

Changes in architectural styles and their connection to city regulations

Yuqing Hao *

Jinan Xinhang Experimental Foreign Language School, Jinan, Shandong, China

* Corresponding Author Email: leedia@jxeffls.com

Abstract. With the development of city architecture, the city regulators just considered about the way that both benefit the future development of city and the living condition of residents. And with the problem of the increasing waste and the non-recycle material of architecture, regulators may find hard to link the city planning and the future of residents easily for example it may difficult to diminish all the buildings and rebuild them again. This article tried to link the relation between these two parts and give the solution of how to base the creature of architecture to plan city future. The research shows that city all have their aim goal to reach in the future and they want to mostly use the green and renewable method to produce the green materials in the building process of architecture. In the future time, the four regions which mainly research in this article will partly process the like start from changing the underground station; changing the type of city quality like from the land transportation to water transportation. So, the social meaning of it mainly want to benefit the global cities and even to the whole world that can with good city future planning and long longevity architecture.

Keywords: development of city architecture; creature of city architecture; city planning.

1. Introduction

With the development of city architecture, the city regulators just considered about the way that both benefit the future development of city and the living condition of residents. With more specific research, the development of architecture reflects the image of how the planners to build and improve the whole cities. As the city planning effected to all residents even all human development, whether we have a good quality of life or whether people can live in one place with high longevity are depend on the link with architecture. So, the balance between these two parts lead in a really important role.

According to the widely research, some articles talk about the development of architecture from the past to recent time previously. And some part of people talked about the future planning of the city which include any new green ways or any creative erect ways. But there were few of them focus on the link with the development of architecture and the future planning of cities. This article needs to conclude the self-opinions of this link and get the conclusion that based on the previous research. In other words, this article may link the two sections which do not have too much relations which may be interesting to read about [1]. The specific research on it, the most significant link is that city regulators combined the green development of material on city building with the creature and most attractive point of the city buildings. And the limitation of this research is that there are not too many previous research and data that can be according to it. So, the link relations may be hard to find about. Also, with the development of modern technology regulators may found more hardly to figure out the related solutions like they cannot diminish all the previous buildings to erect a new environment. So, the research may not easy to find out a 100 percent way to solve the questions.

This essay first introduces the architecture background of each region and outline the feature of constructions. Then search more evidence, architecture have great possibility and rate that can be linked with economy of the local region and human creativity which lead loads of influence. By the study of the relationship between city and architecture then start to analyzing the city's future urban planning and prospects which some details also be given in this essay.

2. The development of architectural style

2.1. The development of architectural in Singapore

Architectures in Singapore are in a modern style and with diverse kinds. Some people believed that the different styles of architecture in the whole world and the different times have made a great impact to the style of Singapore's architecture. Those styles transferred to most regions in the whole world through the Early Renaissance in Ancient Greece to the Modernism and the current time of developing Contemporary Architecture. Because most of these buildings are located in the center of Singapore, it is easy to see the phenomenon of the co-exist of many kinds of architecture. Starting from the past time of Singapore, Gothic types of constructions appeared in the mid-12th century which dominated the main role in the architecture of Europe until 16th century [1]. All the Gothic architecture with one same characteristics which is tall and stained-glass windows; a slender, pointed dome and ribbed arch. What is more, these styles are common to see in the Christians place of worship such as churches, cathedrals and chapels.

And in the mid century of Singapore, some famous churches which located on the nearby street which have plenty of significant creatures which now some of them have been changed the function too many different sections. For example the CHIMES which is the Catholic monastery in 19th century and now it was turned into a business center which the aim is the catering and shopping. At the same time, it still keep the style of new Gothic. Walking along this road, the Saint Andrew's Cathedral can be reached, the creature of it are also stained-glass windows and a slender dome.

