Waterfront Regeneration

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1.0 Introduction

The historical relationship between cities and ports were interwoven, both physically and economically. However, the long-established symbiosis was broken during the 20\textsuperscript{th} century. That the cities became more multifunctional lessened their dependence on the ports. Structural economic changes weakened the traditional relationship between cities and ports (van der Knaap and Pinder, 1992). The movement of port activities and the evolution of maritime technology also deteriorated the city-port relationship. The port closure was also associated with the decline of traditional industry, especially in relation to docklands (Hoyle, 1988). These factors put considerable pressure onto the inner city. The success of Baltimore Inner Harbour has provided a solution to those cities, which suffered from dramatic decline in the port areas. Therefore, to some degree, waterfront regeneration was seen as an urban panacea, a cure-all for ailing cities in search of new self-images or ways of dealing with issues of competition for capital development or tourist dollars (Marshall, 2001a, p.6). To open up the waterfront became an international phenomenon of urban development.

1.1 Aims and objectives

Although the reclamation of waterfront has spread out elsewhere, the theory of waterfront regeneration was far behind the practice. Also, most of the research focused the attention on the waterfront redevelopment implemented in North American. Lack of study related to contemporary waterfront regeneration undertaking in the European countries. Therefore, this paper aims to fill the research gaps and provide a holistic picture for European waterfront regeneration.

2.0 Literature review

According to Robers (2000, p.24), urban regeneration is driven by (i) economic transition; (ii) concerns of social and community
environment; (iii) physical obsolescence and new land and property requirements; and (iv) environmental quality and sustainable development. In terms of waterfront regeneration, it is forced by port closure, deindustrialisation, land abandon and desire of open space (Hoyle et al.1988; Bruttomesso, ed 1991; Breen and Rigby, 1996).

2.1 Lessons from North American

North American is known as the cradle of waterfront regeneration. Cities like Baltimore, Boston and New York are cited as the models of waterfront regeneration. Their approaches to redeveloping the waterfront have been well documented (de Jong, 1991; Millspaugh, 1993; Tunbridge, 1993; Gordon, 1996,1997; Marshall ed 2001).

Baltimore

Baltimore has been seen as the earliest example of urban renewal, especially the area of the inner harbour. According to HUD (1985), Baltimore waterfront revitalisation process can be divided into three stages, corresponding with different projects and approaches to development. The first project stage (Charles Centre) may be characterised as ‘assistant development’, the second as (Inner Harbour) as ‘directed development’, and final one (market centre) as ‘collaborative development’.

Baltimore’s success was underpinned by the following aspects. The networking enabled both public authorities and private organizations to come to an agreement on development goals (de Jong, 1991). de Jong also claimed that the powerful public leader was able to execute the whole process. Both de Jong (1991) and Millspaugh (2001) pointed out that the innovation of quasi-public agency led to the success of Baltimore waterfront renewal. The quasi-public agency was evolved from Charles Management Office to Charles Centre / Inner Harbour Management Inc then Market Centre Development Corporation and finally the Baltimore Economic Development Corporation. Although these agencies were directly responsible to municipal government, their distinctive characteristics allowed them to have discretion in execution and implementation under the contract with municipality. According to Millspaugh (1993, 2001), Baltimore was an example of using public investment to lever a private one. For instance, by 1984, a total investment of $180 million had been realized, of which $35 million (20 per cent) was public funding (including subsidies from federal and state), and $ 145 million (80 per
cent) was provided by private sector. de Jong (1991) argued that a variety of approaches were adopted to attract private investors, such as financial incentives. In order to change the city image, three methods of design control were adopted, namely, establishing Architectural Review Board, holding design competition and obligating private developer to meet the design parameter set by public authority.

However, despite its success, Baltimore waterfront renewal was criticised from a social aspect. This was because the net job growth was absorbed by the suburban residents rather than the low-income groups (de Jong, 1991). As a result of prosperity brought by tourism, existing working class population had to face the increase of living cost and pressure of massive gentrification.

Boston

Boston’s waterfront development consisted of four projects, i.e. Charlestown Navy Yard, Harbour Point, Rowe’s Wharf and South Seaport District. They have built up a reputation on reintegrating city fabric with waterfront and maximising public benefit (Mambro, 1993; Gordon, 1996). Mambro (1993) argued that the underlying factors of success were substantial public landownership, interagency cooperation and a development plan. A similar conclusion was drawn by Cook al (2001). They claimed that the Boston’s success was underpinned by strong public leadership and partnership, and recodification of Chapter 91 – the ancient legal doctrine with regard to tidelands.

