



Waterfront Regeneration

Introduction

Since the 1980s waterfront regeneration has become a key focus for urban planning, initially in North America and Europe and most recently in waterfront cities around the world. Derelict waterfronts have been changed into vibrant flagship developments which have stimulated economic growth.

Causation of waterfront dereliction

Technological changes:

- more specialised vessels e.g. **container ships** which make one port of call per country, car carriers, RO-ROs (Roll on, roll off) – fewer but more specialised ports were therefore needed.
- the increasing size of ships in **bulk trades**, e.g. *oil tankers in 1940: 16 000 tonnes; in 1960: 65 000 tonnes, 1980s: 100,000+ tonnes*, led to the development of deep-water ports, nearer to the open sea.
- **specialised methods** of handling different cargoes. The high cost of the facilities led to economies of scale and their concentration in a few very large ports such as Rotterdam – Europort.

Economic Changes:

- The swing away from heavy industry located at the waterfront (traditional break of bulk location).
- Change to a post-industrial economy in MEDCs.
- The rise of NICs.
- Changes in focus of trade, resulting from new trade agreements to decline.
- The rise of mass air travel.

The **impact** of these changes, especially containerisation and bulk cargoes, has been to concentrate port activities both geographically and within each port. The winners have been those which had the ability to adopt new port installations and could accommodate large vessels at any state of tide. Ports have now become logistics hubs serving a national hinterland. They need to be linked to good road and more importantly, rail networks to carry containerised cargoes quickly inland. Within the individual ports, cargo handling became more focussed, as fewer but more specialised berths were required.

Thus vast areas of traditional dockland have been made redundant. Dock basins with large expanses of water lay empty and enormous warehouses stood vacant. Much of this **brownfield** land also suffered from high levels of toxicity and pollution as a result of its former industrial use. At the same time, it represented a tremendous opportunity.

Which waterfronts have undergone transformations and when?

Fig.1 shows the four phases of waterfront regeneration. Baltimore, in eastern USA, was the earliest scheme and became a model for subsequent schemes. Whilst inevitably, as the three case studies show, each scheme has a local focus and some unique features, the table shows a number of trends:

- *changes in geographical distribution*
- *changes in means of finance*
- *changes in management and degree of integration with whole city development*

Fig. 1 Phases in the development of waterfronts

First generation pioneers (first thought of in 1960s)	1980 Baltimore – inner harbour development programme introduced all the ideas.	Heavy use of public funds to provide ‘seed money’ for private developers. Led by city. Reclamation of waterfront followed downtown schemes and was seen as a catalyst for city renewal. Flagship projects, e.g. Harbour Place Festival Market and new aquarium.
Second generation (planning begun in the mid 1970s)	1980-1986 Boston Charleston harbour Sydney Darling harbour Cape Town Toronto London Docklands UDC Barcelona	Creation of specific organisations to regenerate waterfronts. Carried out as public-private partnerships with ‘matching’ public funding for extensive private investment. Housing is therefore private. Development style is ‘top-down’ often cutting across existing local authorities, e.g. London Docklands Development Corporation (UDC). Impressive results across a range of developments which can be evaluated against published aims/targets. Mainstream approach, largely privately funded.
Third generation: applying tried and tested ideas to smaller waterfront.	1986-1995 Waterfront plans for a range of smaller towns in Europe: Cardiff (Bay), Liverpool (Albert Dock), Salford (Quays) Berlin (Spree side) Historic world heritage cities, e.g. Havana	Waterfront regeneration is now viewed as a standard catalyst of inner area regeneration for any city or town – often the only large areas of brownfield land. Increasing emphasis on adaptive reuse of old buildings and a positive approach to conservation, in particular in historic World Heritage sites such as Amsterdam, Havana. Increasing emphasis on linkage of waterfront developments to city centres.
Fourth generation: industrial waterfronts in an information age.	1996 Examples include Shanghai-Pudong and many other Chinese cities. Bilbao San Francisco Amsterdam Phase II Leeds (Canalside)	Many of these schemes were conceived as early as the late 1980s, but only emerged from the planning stage after a period of world recession which led to a shortage of private funding. Increasing involvement of local people in planning of schemes, and integration into overall city planning linking port and CBD. Many planned economic benefits.