In the 17th century of renaissance, neoclassical style of architecture appeared which use the elements in ancient Rome and Greece. And the main features of these kinds are big dome or truncated roofs; some magnificent pillars and the details from Dorian Greece and Rome. The style of neoclassical mainly with three formed which are temple style, the Palladian style and classic block style. Singapore National Museum Building is one of the type of it. In hundreds of centuries, the wide facades and huge domes of Singapore National Museum always be the famous landmark on the Stamford road. And it is the oldest museum that still existed in Singapore which used specific for introducing the history of Singapore. The original structure is mainly Neo-Palladian [2]. The characterized of this architecture style with a highly symmetrical façade and the pediments which used above the windows. The large triangular pediments covering each end of the front blocks which decorated by the Queen Victoria's coat of arms. And the reason for this have the large role for commemorating the Golden [2]. In 1887, the 60th years for the ruling of Queen, at the same period this architecture declared to open. Other Neoclassical creatures are also combined into the construction's façade, for example, the Doric columns on the ground and Ionic pilasters on the second floor. With loads rows of huge windows, they make sure the ventilation system going well which was really needed before the installing of air-conditioners in tropical Singapore. The most significant features pf this architecture is its rotunda, which is surrounded with a dome covered with fish-scale tiles. Stained- glass and arched windows on the dome allowed the interior space have natural lights.

After World War I, the style of Art Deco appeared in Singapore and later morphed into the Streamline Modern style, which is essentially the Post-Art deco movement. The characteristics of this style is the bright contrasting colors, geometric details, parapet and spire. The decoration art mainly stimulated in symmetry and the way for finding the new way to informed tradition shapes. The representative building is the Parkview square. The fans of DC comic may think the Parkview square is the Gotham Tower Singapore because of its virtual structure are really similar. At the same time, the Gotham Tower was influenced heavily by the Art Deco movement. This construction was built in the mid-region of the Singapore and it is also the most expensive architecture in Art deco style, the business center which located near the center of coast made it became a crowed big region. No need to say that, you hardly ever missing the this brown tall building which cover with glasses, granite and bronze [2].

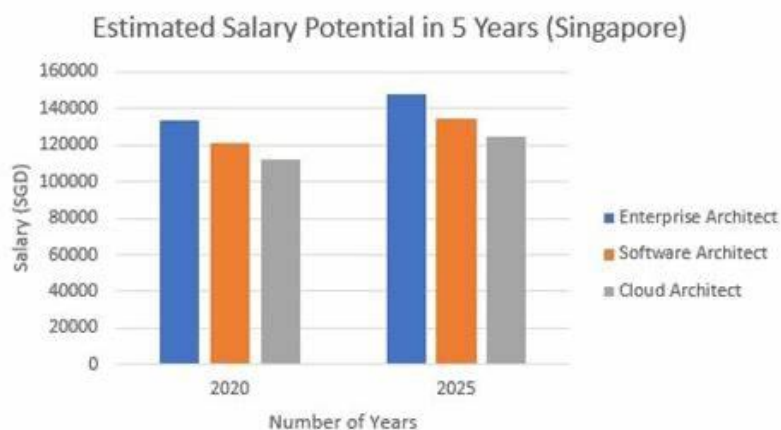


Fig 1. The type of future development architecture in Singapore

Brutalism is one of the architecture style which last from the 1950s to 1970s, and the main characteristics is simple, bulk side and heavy concrete structure. Those styles are more common to see in the building of business and public facilities. Singapore famous brutalism designing can be seen in Bank Centre which also be called the ‘calculator’. When Singapore stepped in the the fourth industrial revolution, technology also developed step by step, so then the whole country into the time for futurism style architecture. The feature for futurism is with dynamic, slope and oval lines. In facade architecture, glass as one of the material of architecture shows the significant impacts which outstanding the organic formed of the structure, and also provided the largest horizon to the customers. This movement moved away from the dull and demanding modernist view of simplicity, and at the same time, innovating and incorporating nature into architecture and maintaining a minimalist image are going together. The Marina Bay Sands Hotel, for example, consists of three 55-story towers topped by a 1.2-hectare sky park. Another futuristic structure is the Sand Crawler, which is modeled after the giant mobile fortresses from the Star Wars movies. Its exterior is made up of plenty of glass, allowing viewers entering and leaving the building to look to the other side.

