (so it does not benefit of special regualtions and had to develop finding its own path). Moreover, the city is experiencing the phenomenon of urban sprawl and real estate have not been limited so the expansion is continuing very fast and the former industrial city is becoming more and more residential. Moreover, even if urban development goes very fast, it's management it's not as fast.

Finally, he discussed some sustainable development issues concerning the development of Hangzhou, and how it can develop as more ecological, smart and with a high quality of life city.

The Hangzhou Future Scientific Park - under development on the West side of the city, where also HNZ Normal University is located - goes in this direction as it wants to promote the development of smarter and less pollutant industries. Nontheless, also in the development of innovative, ICT industries there's a lot of competition because many cities want to encourage the establishment of the same kind of companies.

To conclude, prof. Zhang points out that in 2022 the city will host the Asian Games, and other construction will develop, and he says we have to think ahead of time, and know where we want to go in the future. The Government has no time to think about it, because they are thinking too much on hosting big events, etc., but we have to.

**Discussion:** A first question concerns whether the city has conducted any Evaluation Impact Assessment of the different phases of Hangzhou Urban planning, and what measures have been adopted to face the pollution created by this development. Furthermore, it was asked if former industries in Hangzhou had been relocated where they have been.

Prof. Zhang answers that China at the moment is busy in developing and has "no time" to review the plan, the strategy, assess the impact of the plans. So, in most of cases, they have very little time and simply review the previous versions of a plan.

The new industries that have to be relocated have to meet national enviormental standards.

A second question concerns the coordination of planning at different levels, and prof. Zhang answers that there is an harmonization of all the policies (central / local level) but above all there's the national decision of the Central Government to take urbanization as a focal point for China development (e.g. Dream Town has been developed by the Municipality and not by the Central Government, so the local governments can implement their own plans, but they have to implement, first, the plans approved at the higher levels.

**Zhu Weiping 祝祎平**

“Simulations on the Area Threshold of Hangzhou wetland Based on System Dynamic Model” 基于系统动力学模型的杭州城市湿地面积阈值的仿真模拟

**Zhu Weiping**: professor of Institution of Remote sensing and Earth Science, Hangzhou Normal University, the director of Ecological planning and Design Institution, Hangzhou Normal University, a committee member of the International Center for Natural and Cultural Heritage of the United Nations Educational, Scientific and Cultural Organization and the stationmaster of Zhejiang Remote Sensing Archaeology Joint Laboratory of Chinese Academy, Minister of Education, and State Cultural Relics Bureau

**Presentation:** Urban wetland refers to the low lands in a city and its surrounding areas, which covered by water temporarily or by shallow water all the time. In Wetland, aquatic plants grow in the poorly drained aquatic soil periodically. Wetland is the kidney of the city, whose functions range from water conservation, climate regulation, environmental cleaning, and biodiversity conservation to education.

Yangtze River Delta plays a very important role in China (it only counts for 1% of the land but it contributes for 22% GDP). But since the reform and opening-up, urban construction in Hangzhou has sped up, meanwhile, the areas of wetland reduced drastically.

Hangzhou City, with the total area of 3348 square kilometres, consists of eight districts, including Shangcheng, Xiacheng, Xihu, Gongshu, Jianggan, Binjiang, Xiaoshan and Yuhang. At the start of the 20th century, there were 1420 square kilometres wetland in Hangzhou. However, from 2005 to 2011, the area was reduced of over 10% in total and over 1.5% per year.

Prof. Weiping raises the issue of the sustainable development of wetland in Hangzhou, and the development of land for non-construction purposes. From 2005 to 2011 the land used for construction increased more than 30%. In Prof. Weiping opinion Contructions, Wetlands and Farmlands they should be all taken into consideration.

Prof. Weiping shows the hypothesis and results of a project in which they have regarded the city as a larger system including diverse sub-systems (included the bio-system) and focused on the correlation among the different systems and sub-systems.

To conduct the analysis they have used data and statistics from the Hangzhou Bureau of Statistics, but not all those regarding land use are publicly available.

They have developed simulations based on a system dynamic model (proposed by Robert Costanza), which assumes certain thresholds and relates all subsystems like urban ecosystem, economy and population, imports constraints of urban development etc.

The main challenge is to find the relation among these different sub-systems.

For instance, the labour force for tertiary industries will increase, together with GDP, etc.

If all the factors will increase we will increase also the demand for landand as a result there will be less land, in particular farmlands and wetlands, resulting in their deprivation. So, what kind of land will be increased and which one decresased?

The problem is that there will be also an increased demand for agricultural land to feed the people, but such an agricultural demand - if farmlands decrease cannot be satisfied unless the total population decreases. The simulations show that the total population will increase from 5.4 (2005) to 9.5 (2025)

In conclusion, in the period 2005-2025 the construction land per person is increasing very fast, and by 2025, the area of Hangzhou wetland will be 1295.17-1367.45 square kilometres, but the construction land is in negative correlation with the city ecological index, so the current approach to land-use is not sustainable.

Prof. Weiping concludes making some suggestions: GDP growth rate should be controlled within a reasonable range; we have to limit the population, not to exceed 8 millions, and also the construction land should not increase too much, because farmlands should be maintained at least around 80-90.000 Hectares.

**Discussion:**

Prof. Weiping is asked if the spatial organization of all these areas has been considered since this is a variable that matter a lot in the assessment of sustainability, and Prof. Weiping answers that the models he has presented are based on statistics and data have been weighted. He also add that a limit they have is that theydon't have statistics on some city fixed assets, they only have some at the provincial level. Morever, thedata sources only cover 2005-2011, so they could not consider longer time series. This is one of the limitation they have encountered and for the rest they have analysed the interrelations using dynamic systems models.

Prof. Weiping is asked how the study presented relate to the city planning reality and if in China urban planning include any of the preoccupations he had raised.

