

The Role of Cultural Creative Industries on the Revitalization of Resource-exhausted Cities

– *The Case of Tongling*

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Abstract

Cities in western countries have explored the developing model of culture-led city regeneration for decades and proved the positive role of cultural creative industries. This article demonstrate how cultural creative industries can be utilized to vitalize resource-exhausted industrial cities. It uses Tongling city as a case to investigates the relationship between cultural creative industries and city revitalization through the realms of economic development, city space reconstruction and citizens' well-being. Analysis is conducted from literature analysis, document analysis, in field investigation and interview. With Tongling as a case, this article hopes to provide an example of cultural-led revitalization in resources exhausted cities to realize city revitalization and industrial upgrading.

Keywords: Cultural Creative Industries, City Revitalization, Resource-exhausted Cities, Culture-led Strategy

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Introduction

In the post-industrial world, cities need to find out new ways to redevelop and achieve economic development. The cultural industries have gradually been an important economic growth area. In the UK, Policy makers see the cultural industries as a key sector for stimulating flagging urban economies (Lee, 2014).

For now, creative industries have already been the pillar industry and showed its positive role in city revitalization in some world-famous cities in some developed countries, helping cities to improve city image, and promote economic performance, as a result to realize a more sustainable development, for example in LA (McCarthy, 1997) and London (Lee and Drever, 2013). In developing countries, for example in China, cities like Beijing and Shanghai also take initial trials to develop cultural industries in order to gain international competitiveness (Jan van der Borg, & Erwin van Tuijl, 2010; Sing & Yoh, 2016). The culture-led strategy has become a popular model for city regeneration all over the world because of the rising popularity of cultural and creative industries for their positive role in promoting economic growth and social development. However, it also receives criticism from the academia because the simple replication of the culture-led development model may be not suitable for all cities (Evans, 2005). For examples, in small cities, they don't have rich cultural resources as the international big cities have, whether cultural industries can still play a positive role in city revitalization in small and less well-known cities needed to be proven.

In China, there is a group of industrial cities which relied on natural resources to realize city development in the first place, with the depletion of natural resources, these cities are eager to find new ways to realize transformation and revitalization. In this research, Tongling, an industrial city with exhausting resource in China will be analyzed as an example to solve the research questions: whether cultural creative industries positively influence urban revitalization of resource-exhausted industrial cities; how cultural industries influence urban revitalization.

To solve the questions, first, a comprehensive literature on urban revitalization, culture-led strategy, cultural creative industries, and their relationship will be reviewed, then the research gaps will be identified including the necessity to conduct research on the relationship between cultural industries and urban revitalization in small industrial cities with exhausted resources, and three dimensions of urban revitalization. At last, the case of Tongling will be illustrated to see whether cultural creative industries will influence city redevelopment in terms of economic growth, city reconstruction and citizen's well-being.

Literature Review

Urban Revitalization

After 1990s, the major development countries were facing the challenges of industrial upgrading to rejuvenate economy. Then urban revitalization has been brought into discussion as an approach to improve economic, social and environmental conditions. McCarthy (1997) introduced the case of Detroit and its revitalization process in the US, hopefully to forestall the pressures for decentralization

and social polarization. Similarly, El Menchawy (2008) introduced the revitalization example of Mediterranean cities including Genoa, Italy, Barcelona, Spain, and Alexandria, Egypt. The successful cases provided valuable reference to other cities. Urban revitalization is considered as a multifaceted concept, it involves multiple aspects of city development. Besides the improvement of living environment including renovation of city structure, buildings, neighborhood, it also focuses on economic development, humanities, and even social and natural balance in an attempt to achieve the comprehensive regeneration of old cities, enhance urban functionality, and ultimately realize green and sustainable development (Chiu, Lee & Wang, 2019).

To realize urban revitalization, multiple strategies have been investigated. Economic activity is a widely accepted way to foster city regeneration like economic development programs (Forbes, 2006), financial institutions (Black, 1979), besides, setting up public service facilities like hospital (Day, 2016), convention centers (Sanders, 2002), and office complexes (Fainstein, 1994) also helps boost local development. Among all the urban revitalization strategies, culture-led strategy attracts increasing attention as a breakthrough in urban development.

