

A Study on the Development Trend and Transformation of Shanghai as a Creative City in the 21st Century

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Abstract: In the 21st century, under the wave of globalization, society is entering an economic development model with knowledge and creativity as its capital. Against global convergence, playing local characteristics of the city itself is the key to improving the city's competitiveness. This model of creating a city image with creative economy and stimulating economic development through creative industries has adapted to the requirements of post-industrial society for urban transformation. Therefore, it has been strongly supported and promoted by many governments, and has rapidly swept the world – “creative city” has gradually become a new paradigm for urban development. Based on the data of the Shanghai Statistical Yearbook for the past ten years, this paper visualizes creative investment, creative achievements and creative workers at the creative economy level, and hierarchy structure, proportion and salary at the creative class level, and creative immigrants, homosexual index and creative ideas at the creative city level. Thereby it analyzes the development trend of Shanghai as a creative city at various levels in the past ten years, and summarizes the advantages and disadvantages of its development. This paper found the advantages are that the national level has a large investment in research and development in Shanghai, a large number of patents granted, a rapid development of creative industries, and a leading index of creativity across the country (except Beijing). The shortcoming is that the number and proportion of the creative class is not big enough. At the same time, Shanghai as an international metropolis, the openness, inclusiveness and diversity of the city are far from enough. In these respects, we analyzes the creative city—Helsinki's successful experience, meant to guide Shanghai's future development strategy and transformation as a creative city.

Keywords: creative economy; creative city; creative class; urban culture

Introduction

In the 21st century, under the wave of globalization, society is entering an economic development model with knowledge and creativity as its capital. The industrial transformation of the city is becoming more and more important. It opposes global convergence, and the local characteristics of the city itself are the key to improving the city's competitiveness. This model of creating a city image with creative economy and stimulating economic development through creative industries has adapted to the requirements of post-industrial society for urban transformation. Therefore, it has been strongly supported and promoted by many governments, and has rapidly swept the world – “creative city”. This has gradually become a new paradigm of urban development (Gan Lin, 2012). Looking forward to 2035, Shanghai will basically be built into a remarkable global city, a city of innovation, a city of humanities, an ecological city, and a socialist modern metropolis with world influence. This

is the development of Shanghai's urban development in the 21st century. Goals and visions (Shanghai Municipal People's Government, 2018). How to become a city of innovation and how to become a great creative city that can attract a large number of creative classes will become a new challenge for the development of our city in this era.

At present, most of the domestic and foreign research related to it is aimed at the public policy of developing creative cities at the national level, the development experience of European and American cities as creative cities, and the creative industries developed in Shanghai in recent years along with urban renewal. For Shanghai itself As a whole, the overall development trend of the creative city in the past decade, including the advantages and disadvantages, is relatively small. Therefore, this article first briefly introduces the basic concepts of creativity, creative economy, creative class, creative community, and creative city. Then, I consulted the Shanghai Statistical Yearbook in the past ten years, and creative investment, creative achievements, and creative workers at the creative economy level. At the creative level, the hierarchical structure, proportion, salary, and the immigration, homosexual index, creative industry and other statistical data at the creative city level are visualized, and the development trend of Shanghai as a creative city at various levels in the past decade is analyzed and summarized. At the same time, from the six aspects of lifestyle, social activities, diversity, authenticity, identity and local quality, the creative capital: Helsinki's successful experience, to provide some feasible suggestions for the future development of Shanghai's creative city.

1 Related concepts

1.1 What is Creativity?

Creativity is a very open concept that can be interpreted in a wide range of ways. It seems that any action aimed at solving a problem or improving the situation is a reflection of creativity (Klaus Kunzman, 2012). Charles Landry writes, "Creativity has many qualities. It is a history of deep experience in the past. It subverts widely accepted things, challenges customs, and tries to create new experiences, rather than absorbing and identifying existing ones in advance. Experience. Experience always exists in a predetermined pattern or theme, leaving little room for personal imagination. Conversely, creative cities have to create their own space, it can be loose, ambiguous, uncertain and unpredictable Sex, ready to adapt (Charles Landry, 2009)."

1.2 Creative Economy

The concept of "creative economy" first appeared in the US Business Week in August 2000, after which John Hawkins explored the global impact of the creative economy in his 2001 book, *Creative Economy*. Define the creative economy as 15 creative industries (Richard Florida, 2010). Richard Florida (2010) thinks so, "Creativity is the most important economic driver, knowledge and information are creative tools and materials, and innovation is a creative product. This product can be expressed as a new technology product, too. Can be a novel business model or method."

1.3 Creative Class

The rise of the creative economy has had a profound impact on the division of social groups or classes (Richard Florida, 2010). The striking feature of the creative class is that its members are engaged in the work of "creating meaningful new forms" (Richard Florida, 2010). In this regard, Richard Florida (2010) believes that it is mainly composed of two types of groups, the "super creative core" group (including scientists and engineers, university professors, poets and novelists, artists, actors, designers and architects, and The pioneering group of thoughts in modern society) and the group of "innovation experts" (including high-tech industries, financial services, law and health care, and business management groups). The other classes corresponding to it are the agricultural class, the working class and the service class.