Prof. Weiping answers that the government has required that GDP rate should not be lower than 7% and the simulations they have conducted are deeply related to the city development and national government requirements and they have tried to consider all these limitations in their simulations. In China if the government include the results of a research into its policy this is a great recognition. But the results of these simulations haven't been published, they are still in progress, but they plan to submit them to the city government attention.

It is asked wether it is possible to include public policy in the model. For examples the prediction about demography were "wrong" because now that the Government has introduced the "second child policy" (a first change to the demographic control policy had been introduced in 2013, and now it changed again). But Prof. Weiping explains that they have chosen to use this model (i.e. multiple-dynamic model) so that they can add, dynamically, many factors in it and correlate all of them

**Peng Weibin彭伟斌**

“Population Agglomeration and Sustainable development of the Small Towns in Hangzhou”

**Peng Weibin:** associate professor in the School of Economics and Management, Hangzhou Normal University and deputy director of the Population Research Institution and Urban Studies Institution of Hangzhou Normal University. His main interest is in population urbanization, population policy and E-commerce. His researches have focused on western economics, urbanization and population aggregation. He currently works on the issues of land-use and regional development.

**Presentation:** This presentation is looking at the issue of sustainable development in China from a rural perspective in the context of the country’s urbanization process. It highlights the challenges for the viability of rural areas due to the current model of urbanization and identifies broad policy directions for a more balanced and integrated rural-urban future development by using the municipality of Hangzhou as an illustrative example.

The urbanization process in China holds the potential to offer better conditions of life in cities but at the same time it influences the viability and future prospects of rural areas. In general, it is observed in China a persisted, and even widening, gap between rural and urban areas in terms of quality of life. Despite the present emphasis of the country on urbanization, this process should not pose challenges to the development of rural areas. Instead, an integrated model of development between rural and urban areas needs to be considered on the basis of aspects such as fair opportunities, fair processes and fair outcomes. Indeed, China’s rural areas are sizeable and can leverage large-scale development. Under then the context of urbanization, the gap between rural areas and urban areas should be removed in certain ways and from the perspective of the city of Hangzhou the case of small towns and villages becomes relevant along a number of aspects. For example, large cities like Hangzhou are becoming ever-larger, a process which produces various problems for these urban areas, but simultaneously in the rural areas of such municipalities many small towns face challenges from their ‘’de-urbanization’’ as, for instance, population seeks to migrate to large cities, hence villages are diminishing or receive little attention in policymaking. In accordance then with the vision of the central government for an enhanced urbanization, the development of small towns could serve to agglomerate this population from the villages also to small towns as opposed to migration flows that are directed wholly to urban areas. So, in the case of HZ, during the process of urbanization, policy needs to also look at the rural areas in terms of the sustainable development of their resources, their market, and their demographics. Hangzhou is a historical and influential city in the eastern part of the country which has attracted a lot of population compared to other cities. But this has also created pressures in the public facilities and services, and the transportation network which cannot accommodate adequately the ever-increasing needs. Hence, one possible aspect of the strategy of cities like Hangzhou to foster more sustainable forms of development is the control of its population.

With the expansion of the city over time, it now incorporates 9 districts and the urban core area has increased to 165 square Km while the total area for the Hangzhou municipality is over 4,000 square Km, and in this larger area the distribution of the population density is quite unbalanced with some counties receiving more population in relation to others with overall a pull of population towards the urban core. But at a lower spatial scale, many towns and villages are also experiencing administrative adjustments, for example where townships and villages are removed and one of the towns of the area becomes a bigger town and attracts population from surrounding villages and towns. This is the so-called central town. Research shows that these towns tend to attract population if they are closer to the main urban core (Hangzhou city center) but remote towns attract population in a slower way, and for some towns that are far away from Hangzhou city center their population even decreases. So, there is a need to adjust the growth of population among the counties and districts around Hangzhou city center area. In addition, at the municipal level, 80% of the GDP is produced by the urban areas taking up only 20% of the geographical area. So, many counties and districts around Hangzhou city center area are not developing fast and lack industrial capacity but they have some advantages that can assist with development (i.e. natural resources; tourism). To increase their industrialization level, one option then is to redirect, or develop, ‘’backwards’’ industrial activities within the wider municipality area of Hangzhou to areas around the urban core, most notably small towns, which currently have low levels of industrial economy, and where it does not appear realistic to develop a large export-oriented industrial basis. In addition, however, public services and facilities need to be developed in these areas. In such a framework of development for the whole municipality, a main issue then becomes the overall distribution of population across the wider area, and the agglomeration of the population factors that are changing dynamically and difficult to predict.

A starting point for such an approach could be to map and classify central towns which could constitute growth poles for the more underdeveloped rural areas. Such an exercise in currently in progress and as of 2014 Zhejiang provincial government has listed 43 as ‘’provincial-level’’ central towns, while the province includes also ‘’county-level’’ central towns we have ‘’city-level’’ central towns which could also serve as growth poles. A practical dilemma then with the agglomeration of population, needs for the provision of infrastructure and public amenities and social resources is created, which links to the issue of distribution of resources at the wider municipal level and particularly between the urban core and more remote areas. In addition, mechanisms could be developed to promote at the same time farmland preservation and agricultural production. For example, state subsidies could be given for real estate development and in exchange land property would be transferred from the farmers to the state which itself will devote part of it for agricultural land development other than construction. In addition, analysis of the demographics of the small towns and villages in the province show that there is overall an aging population trend for these areas which is a factor that needs to be taken into account with respect to future prospects for sustainable development. Finally, there are examples of local governance innovation for the development of these area, for instance in the form of organizational arrangements (i.e. rural development companies combined with governmental support on the financing, and coordination of development) or attempts by villages to develop a market-driven approach through which they are found to achieve population agglomeration.