Culture-led Strategy and Cultural Creative Industries

Culture led strategy is a popular city development approach because it is an eco-friendly developing mode that can deepen cultural identity of cities (Chiu, Lee & Wang, 2019). It utilizes cultural facilities and cultural activities to realize urban change, for example, constructing cultural facilities like art galleries, preserving city cultural festivals, (Grodach & Loukaitou-Sideris, 2007). The policy makers and academia have a better understanding about it from early attempt to use culture and art to rejuvenate cities, to later popularity of developing cultural creative industries (Chiu, Lee & Wang, 2019). Cultural creative industries also receive increasing attention as the embodiment of culture-led strategy.

In 1998, CIMD (Creative Industries Mapping Documents) was issued (DCMS, 1998), Scholars have different understandings about cultural creative industries. Throsby (2008) believes that cultural industries have three distinctive features: creativity, embodiment of intellectual property, and carrier of cultural symbolic meaning during production process. Yi and Fang (2011) stress that the dynamic nature of cultural creative industries. According to China's National Bureau of Statistics (2012), cultural industries are defined as the activities that provide cultural products and cultural related services to the public, examples include radio, TV and film services, cultural leisure and entertainment services, creativity and design services.

Cultural creative industry is the application of culture-led strategies. For example, culture-led strategy urges investment in cultural production like cultural creative industries (Chiu, Lee & Wang, 2019). Developing cultural industries follows the trend of culture-led urban revitalization strategies, besides, because of the industrial nature of cultural industries, it helps to promote cultural production and

consumption, as a result, gaining importance as an effective way to achieve city development.

Relevance of Cultural Creative Industries and Urban Revitalization

Cities in different parts of the world have been used to illustrate the influence of cultural industries on city revitalization in terms of process (McGuirk & MacLaran, 2001), strategies (Sasaki, 2010) and achievements (Evans 2005). Case studies are presented in cities like Cleveland (Koos, 2013), Glasgow (Turok, 2003) in the US and the UK, as well as small cities in developing countries with rich tourism resources, like in Indonesia (Idajati, 2014), Cyprus (Doratli, Hoskara & Fasli, 2004). In China, the related research of cultural-led city development are focused on international big cities like Beijing (Jan van der Borg, & Erwin van Tuijl, 2010), Shanghai (Sing & Yoh, 2016). There's less evidence from small or middle-sized cities.

To achieve city revitalization, cities are in pursuit of comprehensive development of economy, society and culture. Economic growth is a very important symbol of development. Cultural industries have grown in regional economic importance (Peltoniemi, 2015), examples include cities in Iran (Hanjari et al., 2020), Canada (Ochoa & Ramírez, 2018) and Sweden (Power, 2002). Wynne (1992) found out that cultural industries development not only promoted the economic development in some big cities in Great Britain, but obviously helped economic transformation and development in some traditional industrial cities in northwest England. The rapid development of regional cultural industries enhances regional image, attracting high-level investors and high-quality workers, and ultimately promotes regional economic growth. Even during global financial crisis, the cultural industries still contribute to economic growth or at least slowing the economic recession (Grodach & Seman, 2013). Besides, cultural industries have higher added value, lower material consumption and less environmental pollution. It contributes to regional sustainable and green development. (Bararatin & Agustin, 2015).

Occurrence and spatial patterns of creative industries have important function in reshaping urban structure. For instance, cultural flagship projects helps to re-image St Petersburg (Trumbull, 2014), similarly, cultural activities like film industries are used as urban planning strategy in France (Aubry, Blein & Vivant, 2015). Fahmi, Koster, and Van Dijk (2016) analyze the effect of cultural industries on location improvement in Indonesia. Post-industrial areas in Poland are reconstructed as the result of developing cultural industries (Konior & Pokojaska, 2020). Cultural industries help cities to save idle land, thus improves the urban functionality (Pazhoo-han & Poormoghadam, 2018). These two aspects, economy and city planning are stressed. Stern and Seifert (2010) cultivated neighborhood cultural clusters in Detroit, enriching the life of the citizens and bringing them happiness, which is in accordance with Evans' (2005) claim that culture-led urban regeneration strategy contributes to the well-being of the dwellers.