1.4 Creative Community

For the creative community, Richard Florida believes that “the place must be open, there must be diversity, there must be an open gay community, and people there have different races and ethnicities. There are different ages. The people in the paragraph are living, and they are easy to accept young people, and the appearance of those people is not the same (Richard Florida, 2010).” That is, the creative area can provide interesting lifestyles, social activities, diversity, inclusiveness (such as accepting homosexuals), authenticity, ability to reflect identity, recognition, ability to have unique local qualities, and so on.

1.5 Creative City

Successful creative cities have the following characteristics: hard factors (creative physical space such as museums and exhibition halls), urban history, individuals (leaders, stars, etc.), open communication, network connections, organizational capabilities, urban cultural image, mature Cultural and creative industry clusters, art and media education, technology environment, cost of living (affordable housing, etc.), pleasant atmosphere, etc., these characteristics can attract creative people, as well as various creative enterprises, thus driving the city's creative economy development (Klaus R. Kunzmann et al, 2013).

2 Shanghai 21st Century as a creative city development trend

2.1 Creative Economic Level

2.1.1 Creative Investment Index

In the 21st century, Shanghai's creative economy is developing rapidly. R&D investment in the creative sector has grown exponentially, the number of licensed patents has continued to grow, and creative industry workers are steadily growing. Simultaneous development of technological innovation and creative work will become one of the main driving forces for Shanghai's economic growth.

In 2000, total R&D expenditure was about 7.673 billion yuan, and it increased to 93.614 billion yuan in 2015. The total R&D investment during this period increased by 11 times. In 2000, research and development institutions, universities, and enterprises did not have high R&D expenditures. From the perspective of growth rate, the highest is the R&D expenditure of enterprises, followed by R&D expenditures of scientific research institutions and research and development funds of higher education institutions.



Fig.1. Significant growth in creative investment: research and experimental development (R&D) funding

2000-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

2.1.2 Creative Achievement Index

From the beginning of the 21st century to 2015, from the year-on-year curve of R&D results, although there was a slight downward trend in 2004 and 2013, the overall situation continued to grow. In 2000, the number of authorized patents in Shanghai was only 4,050, and it increased to 60,623 in 2015, almost 15 times more than the 20th century American mentioned by Richard Florida in *The Rise of the Creative Class*. Authorized patent growth.

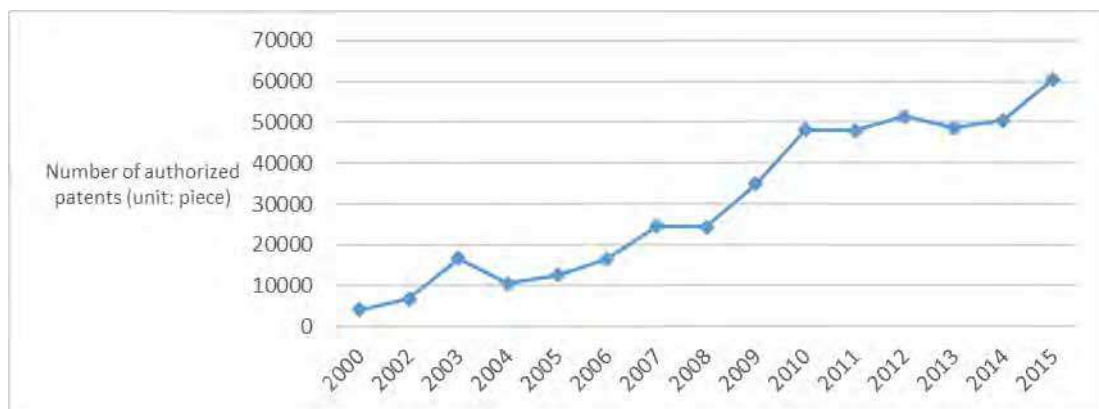


Fig.2. The growing creative achievements: the development of patents 2000-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

2.1.3 Creative Workers Index

Compared with R&D investment and creative achievements, the increase in the number of creative workers is not very large, but it is also a growth trend. Technological innovation practitioners, such as scientists and engineers, increased from 18,365 in 2005 to 45,196 in 2015, an increase of 2.5 times. In particular, from 2008 to 2009, the largest increase, an increase of 15,000 people. The number of people in culture, sports and entertainment has been fluctuating up and down, with an overall increase of around 20,000.