**Discussion:** from the discussion followed it emerged that:

* Population is an important factor in the sustainable development of villages and small towns.
* Hangzhou faces challenges in terms of balanced urban-rural development and a large gap in quality of life between rural areas and urban areas.
* Current migration flows to the urban core tend to diminish rural and village areas.
* Need to further enhance the urbanization of urban core, but also promote structural change in the rural urbanization including the development of targeted industrial activities and public services in these rural areas (i.e. central towns, smaller towns, villages)
* Need to integrate land-use planning with urban construction planning.
* Central towns can serve as nodes of development and population agglomeration for surrounding less-developed towns and villages.

**Zhang Hengyi张恒义**

“Control the Urban Construction Boundary in Land Use Planning: A Case Study of Hangzhou” 中等城市建设用地增长边界管理：以杭州市为例

**Zhang Hengyi:** PhD in Management, a tutor in the School of economics and management, Hangzhou Normal University. His main interest is in land economics, land policy, urban development and regional economy growth. His researches have focused on ecological economy and regional planning. He currently works on the issues of land management, land-use and urban planning.

**Presentation**: With rapid urbanization and economic transition, some typical characteristics of urban land sprawl in western countries also occur in China. Western countries (e.g. UK, USA, Japan, etc. have developed different strategies and policy to control urban boundaries, i.e. Green Belts, Urban Growth Management, etc.). The reasons of urban land sprawl are low density, higher land consumption, scattered development, leap frog development, strip development and so on. These negative impacts not only ruin the environment and increased the travel cost, but also hamper urban healthy development. Such issues have been put on the agenda of the central Government.

Chinese urban land sprawl is a resonance phenomenon of suburbanization and urbanization, with chaotic expansion of construction land, traffic congestion and great loss of green space and farmland. To solve these problems and utilize land resource rationally, there is a tradition of managing urban growth through land use regulation tools. Land use planning in China is quite similar to western policies, such as growth management, since both are system arrangement to control urban sprawl through location, scale and time. Based on the remote sensing (RS) and geography information system (GIS) analysis, in his research he examined the control effectiveness of Urban Construction Boundary (UCBs) of Hangzhou from 1996 to 2005. Three indicators on boundary control were proposed, including the effectiveness of boundary containment, land inventory sufficiency and illegal adjacent development to the UCBs. Results showed that in Hangzhou almost all the land planned for construction has already been used (0.92), and this already in 2005: (1) the UCBs was so limited in guiding urban growth that most new development occurred outside. The scale of new development land outside UCBs was 33.9 km2 and that inside UCBs was 29.1 km2; (2) many new growths occurred near the boundary. In details, a total of 66.3 km UCBs emerged the edge-type land development, which accounted for 28% of total length (239.3 km); (3) the area encompassed by the UCBs might not be large enough to accommodate new development.

Zhang states that this phenomenon in China was mainly caused by human factors and system arrangement, rather than market power, including frequent administrative division adjustment, low-cost land requisition and the blindfold construction of economic development zone. They were the products of system defects such as unclear property rights and political reform lags. Urban growth control through the UCBs mainly resulted ineffective because they lacked a transparent system for urban land use Planning and control to provide sufficient information, and also because of the limitation of the traditional land use prediction method to consider contingencies, and of the absence of a mechanism to monitor and adjust the UCBs so as to respond in time to urban change. Urbanization in China is an institution-driven and oriented phenomenon and in the future, there is still much room for improvement.

**Discussion:** Questions were raised about the *status* of these lands and who controls them. Prof. Zhang answers that in China these decisions are taken by the Government and the power to convert farmlands to construction land is only of the Government. If a person or a company wants to develop something on a piece of land they have to make a plan and propose it to the Government for his approval. But the supervision on this proposal is not always effective. Many times those who are making the proposal are also the developers, those who will implement the plan, and many "human factors" may influence the project approval or not.

**Zhao Fengjun 赵奉军**

“Evolution Logic and Response Mechanism of Urban Public Housing in China” 中国城市公共住房的演变逻辑与动力机制

**Zhao Fengjun:** PhD in Economy, a tutor in the School of Alibaba, Hangzhou Normal University, a researcher in Nanjing Realty Research Centre, and a researcher in the centre of Land-use and Economics, the centre of Housing Policy, Fudan University. His main interest is in land-use and housing policy in China. His researches have focused on urban economics, real-estate economics and Chinese economic growth. He currently works on the issue of public housing policy.

**Presentation:** This presentation studies the evolution logic and response mechanism of urban public housing in China over the past 30 years. In China, the problem of urban housing is quite complex and essential as housing is very important in ordinary people’s lives.

Since the 1950s, the provision of urban public housing in China is shaped with an “N”-type of evolution. Under the planned economy system, all housing became part of the public sector. But there was very low public investment in housing because the priority was focused on “production”. Housing was considered to be part of “consumption” and the public authorities never really gave attention to this matter. Therefore, investment in public housing was around 2% during the planned economy. The average space per person was really limited; housing was overcrowded during all the socialist period. Zhao Fengjun’s study found that in the early 1990s, after the massive sale of public houses, the central government could not afford to provide public housing for a long period of time. In 1988, the land system was reformed, introducing the land-rights market. In 1994, a national reform of urban housing was implemented, introducing a real-estate system parallel to the public housing system. In 1998, it was officially announced that the public sector was not a provider of housing any longer. The real-estate market became the main constructor and social housing was very marginal. In 2007, there was finally a more visible housing policy towards the vulnerable groups in urban China. At the same time, local government among fierce competition also give up the responsibility of public housing because of race to the bottom. The absence of public housing contributes to the soar of housing price and public protest. Consequently, since 2010, the central government has tried to rebuild a urban public housing system under the context of a pressurized system. The public housing system dominated by a one-dimensional governance system could lead to a lot of equity and efficiency issues.

**Discussion:** A first set of questions was raised about the experiences of several other countries like the USA and the UK in the field of social housing. Another question was about the procedure and the criteria people had to follow to obtain social housing in Hangzhou. Professor Zhao explained that there are some basic criteria such as to have a monthly income below 4700 Yuan and the absence of housing property. But there are more and more criteria used to select the applicants. Also about the procedure, there is an unsolved issue: how can the local authorities make people leave the apartment when they do not meet the criteria any longer? It is very difficult to implement.