The previous literature shows that cultural industries help cities to revitalize themselves in different aspects, like economic growth, environmental improve-

ment, city spatial pattern reshaping, better neighborhood environment and people's cultural life. However, there are also some critics about this culture-oriented development mode. Stevenson (2004), Markusen and Gadwa (2010) claim that cultural investment contributes to economic growth rather than comprehensive social development, and in addition, helps to satisfy the needs of tourists more than those of local residents, which is not inclined to be a long term development. Besides, researchers find out that the popularity of culture led strategies lead to increasing homogeneity in different parts of the world (Van Aalst & Boogaarts, 2002). Researchers assert that a simple replication of this model is unlikely working for all cities (Evans, 2005). However, this culture-led development model still worth trying (Colbert, 2011).

Research Approach of the Related Studies

The relationship between cultural industries and urban revitalization has attracted researchers' attention around the world. In terms of research approaches, case studies are used most frequently to demonstrate the creative industries with distinctive features and its positive role in different dimensions of region revitalization, because the history and foundation of cities, and the application of cultural industries are so different. Some scholars use empirical approach to evaluate economic growth brought by creative industries (Huang, Chen & Chang, 2009; Lee 2014; Liu & Chiu, 2017).

Summary of the Literature Review

Because of the practicality of the culture-led revitalization, most cases and successful examples are introduced. Researchers focus on analyzing the effective cultural industries models. The theory foundation is not solid, a stronger theoretical framework is needed to guide the cases of culture-lead urban revitalization. Besides, in China, the research regarding culture-led city transformation of small and industrial cities is limited. Small-sized and industrial cities need new chances to develop more eagerly. So, cases of small-sized and industrial cities to see whether cultural industries can also contribute to urban revitalization is essential. Last, though urban revitalization is a multifaceted concept, many studies consider the effect of cultural industries on certain aspects of city revitalization, like economy and urban planning just as mentioned in the previous part. Culture embodies meaning of life, it is closely related to human psychology and activities. For social development, people play an important role and at the same time, their feelings of well-being are also perceived as a symbol of social development level (Jovanovic et al., 2019). However, the humanity results of culture-led urban revitalization is less valued (Chiu, Lee & Wang, 2019), therefore, when discussing urban revitalization, a more comprehensive measurement that takes citizens' life into consideration should be used to investigate the role of cultural industries in small sized, industrial exhausted cities, not only from economic growth and city planning aspects, but from the life of the citizens.

Conceptual Framework

Based on the research gaps revealed from the literature, this research will follow the research framework to study the effect of cultural industries on urban revitalization of small industrial cities.

Two major theories are adopted to guide the research. One is the theory of sustainable development. (Brundtland et al., 1987). It refers to the development that not only meets the needs of contemporary people, but also does not harm the ability of future generations to meet their needs. This theory is in accordance with the concept of culture led urban development model. When we take into consideration the revitalization of cities, social and environmental aspects are also important symbols (Chiu, Lee & Wang, 2019). For the case of industrial cities, they are more eager to find new economic growth pole which can also help to amend the environmental trauma caused by industrial production and improve the living environment of residents. Therefore, it is useful to guide this research when considering whether cultural industries could revitalize the small-sized industrial cities sustainably.

Second is the theory of urban organic renewal proposed by Wu (1994) in Shichahai (Beijing) planning. He generalized the theory as the transformation of cities should take into consideration the original urban texture to carry out gradually renewal of the city. He also believes that the organic renewal of the city should not only pay attention to the protection of the ecological environment, but also comprehensively consider the historical, cultural, aesthetic, and cultural factors. This theory is suitable to study culture-led city revitalization in industrial cities. For small-sized industrial cities, it is impossible to totally abandon the industrial traits. To revitalize these cities with their original city characteristics is an ideal way. For example, Konior and Pokojaska (2020) introduced how to use industrial heritage in urban revitalization process in Poland. Culture-led urban regeneration strategy initiates preserving cultural traits (Grodach & Loukaitou-Sideris, 2007) to revitalize cities, and culture is of distinctive local features. So, for culture-led city renewal in industrial cities, it is necessary to explore whether cultural industries contribute to sustainable development and city revitalization that is in accordance with local conditions. With the guidance of the two theories, this research will focus on the relationship between cultural creative industries and urban revitalization in small-sized industrial cities.