Three public authorities – Massport, Boston Redevelopment Agency (BRA) and Commonwealth of Massachusetts involved in the Boston waterfront redevelopment. In particularly, BRA played an important role in the redevelopment process. As a development agency, it was the largest landowner on the downtown. Being a planning agency, BRA took the responsibility for zoning the waterfront as well as the local projects. (Cook, al 2001).

Moreover, the recodification of Chapter 91 was approved through the cooperation with those public agencies and others representing maritime, environmental, development and legal interest on the waterfront renewal. This amendment was intended to promote harmony – both procedural and substantive – among three main public authorities. Cook al (2001) implied that the amendment helped to address the conflicts between different sectors and ensure the
Hall (2002) pointed out that it was difficult for British cities to duplicate the redevelopment model approved to be success in both Baltimore and Boston. This was because both cities were long-established commercial centers. In particularly, Boston was a major home for financial institutions. (Hall, 2002, p.384). He claimed that this distinctive characteristic gave the advantage to both cities to allocate new land uses of retailing, residential and leisure facilities. Also, the same agent – James Rouse led a pro-growth coalition, which skillfully marshaled public support and combined federal and private funds to promote large-scale commercial redevelopment.

**New York City**

Battery Park City was built on landfill adjacent to the former World Trade Centre. The project was driven by a speculative imperative to accommodate financial services restructuring; was managed by globalised developer (Olympia and York); was designed by an international entourage of architects; was commissioned by local and central government, which offered public subsidy and support; was attempted to create a ‘Complete Urban Community’ by fusing the ‘best’ dimension of ‘city’ and ‘country-town’ life into a stimulating new urban life style (Crilley, 1993, p.128).

In the comparative studies of waterfront redevelopment implemented in New York City, London, Boston and Toronto, Gordon (1996, p.265) deduced that each waterfront development agency had to meet the requirements of changing the image of the waterfront. This goal has been achieved in developing the project of Battery Park City. The development agency, Battery Park City Authority (BPCA) took an active part in controlling the quality of physical environment. A series of approaches were adopted, i.e. developing the physical strategy, making the master plan, multiplying the sites, using urban design guidelines, selecting developers and managing the public open space.

In the history of developing Battery Park City, two master plans were approved in succession. The 1979 Plan was severely criticised for intending to control the project by building the megastructure spine. On the contrary, the 1979 Plan was appreciated for using infrastructure to shape the public open space (Gordon, 1996). According to Seymour, the 1979 Plan was also physically integrated new development with urban context. Streets were mapped to protect view corridor, provide access and define development parcels (Gordon,
1997).

Both Gordon (1996, 1997) and Mayer (1999) indicated that incrementally building high quality public space was a model for other waterfront redevelopments. They argued that the city has been reconnected with the waterfront by a series of public open space. However, Gordon (1996, p.287) implied that it was difficult for other cities to reproduce the approaches applied in the project of Battery Park City. This was because an independent authority – BPCA took the place of City Authority in controlling public space and regulating individual projects, in which the authority has executed superbly (Fisher, 1988, p.82) as well as its tradition of insisting first-rate design even close to bankruptcy.

2.2 Lessons from UK

UK’s interest on waterfront started from 1970s. In UK, national and local authorities have been relatively slow to take up the chance of waterfront redevelopment (Clark, 1985). Three major cityports – London, Liverpool and Bristol have achieved considerable transformation of their abandoned docklands. Other redevelopment took place in a variety of cities, including Cardiff, Dundee, Edinburgh, Glasgow, Hull, Manchester, Newcastle, Portsmouth, Southampton and Swansea. Hoyle (1988) argued that the current practice of waterfront in UK did not meet its social, economic and political objectives. For instance, the redevelopment of London Docklands was the counterexample of waterfront regeneration, in which planning and design intentions were subverted by concerns of power and capital (Malone, 1996). Therefore, it was important to learn the lessons from the planning and development process of London Docklands program.

Brownill (1990) provided a holistic picture of the redevelopment of London Docklands. She indicated that London Docklands failed to achieve its development objectives both physically and socially. The government lost the control on the quality of public realm, failed to provide support of infrastructure and neglected the social impact.

