From:

Waterfront Regeneration Experiences in City-building

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The spread of waterfront regeneration since the 1960s

The phenomenon of urban waterfront regeneration and development has spread geographically since its origins in North America during the 1960s and 1970s, where initial transformations in industrial buildings, creation of public spaces and celebration of festival marketplaces in cities such as Baltimore, San Francisco and Boston provided examples of what could be achieved in waterfront areas close to the city centre that had become abandoned or rundown. Over the next few decades other cities around the world started to regenerate and develop their waterfronts, first trying to follow the models of the pioneering North American cities and later developing their own approaches. This was driven by the obsolescence and abandonment of vast industrial areas in cities which have been entering a 'post-industrial' phase, including areas of former port activity freed up by the industrialization and containerization of port activity, with waterfronts being described by Bruttomesso (2001, p.40) as 'an essential paradigm of the post-industrial city'.

Bruttomesso (2001) identifies three types of activity which waterfronts normally

require:

- 'recomposition': giving a common unitary sense to the different parts, both physical and functional, of the waterfront;

- 'regeneration': revitalizing urban areas which can be of considerable size and often centrally located; and

- 'recovery': the restructuring and restoration of existing buildings and structures. Typically, these are linked to initiatives aiming to 're-join' the city and the waterfront physically and functionally. Such responses have evolved during the four decades of waterfront development and regeneration experience. Bruttomesso (2001) identifies a 'globalization' of waterfront themes in the sense that certain

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'models' of waterfront development based on successful cases have set precedents and been copied worldwide, with a concomitant international uniformization of organizational methods, spatial typologies and architectural forms.

Shaw (2001) distinguished three generations of post-industrial waterfront development, the first being the early North American experiences mentioned above which focused on creating retail and festival marketplaces. The second generation took place mostly during the 1980s and spread around the world – with examples including, again, Boston, Sydney, Toronto and Cape Town – though it was in Europe that the scaling up from the initial first generation projects was more evident, as well as the development of new organizational models based on public–private partnerships and the extensive use of private investment (Shaw, 2001). A paradigmatic European example of this generation is London Docklands, with others being Barcelona and Rotterdam. Shaw (2001) characterized the third generation as one in which the elements developed in the first two generations are accepted into the mainstream of development practice and used in a range of situations, from small to large cities. He cites Cardiff Bay, Liverpool, Salford Docks and Berlin's Wasserstadt as European examples of this generation, with Sydney, Perth, Vancouver and a large number of developments in Asia, including Shanghai, as worldwide examples.

Shaw (2001) argued that a fourth generation was emerging during the first decade of the new century. Ideas in planning and architecture, according to this author, typically go through a 30-year cycle from radical and experimental visions (first stage), through expansion and broader application of the ideas (second stage), then consolidation and standardization of the ideas (third stage), with radical review and new visions in the fourth stage (or first of a new cycle). Although Shaw could

not at the time have any certainty over what would characterize the experience of this fourth generation of waterfront developments in practice, he identified the context of post-1990s worldwide economic recession as an important factor, leading to cities rethinking the use of resources. How cities throughout these four generations of waterfront developments have conceptualized the waterfront itself as a resource and how they have brought other resources to bear in their regeneration and development are key questions which help to understand both past experiences and future potential of waterfront regeneration.

Through these successive generations of waterfront regeneration, approaches to redevelopment have grown in complexity and breadth, from the focus on retail and the festival marketplace experience in the early North American examples to a greater mix of leisure and housing in later examples – a model that has been particularly developed in continental Europe (Falk, undated). This spread and evolution of waterfront regeneration have yielded a wealth of experience reflecting different contexts in different regions and in specific cities. Often, however, the products of what have been perceived to be successful models have been copied without learning from or understanding the processes involved in such cases (Falk, undated). This book addresses these questions through analysing the experience of 'fourth generation' developments in waterfront cities around the North Sea, exploring whether they provide the radical reviews and visions predicted by Shaw and looking at the links between

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'globalization' (both in its widest sense and in the sense of international replication of waterfront development models) and local determinants.