This research follows the definition and classification of culture creative industries by China's National Bureau of Statistics (2012) because of the following reasons: this article aims to analyze the influence of cultural industries in Chinese context. Chinese governments are now initiating the development of cultural industries with policies like tax reduction, only the branches of cultural industries acknowledged by the Chinese authorities can get these preferential policies so that governments and practitioners follow a Chinese model to develop creative industries in Chinese cities. Besides the reports on the development of Chinese cultural industries also follow Chinese classification and definition of cultural industries.

In order to see whether cultural industries contribute to a sustainable and organic urban revitalization in a comprehensive way as the research gap indicates, we use the following dimensions measure urban revitalization based on the literature review.

First is economic growth. It is a widely accepted standard of urban revitalization, especially the fact that culture industries promote a green and sustainable urban economic development mode (Grodach & Seman, 2013; Bararatin and Agustin 2015). Besides, city reconstruction is another symbol of culture-led urban revitalization because of the positive role of culture industries in changing the spatial arrangement of neighborhood and utilizing idle land (Fahmi, Koster & Van Dijk, 2016). Most importantly, no matter it is economic growth, a better city space, the ultimate goal is to bring a better life to citizens, increasing their sense of happiness. Happy and healthy citizens represent a high-level city revitalization, and they can also work together to further vitalize their cities. Just as Evans (2005) mentioned, culture led urban revitalization enhances the well-being and social participation of residents. Researchers have claimed that residents' subjective well-being is perceived as an increasingly important indicator of societal progress (Jovanovic et al., 2019). So, citizen's well-being will be used as the third dimension to measure urban revitalization. Based on the discussion and literature review, this research will adopt economic growth, city reconstruction and well-being of the dwellers as three dimensions to measure whether cultural industry also works positively in small industrial cities.

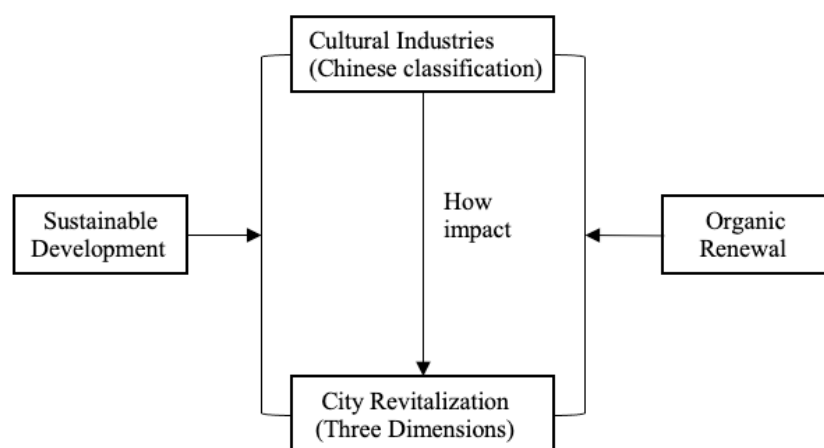


Figure 1. Flowchart of the conceptual framework.

Research Methodology

The research was conducted by a case study analysis method. Tongling is adopted as case of resource exhausted cities in China to see the link between cultural creative industries and city revitalization for the following reasons: (1) It is a representative industrial city with exhausted resources which was identified as one of the sixty-nine resource-exhausted cities by China's state council (National Development and Reform Council, 2007) (2) Though it is a major industrial city, it has good foundation for cultural industries, which will be explicit in the following parts. And this essay will conduct a case study to see how creative industries influence urban revitalization in Tongling. This research is based on case study of the emerging cultural industries in Tongling and is conducted through analysis of documents, field survey, observation and in-depth interviews with industry practitioners and citizens to find out how cultural industries affect the city development and their lives.

The Case of Tongling

An Introduction to Tongling

Tongling is an industrial city sitting alongside the lower reaches of Yangtze river, covering an area of 3008 square kilometers. In 2019, the population is 1.64 million (Tongling Statistics Bureau, 2019). The pillar industry of Tongling is copper mining and processing which brought impressive economic achievements for many years. However, relying too much on natural resources made the industrial structure of Tongling simple and vulnerable. Tongling is an epitome of cities which used to rely heavily on mineral resources. After decades of extraction and processing of natural resources, the traditional industrial city is now facing challenges because of the depletion of mineral resources. It was given the title of “resource-exhausted cities” along with 69 other Chinese cities by Chinese government (NDRC, 2007). And heavy industries did harm to the environment, for example acid rain, and poor air quality. Economy and people’s livelihood were seriously affected. The city is eager to find a new way to and revitalize the city.