**Li Yan** replaced **Jie Dongzheng接栋正** for this talk.

“A study on the floating population problems and solution in the course of the population urbanization” 人口型城市化进程中的流动人口问题及其治理：杭州例子

**Li Yan:** PhD in geography, associate research fellow and the deputy director of Publicity of Hangzhou International Urban Studies Centre. His main interest is in urban social geography and urban management. His researches have focused on population migration, urbanization, and urban diseases. He currently works on the issue of floating population in the process of urbanization.

**Presentation:** The issue of floating population and its change trend is the most influential factor in the process of urbanization of population transfer. Hangzhou has staged a series of reform measures aiming to citizenization and to make the floating population live and work in peace and contentment, which seems to be a distinctive way to cope with the problems of floating population as floating population cannot live and work in contentment in cities and they cause huge pressure on public service resources. There are lots of restraints of the management of floating population, such as resource integration and policy supply. To realize the objective of urbanization in the aspect of population, it is necessary to establish a concept of governance, which means government should promote urbanization from the laws and regulations construction, the fiscal and taxation system reform, the residence permit system reform and housing, social security, employment system reform and other aspects, meanwhile, insist on “leave hometown but not leave land” and “leave hometown and leave land”.

**Discussion:** A question was asked about the access to public housing for the migrant population in cities.

**Song Yu宋瑜**

“Impact of urban form on the urban traffic: A case study towards sustainable urban planning in China” 城市形态对城市交通的影响：一个中国可持续城市规划的案例研究

**Song Yu:** lecturer of Institution of Remote sensing and Earth Science, Hangzhou Normal University.

**Description:** From the starting point that increasing private transportation in China poses challenge for urban sustainable development, this presentation assesses the relationship between urban form and urban traffic through quantitative and qualitative methods. The results of this exercise aim to inform the planning of sustainable urban transportation systems in particular based on the concept of the compact city.

China's urban population and construction areas expanded quickly in recent years, which had caused explosive demand in car ownership and consequently, traffic. Increasing per capita car ownership is associated with various challenges for urban sustainable development in China. The concept of compact city is widely considered as an effective approach to reduce urban traffic demand and tackle various problems associated with urban transportation systems as well as to assist with the development of a low carbon city. As such, the relationship between compact city and traffic efficiency is of interest for urban planners. This study, investigates the relationships between urban form and urban traffic for a sample of 35 Chinese major cities. In particular, the analysis investigates the relationships between urban form, residents’ traffic time during working days and traffic mode by using quantitative metrics of urban form and a questionnaire survey. The data and methods used are:

* Quantitative urban form indicator: urban population density; urban built-up area extracted through GIS methods and digital image processing.
* Urban traffic modes questionnaire: A questionnaire campaign was carried out in the selected cities in 2011. In total, 2535 questionnaires were collected.

The data were analyzed along two areas:

- Urban Traffic Modes Analysis

This part included correlation analysis between the urban residents' average traffic time in weekday and the proportion of common traffic modes used by them (walking; cycling; auto-cycle; car; public transit).

- Impact of Urban Form on the Urban Traffic. This part itself was split in two sub-parts.

1. Population density and traffic mode

This included correlation analysis between average traffic time of urban resident in weekdays and urban population densities (y-x coordinates: traffic time in working day versus urban population density). In addition, correlation between urban population densities and the ratio of walking and cycling (y-x coordinates: percentage ration of waling and cycling versus urban population density) was performed.

1. Built-up area and traffic mode

This included correlation analysis between average traffic time of urban resident in weekdays and the urban built-up area (y-x coordinates: traffic time in working day versus built up area). In addition, correlation between the ratio of traffic of private cars versus the urban built-up area was conducted (y-x coordinates: the percentage ratio of car driving versus built up area).

**Discussion:** The main questions raised in the discussion concerned the following points:

* Public transportation means were found the most usual traffic modes used by urban residents. In addition, the higher the walking ratio of urban residents, the shorter the traffic time was.
* Although traffic time were not found to be significantly influenced by urban population density, increased urban density can facilitate and stimulate low-carbon ways of traffic, e.g., walking and cycling.
* Modest urban build-up scale and compactness could contribute to reduced commute traffic times and improve traffic efficiencies, although car usage is not found to expand at the same level as urban built-up area increases.
* Soft modes of mobility like walking and cycling as well as public transportation systems are an integral part of a low carbon city.
* At present it is challenging to calculate statistics of carbon dioxide emissions from urban transportation.

**Zheng Rong 郑蓉**

“Third-party Evaluation on Community Satisfaction: A Case Study of One District of Hangzhou” 杭州社区满意度第三方测评研究——以杭州某城区为例

**Zheng Rong:** associate professor of School of Political and Sociological Science and the head of sociology department of Hangzhou Normal University, deputy secretary general of Zhejiang Population Institution, member of Zhejiang Sociological Association. Her main interest is social work, social insurance and demography. Her researches have focused on education of migrants’ children in Zhejiang and the endowment insurance system in rural area. She currently works on the issue of the community construction and community satisfaction in Hangzhou.

**Presentation:** She introduces the research by explaining that it was not a case study that represented her main research focus so the content will be quite simple. Urban communities have massive influence not only on the development of economy and society, but also on the grassroots democracy construction, social equity and stability. However, at present our community construction is regarded as public infrastructure construction or social activities simply. In China, the notion of “community” (社区) is different from the Western conception. The subject of community is people. The project of third-party evaluation on community satisfaction is carried out to transfer the government management to the self-governance of the residential place. But for a long time, the field of “community” in China was only involving the government. Therefore, “community” workers were very dependent from the government. They had a lot of pressure on their work coming from the government. That is why this research is interesting as it intends to bring more grassroots activities in the “community” construction. In a district in Hangzhou, under the project of the district government, professor Zheng conducted a research during five years. She believes this is the most convincing evaluation on the level of the community construction as it comes from the residents’ view. The third-party evaluation on community satisfaction in Hangzhou started in 2010, which was earlier than most of other cities in China. The third-party evaluation on community satisfaction framework has been established by now. This article explores the problems of the evaluation according to the practice of the third-party evaluation on community satisfaction in Hangzhou, in order to perfect the evaluation mechanism.