A key characteristic of recent dynamics of waterfront regeneration has been the multifaceted nature of current processes, with gradual acknowledgement that in many cases it entails city-building with all its complexity. To quote Bruttomesso (2001, p.42):

On observing the main waterfront projects in detail, it is clear that one of the essential elements is the co-presence of numerous activities which, combined in different percentages depending on the cases, give life to new "pieces" of city, sometimes marked by an interesting feature entailing complexity.

Indeed, such waterfront 'pieces of city' have often been used to test new approaches to urban development, and in some cases they have been given a larger role in re-launching the entire city of which they form part. This complexity includes not only the physical and functional realms, but also the range of actors and organizations involved and how they interact, an element which is of particular importance in the context of changing and fragmenting governance in

which urban development increasingly takes place. However, while waterfront regeneration and development processes are often examples of public–private sector partnerships and of negotiations between different authorities such as municipalities and port authorities, criticism has been directed at the lack of opportunity for involving local communities and the wider public in the city, both in the process and in benefiting from the resulting places developed. Why is this so? What are the origins of the physical and institutional legacies which provide the context for waterfront regeneration? Understanding this requires taking a longer-term historical view, which explains how our cities came to have such large areas of brownfield land available around waterfronts and waterways.[1]

The development of waterfronts through the different waves of globalization

Globalization and cities

At the beginning of the 21st century, a milestone is perceived in how humans inhabit the planet in the fact that urban population has begun to outnumber rural population (United Nations, 2004). City-building is taking place at a faster rate than ever, both through the creation and expansion of new urban areas and through the restructuring and renewal of existing cities and towns, with waterfront development having a role in both types of process and being seen as an opportunity for growth in the city.

There is no generally accepted model of how fixed human settlements began, but rather various explanations among which the role of settlements as trade crossroads and/or markets is prominent (Rykwert, 2000). In the Eurasian continent, the first urban civilizations arose in river valleys, with a twofold link to water as a resource for established agriculture (the surpluses from which

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allowed urban 'non-productive' activities to develop) and as a means of transport for trade and travel. Later urban development connected to seas and oceans rather than river courses and used these bodies of water as resources in additional ways: as sources of food, as routes for trade and travel, as means to reach other lands for conquest and colonization and, more recently, as a leisure environment.

Such urban development connected to waterborne activities can be linked to what Robertson (2003) has described as the 'three waves of globalization'. Robertson argues that during the last 500 years there have been three periods during which technological change has facilitated a growth in global interconnectedness, from a 'Northern' point of view. During the first 'wave', from 1500 to 1800, there was

worldwide expansion of Europe's mercantilism, spearheaded by Portugal and Spain during the 16th century and followed later by England, France and The Netherlands through the activities of their chartered companies, which brought together state patronage and private investor capital – an expansion that was made possible through the development of new sailing technology. The second wave was the imperialist expansion of the 19th century, led by Britain and France, but involving also other European countries, through which a worldwide trading system based on flows of raw materials and food from the colonies to the imperial powers and the export of manufactured goods by the latter was developed. The technology underpinning this phase was steam powered. Robertson (2003) identifies the third wave of globalization, in which we are now immersed, as having started in 1945 and being linked to the post-World War II world order in which financial expansion has been led by the US. This current wave has been made possible especially by the new information and communication technologies, as well as by the continued development of infrastructures and transport connections.

Castells (1996) explains that since World War II, rising internationalization in production patterns took place and emerging processes of de-industrialization and re-industrialization began to affect urban spaces. These dynamics, together with increasing mobility and exchange, characterize a new complex and dispersed form of economy, which needs centres for control of exchange and information. In parallel to these economic changes, urban reconstitution processes began to take place after World War II with the implementation of slum clearance programmes and rebuilding of the existing fabric in each affected country. During this period, and due to economic changes showing the decline of cities and urban regions as centres of production, processes of suburbanization and peri-urbanization can also be observed, producing simultaneously prosperous and declining urban regions. In addition, with the adoption of new technologies for their operation, industries such as railways, gas, electricity suppliers and port authorities began to be able to work with fewer employees and in smaller areas of land, releasing urban areas for other uses. In particular, changes in the transport industry with the use of new technologies such as containerization, larger ship sizes and the wider use of road transport left large railway marshalling yards empty (Malone, 1996).