2.3 Other European countries

The wave of waterfront redevelopment in Continental countries started in the 1980s. Cites like Barcelona, Amsterdam and Berlin have involved in this spread. In Berlin, the government district is being built
on the riverfront. As mentioned before, relatively small amount of research examined the regeneration approaches applied in these cities. This situation has changed. Researchers like Hoyle and Pinder (et al.1992), Jauhianien (1995), McCarthy (1996), Jones (1998), Meyer (1999) and Marshall (ed. 2001) have provided comprehensive understanding of Continental reclamation of waterfront, which included urban planning policy, development strategy, land use pattern and partnership.

2.4 Key elements of success

In concluding the literature of waterfront regeneration, it is obvious that no matter what kind of approach is adopted in regenerating the waterfront, the following consideration should be taken into account:

- Development framework – master planning and implementation
- Delivery mechanism
  - Public-private partnership
  - Timing and marketing the regeneration
- Outcome – economic and social balance

3.0 Methodology

The methodology applied in this research consisted of documentary review of waterfront regeneration and comparative case studies base on the key element listed above. Two cases, Barcelona Port Vell and Amsterdam Eastern Docklands were selected. The primary data were based on site visits and interviews. The secondary data came from master plan, development strategy and other document provided by public authorities.

4.0 Research findings and analysis

Essential context will be provided before the interpretation of the comparative analysis. It will help to develop the background of waterfront regeneration undertaken in both Barcelona and Amsterdam. Also, it will help to understand why different approaches were adopted, and why they worked or not.
4.1 Context of Barcelona

The city of Barcelona has undergone a significant change since 1980. This urban transformation was the result of three interrelated urban processes: the improvement of transport system and infrastructure, the construction of centrality, and the economic re-conversion (City of Barcelona, 1996, p.2 – 3). Holding the 1992 Olympic Games was another impetus of urban transformation. Four of twelve Areas of Centrality were the Olympic installation. They have directed property development and stimulated neighbourhood revitalization in which they were located (Riera and Keogh, 1995).

4.2 Context of Amsterdam

In the early of 1980s, the municipality of Amsterdam introduced a new policy of ‘Compact City’, which took the place of previous ‘Overspill policy’. It aimed to accommodate as many urban functions as possible in a compact urban form (dRo, 1994). The Government report indicated that Amsterdam had to face a great shortage of housing. Thus, the 1985 Structure Plan of Amsterdam suggested that the waterfront redevelopment along the IJ would help to meet the city’s challenge of housing and fulfill the of objective that a city should attract people of all income groups. It is important to note that the land-lease system, which has been created for a century (dRo, 1994), has played an important role in urban regeneration of Amsterdam.

4.3 Comparative Analysis

Development framework

Gordon (1996) implied that an incremental development plan is central to changing the image of the waterfront. Shaw (2001) indicated that the plan could not be ignored in practice. Although Barcelona and Amsterdam have adopted different approaches in making development plan, they have taken land use pattern, public access and city context into account. Therefore, the waterfront regeneration processes have been implemented successfully.

In Barcelona, three objectives – to open up the Port to the city; to introduce the recreation and leisure activities, which were traditional lacking in the Ciutat Vella district; and reutilising the port area, which
could house more activities in accordance with its present needs
without losing the harbour character (Sastre, 1993) have been
incorporated in making the Special Plan for the redevelopment of Old
Port.

The site visit suggests that the objectives of the Special Plan have
been achieved in redeveloping the Port Vell. In the history of
Barcelona, the city was excluded from its waterfront by the physical
barrier (Meyer, 1999). However, the redevelopment of Port Vell has
changed many people’s mental image of the waterfront. Friendly
public access has been provided for people to enjoy the new urban
frontier. In comparison with the waterfront accessibility in Amsterdam,
Barcelona has showed that it has not only taken the technical issues
into consideration, but also the aesthetic ones when it designed the
pedestrian access. Rambla de Mar, which is known as the new city
landmark, has been created and crossed Espanya Quay. It together
with another pedestrian footbridge has integrated with the city’s
network of public open space. In terms of land uses, the
redevelopment of Port Vell has been influenced by Baltimore’s Inner
Harbour renewal. Similar shopping centre, conference center,
Aquarium and other leisure facilities have been introduced to the old
port. Also, buildings of historical and architectural interest have been
conserved. Such as a 19th century warehouse has been converted into
the Museum of Catalunya. It falls into the city strategy of promoting
cultural identity. Today, Port Vell has integrated with the city both
physically and economically due to the introduction of new land uses
and city’s promotion of tourism industry.