2.2. The development of architecture in Sydney

In the period from late 1700s to the early time of 1800s, a colony was erected by the British in Sydney cove, just located on the right side which behind the First group of navigation had already apart in Portsmouth. From the past early period of colony, the main residents who lived here were the criminals and their guardians. Ignorant of climate and soil, the colony experienced a shortage of food supplies. The England government do not support the architects and instruments to build colonial homeland, extracurricular constructors set about finding suitable construction materials. Important buildings were poorly constructed and often repaired [3].

In 1790, William Dawes made urban planning files for Sydney, but because of the limitations of resources and the out of control of the society, the plans had been ignored. The planning of the whole part of Sydney still lacks of management. The early time of the important architecture in Sydney were all simple Georgian style which fit in the local climate and local materials and artificial. Governor Macquarie encouraged a well-organized community of free citizens in Sydney in 1810. During the last period of his career life, he witnessed the construction of 92 brick buildings, 22 stone buildings, 52 waterproof buildings, more than 2,000 miles of roads, four Bridges and seven piers [3].

In the mid-19th century, the neoclassical Georgian style gave way to magnificent also and the merged Gothic revival architecture. In the 1830s, John Wedge is a famous architect who is very productive and then designing architectures including Camden Park, Elizabeth Bay House, and Tusculum at Potts Point. As economy grew in the 1840s, the colonies began to embrace the neon-gothic style. The University of Sydney is an example of the ornate Gothic Revival style. In the 1850s,

Sydney's architecture incorporated foreign styles, much of it from Britain. Victorian architecture mainly represents responsibility also the materialism.

The architecture from Sydney was mainly concerned with functions related to climate and environment in the 1860s. The rising population of immigration in Italian led to the use of decoration, plastering, arcades, loggias, square block and square towers in residential buildings. The convenient style in colonial building was changed by high meters ceilings. During the century of 19th, Australia experienced high level of low level of economy and the Second World War, which significantly impacted the colony of real estate [4]. It has led to shortages of materials and skilled workers. Therefore, many architects propose to build buildings on hillsides or some places several meters above the ground. As a result, height restrictions were lifted in Sydney's central business district, thus beginning the improvement of high layers buildings in the urban area. So, Sydney Opera House and the Sydney skyline were built.

2.3. The development of architecture in Wellington

The architecture of Wellington showed their history over the past 150 years. From simple wooden houses to the houses with beautiful lines of art decoration designing, and then to the curves and vibrant colors of postmodern architecture. In Victorian and Edwardian times, because of the lack of high quality of building stone, almost all the architecture in the mid time of Victorian were used by timber. So, in some words, buildings in Wellington have been preserved for long time. Then, Wellington's cement buildings ushered in a period of economic and population growth that coincided with the end of the Great Depression in the 1880s, this period last until the beginning of the First World War [5]. Turning into the modern time of Wellington, Wellington constructed loads of famous government architecture with the identity if the capital city of New Zealand. The circular and conical Executive Building of the New Zealand Parliament Building, on the corner of Lamb-ton Quay and Moor-worth Street, was built between 1969 and 1981 and is commonly known as the Beehive. Apart from that, The Wellington City and Sea Museum building, Bond Shop, is in the French Second Empire style, and the Wellington Port Authority Quay Office building is in the late English Classical style.

2.4. The development of architecture in Paris

Over the centuries, Paris always had the important role of a true research laboratory which used by the pioneer scientists to trail their thoughts. Throughout the city, we can observe the harmonious coexistence of medieval, Roman, Baroque, Renaissance, contemporary architectural, Art Nouveau, neoclassical and classical styles. It is not hard to see that, Paris remains the style of Rome: Rue Saint-Jacques, which runs over the heart of the city, was used to be the heart of Roman route in and out.

