The Impact of the Sociological Role of the Stakeholder on the Sustainability of the Economic Benefits of Cultural Heritage Transformation: the Cockatoo Island as an Example

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Abstract

Waterfront cultural heritage has unique historical, scientific, social and aesthetic values that can provide an excellent platform and starting point for urban design. The Cockatoo Island has significant differences in these values, which make it complex and contradictory in the subsequent tourism-oriented transformation, and even create a certain value mismatch. Combined with its rich history of colonialism, prisoner history, social class and other complex issues, as well as its recent financial crisis, it is a worthy case study. This paper analyzes the factors affecting the sustainability of the economic reproduction of the Cockatoo Island at the political stakeholder level and the related sociological level to explore the relationship between government involvement and the properties of cultural heritage itself.

Keywords: waterfront, cultural heritage, governance, economical sustainability, the Cockatoo Island

Introduction

Revitalizing derelict waterfront urban areas became a focus of scholarly research since the 1970s throughout North America and Europe (Gunay & Dokmeci, 2011). And then such an urban agenda gained a wider-range concern throughout the world, this trend in developed countries has led to urban upgrading in developing countries such as India, China and Turkey. As many previous studies have shown, the waterfront space is naturally valuable for development because of its natural interface properties between the natural landscape and the people (Hardy, 1999; Gunay & Dokmeci et al.). This close bond has a high stickiness of crowd attraction and commercial conversion value, and therefore often waterfront land prices also show a high trend in the urban layout. Within the waterfront urban space, the waterfront cultural heritage has a special status in terms of the nature of its assets. Firstly, due to the changing state of industrial development, the value and use of land have been dislocated in the post-industrial period, and secondly, the aesthetic value and historical significance of the cultural heritage itself is a valuable additional property for urban development.

In recent urban regeneration strategies, such as Bilbao (del Cerro Santamaría Gerardo, 2007), culturally oriented urban regeneration has proven to be quite dynamic. At the same time, a large number of industrial heritage upgrades have also adopted culturally oriented upgrading strategies (Lusiani & Panozzo, 2016) for their high cultural value leading to transformative advantages. However, the entangled and mutually exclusive nature of the prioritization of cultural and economic elements in a cultural orientation can easily lead to the neglect of local communities and the

and pricing power of cultural industries (Gunay & Dokmeci et al., 2011). Nevertheless, in the recent literature, more articles still focus on regeneration strategies for industrial heritage-oriented urban regeneration(source) or the results in the short term(source), and there is still a lack of evaluation and research on long-term results. Harvey (1985) suggests that in the long-term development of cities, different social actors will occupy and use space in their own ways, leading to the 'fragmentation' of urban space. The transformation of Yishan Road in Shanghai, China, also revealed the problem of gentrification brought about by the transformation (Sun & Chen, 2021). It is therefore a question of how to evaluate urban regeneration guided by the renovation of waterfront industrial heritage in terms of sustainable economic development and cultural preservation and regenerative vitality.

Cockatoo Island in Australia is a special place in the world. Geographically, it is on an island on the edge of Sydney, surrounded by water and with a subtle relationship to the main city. In terms of the island's own value of its heritage, it is involved in an entanglement of colonialism, crime, and industrialization history (Fletcher, 1970). In addition, Cockatoo Island appears to be quite successful as a culturally oriented urban revitalization when the renovation was just completed, and its cultural industries have a worldwide presence (Lee&Hwang, 2018). Hence such an intricated history combined with its geographical conditions make it an exploitable case for research nowadays.

Literature Review

Urban regeneration is a long-term and daedal process of gaming interests that involves multiple stakeholders. According to the current literature, the means of urban regeneration can be approximately concluded into two main aspects, "property-led and culture-led" (Yichun, 2019). As for property-led urban development, it is usually boosted by the public departments to realize large-scale revitalization of the economy and social reconstruction, intervening neighbourhoods and spatial adjustments (TAŞAN-KOK, 2010). On the other side, culture and creativity become new "soft assets" to catalyse urban regeneration in the post-industrial era, playing a role of "urban place-making and -marketing" (Niu& Lau, S. S. &Shen& Lau, S. S., 2018; Daniels et al. 2012; Philo & Kearns 1993). Therefore culture-led urban development gains growing global concerns as its special effects in the promotion of cultural business and humanistic care. These two approaches are not separate and opposed, but in practice, they often work together for the cities.

In a complex development scenario such as urban regeneration, a wide range of elements and resources involving political, economic and cultural aspects need to be mobilized. Among those roles, government-led intervention still remains "a high profile and important field" (Leary, 2014). Due to the complexity of urban renewal and the complex variety of investments required, governments often partner with urban enterprises and others to form public-private partnerships (PPP). The idealistic intention of PPP is to supply a "long-term, sustainable approach to improving social infrastructure, enhancing the value of public assets and making better use of taxpayer's money" (Akintoye, Beck & Kumaraswamy, 2016). In the upgrading of waterfront industrial heritage, the impact of gentrification (Sun&Chen et al., 2021) on the long-term sustainability of land investment cannot be ignored due to the specificity of the location of the waterfront space. And the government has considerable responsibility for the foresight and control of this phenomenon.