In Amsterdam, the redevelopment of Eastern Dockland has received
international recognition. To some extent, the myth of Eastern
Dockland redevelopment is attributed to its creative master plans.
The redevelopment was divided into five phrases: Veemarket,
Abattoir site and Entrepot-east; KNSM island; Java island;
Borneo-Sporenborg; and Rietlanden. Similar to the regeneration
process undertaken in the project of Battery Park City, Amsterdam’s
Physical Planning Department has made the Public Space Plan, which
designed the overall layout of public open space. This plan has been
seen as an impetus of creative architectural design rather than a
constraint to it. Taking the project of Entrepot-east as an example, the
rectangular shape superblock, which was proposed by planning
department (Koster, 1995), has been converted into a curved and
semi-open block. This five-storey residential bridge has been one of
the landmark buildings of Eastern Docklands.
Different islands were directed by different master plans. However, it is suggested that the redevelopment of Eastern Docklands has responded to the specific character of the former harbour area, such as the KNSM island. The historical street pattern has been remained and converted into a boulevard. The former harbour building has been renovated.

Despite the success of making and implementing the master plan, the waterfront regeneration in Amsterdam has to face the problem of inaccessibility. The Central Station built centuries ago has broken the relationship between the city and the river. Currently, the physical barrier of access still remained. The railway tracts present the major difficulties for the public to access the waterfront.

**Delivery mechanism**

Having the real partnership between public and private sectors, choosing the right timing and marketing the development process are key components of delivering waterfront regeneration. In terms of delivery mechanism, the approach adopted in Barcelona is stronger than that in Amsterdam. The former has benefited from powerful public authority and real public-private partnership throughout the whole regeneration process. The latter has given both positive and negative lessons to be learnt. It indicates that only public-oriented partnership can be survived in regenerating the waterfront.

In the case of Barcelona, the redevelopment of Port Vell has been led by the Autonomous Port of Barcelona. It has created the Port 2000 Urban Planning Management Board (Port 2000) to execute, operate and manage the redevelopment process. Taking the advantage of this decentralised management form, Port 2000 has taken an active part in promoting the Port Vell as a cultural, leisure and commercial centre of the city. The characteristic of quasi-public authority has enabled Port 2000 to create and maintain a long-term public-private partnership.

In Amsterdam, the partnership has evolved during the period of waterfront redevelopment. In the earliest stage, only public partnership existed in redeveloping the Northern of Amsterdam. In the second stage – the redevelopment of the South Bank, the public-private partnership emerged. But it soon collapsed due to over reliance on the market sector (Marshall, 2001b, 146). In the redevelopment of Eastern Docklands, real public-private partnership
has developed and executed by the independent public authority – Project Management Bureau. Since this project was one of the five national pilot projects, the redevelopment has received one off subsidy from central government (Koster, 1995). A variety of public authorities and private organisations have involved in the earliest stage of redevelopment, such as the Physical Planning Department, which designed the Public Space Plan for the islands.

In terms of choosing redeveloping time of the waterfront, both Barcelona and Amsterdam shows that they have chosen the right time. The former has benefited from upgrading transport system, building public open space and holding 1992 Olympic Games. The latter has taken the advantage of central funding and economic climate in the early of 1990s.

In terms of new function of the waterfront, the Port Vell has presented as the tourism catalyst of the city while the Eastern Dockland as the new residential community. Therefore, difference has emerged. Barcelona has adopted a creative approach to marketing the project of the old port. It is considered to achieve the financial success by actively seeking financial resources and making profits. Port 2000 has created, positioned and consolidated the Port Vell image. This innovation has become the generator of Port Vell’s own economic dynamics, thus made it achieve financial independence (PAB, 1999,2003).

**Outcome**

Looking at the economic and social effects brought by the waterfront regeneration, in Barcelona, it has considerable economic effects, like tourist expenditure while in Amsterdam, the long-established land-lease system has allowed the social housing to be built on the desirable location of the waterfront.

**5.0 Conclusion**

In conclusion, the waterfront regeneration implemented in both Barcelona and Amsterdam is considered to be success. Their successes have considerable implications to UK’s waterfront. Although each site has its own characteristics, it is important to learn the lessons from other projects. It is suggested that the waterfront regeneration will be succeeded if the following aspects have been followed: (i) defining the waterfront, thinking the future role of the
waterfront in the city; (ii) making the master plan, especially to involve the communities and developers in the earliest stage; (iii) fostering the physical and economic climate for the waterfront regeneration; (iv) working in partnership with public authorities, private organisations and community groups; and (v) reviewing the master plan so as to respond the market change and to reduce the financial risk. All the stages must be led by a powerful and independent development agency.

References


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