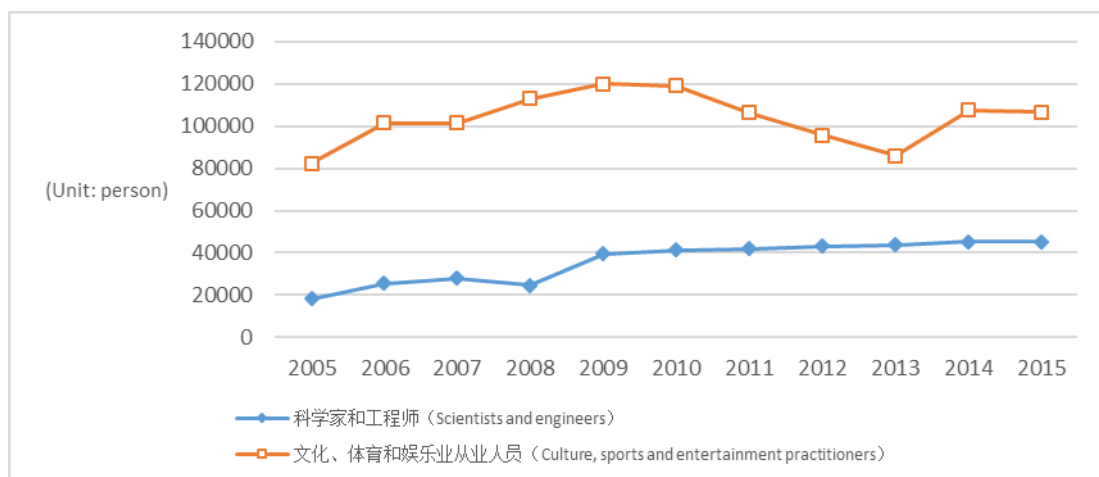


Fig.3. The number of creative workers increased slightly 2005-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

2.2 Creative level

2.2.1 Hierarchy structure and proportion

In the 21st century, the creative class in Shanghai is rising and its number is growing steadily. From 1,633,700 in 2005 to 331,270 in 2015, it has roughly doubled, and the total number of employed people has increased by about 4.5% in total. The increase is not large. For the creative class, Shanghai should also be in the future. Adjust public policies to attract more creative people.

From the overall chart, Shanghai's labor class still plays an important role, both in terms of quantity and proportion, at the highest position, followed by the service class, the creative class, and finally the agricultural class. The number and proportion of the agricultural class are decreasing year by year, while the number of labor class and service class is increasing year by year. The difference is that the proportion of the service class has increased, and the proportion of the labor class has decreased in recent years. There is a tendency for the number and proportion to gradually approach.

Nobel laureate Robert Lucas believes that productivity due to the agglomeration of human capital is a key factor in regional economic growth, calling it "the out-of-bounds effect of Jane Jacobs" (Richard Florida, 2010). Therefore, in the future, Shanghai's urban development expects that the proportion of creative and service groups will increase substantially, and the proportion of working class and agricultural class will decrease. But this does not mean that the service class will replace the working class, because the meaning of the service class is mainly to support creativity. Class and creative economy. This trend means that creative people will start to recognize the lifestyle and atmosphere of Shanghai and can gather here. It is accompanied by creative companies that need manpower to choose Shanghai. The synergistic development of the two will drive Shanghai's economic development.

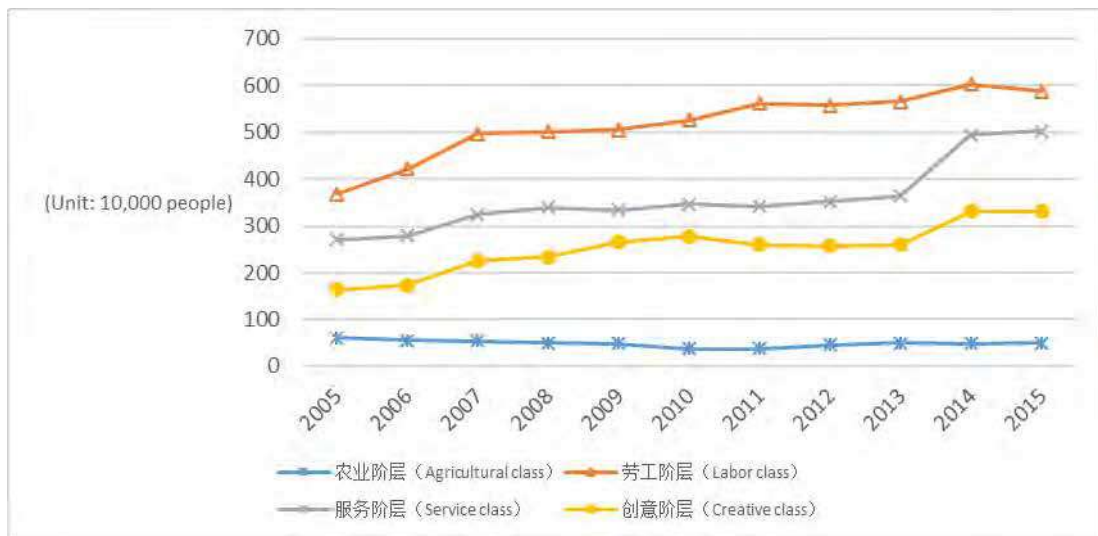


Fig.4. Hierarchy structure 2005-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