Case Study 1: Liverpool

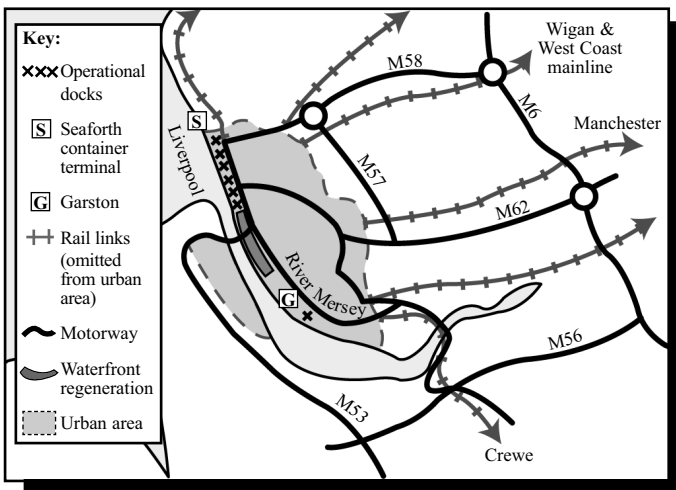
This can be seen as a **third generation** scheme, with current developments showing features of a fourth generation scheme (see Fig. 1).

Background

Liverpool became the UK's second port in the 19th century. For 200 years it was associated with international trade which was to provide the foundation of the city's prosperity. Trade was especially focussed on the North Atlantic. The waterfront was given over entirely to docks which, by the early 20th century, extended for 11 km in an unbroken line along the east bank of the Mersey. A short distance behind the docks, port industries processing imports were established, while further inland industry based on the processed imports was to develop. Commercial and industrial activities thus involved large numbers of workers and generated economic prosperity.

In the 1960s all this was to collapse - a result of containerisation and the restructuring of industry in Liverpool's hinterland, on which so much of its trade had depended. Dock closures reduced the working waterfront by half and port activities were concentrated in the remaining docks: in the south at Garston and in the larger docks in the north where, in 1968 a new container terminal, Seaforth, became operational (Fig. 2).

Fig. 2 Liverpool: location and inland penetration.



Dock labour fell as a result of closure of the older docks and the introduction of new capital-intensive technologies for cargo handling in the remaining docks and the end of sugar refining.

Waterfront Regeneration.

In the 1980s Liverpool embarked on waterfront regeneration under the direction of the Merseyside Development Corporation. Regeneration was modelled on that of Baltimore. Much of the land use has been transformed. In addition to tourism, redundant dockland has been given over to mixed industrial use e.g. Brunswick Dock which provides employment for 2000; residential use e.g. Waterside Village on Coburg Quay and more recently at Waterloo Dock; and for offices such as at Princes Dock. Some water areas have been used as marinas e.g. Coburg. Currently new regeneration initiatives are underway at Garston and Speke.

Three development sites are of major importance (see Fig. 3):

• **Albert Dock:**

Built in 1846 for sailing ships, it re-opened in 1984 as a centre for leisure and tourism. The Grade I listed brick built warehouses are now home to a range of heritage and culturally-led attractions (such as the Tate Gallery, the Merseyside Maritime Museum, the Beatles Story), leisure shopping and tourist facilities attracting 6 million visitors a year. Further income has been gained from the 200 luxury apartments.