It was not until the 1970s and 1980s, however, that these changes became more severe, with actions focused on the regeneration of urban economies and the adaptation of declining urban areas to new economic roles hosting service

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employment and centres for consumption (Couch et al, 2003). Essentially, during recent years, urban development shifted from being based primarily on social

objectives to pursuing primarily economic objectives, and from nationally defined welfare objectives to international market competition. This focus on competition involves the redefinition of the image of the city, weaving specific place 'myths' which are created to remove the previous negative iconography associated with economic changes, such as the decline of industrial activities (Barke and Harrop, 1994), as an element of attracting new investment and socio-economic activities.

The economic restructuring of the 1970s and 1980s also generated a growth in sectoral unemployment where specific industries closed, leaving employees jobless. This had spatial and social consequences with the emergence of deprived urban areas and varying forms of social disruption – for example, crime, racism, social exclusion, poverty, etc. (Marshall, 2001). Additionally, a range of significant environmental problems emerged, such as polluted sites and air, contaminated rivers and watercourses, and abandoned and decaying historic buildings. These social, economic and environmental problems were identified by city authorities, and since the 1980s significant regeneration plans have been implemented. In this context the development of different 'mega-projects' took place in many cities in the world, and these projects are occasionally associated with specific events such as Olympic Games, world exhibitions or cultural events. Examples include the London Docklands, Barcelona's Olympic Marina, New York's Battery Park, Paris's La Defense or Sydney's Darling Harbour. The overall aim of these transformations has been the provision of a new identity for these cities away from previous industrial activities and responding to the needs of global 'place' competition (Moulaert et al, 2003).

In general, the objectives of these regeneration processes cover a wide range of issues, such as the improvement or replacement of housing stock; the provision of new amenities; the provision of public infrastructure and spaces; the improvement of transport systems; and upgrading of the general environment. While these objectives could reflect similarities with the reconstruction aims of the post-war period, there are significant differences in the processes of urban restructuring of the last 30 years. In particular, at the city level there has been an increase in the conception of urban places as spaces for *consumption* and not for *production*. Cities are currently less conceived as places where goods and services are produced for sale or transfer and more as places where people visit, eat out, take part in events and visit cultural centres (Couch et al, 2003) – especially in the global North.

Regeneration responds thus to a number of global needs, summarized as follows, which tend to be based on market interests. The first is *good connectivity*: a number of spaces that are not directly connected to the city can benefit from high speed communication routes becoming new large-scale centres for consumption (Urry, 1995). Thus, physical proximity is not a priority but good accessibility is.

The second need is *image* which, according to Muxi (2004), could have two faces: *nostalgic* or *technological*. The former could be based on the restructuring of historical areas for new uses, generally commercial or leisure, which involves processes of 'commercialization of memories' (Muxi, 2004). The latter is based on hyper-technological urban developments

generating intelligent iconic buildings, which are generally linked to 'star' architecture practitioners (Urry, 1995). And the third need is for *branding* and/ or *emblems*, which is the objective of the creation of theme areas such as research parks, universities, business parks or theme parks, with enough strength to generate urban concentration processes (Zukin, 1991). As a result of these three market dynamics taking place in urban spaces, it is not generally possible to find a unified conceptualization of the city as a totality; consequently, urban areas may become disconnected, with increasing social and spatial fragmentation (Soja, 2000).

Fundamentally, these dynamics of place competition show the need for generating highly competitive environments that aim to express innovation and technological progress in order to attract global capital. Waterfronts are, in this context, considered as opportunities for the city as a whole. The restructuring of these areas becomes the expression of present and future aims, and at the same time they are reconnections between the past of the city and its future through present actions (Marshall, 2001). The redevelopment of these areas generally expresses physical signs of a wealthy industrial past, the social and economic structures of which no longer exist – the physical structures often existing but no longer used. Simultaneously, these places express the emerging connections between the city and its water edge, which are conditioned by the needs and possibilities of contemporary economic and social activities. The competitive advantage of these areas and their potential to attract wealth is a key issue and needs to be expressed in the project of regeneration. Obsolete harbours are, in general, highly visible areas of the city and their redevelopment not only affects the recovered area, but most significantly can influence the image of the city as a totality by expressing new city aspirations and identities (Marshall, 2001).