The Australian system of government has a looser federal and local relationship when compared to other strong vertical polity states such as China. For example, Sydney and the state of New South Wales, of which it is a part, have a degree of legislative power and independence that the federal government has no right to interfere with. This high degree of autonomy for the state governments gives them the ability to implement local policies with a degree of efficiency and to mobilize community resources (Christensen, 2002). The Sydney Harbour Federation Trust (Harbour Trust) was founded by the Commonwealth Government in September 1998. It was responsible for the restoration and revitalization of the land around Sydney Harbour, which also included Cockatoo Island. Yet after its guiding legislation, the Sydney Harbour Federation Trust Act 2001 (SHFT Act), went into effect in September 2001, that is when it officially came to power (Harbour Trust, 2018). SHFT then released the Cockatoo Island Management Plan as a long-term operational framework for the development of the island's sub-sections on a site-specific basis (Fletcher et al., 2011). In the limited literature, Cockatoo Island is described as a success story (Lee & Hwang et al., 2018; other sources). However, according to some reports in the Sydney Morning Herald around 2020, the Cockatoo Island appears to be in a financial crisis. The possible reasons for this shift remain to be studied.

Methodology

A combination of quantitative and qualitative analysis to analyze the factors influencing the sustainability of the area formed by the transformation of cultural heritage for tourism purposes will be delivered in this thesis. The extensive history of Cockatoo Island is reconstructed using both paper-based and electronic research, and the intensity of the growth of the buildings is justified by comparing the images with the current significant cultural heritage buildings. At the same time, the user's perspective, just as the tourist's perspective, is adopted, and quantitative feedback is provided on the tourist's experience by collecting relevant data from existing mainstream tourist platforms such as *Google Maps* and *Tripadvisor*. In the study of the stakeholder, the hierarchical relationship was confirmed mainly through paper legal documents and other documents, and a relationship chart was created. Furthermore, the sociological theory was introduced to qualitatively analyze the influence of different roles in the Cockatoo Island at different levels mentioned above.

Assessment of the current operational status of the Cockatoo Island

Listed in UNESCO World Heritage, the island has traces of Aboriginal activity dating back over 4000 years, Australia's colonial and industrial history. Due to its complex history of gender, ethnicity, and class, the island has a rich tradition with significant cultural significance today.

A. The cultural and social-economical history of the Cockatoo Island

The Cockatoo Island, formerly known as the Jackson Port, is a submerged river valley that has been pounded up to form a sediment layer, with the Lane Cove and the Parramatta Rivers intersecting in the inner harbour (Figure 1). It also provides a sheltered harbour for the ships that come and go. However, after more than 140 years of reclamation and island construction, the Jackson Port, once a large port with 13 islands, has departed far from its original foundation and has built a series of industrial facilities such as quarries, prisons, and shipyards. With the exception of one island, which still retains its original

bush form, the eight islands, including the Cockatoo Island, reflect the rich history of the area for more than 90 years. The past 90 years can be divided into three periods (Devine, 2009): from 1839-1969, when it existed primarily as a place of exile and hard labour for British prisoners; from 1871-1911, when industrial schools and reformatories for boys and girls were established to house underage children with criminal histories or those considered "at risk" due to vagrancy, etc.; and from 1857 to 1991, when shipyards and dockyards were established to make a significant contribution to Australia's maritime military power, primarily during the two World Wars.

Australia was formed as a British colony and the establishment of the Cockatoo Islands is tied to the history of British colonization (Tranter & Donoghue, 2007). Since the 18th century, Britain had been using exile as a means of disposing of criminals, which served two purposes: to deter criminals and to provide the colony with a socially productive workforce. The year 1839 (Figure 2) was the beginning of the acceptance of prisoners on the Cockatoo Island, which offered a wealth of sandstone minerals that provided ample space for convict labour (Sir George Gipps,1839), and by 1840 the island had the necessary facilities, including barracks, mess halls, and hospitals, built primarily of stone. During the same period, the British government also directed the establishment of an abundance of large silos in the sandstone fields for the storage of foodstuffs. Although this model of off-site storage was opposed regarding, for example, the safety of the food supply, it was put into practice, and these silos were later developed as water storage facilities as an earlier industrial infrastructure. In 1841, the island was officially made a permanent site for male prisoners and a permanent garrison was built for the island's military forces in the same year. And this phase of the construction process lasted until 1844 (Castrique, 2014).



Figure 1, Location of the Cockatoo Island Source: Cockatoo Island /Wareamah Draft Concept Vision, 2021



Figure 2, Original scene of prisoners on the Cockatoo Island Source: National Library of Australia, 1839

With the change of British policy and the transfer of the center of exile, the Cockatoo Island also gradually changed its arrangement for prisoner labour, and in 1847 began to transform into a dry dock construction site (Figure 3), and the cycle lasted for 10 years. Besides, a large number of industrial buildings were built, and the dock was first put into use in 1857. From 1858 onwards, after the completion of the dock, the expansion program was put into effect, with the construction of large pumping and boiler houses, becoming in fact the "naval arsenal of the colony". The prison history of The Cockatoo Island officially ended in 1869, after which the island retained its factory function, but the prisoners were transferred to other islands. With the enactment of *the Industrial Schools Act* and *the Reformatory Act* of 1866 (Devine et al., 2009), in 1871, the Cockatoo Island was given over to

include an industrial school for boys and girls, originally located in the barracks, and a reformatory for girls under the age of 16 with more serious offences (Kerr, J. S. & Australia. Department of Housing and Construction. & National Trust of Australia (New South Wales). & Australia. Department of Defence Support, 1984). The buildings were placed at the west end of the Cockatoo Island and were close to the docks and factories, separated only by a fence. The old prison canteen and dormitories, including the barracks dormitories, were converted during this period to serve the Industrial School and the Reformatory, both of which had "unpleasant" cramped and overcrowded living conditions due to the poor original conditions of the prison (Luke, 2020). It was not until 1879 that the Reformatory (Figure 4) was removed from the Cockatoo Island, and in 1881 the Industrial School consolidated and converted part of the Reformatory premises (Ramsland, 1986). In the 1890s, a women's prison was erected, and it wasn't until 1886 that the Bilola Industrial School was relocated to Parramatta and the prison reopened. In 1907 it became a women-only prison, and in 1909 it was moved off the Cockatoo Island, bringing the island's prison history to a close (Devine et al., 2009).