During the Medieval Period, three unique engineering developments showed out in Paris and France which made a fresh style of Gothic. Pointed arch, cross arch, and X-shaped flying buttress were the new three innovations. In 1515, the French throne was ascended by Francis I and then the Renaissance came to Paris with full force. From all the section of arts, including architecture, Renaissance thought emphasized human proportions. Thus, the architecture during this time can be understand as a metaphor in the form of human: the building's foot is the solid base, the elegant middle is the building's physical body, and the spire of the roof with gable. Hat is window. Those collects of elaborate design concepts created the classical architecture of Paris [6].

Baroque firstly appeared in Italy in 17th century specific in 1590 but with the highest popularity in France about 50 years. This design emphasis on grand floor plans, the giant Superman figure, and the fantasy of infinite miles all fit the people, Sun King who utilize the construction to show his political ability.

From about 1893 to the starting of World War I, Art Nouveau was an elaborate but concise architectural trend. It is not uncommon to look heavy overstrung versions of Ottoman architecture. Creative architects who at the young age from across Europe take a new version at concrete and steel. They mentioned that these fresh resources could stress the way the construction was put together,

rather than masking it with a weighty facade. In the way of using new materials, the architects could release the inner section of the building and find the door to modernism [6].

With the end of World War I, in Paris a new esthetic appeared. Then Modernism time starting [6]. Architects uses loads of angular shapes too responded to the jazz rhythms which easily to make people remind of new cruise ships as the ways of expression of the freedom and movement. Contemporary, which from 1980 to the present, President Mitterrand published a new architecture theory that helped Paris to step into the newest century. At that time, Paris architecture was full of diversity.

3. The connection between architectural style and economy and humanity

Architecture has always with an important role of to be a mirror of the creative, engineering and technological prowess of a society over a period of time which can show the potential ability of economy and the slide of humanity. Architecture have always used as a mirror which reflect the creative, engineering, and the ability of technology of one community in a period. Moreover, it can also reflect the potential economy ability and the slope of humanity.

3.1. The link with economy

As we step into the 21st century, construction has become not only the improvements of esthetic but also the monumental construction. With the problem of the massive burdens in the rising of the population, the value of local land area as a product is soaring. So, developing on this land in any forms mat bring the additional responsibility of maximizing the economic potential of the land. It is because of this relationship that architecture can be an effective tool for the growth economy of a region, and the future development of a region can be a worth trusted marker for predicting regional economic trends or changes. “Skyscraper effect” is interesting idea for describing how to predicts the architecture economic trends [7].