Globalization and waterfronts

Returning to the first wave of globalization and focusing on the case of Europe, which was at the centre of the first two waves of 'Northern' globalization, de Vries (1984) found that the major contributors to urban growth during the 1500 to 1800 period were capital cities, port cities and cities which were both. Growth was more continuous in capital cities than in port cities, however, with the fortunes of

the latter depending more on changes in world trade patterns and geopolitics. In broad terms, there was a shift in relative levels of activity from Southern to Northern Europe, and from the Mediterranean Sea to the Atlantic Ocean. Waterfronts were the focal points of social and economic life for the urban areas which grew up around them and were often also fully integrated within the urban fabric (a paradigmatic example being Amsterdam) – though in some cases this urban fabric was that of a town which was separate from the main city that later absorbed it (as, for example, in Edinburgh or Valencia).

During the second wave of globalization the rapid intensification of waterborne trade, the larger size of steam-driven shipping and the resulting volume of shipment, together with the direct connection of docks to hinterlands through rail, required the creation of massive and extensive infrastructures such

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as large extended docks, canals, railway depots, bridges, shipyards, etc. These large infrastructures occupied whole waterfront areas, which became specialized zones from which the public was excluded and which in many cases grew into the water through reclamation. Although these developments were strongly linked to rapid urban development and urbanization, first in Britain and then in the rest of the industrializing countries of the 19th century, they also happened in port enclaves in the colonies which were linked into the colonial world trading system.

During the third wave of globalization, technological changes such as containerization and the construction of even larger ships, as well as the move of industrial activities such as shipbuilding to newly industrializing countries, has shifted port activities further away from the core of cities to places which allowed spacious storage and handling areas on the land side and deep moorings on the waterside (Harms, 2003), usually to areas closer to open seas or to areas of land which were undeveloped. In addition, due to the worldwide market changes described above, in our post-industrial era, commercial activities of modern ports do not need direct social contact and direct proximity to their markets, which also contributes to the move of port activities to locations distant from a city's central areas.

The waterfronts which are being regenerated today are therefore generally those developed during the second wave of globalization that peaked at the end of the 19th century, and which have been rendered obsolete or unprofitable through the technological and macro-economic changes described. The redevelopment of waterfronts is not a new phenomenon, as a closer look at economic, social and technological change in more detail within the timeframe of each of these broad waves of globalization – with their linked forms of urban and waterfront development – reveals shorter cycles of development and transformation which

have left as a legacy different forms of land development and built environment. For example, Harms (2003) applied Kondratieff's 'long wave' economic cycle model, together with Schumpeter's notion of technological development as an initial thrust for economic development cycles, to an analysis of the development of Hamburg from the early Industrial Revolution to the present. Harms identified five economic cycles, each linked successively to craft-produced machinery and steam engines; industrially produced steam engines; electro-motors; mass motorization and production; and microelectronics and biotechnology. Each of these created new physical infrastructures which grew in size and specialization, in the process increasingly separating port functions from the city. In Harms' current fifth cycle, containerization has finally separated port functions from the city of Hamburg, for the first time making a port area close to the city centre functionally redundant, thus releasing a large area of land for alternative development – in this case as a new urban quarter.

Thus, the structural changes brought about during the second half of the 20th century by a vast expansion of worldwide trade predicated on new markets, new forms of transport, new locations of production, new forms of capital growth, and new forms of management and political control have led to the resurgence of interest in waterfront *spaces*. However, although there are clear links between changing political economies and waterfront redevelopment,

the nature of the *places* that have emerged – in social and cultural terms – has been hotly debated. Key issues include: how are these places created; who is involved in their creation; who benefits from the new waterfront; what should the state's involvement be; should all cities follow the development model based on attracting increasingly footloose investment; and what makes some waterfronts more socially and culturally attractive?

In waterfront cities around the world, these questions are being addressed (or not) within very different contexts, the nature of which is to a great extent the result of the position such cities had in the worldwide trading system that emerged and evolved during these three waves of globalization. This book looks at the response in a particular part of the world which was at the core of the first and second waves, in particular, and has remained so during the third wave of globalization – the North Sea – and examines these questions in detail.