Figure 3, The map of Cockatoo Island of 1845 and changes in 1857

Source: Mitchell Library, 1857



Figure 4, Recreation Ground for N.S.S. Sobraon Source: State Library of New South Wales – PICMAN, 1898

During the same period, a second dock was being built on the island to accommodate more naval vessels, which played an important role in both World Wars. Its illustrious history as the official shipyard (Figure 5) of the Royal Australian Navy lasted from before World War I until the 1960s (Figure 6), declining from the 1970s and officially ending in 1991 (Frame & Jeremy, 1999). The Cockatoo Island then fell into a period of silence until 1998 when the Sydney Harbour Federation Trust

(Harbour Trust) was established by the Australian Government to take over and transform the island into a major tourism industry that continues today (Milner, 2015).



Figure 5, Cockatoo Island Dockyard Source: Small Picture File, State Library of New South Wales, 1870

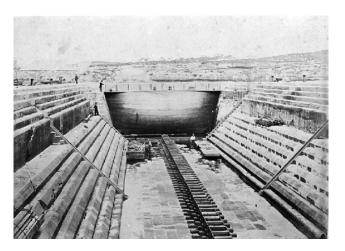


Figure 6, Cockatoo Island Dock Source: State Library of New South Wales, n.d.

The historical complexity of the Cockatoo Island lies in its special status of industrial workers (prisoners) based on colonialism, and the related issues of gender and age that follow. The specific cold and closed spatial characteristics of a large number of prison buildings also make it more difficult to renew and transform them.

B. Cultural heritage assessment of the Cockatoo Island

There are currently several sets of criteria for heritage assessment in Australia, among them, the National Heritage List "records places of natural, Aboriginal and historic places with outstanding heritage value to the nation" and the Cockatoo Island is currently assessed on this basis. According to the Australian ICOMOS Burra Charter (Truscott, 2014), the main dimensions of cultural heritage are assessed in four areas, "historical significance, aesthetic significance, scientific significance and social significance".

In terms of historical significance, the Cockatoo Island is currently the only surviving British Empire convict public facility in Australia during its period of use as a prison (1839-1969), with relatively complete preservation of historical remains of the early prison, army, overseers, and labour work sites. Meanwhile, it pioneered the commitment of convicts to be compelled in the form of hard labour, which is relevant to the controversial and protective issues of convicts' human rights. In addition, it was geographically unique in that it established punishment sites in areas close to population centers (Devine et al., 2009). The shipyard phase (1857 - 1991) as the largest shipyard in Australia reflects the development of Australia's military power at sea in that year. At the same time, these convict-related sites and facilities are consistent with the subsequent establishment of the Children's Industrial School and the Reformatory, as well as the factory facilities of some of the dockyards, thus reflecting a high degree of historical continuity in the use of buildings and infrastructure, and therefore have a very high historical value.

In the aesthetic sense, most of the sandstone buildings built on the Cockatoo Island during the prison era, except for some buildings similar to the Steam Workshop in the 19th century that exhibit superb craftsmanship in their details, were for the most part strongly functionally oriented at the time of their establishment and did not develop a more unique or representative aesthetic style (Figure 7), nor did they generate very strong ties to very famous artists and architects. From the beginning of its establishment to the subsequent renovation, it retained some of its original formal integrity, but did not pursue a higher aesthetic purpose, and therefore did not stand out in terms of its aesthetic value.

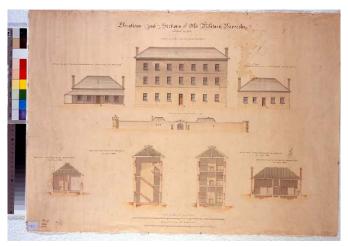


Figure 7, Elevations & Sections of Old Military Barracks, Norfolk Island Source: Archives Office of Tasmania. n.d.

Sociologically speaking, although Cockatoo Island is associated with a distinct group of prisoners, no community culture derived from the initial group of prisoners has developed due to the mobility of the prisoners, who were later transferred due to policy changes. However, most traces of the island's aboriginal population were covered by colonial construction during the prison era, and many aboriginal people were forced to leave the island, so there was a break in the original community culture (Castrique, 2014). The island's form also made it relatively closed and independent, with weak interaction with the surrounding city and land. Thus, in the historical part of the community, Cockatoo Island does not exhibit significant influence on the cultural groups of the New South Wales community.

As for the scientific significance, the archaeological evidence and applications of the Cockatoo Island provide a potentially richer and more unique visitor experience from a bystander's perspective, based on a rich mix of heritage types. In terms of scholarship, it provides a physical sample of 19th-20th century British and Australian colonial and prison history with considerable integrity. The cultural heritage of the subsequent shipyards is also informative for retracing naval military power and science and technology before and after the two world wars. Overall it has considerable potential as a cultural heritage cluster of rare scale for the study of the British Empire's prisoner works, early Australian and British polity.