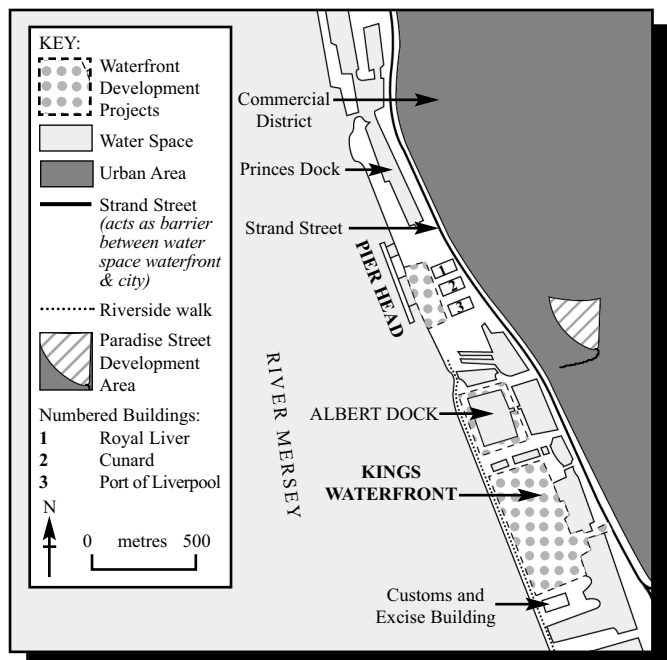
• **King's Waterfront:**

Filled in during 1985/6, King's Waterfront has served as a car park for Albert Dock and also for festivals. It is soon to be redeveloped by Liverpool Vision, the first urban regeneration company since the Urban Task Force drew up its guidelines for urban regeneration in 1999. It is a key site in the regeneration of Liverpool. The waterfront is seen as the city's most important asset, and King's as one of the most important waterfront sites. Part of this large site (36 ha) lies in the proposed World Heritage site. The proposals must therefore 'create a distinctive new and sustainable cityscape for Liverpool's waterfront'. Its development will be a joint venture between English Partnerships, who own the site, and a private developer.

The site is well placed to connect with Albert Dock and also with the city centre although the link across the Strand to the latter will need to be improved. It is also well placed for access by public transport.

A key issue to be addressed by this project is that it must be complementary to the Paradise Street Development Area of the city centre (Fig. 3).

Fig. 3 Liverpool: Main area of waterfront regeneration.



The site also lies within an area likely to qualify for Objective 1 status and would thus receive European funding. First and foremost it is to be a world-class leisure facility, thus continuing the trend of culturally led tourism. It must also cater for local, regional and national tourists. Suggested features include a multiplex cinema, conference centre and exhibition centre, thereby filling gaps in the market. In addition there is likely to be office and residential development.

Importantly, successful development will generate thousands of jobs in the long term and will help to regenerate the economy of both city and the North West. It is felt that together with the proposals for the Paradise Street Development Area, Liverpool will **once again become a world city.**

• **Pier Head:**

With a backdrop formed by the imposing Liver, Cunard and Port of Liverpool buildings, it is also part of the wider urban renewal strategy and is to be redeveloped as a key gateway into the city. Mersey cruises, another tourist attraction, as well as local ferries and ferries to the Isle of Man depart from here. Ferry and liner terminal facilities are to be upgraded and there will be greened open space for public gatherings.

Case study 2: San Francisco

This could be regarded as an example of fourth generation waterfront development (see Fig. 1).

Background:

San Francisco's vast natural harbour in San Francisco Bay has afforded deep sheltered water for shipping berthed at finger piers. The port serves the Central Valley of California and is also the main US port for trade with the Far East. From 1968 onwards Oakland (part of the San Francisco Metropolitan Area) became the focus for containerised traffic, capturing much of San Francisco's trade. Fishing also declined with the result that many piers were left empty. Port activities have now become concentrated along the south waterfront.