Waterfront regeneration around the North Sea: Key features and challenges

Urban and economic development around the North Sea strongly exemplifies links

between port and city development. During the late Middle Ages, the Hanseatic guilds of city merchants which emerged initially around the Baltic Sea spread to other port cities around the North Sea, establishing a strong network of trading routes based on linking mainly independent cities, as well as founding new cities (along the Baltic coast). The emergence of territorial states around the North Sea (as more widely in Western Europe) entered into conflict with this network of cities and eventually gained military and economic control of the trading routes. While Scandinavian countries did so in the Baltic, The Netherlands dominated the North Sea at the end of the Middle Ages. The Netherlands' colonial expansion during the first wave of globalization linked the North Sea into worldwide trading routes, mainly to the West Indies and South-East Asia, with English and French ports developing and engaging in these and new trade routes mainly during the second wave of globalization, linked to the Industrial Revolution. The North Sea became a world hub of international seaborne trade, with its relative share in worldwide shipping freight peaking during the post-World War II period. Discovery of North Sea oil during the 1960s spurred further growth of shipping in the region, as well as providing a new base for economic growth and related urban development which has benefited some countries and cities around the North Sea more than others. Although the share of world seaborne trade through the North Sea routes is decreasing in relative terms through the shift of the dominant global hub of trade towards the Pacific Rim, this remains one of the areas with the densest concentration of ships in the world, with three of its container ports (Rotterdam, Hamburg and Antwerp) being amongst the ten busiest in the world in terms of twenty-foot equivalent units (TEUs) in 2010.[2] The share of port activity in the economy of their related cities is, however, diminishing, with innovations such as containerization reducing the labour force required and the move of shipbuilding elsewhere. Labour forces in port cities around the North Sea have therefore relied on diversifying their areas of economic activity.

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A common feature of the waterfront cities around the North Sea is that they are all located in countries which developed some form of welfare state based on social democratic systems in the post-1945 reconstruction and development period, though following different models (Scandinavian, German, Dutch, UK).[3] However, a revision of social democracy based on more neoliberal values and related policy-making has taken place over the last few decades. From the 1980s onwards, UK waterfront cities were managed in an increasingly neoliberal national policy environment, with some aspects of neoliberalism spreading later, to a lesser degree, to the countries on the southern and eastern shores of the North Sea. In these political economies, in general, local authorities have their own mechanisms to propose and approve local development. However, the role and financial support from national governments also influences the development of

some waterfront areas. In summary, in socio- political terms, waterfront cities around the North Sea operate within governance systems which are still broadly based on the notion of safeguarding public interest, but in which the public sector is increasingly limited in scope for action and requiring leverage of private capital. The need for private investment and for increasing the role of local authorities to act with an entrepreneurial approach has led to the creation of 'arm's length' public companies to free decision-making from state-related bureaucratic procedures and to permit public–private partnerships to access private capital. The institutional frameworks at city level vis-à-vis waterfront regeneration vary, however, as the relationships between city and port authorities range from the situation of, for example, Hamburg, where both are in the hands of the government of Hamburg city-state (Harms, 2003), to that of Edinburgh, where the port authority is completely independent from local government.

The physical environments that such institutional frameworks must work with are predominantly the result of major infrastructural investments and urban/port expansions during the 19th and early 20th centuries. Historic trade (as well as fishing) routes were at the origins of many settlements around the North Sea, in some cases having been pivotal in defining the actual form of what is now the historic core, such as in the case of Amsterdam, where the city itself was part of the port, and its economy, based on windmills and sailing ships, to a great extent determined the city plan (de Haan, 2003). In many cities around the North Sea this resulted in the historic waterfront now being in a central location. However, the high intensity and large scale of construction of rail and dock infrastructure during the 19th century resulted in such centrally located port areas being physically separated from the inhabited city centres, a separation which was reinforced in many cases by the development of road systems during the mid 20th century. Building activity in these port areas included actual creation of new land through reclamation, as well as building a variety of infrastructures ranging from warehouses to cranes on this new or existing land, thus generating a built legacy which is both a challenge and an opportunity for regeneration and urban development. Heritage and urban identity are key aspects of these processes. In addition, rejoining the city and the waterfront is a key challenge that masterplanners and local authorities face when redeveloping these areas.