C. Development and conservation status of architectural heritage in the Cockatoo Island

In July 2010, the 34th UNESCO World Heritage Committee listed the Cockatoo Island as "the best surviving examples of large-scale convict transportation and the colonial expansion of European powers through the presence and labour of convicts" (Brasilia, 2010), along with ten other sites such as Hyde Park Barracks and Old Great North Road in Australia. The Cockatoo Island appears as a whole in this list. In the interior of the island, the values assessed are "Former Guardhouse and Soldiers Barrack, Military Officers Quarters, Mess Shed, Prisoners Barrack, Biloela House. kitchen block and grounds, Remnant garden walls, Dockmasters Residence and Grounds, Siloes" (Figure 8) enjoys a higher rating and is considered to " should be included in any National and State Registers" (Devine et al., 2009). By comparing the date of construction with the existing buildings on the island (Figure 9), it can be seen that the listed buildings were basically built before 1887 and have a high conservation value, so the current development needs to be mainly preserved in its original form, while the surrounding factory buildings built during the shipyard period have a relatively low historical value and can be appropriately renovated and expanded.

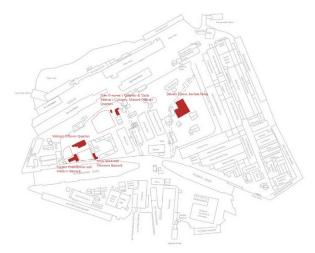


Figure 8, Distribution of cultural buildings with high conservation value

Underlay: Cockatoo Island /Wareamah Draft Concept Vision, n.d.

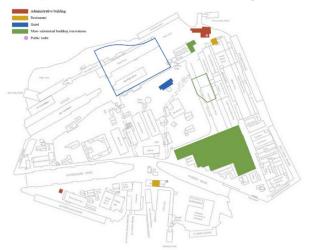


Figure 10, The current state of renovation and development of heritage building

Underlay: Cockatoo Island /Wareamah Draft Concept Vision, n.d.

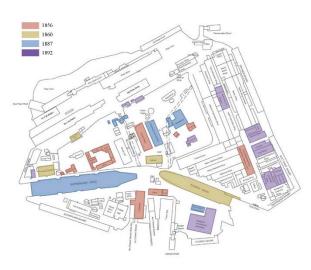


Figure 9, The date of construction of the buildings on the Cockatoo Island

Underlay: Cockatoo Island /Wareamah Draft Concept Vision, n.d.



Figure 11, The interiors of the Industrial Precinct Source: Australia Government/ Cockatoo Island Industrial Conservation Area, 2016

The transformation of The Cockatoo Island began in 2003 and provided a relatively ambitious vision at the time. The importance of "preservation and protection" was very high in Godden Mackay Logan's renovation plan in 2003, and the current state of renovation and development (Figure 10) shows that the current intensity of development is very low. There is only one formal hotel, two restaurants and two public toilets on the island, and the infrastructure to deal with tourists is rather inadequate. Although most of the buildings are accessible to visitors, they have been preserved in their original state, with some lighting design (Figure 11) in the southeastern part of the building, making it one of the more attractive attractions on the island.

As mentioned above, the overall aesthetic character of the buildings on the Cockatoo Island is not outstanding, and the current low development intensity does not have a significant effect on its aesthetic value, while the relatively weak infrastructure coverage is not conducive to attracting visitors.

The Sustainability of Capital Operations of the Cockatoo Island

A. Assessment of urban economic sustainability indicators

The most common indicator in the world to measure economic development is GDP (gross domestic product), i.e. the monetary quantity of products produced by a country or region in a certain period of time (Van Den Bergh, 2007), but GDP is more of a relatively static state and cannot effectively measure the dynamic loss and change of similar fixed assets in the long-term development process. However, GDP is more of a relatively static expression, which cannot effectively measure the dynamic process of loss and change of fixed assets in long-term development (Wang & Pei, 2014), and therefore has considerable inaccuracy in measuring the sustainable development of the regional economy. In order to better measure the dynamic level of regional economic development, the World Bank has been publishing the annual "the changing wealth of nation" since 1995 to assess the level of regional economic development, adopting "comprehensive wealth" as the measure of regional economic development. By 2021, the criteria have been developed to include "produced capital, non-renewable natural capital, renewable natural capital, human capital and net foreign assets" (World Bank, 2021). The Cockatoo Island is now a tourist city with limited natural resources and its most important fixed assets are its industrial heritage with high historical value. Therefore, the author propose to replace "non-renewable natural capital" and "renewable natural capital" with "cultural heritage capital". And "renewable natural capital" should work as the main evaluation index to assess the capacity of social resource reproduction under governmental governance. The following evaluation of the cultural heritage capital will more qualitatively analyze the cultural heritage capital and development of the Cockatoo Island by combining the bottom-up perspective of tourists and the top-down analysis of the stakeholders involved in governance.

B. The review from the tourists

For a city that positions itself as a cultural-oriented tourist destination, the perspective and evaluation of visitors are important entry points to get a glimpse of how well and how effectively it is doing

business. The subjective and vivid experience of the user is often more convincing than cool and objective data. *Tripadvisor* is one of the world's largest travel review sites, and *Google Maps* is one of the largest navigation software in the world, I chose these two platforms as the source for my sample collection. In terms of address choices, St Mary's Cathedral, Anzac Memorial and Fort Denison Island are among the more historic cultural attractions on Sydney Island, while Sydney Opera House, Taronga Zoo and the Australian National Maritime Museum are the more popular human attractions on Sydney's overall ranking. As can be seen from the table below (Figure 12), in aggregate, Cockatoo Island receives a moderately high number of reviews among historic attractions, almost equal to Anzac Memorial, but with a considerable quantum difference from the most popular cultural tourist attractions, and this variance is more pronounced in Google Maps than in TripAdvisor is much more pronounced. The number of reviews gives a side view of the number of people visiting, while TripAdvisor is more of a guide tour model, google maps may include a larger sample of visitors driving themselves on top of this. As can be seen from the table below, Cockatoo Island has a medium to a high level of attractiveness for a historic attraction of its type, but does not have the capacity to attract enough visitors to be a major tourist attraction.