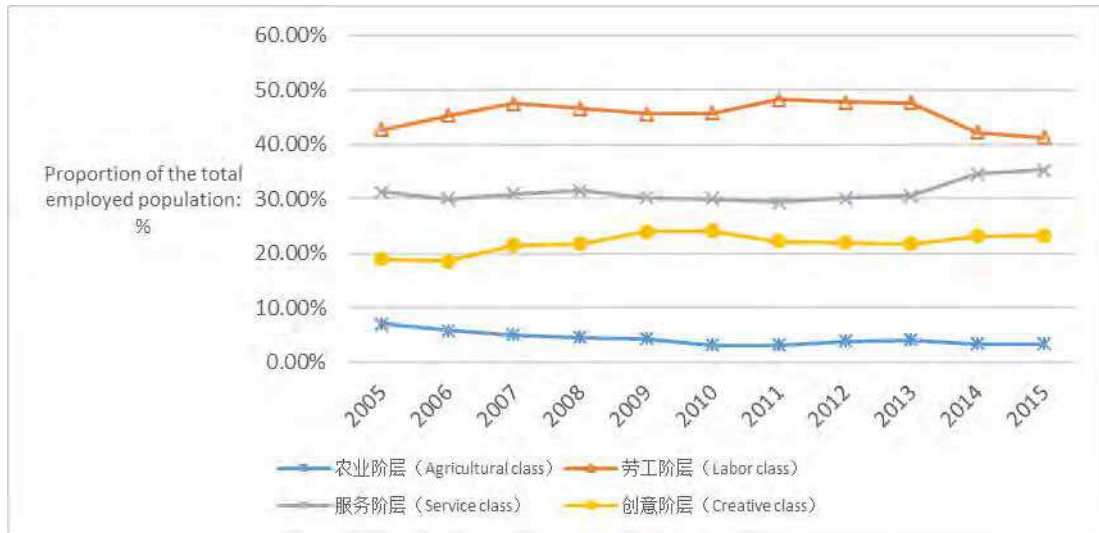


Fig.5. Hierarchical structure 2005-2015 (% of total employed population)

(Source: Shanghai Statistical Yearbook 2004-2016)

2.2.2 Salary level

The chart shows that the creative class has been at the highest salary level for ten years, followed by the service class, the working class, and the lowest is the agricultural class. On the whole, due to the rapid development of China's economy, all sectors have shown a sharp growth trend in the past ten years, with the creative and service sectors growing fastest. In 2005, the average salary of the creative class was about 33,000, and it increased to 90,000 in 2015. In 2005, the average salary of the service class was about 23,000. In 2015, it increased to about 68,000. In the past ten years, both classes have increased their wages by about 2 times.

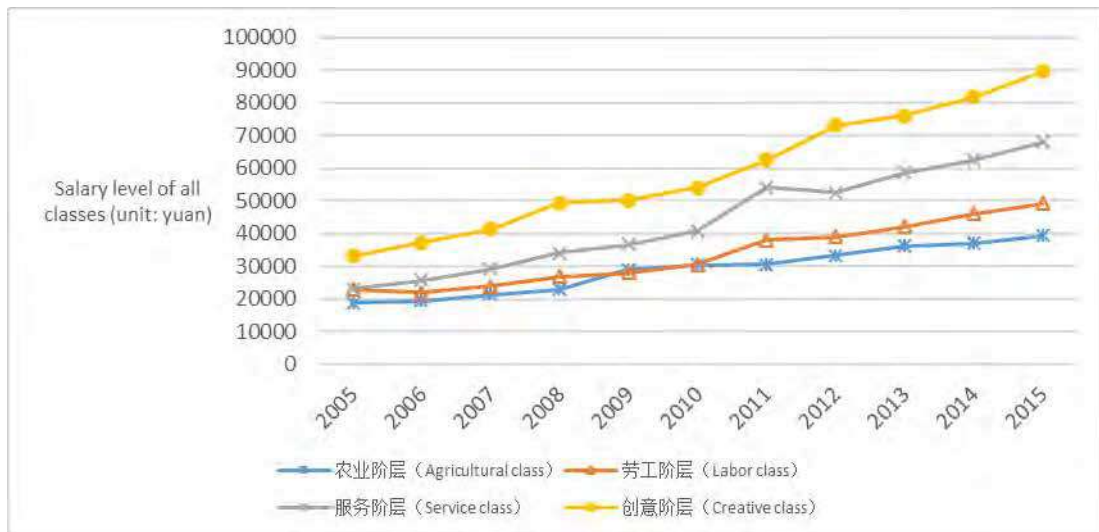


Fig.6. Average salary level of people at all levels 2005-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

2.3 Creative City Level

2.3.1 Immigration Index - Urban Openness

A large number of studies have shown that the immigrant population has a positive effect on the economic development of the country and the city (Richard Florida, 2010). Wall Street Journal reporter Baska Zachali's "Globalization of Me" mentioned that "opening up to immigrants is the cornerstone of creativity and economic growth." He believes that the success of the national economy is in line with the entire country. The openness of creative talents and dynamic people around the world is directly related (Richard Florida, 2010). I think the same is true for cities, that is, the degree of urban economic development is directly related to the openness of creative talents and dynamic people around the world.