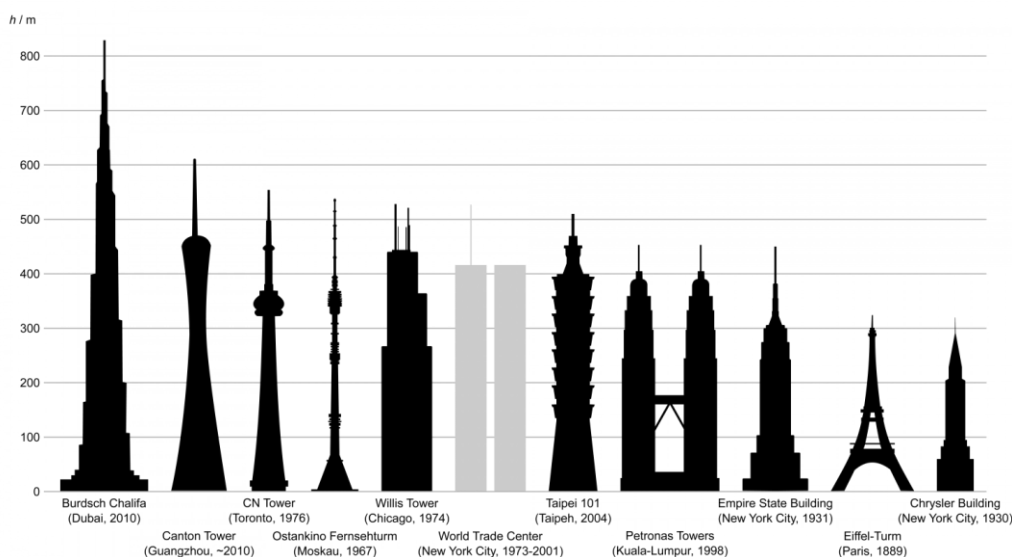


Fig 2. The model of skyscraper

The Skyscraper Index was coined by economist Andrew Lawrence in 1999. Shows that the tallest skyscrapers correlate with the subsequent decline in business in the area. These buildings were approved and built during the boom years, but they consumed so many resources that, the market usually collapsed when they were completed. The completion of landmarks for example the Chrysler Building and the Empire State Building ushered in the significant level of depression. In addition, skyscrapers are the landmark of modern urbanization.

In a way, architecture became a tool for economic reform. The first is tourism. Historic buildings have been used as an important source of income for tourism for a long time, so it enhances and boost

the economy. People travel all over the world to visit historically important places. Today, culturally rich towns must be redeveloped in order to have more facilities for the convenience of the tourists who willing to visit each year.

Moreover, the maintenance and repair of the historically architecture which represent the significant and the level of protection pf the local government. In this way the supporting and visiting rate from other places tourists can be high and leading the roar of the local economy. Then, introducing a new word-space brand. It's a process of re-imagining the space, giving it new meaning in a unique way. This is a step forward based on the primitive historical developments in different regions. Driven by globalization, these historical developments are covered up by repeated architectural practices, which have now become the norm.

Based on the saying of Ksenia Katarzyna Piatkowska: "Architecture is leading the effect of a marketing device for cities and metropolises to create a competitive advantage in the post-globalization era." The process of making the building as a brand is to create an easily identifiable places, the emotional feeling and perception of the market, while becoming a homogeneous addition to the landscape of the area. It supposed to be able to turn a city's mild image into a grand vision and side.

3.2. The link with humanity

In daily life, there are some people continue to step in and out of different buildings, and the place you pass by will 100 percent affect or lead important role to your mood. A dark, unlit place will make you feel dim, while an airy place will make you feel welcome. The elements of architecture can significantly influence the mind of living and working in any space, and can even influence leading customers to retail and commercial outlets. A good architect will make people feel comfortable inside when they designing the building which look both good inside and outside. An architect would never create a space full of negative feelings, but regular use can cause some designed Spaces to become dark and gloomy, the rate of using will decrease. It is always said that although architects create buildings, in the future it is buildings that influence how we live, how we behave and how we function in them.

4. The connection between architectural style and economy and humanity

4.1. The future planning of architecture in Singapore

Singapore's vision for the future is to become a global financial centre. Nowadays, the goal of Singapore's urban planning is to building up a sparking city of the future, a global commercial center. There are green leaves all around. Its public infrastructure - including a multiple-function transport network, first-class roads and education system- serves an estimated five point eight million people in an area of just seven hundred and twenty square kilometers. The reason for Singapore bright future is through the action of long-run planning [8]. Their tinny size and the constraints of being an island with the meaning that every square meter counts. Master plan principles include building more tall buildings to save space, carefully considering the balance of building functions, incorporating loads of greenery, strategically developing towns outside the CBD, creating more land through reclamation and, most importantly, ensuring adequate housing. More than 90 per cent of Singaporeans and permanent residents own their own homes - a remarkable achievement that owes much to Mr Lee's belief that the surest way to set up the identity and build wealth was to give Singaporeans their own homeland. Home ownership, he believes, puts down roots that allow people to stay and work, build house and connect to their communities. The government of Singapore commented: "They have addressed the housing shortage with affordable, subsidized public housing. The first phase of the subway is under way. They were ahead of their time in worrying about global warming, and they introduced building standards that minimized heat absorption. They emphasize the greening of public Spaces, especially along roads. It was all planned, even the sidewalks and the covered walkways around public buildings were planned."