Basis for Cultural Industries Development

In recent years, the government is trying to find new ways for city development. The trend of developing cultural creative industries influence Tongling’s development. Tongling is an industrial city, however, it has good foundation for cultural industries. The basis for developing creative industries is listed in the following section.

Cultural Resources: The unique and rich copper culture is the foundation. Tongling is called “ancient copper capital” in China. The history of mining and processing copper dated back to more than two thousand years ago and it has been continuing till now. There are many ancient mineral remainders (see in Figure 2) which are rare from scale to time span in China. And the mining history generated the literature on the subject of industry in China.



Figure 2. Jinniu ancient mining relic. Source: from www.csteelnews.com/special/602/606/201206/t20120621_67887.html.

Besides, the Yangtze River flows across the city. Beside the river, traditional riverside Hui style houses are well preserved in old towns, so are the traditional lifestyle and

folk culture see in Figures 3 and 4. The combination of copper culture and river culture give unique cultural capitals to Tongling.



Figure 3. Street view of Datong Ancient Town (Entrance). Source: the author.



Figure 4. Street view of Datong Ancient Town (Main street). Source: the author.

Physical Environment: The emergence and development of creative industries need "new space" in cities, and the creative industries prefer inner cities, especially the old warehouses, old factories, and other uninhabitable areas (Turok 2003). In Tongling, with the acceleration of urbanization and economic transformation, the factories, mines, and factories that once represented the industrial civilization of the city gradually withdrew from the historical stage, which provide the perfect "new space" and materials for creative industries.

Policy Support: being a resource exhausted city, Tongling was granted 2.05 billion rmb of national-level funding in total by 2016. This funding is used to restore the geological and ecological environment of mines. (NDRC, 2012). It financed mine

redevelopment, providing space for cultural industries. The local government also thrives to support cultural industries to realize industrial upgrading and city revitalization through issuing active policies, including Tongling Copper culture and related industry development plan 2012 to 2020 (Tongling culture and tourism committee, 2012) and decision to establish national public cultural service system demonstration area (Tongling Municipal People's Government, 2015) and established Tongling cultural and creative industry center in 2013, creating good environment for cultural industries investment, incubating creative companies and providing impetus for the rapid development of cultural and creative industries.

Cultural Industries Development

In general, the cultural industries sector grows fast in Tongling in the past few years. Figure 5 shows a stable increase of the numbers of enterprises in the cultural industry sector since 2015. The cultural enterprises show a good momentum of development (The number of enterprises in cultural industry section is not listed separately before 2015). The number of cultural industries enterprises is from Tongling statistical yearbook. The numbers include enterprises which belong to the classification of cultural industries by China's National Bureau of Statistics (2012). As shown in Figure 6, though the total investment in mining sector is still more than that of the cultural sector, however, the increase rate of investment in cultural industry section is faster from 2017 to 2019. (The investment of cultural section is not listed separately before 2017).

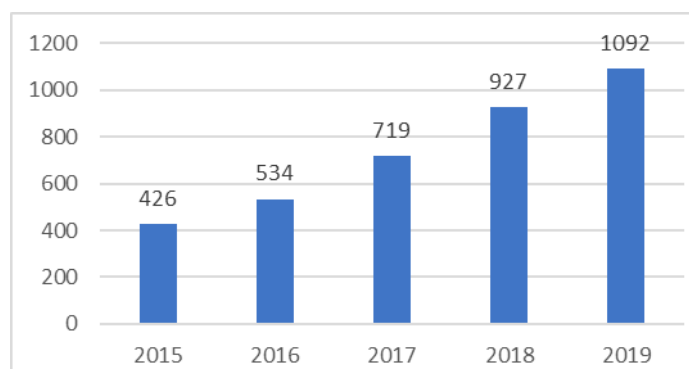


Figure 5. Numbers of the cultural industries enterprises. Source: Tongling statistical yearbook, 2015-19.