The following picture shows the trend of the number of migrants in the past ten years according to the Shanghai Statistical Yearbook. It can be seen that from 2009 to 2010, regardless of the resident population, there is a relatively large increase in the proportion of migrants and migrants, indicating a large amount during this period. The immigrant population flooded into Shanghai. This is because in 2009, the Shanghai Municipal Government issued a notice on the "Trial Procedures for the Hold of the Shanghai Residence Permit" to Apply for the Permanent Residence of the City, That is, the eligible entrepreneurs and employees in Shanghai can meet the requirements. Apply for Shanghai household registration. From 2010 to 2015, the migrant population is basically in a relatively stable trend. It may be due to factors such as high housing prices in Shanghai and difficulties in settlement. The increase in foreign population is very low.

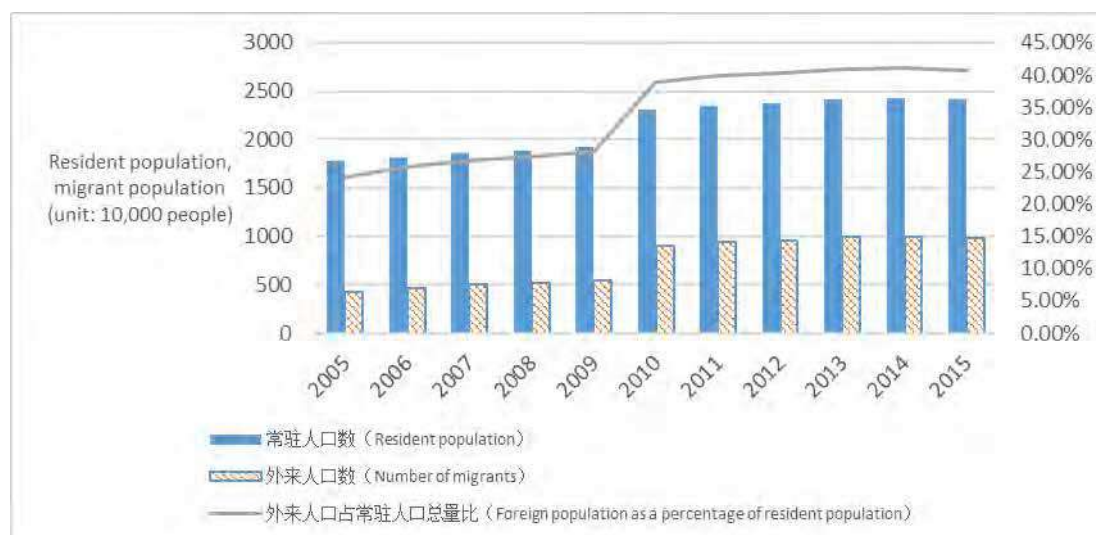


Fig.7. Immigration Index 2005-2015

(Source: Shanghai Statistical Yearbook 2004-2016)

2.3.2 Gay Index - Urban Inclusion

Richard Florida (2010) mentioned in his book that he and Gates conducted a comparative study of the creative/high-tech industry distribution and the homosexual index rankings, and found that the homosexual index is an effective indicator for measuring diversity. Because of the usual situation, the colony that can accept homosexuals also has a relatively open attitude towards other types of people (Richard Florida, 2010). That is to say, in areas with high gay index, the degree of openness, diversity and tolerance of the city will be relatively high. Such an area plays an important role in stimulating creativity and high-tech growth.

Since China's overall openness to homosexuality is not high, there is basically no accurate research data. Therefore, it can only be based on the data in the 2015 Blued Big Data White Paper. Blued is currently a popular gay friend dating app, and the number of users is very high. It accounts for 84.57% of the domestic gay apps, which is relatively more telling. The data shows that the number of Blued users nationwide has increased

significantly in recent years. On the one hand, it reflects the popularity of APP, and on the other hand, it shows the growth of this group and the demand for social. In terms of user rankings, Beijing was the highest, followed by Guangdong, Jiangsu and Shandong (no data rankings were found later). Shanghai is geographically close to Jiangsu. In theory, the number of users should be high, but it is not ranked in the top four users, indicating that Shanghai is not very tolerant of the diverse population. At this point, Shanghai, as an international metropolis, should make a difference and strive to create a more open and inclusive urban environment. Only in this way can Shanghai attract more creative people.