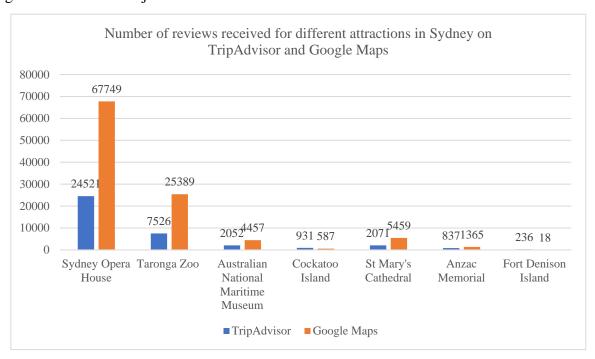


Figure 12, Number of reviews received for different attractions in Sydney source: TripAdvisor, Google Maps

In addition to the evaluation dimension of the number of visitors, the ratings on the website provide a general indication of the visitor experience. As the two platforms do not display the same rating gradient to show comparability, the five ladder rating dimensions on TripAdvisor were corresponding to a score of 1-5 according to the display criteria of google maps and a weighted average was taken to obtain the table below (Figure 13).

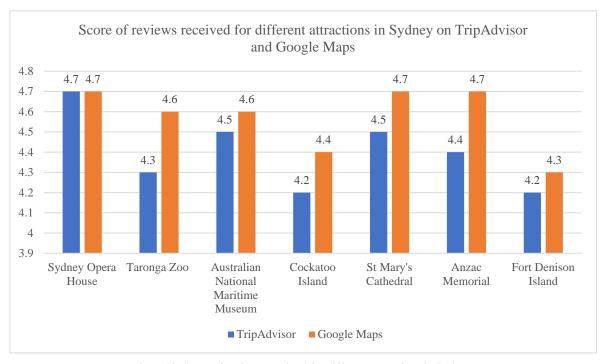


Figure 13, Score of reviews received for different attractions in Sydney source: TripAdvisor, Google Maps

The Cockatoo Island is thus an average experience for visitors in a side-by-side comparison. Combined with the lack of adequate food and drink on the island, there is much room for improvement, at least in terms of infrastructure. The investment in infrastructure has a lot to do with its economic operation. The following section analyses the patterns and problems of the economic operation of the island from the standpoint of the stakeholder.

C. Stakeholders with relevant responsibilities

Until the 1990s, some of Sydney's harbours, including the Cockatoo Island, were under the jurisdiction of the Commonwealth Department of Defence, and when the Defence Government withdrew from jurisdiction, the local community felt it should be publicly owned and formed the Sydney Harbour Foreshores. Foreshores negotiated with the New South Wales Government, resulting in the Sydney Harbour Federation Trust, a transitional product of a short-lived consensus, which was passed in 2001. In the Sydney Harbour Federation Trust Bill passed in 2001, the Trust's administrative life was only until 2011, but in the Sydney Harbour Federation Trust Amendment Bill of 2007, it was extended to 2033. Under the Sydney Harbour Federation Trust Act 2001 (SHFT Act), the Harbour Trust currently owns and manages land on the Cockatoo Island and has certain legislative powers, and is

administratively under the Minister of Environment & Water.

The New South Wales Government does not have executive authority over the Cockatoo Island on a day-to-day basis but does provide significant financial support for the conservation and regeneration of the island's cultural heritage. Under the SHFT Act 2001, the next stage of the Harbour Trust's role as a transitional organization was to transfer land and management rights to the New South Wales Government, but this is currently at a standstill due to the 2007 amendments.

The power of the local community plays an important role in the administrative process of decision making and in 2010 the Harbour Trust released a new phase of building plans and consulted with groups associated with tourism on the Cockatoo Island. The community was one of the main subjects surveyed. In reality, however, the local population is made up of many staff and family members of government workers, and the voice of the indigenous people is less encouraging. The First Nations are a very special group to the Cockatoo Island. Firstly, they are the original owners of the land, and the Dharug language is their common language, in which they refer to "the Cockatoo Island" as "Wareamah". But on the other hand, they were forced to leave the land. Their ownership of the land ended with the advent of the colonial era, or they were imprisoned or put into hard labour, and thus the traces of their long existence were overwritten by the colonial past. An Aboriginal rights group, the Wiradjuri, entered the Cockatoo Island in 2000, which was not open to the public at the time, and set up a camp, but were evicted by the Australian government, and their appeal to the federal government was later rejected. As a result, the Aboriginal group was not recognized as a substantial part of the local population. However, at the Cockatoo Island consultation in 2010, the stakeholders mentioned were "locals, visitors and the broader Sydney community, the Harbour Trust Community Advisory Committee, volunteers and guides, representatives of nearby councils, creatives and innovators, and staff of the Harbour Trust "(Bremner & Greig, 2021). Thus, it can be assumed that Aboriginal people have some right to political consultation, but it may be more concentrated in organizations that work closely with the government or play a "mascot" role in group decision-making.

The rest, such as the introduction of some corporate and artist groups, were proposed in the 2003 plan (Devine et al., 2009) but were not really included as major players in practice (Figure 14).