Figure 6. Investment to cultural industries and mining section. (billion). Source: Tongling statistical yearbook, 2017-2019.

Economic Impact

The primary impact of Cultural industries on city revitalization is shown in economic development. Development of cultural creative industries contributes to a new economic growth area. The revenue generated from the cultural sector increase as shown from 0.933 billion in 2015 to 2.23 billion in 2018 in Figure 7.

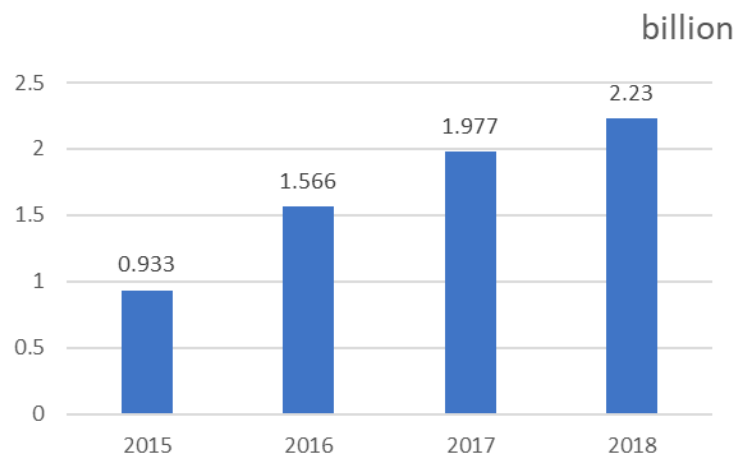


Figure 7. The revenue generated from the cultural sector. Source: Tongling statistical yearbook, 2015-18.

The second dimension in terms of economic growth is that creative industries provide more job opportunities. From 2015 to 2019, the number of people engaging in cultural industries increased 58%, show in Figure 8. The increasing number of practitioners is a good sign of the successful operation of the industries and on the contrary, the increasing number of creative practitioners also benefits the development of the industry and help to achieve further economic growth. The increase results from the good momentum of development for enterprises in cultural section. It is in accordance with the development of cultural enterprises. With the consistent investment to cultural section and policy support, the increase trend is expected to continue.

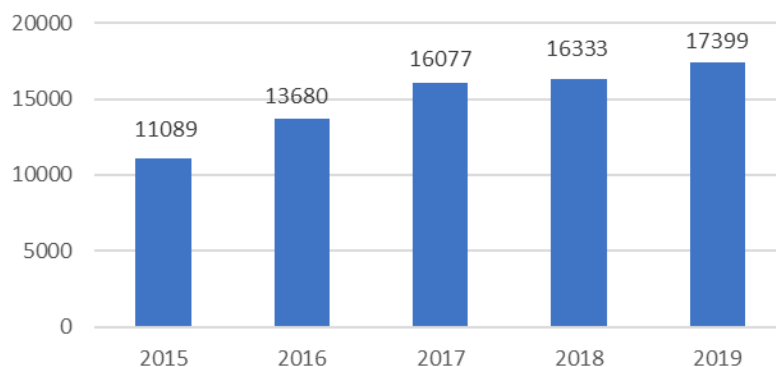


Figure 8¹. Numbers of practitioners in cultural sector. Source: Tongling statistical yearbook, 2015-19.

Except formal cultural creative practitioners, cultural industries also provide more job opportunities and stimulate economy in a broader sense.

"I was born and raised here in Datong, I used to be a housewife at home. Six years ago, Datong town was named "Famous Historic and Cultural Towns of China," more and more people from downtown and nearby cities, visit here on weekends, even more in holidays. Most choose to eat here, so I run a small family style restaurant, I have fresh fish from the river and organic vegetables grew by ourselves, and it runs well...it is also a TV and film base, last year, TV series were shot here, they pack food every day from my restaurant and others..."

Interviewer A: a small restaurant owner, female, Datong Ancient Town

It reveals that cultural creative industries play a vital role in dealing with surplus labor force and promotes the economic vitality. Cultural industries for example TV and film services, as well as leisure and entertainment services take advantage of the unique cultural and historical resources in Tongling to achieve the development of themselves. It is consistent with Wu's (1995) idea of development with urban texture. And the successful development of these industries like film and entertainment services also realize its unique strength in developing local economy and produce more job opportunities for local labor force. And the economic benefit is not a one-time thing. They have a lasting advertising effect, for example, after the TV and film shot here being released, it will further promote local fame and bring more economic benefits, realizing a sustainable economic development mode.