**Discussion:** a first question was asked about the geographical variable, as it would be important to take into account the diversity of architecture, of management in several neighbourhoods and the different dynamic of community governance in them. A second question was asked about the conception of the questionnaire, its content, especially the precise questions that were asked to the residents. A third question or comment was about the initiative by Hangzhou municipal government: the way the residents are used as “democratic judges” could be analysed as a control tool by the local governments on the community staff…

**29th November 2015 (Day 2)**

**Mr. Lu Yinan**

‘’Introduction of Zhejiang Hangzhou Future Sci-Tech City’’

**Mr. Lu Yinan** Management Committee of Zhejiang Hangzhou Future Sci-Tech City

**Description**

This presentation offers an overview of the Zhejiang Hangzhou Future Sci-Tech City, a key initiative in the city of Hangzhou for the development of innovation-driven economic development at the city-regional level.

In 2010, the city of Hangzhou was selected by the central government together with three other cities nationwide to develop as a pilot project a specially designated area for scientific, technological and economic innovation for both large companies and small companies (i.e. start-ups) in various sectors, primarily ICT but also pharmaceuticals, new energy, the digital economy and Internet of Things. The so-called Zhejiang Hangzhou Future Sci-Tech City was accordingly planned at the Yuhang District, in the northwest part of the city close to Xixi wetland with locational advantages including the presence of natural resources. Designed at a total land of 113 squares Km, it aims to serve as a high-end talent agglomeration area in Zhejiang province and a demonstration area for innovation. The City which is still under progress and develops fast aims to serve as a growth pole for innovation-driven sustainable development at the city-regional level and set standards for future innovation incubation parks that would be replicated at the national level. Various governmental levels are involved in the development and management of the City. For example, other than the central government’s pilot selection, the main source of funding for the initiative is the city government of Hangzhou while the provincial government also contributes financially.

The Sci-Tech City has three distinct platforms to promote innovation as well as serving as a base for talented individuals and young professionals offering to develop their ideas into technological products which is an explicit goal of the initiative; these are: the innovation platform; the health valley; and the Dream Town. The incubation platform focuses on the Overseas High Level Talents Innovation to recruit overseas returning people to start their businesses (until October 2015, 1500 overseas returnees had been attracted), and the Dream Town focuses on the start-ups of financial and internet companies. This last platform serves as a ‘’public space’’ for the promotion of small start-ups in the areas of internet and finance which are selected through certain procedures for locating on-site and receiving technical and financial support. The Dream Site hosts exclusively start-ups driven by graduates of Universities of the Zhejiang province. It was launched in March 2015 and at present hosts nearly 300 start-ups with the goal of reaching 10,000 within the first three years of operation and attracting over 300 billion RMB of investment. The success rates of these start-ups have not been assessed yet but there are high expectations from the government about that.

As noted, other that the start-ups, large companies are located in the City; some examples include Alibaba, China Mobile and China Telecom. In addition, state-owned companies and World Fortune Top-500 companies have set up in the City which has formed a system of diverse companies constituting an important pole of economic growth even at the wider Yangtze River Delta Region. At present, nearly 2,300 companies are registered in the City which depict high revenue growth rates (in the order of 50%). In certain cases these large companies, for example Alibaba, buy land development rights therefore contributing themselves to the development of the City (i.e. like in the case of the Alibaba Towbao City) in addition to the government.

Finally, besides its innovation character, the City aims to also incorporate a mixed-use of urban functions while in the adjustments of the Hangzhou Municipal Plan in 2014 it was upgraded to the status of ‘’city sub-center’’. Already, it includes residential areas, diverse office buildings and transportation facilities, and its strategic plan includes goals for the expansion of such mixed-uses in addition to the innovation and industrial activities pursued. During the early development stage of the City, a consultation and negotiation process took place through which the re-location of residents was agreed at the exchange of financial or material compensation. The future vision for the development of the City incorporates sustainability goals and criteria defined such as green buildings, green belt development and green technologies. Although the future plans of the Future Sci-Tech City include explicitly green development at present it does now have any clear links with a key citywide green initiative, the Hangzhou Low Carbon City Construction Pilot Project.

**Discussion:** From the discussion it emerged that the Zhejiang Hangzhou Future Sci-Tech City is one of the key state-driven initiatives undertaken in the city of Hangzhou that aims to promote innovation-led sustainable development at the city-regional level.

It also aims to promote urban sustainability by incorporating ecological principles and systems as well as a balanced type of development that mixes urban activities but there are no clear indications at this stage whether such goals and directions would be a core or a marginal part of its future character. Overall, it appears that at present the innovation and techno-economic agenda dominates the functioning and strategic orientation of the Sci-Tech City.

It seems that there is a need for a more thorough evaluation of the performance of the Sci-Tech City, and its future potential, regarding its economic, social and environmental implications.

**Zhou Chunshan, Sun Yat-sen University**

“General presentation of Zhuhai”

**Presentation:** Presentation in 6 parts: overview of Zhuhai, development history and space structure, features of Zhuhai Economy, regional cooperation, main challenges in the development of Zhuhai.

Zhuhai is located in the South of China (Guangdong province) between the sea and the river covering a total area of 1696 with a population of more than 1,600,000 inhabitants (the 1.5% of the total population of the whole province) within the Pearl River delta area, really close to Hong Kong and forming a continuous conurbation with Macao.

The city is well connected with the rest of the country through highways, ports and airports; tourism is a precious resource for the city being rich in cultural heritage and it is placed among the 40 top destinations in China. It hosts several important infrastructures among which 20 Universities, 18 hospitals, 423 medical centers.