At the same time, I believe that the increase in immigration is not high, and the homosexual index is not high. These may be directly related to the results of the previous increase in the creative class, and further research is needed in the future.

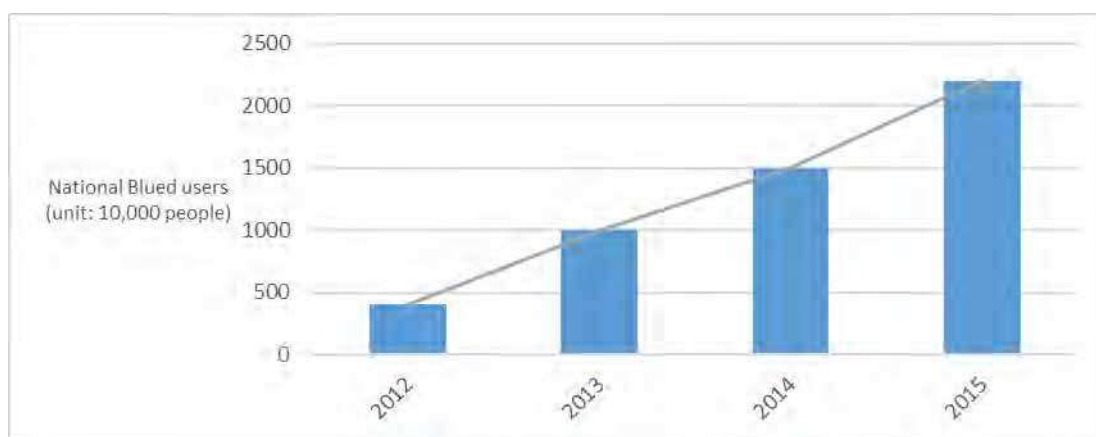


Fig.8. Gay Index - National Blued User Volume 2012-2015

(Source: "2015 Blued Big Data White Paper" for user statistics)

Table 1 Gay index - 2015 Blued user rankings in provinces and cities across the country

Province	Blued users nationwide ranking
Beijing	1
Guangdong	2
Jiangsu (near Shanghai)	3
Shandong	4
...	...

2.3.3 Creative Industry Agglomeration Index - Urban Culture Level

Based on the development status of urban creative industries, the identification of creative industry clusters with corresponding funds and supporting support is a relatively simple and fast way to achieve effective results in the material and space level, accompanied by a large number of urban material space renewals in recent years. Transformation, this kind of government-led industrial cluster development model is widely used in major cities such as Beijing, Shanghai, Suzhou, Xiamen, etc. According to statistics, at the end of 2015, Shanghai has certified 126 municipal-level cultural and creative industrial parks, covering a total of 17 districts and counties in the city. At the end of 2017, Shanghai issued "Several Opinions on Accelerating the Innovation and Development of Cultural and Creative Industries in the City", and proposed that by 2035, it will fully build a cultural and creative industry center with international influence.

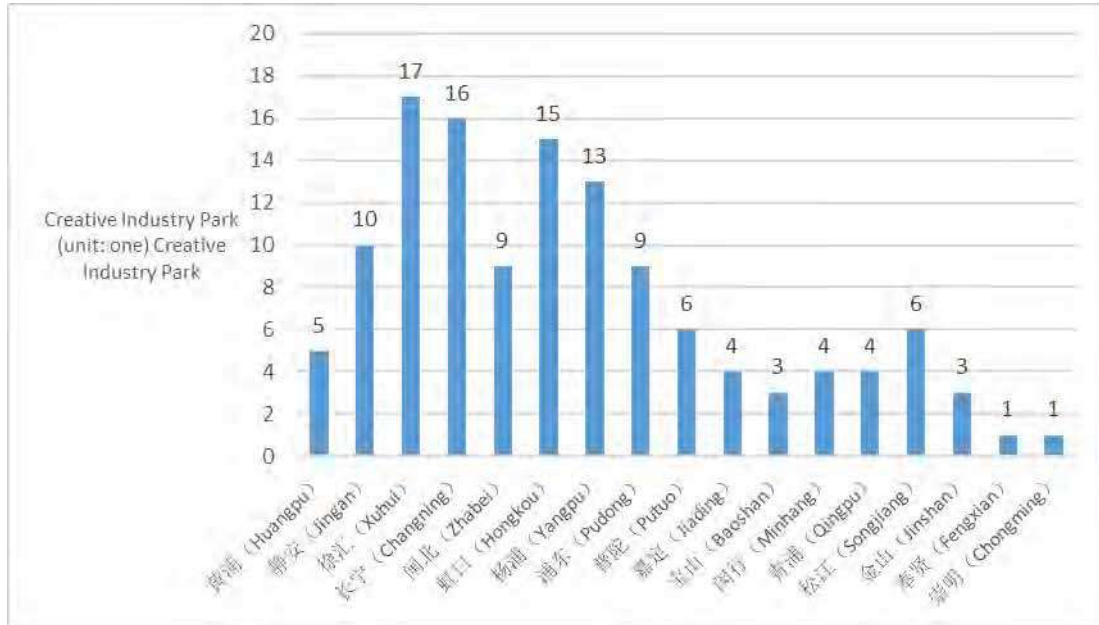


Fig.9. Distribution of Shanghai Cultural and Creative Industry Park

(Source: 2015 Shanghai Cultural and Creative Industry Development Report)