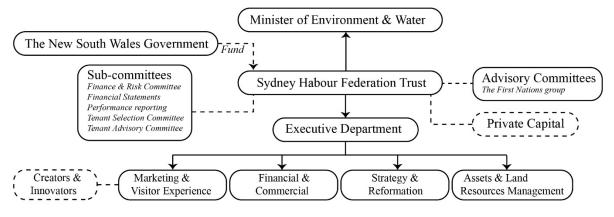


Figure 14, The diagram of the relationships between stakeholders Reference: Harbour Trust Annual Report: 2021-2022

D. Current status of capital operations

The Cockatoo Island's fund operations have continued to deteriorate since 2018, as revealed in the Harbour Trust's independent review, in 2018 and 2019, the fund and more than 70% of the income was put into basic maintenance, while only 10% was spent on projects that would boost economic reproduction such as further enhancing the visitor and merchant experience, marketing, and promoting creative industries. This is clearly not conducive to sustainable development. This low investment in reproduction puts the Cockatoo Island in an overall operating deficit, which further reduces the level of long-term maintenance of the island's facilities and tenant confidence, as well as the negative impact on the visitor experience, such as cuts in volunteer funding (Harbour Trust, 2019), which can lead to financial recovery difficulties and a vicious cycle. In an interview with The Australian in 2020, Joseph Carrozz, the chair of the Harbour Trust, mentioned that "We are now at a point where there are financial and operational headwinds which threaten our ability to both further advance the objects of our legislation and ensure that community expectations are met", which shows the urgency of the funding shortfall.

The Harbour Trust's operating position was brought to the attention of the NSW, which subsequently invested additional funds, and its operating position remains unsatisfactory until 2022. As revealed in the *Habour Trust: Annual Report 2021-2022* (Figure 15), in terms of asset composition, the Habour Trust's main assets are fixed assets such as land and buildings, infrastructure, plant and equipment, heritage and collections, which account for over 80% of total assets, and a low proportion of liquid assets. This disparity continues to widen between 2021 and 2022, with the liquidity position weakening from 14.0% of more liquid assets in 2021 to 12.3% in 2022. Overall, the Habour Trust's total assets increase in 2022 compared to 2021, partly from government grants, but more from fluctuations in the way fixed asset valuations such as housing are calculated. The financial results for 2022 show a worrying deficit of \$5603,000 after still having \$13,587,000 in 2021. In addition, the increase in total liabilities also indicates that the Trust is taking on more debt in 2022, which could increase its financial risk. This asset mix and liquidity make the Trust less profitable and less resilient to risk. This is also reflected in the discrepancy between the reality of 2021-2022, which was expected to be a turning point for renewed economic growth after Omicron, and the new epidemic, where the growth land rental market is weak and tourism has not yet returned to pre-epidemic levels.

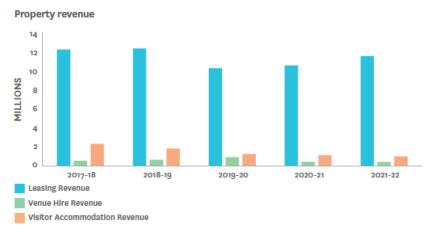


Figure 15, Annually Property revenue of the Cockatoo Island from 2017-2022 Source: Harbour Trust Annual Report: 2021-2022

E. The analysis of the relations between the stakeholders and the capital operations

The Cockatoo Island has received a lot of interest from stakeholders due to its rich historical and architectural heritage and its prime location near Sydney Harbour. The Harbour Trust, which has a high level of governance, is seeking to extend and materialise the life of its own powers, and has received government support in 2020 (Sussan, 2020). It is also actively promoting a shift in its positioning from a focus on the restoration and maintenance of the island's historic heritage to a more multifaceted investment and economic operation, actively promoting the easing of legislation on the infusion of external capital, seeking to expand its functions, and attempting to consolidate its administrative power through revenue generation and the sustainability of its economic operations. In contrast, the New South Wales Government has sought to take back control of the land for the development of a collective plan for the Sydney Islands, but has looked to the Trust for additional investment in the continued restoration and maintenance of the islands' historic heritage. The functions of the Trust, currently in a 'transitional period', have led to a special co-management alliance with the New South Wales Government. At the same time, the current deterioration of the Cockatoo Island's business situation has given an opportunity for external capital to step in. Banking magnate Tony Burg and financier Danny Goldberg, along with art collector Simon Mordant behind the scenes, offered the Sydney Harbour Federation Trust significant funding and government cooperation around 2018 in exchange for a long-term lease and ownership of the entire Cockatoo Island. The proposal drew strong opposition from parliamentary party members and parts of the community, who wanted the Cockatoo Island to be economically vibrant but were resistant to its large-scale privatization.

The functions and interrelationships of the stakeholders of the Cockatoo Island have also had a negative impact on the sustainability of economic development in the long term. Firstly, the state of the Cockatoo Island's operations is more related to the Harbour Trust's own positioning and functions. In its early years, it was seen as a short-term, simple goal-oriented transitional organization set up to deliver the Cockatoo Island to the New South Wales Government for revitalization and restoration, and therefore invested heavily in the conservation and maintenance of the historic buildings, thereby squeezing out the scope for stimulating the economy in productive short- to medium-term investments. This has squeezed the scope for short- and medium-term investments of a productive nature. At the same time, the Cockatoo Island is not rich in industry and is heavily dependent on tourism, making it vulnerable to external fluctuations in the post-epidemic era. This single industry model coupled with its single business objective makes the Cockatoo Island's economic structure fragile and less resilient to risk. Thirdly, the Harbour Trust's financial resources are very homogeneous, relying heavily on government investment and the capital reserves from the beginning of the trust's history; in terms of income composition, a disproportionately high percentage of income from land leasing is reflected in the weak dynamism of other industries. To a certain extent, it has also become a self-imposed constraint against external capital. This constraint comes not only from an internal insistence on organizational goals, but also from the pressure of external community expectations. Finally, the development and maintenance costs of historic built heritage are higher when the heritage itself is of high historical value. This increasing cost is a heavy burden for long-term operations, but this high cost translates less into economic benefits in terms of attracting visitors and directing consumption.