In 2014 it has won the title of the happiest Chinese city.

In 1990 the city became a special economic zone (SEZ) as well as Shenzhen and in 2010 the SEC was expanded to cover the whole area of Zhuhai city.

The Guangdong province ranks number one in China (2014) concerning the GDP (equal in US dollars to that of Turkey), but among the 9 cities of the delta region Zhuhai only ranks 8th.

Economic development of Zhuhai in 4 phases: before 1983 we have an agricultural society; the period from 1983 to 1993 witnesses the beginning of industrialization; from 1993 to 2000 the city has basically realized industrialization (infrastructures and expansion of urban land); after 2000 there is a further promotion of industrialization (development of the western part of the city with secondary and tertiary activities with a contemporaneous decreasing of agriculture).

Manufacturing, pharmaceuticals, biotechnologies, chemical industries are concentrated in the western regions and are today the pillar of the economy of Zhuhai. But the last years saw also the rise of financial, real-estate, insurance, tourism activities, (the tertiary that is concentrated in the eastern part of the city).

Regional cooperation plays an important role since the land of Zhuhai has been used both from Macao and Hong Kong for investments in Mainland China.

The main problem is that Zhuhai has an economic structure very similar to other larger cities of the region, so there is an overlapping of functions with cities that for their dimension are more specialized and have a more skilled labor force: a proof is the increasing gap in GDP with the two larger cities (Shenzhen and Guangzhou); these two cities have a GDP 9 times larger than that of Zhuhai.

The main challenge for the city will be to develop its road systems, public transportation but especially both tourism and industries preserving the ecological diversity of the river, the sea and many islands in its bay as well as the preservation of historical and cultural heritage.

**Professor Chen, Datong University**

“General presentation of Datong"

**Presentation:** Professor Chen from Datong University presented a general report about the city of Datong. First of all, she focused on the general situation of the city. Datong is one of the 24 historical cities labelled by the Chinese state. It is located in the Northern part of Shanxi province. The climate is very cold during the winter and very hot in the summer. The city also possesses world cultural heritage. The city is famous for the many elements of historical heritage it carries. It is also considered as a « capital of coal » (煤乡), as it is located on a region where natural resources are abundant and of good quality. It already produced 37,69 billion tons of coal.

Then, Prof. Chen presented the type of city Datong and its size. Datong urban plan divides the city into three parts: the urban area, the planned area and the city centre. The urban area consists in the administrative zone, which has four “qu” or districs and seven “xian” or counties (Cheng qu, Kuang qu, Xinrong qu, Nanjiao qu, Zuoyun xian, Datong xian, Yanggao xian, Tianzhen xian, Hunyuan xian, Lingqiu xian, Guangling xian). The total surface is 14 112 km2. The planned area is composed of Cheng qu, Kuang qu, Xinrong qu, Nanjiao qu and of Datong xian, on a total surface of 3 708 km2. About the city centre area, it represents Cheng qu, Kuang qu and Nanjiao qu, as well as Majunying xiang, Shuiposi xiang, Xinwang xiang, Xihanling xiang Pingwang xiang, Kouquan xiang and the zhen of Tongshizhuang, Peijiazao zhen and dangliuzhuang zhen in Datong xian. The total surface is 899,96 km2. The city of Datong has a population of 3,375 million inhabitants (according to 2013 statistics). The urbanization rate is of 51%, the city inhabitants are 1,76 million people.

Finally, Prof. Chen presented the strategy for the urban development of Datong. Datong is a city that used the coal industry as its main path of development. But following the rarefaction of coal in the area, carrying out a transition in the city’s economic development has become the main priority. The transition policy mainly focuses on “green” development and nature protection by reorganizing the functions in the city centre, by reshaping the structure of production, by organizing sustainable development in the countryside, and by improving land use. An important work of urban renewal has been carried out, for example in the coalmines residential units. It means, among others, improving the transportation system and the transition from a resource-development city to a normalized-development city. For instance, there is a project of national park in Datong.

**Robert Lee**

Associate researcher, Management Modernization Research Center of the Management School, Inner Mongolia University of Technology

“General presentation of Hohhot”

**Presentation:** Learning by doing, middle income trap, success trap: in the development of the industry may disrupt our sustainability relying to existing knowledge to solve problems; external attacks are made by innovative external companies.

Hohhot needs to increase in population, should achieve sustainability adopting the learning by doing philosophy as it has done for the handicraft industry that is peculiar of its own region trying to avoid the success traps accumulating experiences.

Hohhot is the capital of Inner Mongolia in North China serving as the region's administrative, economic, and cultural center.

According to historical records the city was established in 306 B.C. having a perimeter of 300 m during the attempt of construction of the great wall. The plan of the city focused on its military use as well as its road network.

In a few years the population reached already more than 100,000 inhabitants since the city became one of the main hub of communication between China, Russia and Mongolia; with the increase of population the structure of the city changed continuously expanding and evolving contemporaneously with the rise of religious, political and administrative functions.

Following the 2010 official Chinese Census, the total population of Hohhot reached more than 2,800,000 inhabitants with an urban rate equal to 70 percent.

Hohhot is at present the major industrial center within Inner Mongolia accounting for approximately 15.5 percent of the province's total GDP in 2012.

In order to continue growing economically the city needs to further increase in population avoiding the “middle income trap”, (loss of competitiveness in the exportation of manufactured goods), and the “success trap”, (inability in differentiating the economy); a crucial solution for eluding these traps is the adoption of the “learning by doing” theory at the city level: the industrial development should disrupt attacks made by innovative external firms and rely on existing knowledge to promote competiveness. An example of this process is represented by the peculiar handicraft industry of Hohhot region that has avoided both the success trap and middle income traps accumulating experiences and innovations in its own sector.