2.3.4 Creative Index

The 2017 China Urban Creativity Index (CCCI2017) was jointly completed by the School of Management of Shenzhen University, the Research Institute of Cultural Industry of Shenzhen University, and the National Cultural Innovation Research Center of Shenzhen University. The results show that Beijing, Shanghai, Hong Kong, Shenzhen, Hangzhou, Guangzhou, Chongqing, Suzhou, Tianjin, and Taipei rank among the top 10 in the 2017 China Urban Creative Index. It can be seen that Beijing and Shanghai are leading positions in creative cities nationwide.

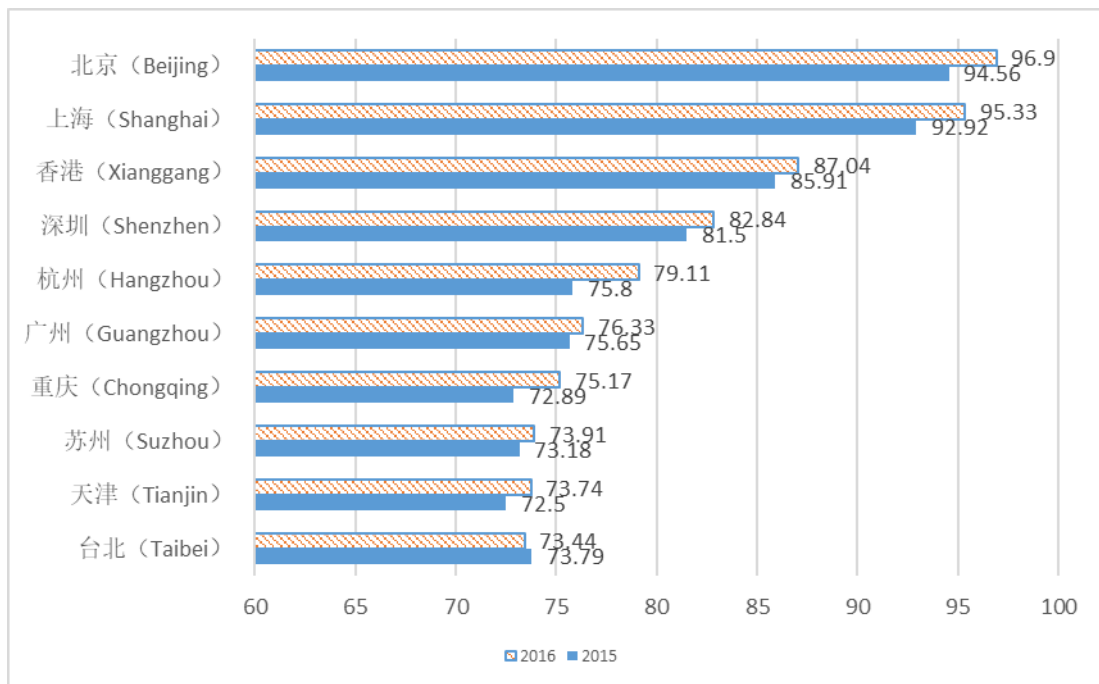


Fig.10. Creative Index Ranking 2015-2016

(Source: 2017 China Urban Creativity Index (CCCI2017) released data)

In view of the development trend of Shanghai as a creative city in the past ten years, the advantages are that the national level has a large investment in research and development in Shanghai, a large number of patents granted, a rapid development of creative industries, and a leading index of creativity across the country. In other cities (except Beijing), etc., the shortcoming is that the number and proportion of the creative class is not big enough. At the same time, as the international metropolis of Shanghai, the openness, inclusiveness and diversity of the city are far from enough. In these respects, we can learn from European and American cities, such as Helsinki, to guide Shanghai's future development strategy and transformation as a creative city.

3 Localization of Creative Cities: Drawing on the Capital of Creativity: Helsinki City Development Strategy

3.1 Overview of Helsinki Development

Helsinki is the capital and largest city of Finland. At the end of 2016, the population was about 635,000. Helsinki is considered to be a very livable city and a vibrant cultural city and destination. In 2012, the New York Times commented on the city like this: "Design! Design! Design! Design is the DNA of this city." (Klaus R. Kunzmann et al, 2013) Now, Helsinki has clearly developed into a science, art, creativity and Innovative cities and creative industry centers with excellent service (Klaus R. Kunzmann et al, 2013). Finland's Greater Helsinki 2050 vision is from urban urban life, urban life attraction, economic and employment growth, sustainable urban transport, entertainment, urban natural and cultural environment, sea area and urban internationalization. New requirements.