Another point is that The Trust is not on the same level as other boroughs in the vicinity, and at the same time, they are not as close to each other. The Cockatoo Island is located between the districts of Birchgrove and Drummoyne, yet it takes nearly an hour to travel by public transport from Birchgrove to the Cockatoo Island (Figure 16), and about half an hour to travel by boat from Drummoyne to the Cockatoo Island (Figure 17). It also takes about 30 minutes to get from Sydney (Figure 18), the most populated and visited area, to the Cockatoo Island, and these trips require repeated transfers and are sparsely scheduled. In contrast, the main island of Venice is only about 15 minutes away from the Mestre area (Figure 19), and public transportation is very frequent, making Venice much more accessible to visitors living in the surrounding area. The Cockatoo Island, on the other hand, does not offer many places to live on the island, and its connection to the surrounding land is still weak, thus contradicting its positioning as a tourist area. The need to develop more convenient cross-regional navigation usually requires a higher level of regional government cooperation, and the Trust, as a more temporary administrative body, does not have sufficient dominant power in coordinating the cooperation and dispatch of high-level administrative forces across the region.



Figure 16, The public transportation route from Birchgrove to the Cockatoo Island



Figure 17, The public transportation route from Drummoyne to the Cockatoo Island Source: Google Maps



Figure 18, The public transportation route from Sydney to the Cockatoo Island

Source: Google Maps

Source: Google Maps

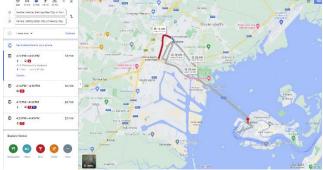


Figure 19, The public transportation route from Mestre to Venice

Source: Google Maps

VI. Sociological Derivative Analysis

"Heritage tourism" is a subset of "cultural tourism" (Cohen, 2012) and has been studied at the sociological level. Although the definition of "heritage" is controversial (Edson, 2004) and extends from a purely archaeological product to an intangible level, its composition is not considered neutral and objective, but rather a product of both historical and social circumstances (Harvey, 2001), and therefore can have a strong regional dimension. It is therefore strongly territorial. In a more romanticized definition, "Heritage" is considered to be a symbol of continuity in a changing world, and an important link between the old and new worlds (Logan, 2001). At the regional level, heritage has its own "origin", but since 1972 UNESCO (Titchen, 1996) has established a standardized procedure for the recognition of World Heritage sites, thus elevating the regional heritage to the level of the common humanity at the sociological level.

However, this is only an idealized "cultural consensus" in the sociological field, and in the concrete level of implementation, it is still almost necessary to maintain it by the country or local government of the region. This level of consciousness transcends national consensus and seeks to lead to a world consensus without an orderly and complementary deployment of practical resources on a global scale, such as the preparation and mobilization of worldwide financial savings to achieve synergy and balance in the protection of cultural heritage across regions. For this reason, the significance of cultural heritage for tourism seems to be more of a name, and it does not directly translate into a sizeable and proportional economic counterpart. Therefore, for regions that do not have a strong financial base but wish to develop "Heritage tourism", it is almost inevitable that commercialization measures will be introduced to maintain economic sustainability. As a result, some of the commercial means or results of commercialization may erode the cultural heritage, thus losing some of its authenticity. For example, some buildings are forced to change their appearance or the original community culture is disturbed by tourist life, and some indigenous people are forced to relocate to other areas. If the above-mentioned commercialization measures are not taken, the limited economic power of the government may not be able to maintain the sustainability of the cultural heritage in the long term, so that after a certain period of time, the cultural heritage may be forced to deteriorate and decay due to the lack of maintenance and protection. The Cockatoo Island's current situation is closer to the latter. In the absence of largescale commercial operations, most of its buildings require almost unilateral government funding for maintenance, and the sustainability of such investment based on the high conservation value of the heritage is questionable. The current shortage of funds for the operation of The Cockatoo Island is also a testament to the negative impact of this model of heritage recognition.

In addition to the maintenance and operation of physical facilities such as buildings, the social and cultural impact on the heritage site is also controversial. Using Foucault's "gaze" theory, the indigenous people who were originally located in the area may become the object of gaze after the tourism development from the original subject of residence. Their lives are forced to serve the needs of the tourism industry, and the places they used to live in become "museums" that are not allowed to enter (Miura, 2010). In the Cockatoo Island project, there is no obvious record of the application of the aboriginal settlement, but the project proposes to make the aboriginal symbols and dances one of the focuses of the tourist experience, and to make the aboriginal people an important participant in the welcome activities for tourists. This is also a reflection of the "objectification" of the original "subject," and in the renovation from 2003 to the present, there are no special facilities can serve the indigenous people. The existence and subjectivity of the aboriginal people has been historically ignored by the

Australian government, but now the need to develop tourism has pushed them to the front of the stage, which is certainly very hypocritical. In the community consultation, the indigenous people claim that they need to be placed as the first subjects, but in fact, the marginalization of their role starts when the tourists enter.