City Reconstruction Impact

Tongling has a long industrial history, the ancient and modern industrial remains are well preserved. By reusing the industrial plants and industrial land to construct tourism attractions, it not only reasonably protects and utilizes the cultural and historical resources, but also make the historical resources obtain new functions and market values. Currently in China, building cultural creative park is the major measure to reuse the rich resources of industrial remains, like 798 art district in Beijing (Jan van der Borg & Erwin van Tuijl, 2010). Building cultural park is a comprehensive form of developing cultural industries which integrates film, entertainment, cultural creativity and design services. In 2017, Protection Plan for Historic Buildings and Industrial Heritage in Tongling has been released, identifying 157 industrial heritages, and making plans to protect and reuse these industrial remains. The government encourages to utilize these low-cost abandoned industrial remains like abandoned mine plant or factory buildings to support the development of cultural industries. Based on document analysis and field study, several cultural industry projects have been established and under construction, including Tongling 1978 cultural creative park, Tongguanshan Mine Park (already established), Yun Gu Li painters' village (under construction).

Tongling 1978 cultural creative park and Tongguan mountain mine park are good examples of reusing industrial remains. The Tongguan mountain mine park was designed and built on the relics of an ancient mine with the theme of displaying historical landscape of mining (see in Figure 9), it shows the restoration of the damaged mine land, which is recovered now (Figure 10). It provides the city with

new space of specific scientific and cultural connotation and ornamental value. Tongling 1978 cultural creative park which integrates life, culture and art restores the scenes of copper production and life of miners by using the remains of the mine and miners' residential areas in 1960s and 1970s (see in Figure 11, 12, 13 and 14). It covers an area of 48.88 mu, with a total construction area of 15,500 square meters. It used to be abandoned mine plant and miners' residential area (Figure 15). Below are views of the mine park.



Figure 9. Entrance of the mine park. Source: the author.



Figure 10. Restoration of mine land. Source: the author.



Figure 11. Image of the 1978 cultural creative park office building & logo. Source: the author.



Figure 12. Restoration of mining factory and residential area. Source: the author.



Figure 13. Copper statue simulating the wedding ceremony of the miners. Source: the author.



Figure 14. Copper statue simulating the scene of miners having lunch. Source: the author.



Figure 15. Old mine plants and residential area of miners in the 1970s. Source: materials from 1978 creative park.

“It used to be a mine plant; it was derelict since it stopped mining in 1990, I lived nearby, compared with downtown, high buildings, it was really dilapidated...several years ago, they started to build the park. I heard it is a national level creative park... It's much lively now. Many people take their children and parents here...17th bus line, very convenient. Tongling Citizens are more or less involved in the mining industries, revisit here, very nostalgia. You can see, there are many small workshops like copper art craft studio, photographic studios, live streaming studios in the building. It is said that it will also be served as a film shooting base...”

Interviewer B: a security personnel of 1978 creative park, male

Cultural and creative industries help city reconstruction through reasonably reusing of space. In Tongling's case, the major functioning form is cultural creative park. Both cultural park projects reuse abandoned industrial remains, together with the original cultural environment such as industrial land, industrial buildings, and commercial activities. They integrate Tongling's industrial heritage with creative industries and are good examples of organic renewal of city space for it reshape the space while keeping unique the cultural character of the space.

As the example indicates, the original abandoned industrial land and buildings were transformed thoroughly. These lands were useless, and it harmed the urban appearance, they rebirth to revitalize the neighborhood. Besides, the development of cultural and creative industries in the form of cultural park drives the improvement of the surrounding infrastructure such as traffic and ecological environment and it also reshapes the public space to create a space that can unify different cultural creative industries. As more and more cultural parks are going to be built in Tongling, they will continue to reconstruct the city, transforming the idle industrial vestige into new city space.