3.2 The basic characteristics of a creative city - Helsinki related experience

Richard Florida (2010) states in the book *The Rise of the Creative Class* that the basic qualities of a creative city are: a lifestyle with creative culture; a "third space" for social activities; And inclusive; the authenticity and uniqueness of the city; the realization of its own value and identity; participation and local quality. Helsinki, as a successful creative city in the 21st century, is well represented in these six aspects. Correspondingly, Shanghai can get some inspiration from Helsinki's way of shaping the characteristics of creative cities according to the current development status.

At the lifestyle level, Helsinki hosts a large number of cultural events as well as festivals, celebrations, etc., and is instructed by influential cultural institutions to form a strong urban culture and artistic atmosphere. People here can easily find activities and places that suit them, such as interesting musical performances, exhibition galleries, performance venues and theatres. The public's satisfaction with cultural facilities is as high as 94% (Klaus R. Kunzmann et al, 2013).

Social activities and diversity levels, such as the former Cario workers' settlement in the north, are known for ethnic restaurants, bars and sex shops. There are a large number of students, Bohemians and residents who like beer, and it is also a concentrated area for middle-class IT workers (Klaus R. Kunzmann et al, 2013). People here are open-minded and can accommodate people of different nationalities, races, ages and sexual orientations. Among them, "Carlio Manufacture" was transformed into a studio for 19 young artists, and also provided services for locals such as shops, galleries and cafes, which provided "the first place to interact with acquaintances or others. Three spaces" (Klaus R. Kunzmann et al, 2013).

At the identity level, Helsinki supports cultural activities and art education through a number of regional cultural centers, providing artists in all fields with affordable venues to display their works, so artists can realize their

value here. Another example is the Araba beach area, which has transformed the former glassware and ceramics factories into attractive creative residential areas. At the same time, through government intervention, it provides artists with the corresponding needs, that is, developers are required to invest a portion of their investment in art investment. Etc (Klaus R. Kunzmann et al, 2013). These practices will enable people here to establish their own identity and actively build the community into a community that can recognize their identity (Richard Florida, 2010).

In terms of the authenticity and local quality of the city, the city should create its own characteristics of culture, geography, history, facilities, environment and activities. Although the city of Helsinki has a cold climate and a poor geographical location, and because it is located in a very polar night, the lack of sunlight in winter can easily cause seasonal depression. But by discovering the potential of urban resources, the “Light Power” campaign, which calls for people to take a serious look at lighting, has become a festival for shops, galleries, streets, parks, museums, and even factories and construction sites. The venue has attracted many international cooperation and a large number of tourists, becoming a new city brand in Helsinki (Charles Landry, 2009).

3.3 Localization Construction - Shanghai's future development strategy and recommendations.

First of all, Shanghai will continue to promote the development of creative industries, but in the future, it is necessary to reduce the development of “commercial real estate” and “fragmentation” of creative industrial parks, and gradually integrate the industrial chain of creative industries in the district.

Secondly, it creates Shanghai's own urban characteristics from the aspects of history, regional culture and artistic activities, and provides the public with more space for social activities, so that people can find their own lifestyle here.

At the same time, Shanghai should treat foreigners, homosexuals, young people, etc. in a more open and inclusive manner, that is, to show the diversity of international metropolises.

Finally, the government should actively adopt policy interventions to provide affordable housing, venues, etc., for entrepreneurs, where they can achieve self-worth through their own efforts, and can be rooted in Shanghai to obtain A sense of identity and belonging, and so on. These will attract creative classes to live and work from all levels, which means that companies and resources that require manpower will gather here. In this way, people, companies and resources with different professions and abilities will gather in Shanghai at the same time, which will produce sufficient effectiveness to promote the growth of Shanghai's economy in the future (Richard Florida, 2010).

Conclusion

The 21st century is an era dominated by creative classes that promotes urban development with a knowledge economy and creative economy. In order to attract creative class, the city needs to build an environment conducive to creative development, that is, open, inclusive, diverse, and identity, to provide a suitable lifestyle, social activities, local quality environment. These innovative urban traits are essential to Shanghai's future creation of a global city of excellence. At present, the number and proportion of creative people in Shanghai is not big enough. The openness, inclusiveness and diversity of their cities are still far from enough. These need to be adjusted and improved through urban public policies. In the future, under the guidance of the creative class, Shanghai will become a city of innovation, a city of humanities and an ecological city. It will become a socialist modern metropolis with world influence. This is our common vision.

(Note: All charts are drawn by the author based on shanghai yearbook data and network data)

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