**Wu Weiqiang 吴伟强**

“A Study on the Contribution of Hangzhou City Bicycle to Energy Conservation and Emission Reduction” 杭州市公共自行车对交通节能减排的贡献

**Wu Weiqiang:** professor in Zhejiang University of Technology, director of the Institute of Regional Development of Zhejiang University of Technology.

**Presentation:** In the background of low-carbon economy, promoting public bicycle as a way of travelling in cities is the new trend in the future. The presentation explains how the traffic greenhouse gas emission in Hangzhou has been calculated by IPPC listing methodology; based on the calculation. A study has been conducted on the operating mode of Hangzhou public bicycle to evaluate the traffic sharing rate of the public bicycle, and eventually, establish a dynamic data model to calculate the contribution rate of public bicycle to traffic energy conservation and emission reduction.

A common service provided in Hangzhou in order to promote city development while reducing the increase of gas emission in the Zhejiang province concerns the rental of public bicycles.

Since 2008, Hangzhou followed the example of some European and American cities like Lyon, Paris, Dallas and New York; from 2008 to 2014, the 2.5% of the money that the municipality gains from the main governmental transfers have been used to build up more than 3,400 service stations with more than 80,000 bicycles aiming to reach 250,000 units in the next years (by 2020).

One of the main objectives is to reduce traffic pressure since Hangzhou is the second city for traffic congestion in China after Beijing. The city bikes were meant to connect the last km after the bus stop providing a fast and cheap service for citizens using public transports; in fact in 2013, Hangzhou had already over 60,000 bikes (more than Paris). Consequently, the municipal government constructed more bike stations in collaboration with private companies covering all the districts of the city.

A survey conducted by the Hangzhou Normal University showed that the public satisfaction concerning the bike service is extremely high: in 2011 the satisfaction rate was about 81% reaching even the 97% in 2014 and it is the highest among all the means of transport (the metro ranks number two).

For these reasons, in 2011 the BBC tourist channel selected Hangzhou for the top 8 cities with the best bike service in the world.

At any rate, it is really difficult to calculate the contribution of public bicycles for the reduction of carbonic monoxide since the access to official statistics concerning unhealthy gas emission is an extremely problematic issue.

The general public, however, understands that the use of city bikes contributes to the local energy conservation; the team led by Prof. Weiqiang follows a simple model based on the UN IPCC (Intergovernmental Panel on Climate Change) to calculate this energy conservation estimating first the gas emission of private and public transports in Hangzhou, secondly, the sharing rate of public bikes and, finally, how many cars have been replaced by public bikes.

However in case of heavy traffic congestion an increase of gas emission may directly result from the kind of fuel used by drivers; for this reason surveys involving a large number of citizens and gathering information on the fuel they use are extremely important for a good approximation to reality of the model adopted.

The model so estimates that the total emission of both private and public transportation in Hangzhou is equal to 10 million of tons of carbon emission per year. At any rate, every day we have 250,000 rents of bikes contributing to a reduction of 1,238 tons of carbon emission each day witnessing the good results offered by this public service to energy conservation.

**PRESENTATIONS BY YOUNG RESEARCHERS**

**Valentina Anzoise**

Post-doctoral Research Associate

Ca' Foscari University of Venice, European Centre for Living Technology (Italy)

"The urban edge/urban fringes, (where) does the city *end*?"

**Presentation:** Valentina Anzoise presented an overview of the development of the city of Hangzhou due to city government comprehensive master plans in the last 30 years and also to its non-state-owned industries, which are playing an increasingly critical role in radically transforming local economy. Indeed, since 1949, Hangzhou’s master plans have become more and more market-oriented under current transitional economy.

Moreover, the city has done also considerable efforts towards sustainability and to develop high-quality urban environment, which have been recognized by domestic and overseas organizations, earning titles and awards.

The first version of the City Masterplan (1981 – 2000) had as its main aim to develop Hangzhou as a tourist city, as well as an industrial city and the provincial capital.

The second version (1996 – 2010) had as its main aim to annex three townships from Xiaoshan County and three townships from Yuhang （余杭）County into Hangzhou (approved in 2001).

The third version (2001 – 2020) is about the annexation of Xiaoshan City and Yuhang City as districts of Hangzhou City.

Considering the last version of the Master plan, Valentina Anzoise discussed some preliminary hypothesys and some relevant research questions for her fieldwork: what are the visions, narratives and discourses about urban development and modernization pursued in Hangzhou (and China: last but not least, the National New-Type Urbanization Plan (launched in 2014 with ambitious targets for 2020) and how do they relate with the local governments' urban planning and land-use policies? but also how, if any, different stakeholders (residents, companies, universities, etc.) could be engaged and their different perceptions, expectations and insights considered more and incorporated in the projects of urban developers and local authorities?

In particular she discussed the cascading effects - on landscape, environment, social organization and community identity but also on energy efficiency and food provisioning - triggered by the rapid changes in land-use (especially from farmlands to construction land) and by the Land Development Rights Trade.

Her research will focus on Yuhang district and more in particular on the area of the Future Sci-Tech City. She has already started to review the literature and to conduct her fieldwork documenting, also visually, how this peculiar metropolitan fringe - where also the HNZU Canqian campus is located - is transforming.

The choice to focus on this urban fringe for her case study is due to the fact that these are very dynamic (but critical) geographical entities – whether they are subjected to planning or not , where different populations, functions and opportunities (and threats!) might coexist. For these areas it is needed to cultivate a good, harmonious spatial pattern: metropolitan fringes and the spatial structures of the towns and villages developing in its surroundings should (Haifeng and Chuankun, 2012; PLUREL, 2007-2010, etc.) link up to the central cities (and to their comprehensive planning) while ensuring that the spatial units have an organic fusion and relative independence; have a strict control of non-construction land and care about the construction/maintenance of ecological landscape; and develop/cultivate tools and processes to ensure high flexibility to future changes, while having an orderly development according to timing.