Citizen's Well-being Impact

In Tongling's case, besides economic development and city space reconstruction, city revitalization can also be manifested from other aspects. For instance, resi-

dents' well-being is a notion that is correlated with social, economic, and cultural characteristics of a district (Diener, 2012). Researchers have claimed that residents' subjective well-being is perceived as an increasingly important indicator of societal progress (Jovanovic et al., 2019).

Positive role of cultural infrastructure in urban renewal has been discussed by Koos (2013). During the past ten years, after the policies of initiating national public cultural service system demonstration area (TMPG, 2015), a series of new public cultural infrastructures that aim to enrich citizens' spiritual and cultural life have been designed and built.

"The cultural atmosphere seems very thick in Tongling in recent years. The museum and library are newly built. Every week, I come here with my son, he reads books here, I can drink a cup of coffee and enjoy the beautiful river view, too. Reading books and visiting library is popular, if you have nothing to do, reading is always a good choice. And the library is really special fancy, I like it."

Interviewer C: A female in library

The new library of Tongling is the only comprehensive cultural center integrating city library, university library, and bookstore in China. It also has its creative brands. And currently 54 public reading rooms subordinated to the library (TSB, 2019) are distributed in Tongling with different landscape features for example botanical garden reading room (see in Figure 16) and riverside wharf reading room (see in Figure 17). Large number of libraries are planned as attractive magnets in the revitalization of cities (Skot Hansen, Hvenegaard Rasmussen, and Jochumsen 2013).



Figure 16. Public reading room in the botanical garden. Source: the author.



Figure 17. Riverside wharf reading room. Source: the author.

Another example in Tongling is the new public museum which displays the long history of bronze civilization, antique treasures of Tongling. It integrates domestic and foreign bronze culture for academic research and tourism and leisure. It now has become a new cultural tourism landmark of Tongling City.

Citizens are mentally benefited from the public cultural infrastructures a lot. It increases their sense of well-being. Museum and Library are free for citizens. The free access of cultural infrastructures provided cultural destination for citizens during weekends. Museums help citizens know the history of the city better, enhancing their pride in their city. And public libraries and reading rooms obviously enrich the spiritual world, help to foster an atmosphere for reading, and provide a solid cultural support for the transformation and development of Tongling. The positive effect of culture will be in a long run, affecting generations.

The creative industries also obviously change the city environment, thus enable citizens to have more choices in terms of leisure time. The creative parks and zones also become new popular destination for citizens (Interviewer B). As citizens of an industrial city, people used to have less options for cultural activities. Their life after work is less colorful than dwellers' of big cities. Developing cultural industries is an effective and economical way to enrich their life, and the results are promising in Tongling, therefore, the cultural industries greatly contribute to well-being of citizens in Tongling.

Conclusion

In the post-industrial era, countries and regions are eager to find out new economic growth pole. In western countries, the positive role of cultural creative industries in city renewal has been proved, and cultural creative industries has become an increasingly important measure to realize inclusive growth all over the world. In China, many industrial cities are enduring difficult time with depletion of industrial resource, cities lost their pillar industries for economic growth which is leading to a stagnant economy. This article investigates whether small

cities, especially those with comparatively less cultural resource, is also capable of developing cultural industries and to see how creative industries impact city revitalization.

The Tongling case shows that cultural creative industries also play a positive role city revitalization. The impact is reflected in three major dimensions. Cultural industries, for example, developing film and TV services as well as entertaining and leisure services helps city to achieve economic growth, providing more job opportunities to vitalize the employment market. Besides, due to the characteristic of the agglomeration of cultural creative industries, reusing historical relics contributes to organic renewal of the city space, in Tongling's case, constructing cultural creative parks. And at last, also the innovation of this research, they article discusses how cultural creative industries affect citizens' sense of well-being through free access to public cultural infrastructures and the promotion of cultural activities and cultural short-distance tourism.

The implication of this research is that with the case of Tongling to demonstrate how cultural creative industries impact city revitalization, hopefully this article will provide an economical, sustainable, environmentally friendly, and creative development model for policy makers, city planners of other industrial cities who are also eager to realize city revitalization.

Endnotes

- 1 For the numerical number of Figure 5 to 8, the years are not consistent because in statistical yearbook, the data of the four dimensions regarding the cultural industries are not collected in every year, however, the four figures show a statistical trend regarding the cultural industries development.

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