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In summary, historic waterfronts in cities around the North Sea tend to be centrally located but often cut off from the city through infrastructural barriers, and can have a rich built heritage. Although some of the ports linked to these cities still have an important role in worldwide shipping, these have abandoned the more centrally located port sites, which no longer provide traditional port- related employment opportunities through traditional port activity. These areas are

therefore available for development of new employment-generating activity more closely linked to the new areas of the economy which city strategies around the North Sea are pursuing, focused on the knowledge economy in a world system where production of primary, secondary and even tertiary goods has shifted (and continues to shift) elsewhere, and on the leisure society, including through tourism. This type of development is seen as being physically supported by the creation of new mixed-use quarters where living, working and leisure can be combined, often making use of built heritage to underpin tourism. City authorities are also engaging with the issue of balancing investment in economic development in these areas and addressing the equity issues being raised by increasing socio-economic disparities, which in some cases are linked to migrant populations which have settled in these waterfront cities, often from the ex-colonies that the cities' port activity thrived on during the second wave of globalization. In opening up cities to the water again, another challenge is the forms of use of outdoor spaces in a climate that is cold and wet during a considerable part of the year, and which can be extremely windy in cases where the waterfront is exposed to the open sea. In addition, environmental issues such as climate change and sea-level rise are increasingly requiring consideration.

What we know about waterfront regeneration

A substantial literature has emerged which documents, showcases and analyses waterfront regeneration and development processes around the world.[2] Several

key books in this literature (Brutomesso, 1995; Hoyle, 1996; Malone, 1996; Marshall, 2001; Desfor et al, 2010) focus on the analysis of a range of specific cases and are based on conferences, reflecting the proliferation of such events. The stream of professional and academic conferences on waterfront regeneration and development continues, often in conference centres which are part of a waterfront regeneration project. Several organizations are key players in promoting such conferences at an international level, including Cities on Water (based in Italy), Association Internationale de Villes et Ports (AIVP, based in France) and the Waterfront Center (based in the US).

Compendiums of major international waterfront regeneration projects are provided by Breen and Rigby (1996, 1997), which include case studies from around the world organized around topics. This kind of information is increasingly available through online databases, including that developed as part of the Waterfront Communities Project.[3]

More in-depth analysis of waterfront regeneration tends to be focused around specific topics such as transport (Brutomesso, 1995; Hoyle, 1996) or particular places (Dovey, 2005). Wider analysis based on a defined theoretical framework or approach is provided, for example, by Malone (1996), who focuses on economic and political factors from a post-structuralist critical viewpoint that may be of more limited value to practitioners.

Waterfronts have also been used as case studies in key works on urban sociology, such as Harvey (1989), Castells (1996) and Soja (2000). Published analyses of waterfront experience based on explicit theoretical frameworks (from international perspectives as well as focused on specific places) tend to be found, however, in academic journals, which are not easily accessible to the wider non-academic public nor, indeed, to professionals, and again tend to focus on specific cases.

A general theme that emerges across the literature is that waterfront regeneration is a form of, and opportunity for, city-building. In some locations it is even identified as a 'leading force in the future of the development of the city' (Bruttomesso, 2001, p.41). Although the notion of 'city-building' has been criticized for implying that 'the city is only that which the built environment professions have physically constructed' (Landry, 2006, p.8), it is considered useful for the purposes of this book for two reasons. First, while 'city-making' (Landry, 2006) does perhaps better portray the vast array of processes through which urban areas are created and transformed, this book is addressed principally (though not exclusively) to readers who are engaged in the production of the built environment in a professional role. And, second, Landry's interpretation of the term 'building' is rather narrow as it does not appear to recognize the usages of this term to refer to activities and processes of 'social construction' that accompany not only the creation of built environments, but also city life in general – activities and processes such as 'building trust', 'building relationships', etc. In other languages, the more holistic interpretation of 'city-building' is perhaps more common, such as the Spanish language notion of '*construir ciudad*'.