Her research design will combine complex systems and innovation theorieswith a diversity of analytical approaches, i.e. case study, narrative analysis and ethnography together with multi-objectives analysis and evaluation. The feasibility of this research design will largely depend also on the possibility to access city plans documents, disaggregated data (especially updated ones) and not just secondary data and also (to get more qualitative data) to the availability of people/researchers who can support the researchers with translations and of the capabilities of Valentina herself to conduct interviews/conversations in Chinese in the coming months.

**Discussion:** Questions were raised about the access to data regarding the development of the area selected for the case study (e.g. the occupancy rate of the constructions in the area of the Sci-Tech city, the outcomes of the strategic impact assessment or other kind of evaluation). As previously said, data are not easily accessible, and also the levels and actors involved in the urban development and planning are many and their functions and relations quite complex to grasp.

**Iraklis Argyriou**

Post-doctoral Research Associate

Centre National de la Recherche Scientifique, Department of Géographie-cités

**Presentation:** This presentation offers an overview of the politico-economic system within which urban development takes place in China with particular focus on the role of the planning system, in order to identify policy aspects that influence significantly the urbanization process in the country. It then briefly presents literature on smart cities to identify issues that require further attention from a governance perspective with respect to smart city development. Finally, it introduces two cases in the city of Hangzhou, one on large-scale redevelopment and another on local innovation for smart city development, as illustrative examples of China’s current efforts of planning for sustainable urban development.

The urbanization process in China since the opening of the country to the world system has brought significant progress but also accumulated problems with implications for the quality of urban life and the future viability of Chinese cities. Over the last decades, based on a model of state-led urban entrepreneurialism, Chinese cities tend to expand in their territory and increase their GDP through a land use-driven fiscal regime. In this context, the planning system serves primarily the need for growth rather than controlling urban development. In response to the problems associated with urbanization, Chinese cities increasingly adopt a more strategic approach for urban development aiming to foster sustainability at the city-regional level. A core part of this approach is based on the production of strategic plans that aim to promote economic and industrial re-structuring, balanced spatial development and ecological practices in a broad context of local territorial restructuring and orientation to the global economy. In this analytical framework, it is identified that there is a need for more empirical research on the types of spatial dynamics, institutional settings, and role of actors that influence sustainable urban development in China. With respect to smart cities, this concept gains prominence internationally in governments, businesses and the academia as a potential policy framework for promoting sustainable urban development, including in the case of China. Tracing the epistemological origins of the smart city, as well as its mainstream policy agenda, suggests that contrary to the widespread character of the concept and its promise for promoting comprehensive forms of urban development, there is an underlying implementation agenda that tends to favour innovation-led urban entrepreneurialism and growth without necessarily addressing wider urban issues and interests across social, economic and environmental considerations. In addition, there is a need for more empirical research on the types of policy frameworks and actor constellations that structure and operationalize smart city development in diverse urban contexts. Finally, the presented cases for Hangzhou offer an opportunity for assessing issues identified in the literature at the nexus of urban planning in the Chinese context and smart city development.

**Discussion**: From the questioned raised in the discussion it emerged that the current model of urban development in China favours economic consideration but pays less attention to environmental and social issues.

More and more cities consider policies to promote sustainable urban development but still mainstream types of development persist.

It is helpful to assess sustainable urban development in China within a multi-level policy context aiming to insight on the types of territorial dynamics, institutional frameworks and role of diverse actors from a urban and political-economic perspective.

**Judith Audin 朱蒂丝**

Post-doctoral Research Associate

Sciences Po Aix (CHERPA), France

“Lost in translation? First results of field research in Datong, Oct.-Nov. 2015”

**Presentation:** Judith Audin presented the results of a first month of research in Datong. The city appears “in transition” both on the physical aspects and on the political and social aspects. She also mentions the challenge of starting fieldwork in a new medium-size city for MEDIUM project and the difficulty of the research methodology: ethnography and urban sociology.

The city of Datong appears in transition because of the socio-economic situation, but also because of the political context. This city must manage a transition from a natural resources and heavy industry-oriented economy to a new path of economic development. It used to be labelled “the capital city of coal” and was well known for a serious air pollution issue in the urban area. But it also carries many centuries of history, by having been a former capital city and a first gate on the Silk Road and Inner Mongolia. Because of the tension between the coal extraction economy and the historical heritage touristic development, the city of Datong has difficulty finding its overall identity. In 2008, the former Datong Mayor Geng Yanbo decided to give the city a new image, by promoting tourism and culture instead of coalmining activity. The urban planning project was very ambitious; it involved rebuilding the old relics in the city centre that existed during ancient China, as well as reshaping the surrounding areas. The problem is that in 2012, the political context changed. China’s central authorities launched a very strict anti-corruption campaign. Suddenly, a few months after his re-election, Geng Yanbo was transferred to another city, Taiyuan, without finishing the urban project of Datong. Since then, the political transition and administrative management have been difficult. A lot of architectural projects that were started did not get finished. It is possible to study this context by starting locally with a few case studies.

The first one is about the management of social issues in Datong (social welfare, animation, mediation…), through the case of residents’ committees in contrasted areas of the city (one residents’ committee located in a residential neighbourhood in the city centre, one located in an industrial neighbourhood and one located in a newly-built compound). What types of social issues are dealt with in the interactions between city inhabitants and social workers of residents’ committees in Datong?

The second case study focuses on the conversion of industrial heritage in the city into a cultural area, through the case of Datong Coal Factory. Built in the 1980s to provide city inhabitants with domestic coal (used for heating), it opened in 1990 and closed in 2008. It will be transformed into an art district. Does it reproduce the transformation of other brown fields in China? This is what she tries to understand.

This research about Datong would allow understanding better the way all medium-size cities in China deal with sustainability, political transition, and social issues, by using a qualitative and multi-disciplinary methodology of research.

**Discussion:** A first comment was about the requalification of brown fields in China. A second comment was about the mystery of the financing of Datong’s urban planning project by the former mayor.