4.2. The future planning of architecture in Sydney

According to the newest information, the City of Sydney has released its updated vision for the future of the city into 2050. The planning aim to transform the city into a more “livable, sustainable and diverse” Sydney. And the regulators which have their ideal vision for the new erecting plan that includes greater public squares, less traffic, better access to the harbor, more space for people and a stronger cultural identity. For example, one program is The City space improvement program. The City of Sydney has proposed temporary and permanent initiatives to turn roads into the city centre and then into public Spaces, including regular road closures and temporary use of lunch parking. Moreover, the city want to create the green city that more green spaces will be created under the future plan, including green avenues, common park spaces, and an expansion of Moore Park. The transformation will provide more opportunities for walkways, cycle ways and outdoor community activation. And in addition, in the way of metro as catalyst. Metro has been determined the best way to connect people across metropolitan Sydney. Greater investment in public transport infrastructure can reduce congestion and facilitate movement around the city while taking cars off the road [10].

4.3. The future planning of architecture in Wellington

The Town of Wellington Comprehensive Plan is a guiding document crafted through community input to provide a 20+ year vision for the Town's future. The goal of comprehensive planning is to align that vision with expected growth of the community, ensuring the community's values, resources, and infrastructure are properly planned. They have also been working with the Future Cities Catapult, which has a project on Future urban designing and planning, to improve a web-based tool that helps city designers visualize difficult data about urban infrastructure capabilities and planning limitations [9].

4.4. The future planning of architecture in Paris

In the future, Paris visitors are going to have chance to take a dip in the Seine River and dine in an abandoned underground subway station. Landmarks such as the Eiffel Tower and the Montparnasse Tower are to receive a makeover, while a rooftop in Paris is to be crowned the world's largest urban farm. Swimming in the Seine is one off with the most courages and most ambitious aims of Mayor Anne Hidalgo's environmental mission: to protect the river in time for the 2024 Olympics and host the swimming portion of the triathlon. When Games open in 2024, the water road will have undergone a huge quantity €1 billion clean-up to decreases the levels of E. coli, faces and other pollutants. But as well as providing a dramatic backdrop for Olympic competition, the clean-up will also provide locals with an outdoor urban beach in the heart of Paris. What is more, Paris is going to become the world's largest urban farm, with 150,700 square feet being converted into the roof space of the Paris A versailles Convention and Exhibition Center in the southwest corner of the city. It is estimated that there will be a production around 1,000 vegetables, herbs and fruits also grow 30 different plants a day of farm open in April 2020. The workshops will also be provided by the city farm for the public and feature gardens that locals can rent to grow their own fruits, vegetables and herbs [9]. Le Perchoir owned a rooftop restaurant and bar will provide a menu featuring produce harvested from the farm. The group already have a string of trendy rooftop venues all over Paris.

5. Conclusion

With current development of city architecture, the city regulators just considered about the way that both benefit the future development of city and the living condition of residents. For Singapore, the future planning goal that Singapore made is to become the global financial centre. For Sydney, the planning aim to transform the city into a more “livable, sustainable and diverse” Sydney. For Wellington, the goal of comprehensive planning is to align that vision with expected growth of the community. And for Paris, in future life, the residents even have chance to dip in the Seine and dine in a never used. In bright future, the regulators need to follow up the planning to continue the rules,

as the same time, not only the residents will benefit from the city planning but also will attract more tourists to travel to the local place. So the social meaning of it mainly want to benefit the global cities and even to the whole world that can with good city future planning and also long longevity architecture. In addition, human can step into the more admirable future that each resident happiness planet index are at the high rate which may also lead the mental diseases fall down, human longevity also increase to the higher level.

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