The last point is "path dependence" at the policy-making level. This is a concept in political economy that creates "path dependence" (Bramwell, 2011) when government decisions are made in a similar direction to previous decision paths due to the constraints of past legacy resources and policies. This is a phenomenon that tends to occur when governments intervene and intervene steadily over time, with a corresponding causal relationship, similar decisions tend to lead to outcomes of a similar nature. By the same token, if one wants to achieve different outcomes or effects, one needs to get rid of path dependence in decision-making and achieve "path jumping". In the case of the Cockatoo Island, both the 2003 document (Devine et al., 2009) and the 2021 vision (Harbour Trust et al., 2021) proposal are generally similar in their overall operating model. The Trust's attempt to continue the original stakeholder structure is also based on the fact that it was originally intended as a transitional institution that wanted to extend its life cycle. The Trust's attempt to continue its original stakeholder structure is also justified by the fact that it was originally intended as a transitional institution that wanted to extend its life cycle, and that introducing more political players would make its role even more dangerous. In terms of the island's operating model, the constraints of the original building and the establishment of a single culturally oriented transformation direction also prevented it from making more groundbreaking and innovative changes. However, a similar model is still a relatively mainstream and popular approach to heritage renovation worldwide, and can therefore be seen as a "path dependency" common to most governments on a larger scale. Likewise, because of the relative continuity of policy, the results are relatively predictable, and there is a high probability that it will be difficult to break out of the current pattern of insufficient economic and tourist attractiveness. In current news, there are signs that the government is looking to bring some corporate and private investment into the management of the Cockatoo Island, and if this break from "path dependency" can be achieved, it may also bring the island's operations into a more sustainable cycle.

VII. Conclusion

In a typical urban environment, the upgrading of land in lower-income areas tends to attract an influx of middle-class residents and thus inflate land prices and cause gentrification, but the case of the Cockatoo Island is unique. The Cockatoo Island has not historically or currently developed a large and systematic residential community, so it is difficult to measure and compare land prices with those of a typical urban community. However, the limited land resources on the Cockatoo Island do not lend themselves to large-scale community development, and almost all of the island's buildings are cultural heritage, making it a relatively logical choice for a tourist area. However, the external income of the Cockatoo Island is mainly based on tourism resources, which is a very unstable economic structure compared to ordinary urban communities, as it lacks a stable cash flow from the daily life of the residents. And especially in the past two years, the impact of the epidemic has been a very heavy blow to the economic benefits of tourism.

In view of the natural and historical conditions left by the Cockatoo Island, one of the more important

contradictions in the development of a tourist town is the contradiction between the rich historical value of the architectural heritage and the more general aesthetic value and the particular type of architecture. The original large number of buildings of the prisoner period on the island is inherently punitive in nature of use, and therefore will not be considered too high in aesthetics. The dockyard site on The Cockatoo Island is not very special compared to ordinary factories, but at the same time, these buildings have a very high historical value and are maintained and used in a way that is mainly conservation rather than large-scale renovation and expansion. The creation of the landscape also does not show a special scene. This special attribute is naturally contradictory to the needs of developing a tourist city. However, the aesthetic value of the buildings and their amenity needs to be given more prominence in the tourist experience, so the Cockatoo Island is less visually appealing than other sites, which is a fatal flaw in its "innate condition". Although the presentation of tourism experiences that are only visually centered is worthy of criticism and should reasonably engage multiple possible sensory experiences. In practice, however, it is difficult for tourists to consciously and spontaneously resist "visual centrism" in the short term. Even if the government tries to build attractive events at a later stage, such as the Biennale of Sydney, it can only generate a relatively large number of visitors in the short term, but not a longer-term and stable attraction for tourists. Other culturally oriented tourism selling points such as trying to attract artists to set up their studios on the island and interact with tourists are also in a vicious circle due to the inability to commercialize art products on a large scale and the lack of tourists. At the time, The Cockatoo Island was one of the few prison sites established close to a population center, but it was also surrounded by rivers and therefore somewhat enclosed. The advisory board document showed that many parties agreed on the unique value of the two rivers, but it also added to the economic cost of accessing the island, which made it difficult to reach the site.

The composition of the Cockatoo Island's stakeholders is unique in terms of government involvement and participation. It is mainly managed by the Trust, and almost all of its funding comes from revenues and financial allocations from higher levels, while resisting the injection of funds from external private enterprises, so it has a high degree of implementation in management, but also a low degree of flexibility in governance. The large amount of maintenance and repair work consumes a large amount of money, leaving insufficient funds to invest in tourism development and stimulate economic reproduction. The local community has a proportion of First Nations indigenous people, but the total number of indigenous people is not large, and a significant proportion of the residents are related government workers and tourism industry workers. In their vision for the future of the island, the First Nations proposed that their interests would be paramount in the development of tourism, and that more tourism-related commercialization could be undertaken using their culture as a cornerstone. However, this initiative was not fully reflected in the 2003 development plan, and the First Nations' importance is not reflected in the existing buildings and facilities, which shows that there is still a lack of involvement of the local community in the original tourism development.

In the development of the Cockatoo Island as a tourist town, there are certain shortcomings and deficiencies in the natural geography of the island and the formation of the subsequent government, as well as the unpredictable external environment such as the epidemic, which has made the economic development of the Cockatoo Island not sustainable as expected in the recent past. Although the Cockatoo Island has proposed a new vision and renovation plan in 2021, it can be seen that the design of the architecture and urban planning is still limited by the original conditions of the island, so there

are still some limitations in terms of bringing in external funding at the stakeholder level, coordinating with the indigenous people, and coordinating with the neighbouring cities at the governmental level to facilitate transportation links. There is still a lot of room for adjustment and operation from the perspective of convenience and accessibility.

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