Of course, if city-building is what it is about, ideas relevant to the understanding and practice of waterfront regeneration and development can be found not only in publications which are specifically about waterfronts. As

argued in Chapter 1, waterfront regeneration and development as it is currently happening tends to be about the creation of 'pieces of city', with all the complexity in process and product which this entails. This understanding instantly makes large swathes of literature on urban development, land and market economics, urban sociology, planning, urban design and architecture relevant to the task – and the list could continue.

Such sources can provide partial answers to some of the questions posed at the beginning of this chapter; but a more focused approach on both physical and social aspects of the process of waterfront development and the negotiations that take place in city-building is needed to generate a more holistic understanding of the practice of 'building' these urban areas and therefore to contribute to decisions and actions of future practitioners. This is what we turn to next.

An analytical framework for the study and practice of waterfront regeneration

Waterfront regeneration and development as a socio-spatial process

Analyses of waterfront regeneration and development have been made from different perspectives, including those of geographers, physical planners, practitioners and critical theorists (Gordon, 1998). Based on such analyses, some authors have identified sets of factors which are seen as essential for waterfront regeneration, with different emphases, ranging from conceptual criteria to procedural steps or instrumental factors. Bruttomesso (2001), for example, identifies three key conceptual factors which significantly contribute to the attainment of urban complexity in waterfront regeneration:

1 assigning a plurality of functions to the area – in relation to both the regeneration area and its relationship with the rest of the city;

- 2 achieving a mix of activities within the redeveloped area; and

- 3 the co-presence of public and private functions, spaces and actors.

Between conceptual and procedural would be Eckstut's (1986) approach to solving complex urban design problems on the waterfront: think small; learn from what exists; integrate; and design streets, not buildings. A more procedural approach is Millspaugh's (2001) set of lessons, which can be seen as instrumental to the success of waterfront redevelopment: public–private partnership; a masterplan; a business plan; consensus and support from the community; and design controls.

The framework that is proposed in this book is not a 'recipe' for implementation of waterfront regeneration and redevelopment programmes and projects, but rather a conceptual framework which should enable both analysis and action based in relation to such processes. It is based on the premise that urban space is socially produced, and that the processes involved are part and parcel of the processes whereby society itself is produced and reproduced. Madanipour (1996) describes

urban space as a 'socio-spatial

entity' and sees urban design as a 'socio-spatial process'. Madanipour argues that those involved in the activity of urban design (and to this we would add activities of planning and architecture, as well as other activities that are related to urban place-making) need to understand the intersections between space production and everyday life, which is an 'intersection between systems and lifeworld, between structure and agency, between exchange value and use value' (Madanipour, 1996, p.218). And to understand these, in turn, 'we need to know about the political, economic and cultural processes that produce and use urban space' (Madanipour, 1996, p.218).

Indeed, in the field of urban studies, broad-based and cross-disciplinary theoretical approaches have developed in relation to the study of planning processes. Theoretical approaches to urban design, however, have been more focused on specific aspects and are more self-referential (Cuthbert, 2007), with little uptake from the wider development of urban studies, though some influential works on urban geography from a political economy perspective, for example, have used case studies examining the urban design of developments, including waterfronts (see, for example, Harvey, 1989, on Baltimore). In this book we put forward a conceptual framework which draws on approaches developed in sociology, geography and economics, proposing an institutionalist analysis combined with spatial political economy that may help to elucidate and understand planning, urban design and architectural design processes, as well as inform practice of these activities.

An institutionalist approach

Institutionalist analysis, or more appropriately 'new institutionalism', emerged as a theoretical and analytical approach within political science, economics and sociology during the 1980s. This does not constitute a unified body of thought because of its independent emergence in different disciplines and as a response to different schools of thought within these, thus resulting in historical, rational choice and sociological institutionalisms; but these different analytical approaches do share a purpose to 'elucidate the role that institutions play in the determination of social and political outcomes' (Hall and Taylor, 1996, p.936). In relation to economics, the institutionalist turn has also been linked to a renewal of political economy through the development of an institutionalist or new political economy which sees economics as inseparable from the political and social system within which it is embedded.