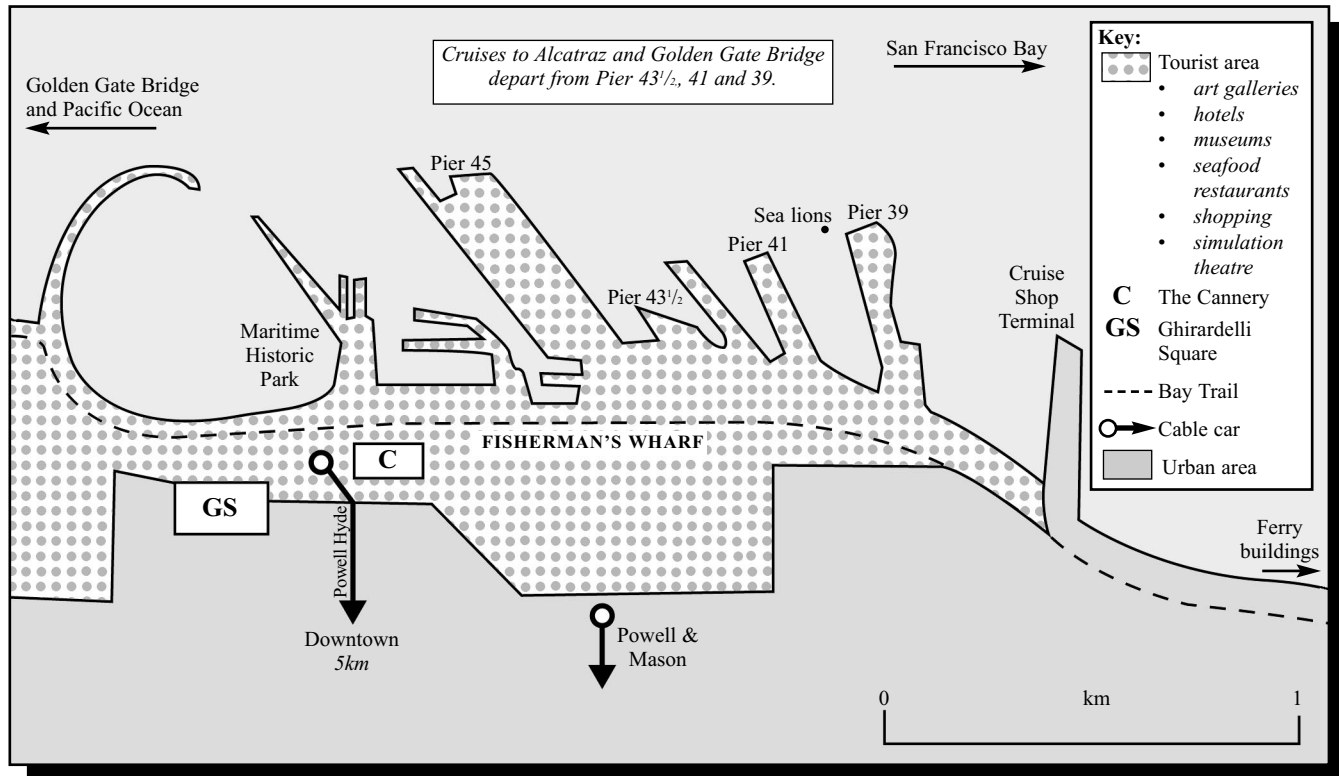
Waterfront Regeneration

Waterfront regeneration started on a small scale in the 1960s with the conversion of two disused factories into leisure shopping complexes, Ghirardelli Square and aptly named, The Cannery. Pier 39 was similarly converted (Fig. 4).

Tourist attractions and facilities have proliferated since the 1960s when a strip of land 300m wide was designated a public area. Accessible from the city centre by cable car (trams), Fisherman's Wharf is a very popular tourist destination. Culture-led tourism is as much a feature here as in other regeneration projects: the fishing harbour, still active; marinas and museums; but the scenic setting of the Bay, surrounded by hills, adds to its attractions whilst boat trips to the Golden Gate Bridge and Alcatraz provide another tourist dimension. A promenade runs along the waterfront from Fisherman's Wharf to the north east section of the waterfront which has also been given over to public use.

Note: In spite of problems in the 1990s – a major earthquake and widespread public disaffection with the original plans – waterfront regeneration is now moving forward with a unified plan linking the city and the port area, administered by one agency. The latest scheme's new ferry terminal, built around the historic ferry building, and cruise ship terminal have almost universal support from the citizens of San Francisco, who are very excited by the redevelopments.

Fig. 4 San Francisco - Waterfront regeneration.



Why regenerate waterfronts?

Waterfront regeneration was seen as a means to not only **convert unsightly areas** into attractive public spaces but also as a means to **regenerate the economy** of both port city and the local region. **Creating new functions** and land uses would **re-image the city** and locality. In the USA, both Boston and Baltimore had paved the way through culture-led tourism. In the 1980s leisure and tourism was the new growth sector of the economy and cultural tourism was seen to be a new attraction. Many port buildings were of high architectural value and were worth preserving. By converting them into housing, hotels, restaurants and museums, not only heritage but also history and culture could be preserved. Thus port cities were to re-image themselves attracting tourists not only at the local and regional level, but also nationally and internationally. Although it can be

argued that the downside of this regeneration has been its uniformity of approach, each port has its own historic contribution to make. Furthermore both natural setting and dock system (finger docks or basins) help to differentiate waterfronts developments and some possess outstanding settings as in Sydney or Havana, Cuba. In contrast, where former port buildings have been demolished the authorities are rebuilding in futuristic style as well as adopting new concepts in urban planning which again, as in Barcelona, encourage tourism. Other considerations favouring waterfront regeneration include:

- the provision of many thousands of new jobs
- new facilities for both local people and tourists
- the provision of many new homes

Case study 3: Cape Town Victoria and Alfred Waterfront Regeneration

Cape Town benefited from its deep water harbour and strategic location on shipping routes to the East, before the building of the Suez Canal. The Victoria basin was built when the Alfred basin proved too small for the increased volume of trade with the advent of steam. By the 1950s, Alfred basin was mainly a fishing harbour and passenger liners ceased to dock in the large Duncan basin in the 1970s. However Cape Town remained South Africa's first port until the 1980s when it was overshadowed by Durban.

In 1988 it was decided to redevelop this historic waterfront area, dating back to the days of sail, into a tourist attraction. Cape Town can be regarded as an example of a second generation waterfront regeneration scheme.

Fig. 5 The regeneration project.

Conversion of warehouses to:	<ul style="list-style-type: none"> hotels shopping malls, craft market theatre, cinemas & IMAX cinema maritime museum
Marketing its natural assets:	<ul style="list-style-type: none"> aquarium featuring ocean life around the Cape coast harbour trips, helicopter and seaplane flights- Table Mountain is a scenic attraction Cape Fur seals
Marketing historic heritage:	<ul style="list-style-type: none"> a trip on the Penny Ferry used to row staff across the original entrance to Alfred dock maritime museum
Marketing present day harbour activities:	<ul style="list-style-type: none"> harbour cruises (e.g. graving dock in Alfred Basin is still in use)

The waterfront is not adjacent to the CBD but public transport links it the station, airport and city centre. Whilst the development itself has been very successful, its orientation towards tourism has made it vulnerable to events such as political unrest within South Africa (a bomb blast and a high rate of muggings).

Looking onto the future

Waterfront regeneration, be it coast, estuary, delta, lakeside, river or canal side, has become an established tool for urban regeneration in MEDCs. It is now increasingly a feature of LEDCs. Many far-eastern schemes are designed to reflect regeneration in an information age (see Shanghai Pudong or Tokyo-Yokshama). Many lessons have been learnt, not least the need to link port regeneration within an overall town plan. Schemes have also become more diverse and more responsive to traditional buildings left over from the original port activity.

Exam hint: Whilst there have been many spectacular transformations of waterfronts, always ensure any evaluation of success looks at a range of issues, in particular the impact on original inhabitants of changes in land use. Geo Factsheet: 91 Cardiff Bay explores these issues.

Question

For a named waterfront regeneration scheme, evaluate the role of waterfront regeneration in the wider context of urban renewal.

Answer

Remember to state at the outset both the name and city of your chosen project (see websites).

- You will need to describe the legacy of redundant dockland (warehousing, narrow quays, extensive water areas) and the problems which it poses for development; also what issues social, economic and environmental, need to be addressed in the wider context of the city.
- Addressing the issues. Consider:
 - use of warehousing –demolition or renovation? If the latter, its suitability for a particular function and the economic return for this use
 - how its new use/proposed use complements or supplements functions of other waterfront development and those in the city / proposed for the city
 - employment generated by the project
 - will it attract further investment into the city and thus generate further income?
 - if tourist development, accessibility from the city for visitors, parking space for visitors, scope for improving access, increasing space
- Sum up the opportunities which the project will provide to take the city into the future; will it create a new image for the city/ reposition the city? Don't forget to evaluate.

Further research

See also:

Geo Factsheet 91 Cardiff Bay

Geo Factsheet 108 Shanghai-Pudong.

Websites

- <http://www.liverpoolvision.co.uk> provides a wealth of information not only on waterfront projects but other projects which form part of the main urban regeneration scheme. This will help to answer the question if Liverpool is your chosen city.
- <http://sfgov.org/sfport> will lead to the various components of the waterfront scheme for San Francisco.
- <http://www.waterfront.co.za> and www.portnet.co.za/capetown may provide further information on Cape Town.
- Other interesting case studies can be found at www.amsterdam.nl, www.havanaport.com and www.bilbao.net.

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Acknowledgements

This Factsheet was researched by Carole Goddard, using information gathered at GA Conferences and Study Tours. She wishes to acknowledge the help of Dr G.Siviour, former lecturer in Geography at St. Mary's College, Twickenham.

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