A central concept in this analytical approach is that of institutions. Jenkins and

Smith (2001) propose a dual interpretation of 'institution' as a 'mental model' underpinning the structure of society, economics and politics; and as an 'organizational form'. As Jenkins and Smith (2001, p.21) argue: 'Mental models cannot become operational without organizations, just as organizations need to be underpinned by mental models.' For example, the development of cities' waterfronts during the 19th century as large-scale industrially related sites for production and trade was accompanied by organizational development in the form of port authorities, linked to the mental model of the waterfront as a workplace. The control of such large tracts of land by these public and semi- public authorities and companies was legitimized by this mental model. With

economic obsolescence of this form of use of the land, the mental model has shifted to that of the waterfront as a mixed-use area, with accompanying organizational changes in the management of this change towards real estate development, which in turn promote the new mental model of urban quarter development in place of industrial and infrastructural development.

This conceptual approach is particularly linked to the historical and sociological strands of institutionalism, as analysis of the mutual interaction between 'mental model' and 'organization' helps to understand how organizations, their policy frameworks and their actions may evolve in time and explore the extent to which they are geographically specific (hence, historical institutionalism's concept of 'path dependency'), as well as to understand how this interaction is mediated not only by formal rules, procedures or norms, but also by symbol systems, cognitive scripts and moral templates which provide 'frames of meaning' guiding human action (Hall and Taylor, 1996).

Institutionalist approaches have been applied particularly in planning theory and in the analysis of planning experience – for example, in elucidating new mental models and organizational structures developed through and for the wider and deeper engagement of civil society in urban development (Carley et al, 2001); in studying innovation in governance capacity (Gonzalez and Healey, 2005); and in evolving more inclusionary approaches to integrated, place-focused public policy and governance (Healey, 1997, 1999, 2007). The application of such approaches in planning is becoming consolidated (see, for example, Verma, 2006); however, this is not the case in urban design, where theory has not attempted to 'link the material creation or "designing" of urban space and form to fundamental societal processes' (Cuthbert, 2007, p.177).

If urban planning and design are seen as part and parcel of the social production of space and, therefore, of urban form, or as socio-spatial processes (Madanipour, 1996), an understanding of the social milieu from which these emerge and in

which they operate is necessary. New institutionalism offers a way to develop such an understanding which avoids the determinism of structuralism and the relativism of phenomenology (Carr, 1985).

Three types of relations in urban development

One of the sources of inspiration for the way in which 'new institutionalism' has been interpreted in planning (see Healey, 1999) is the 'middle way' between deterministic structuralism and relativism that Giddens (1984) offered through his theory of structuration. This theory focuses on the relations through which social practices are constituted and transformed, and is thus of relevance to the socio-spatial production of urban form. According to Giddens, human action takes place within the context of a pre-existing social structure, which is governed by a distinctive set of norms and/or laws; but reproduction of such sets of norms depends on human action, and therefore these structures are neither permanent nor inviolable. This theory sees 'structure' as 'rules and resources recursively implicated in social reproduction' (Giddens, 1984, p.xxxi), with institutions in social systems having 'structural' properties in the sense that they stabilize relationships across time and space. Drawing on Giddens's

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discussion of the nature of such 'rules and resources', Healey (2007) summarizes three relations which can provide a basis for analysis:

Giddens identifies three relations through which specific actions are shaped by structuring forces, and through which structuring forces are themselves produced. The first relates to allocative structures (the way material resources – finance, land, human labour – are allocated; for example, public investment in infrastructure or land and property investment processes). The second relates to authoritative structures (the constitution of norms, values, regulatory procedures – for example, regulations over the use and development of land, or processes of environmental impact assessment). The third relates to systems of meaning (frames of reference, ideologies, rationalities, discourses).

Healey, 2007, p.21

Allocative structures

What can an examination of these three types of relations tell us about waterfront regeneration and development? Let's start with *allocative structures*, focusing on the key resources of land, finance, human labour, materials and energy, as well as what may be termed 'institutional resources'.

The general context for waterfront regeneration that is described in the literature is

generally one of land's use for industrial or transport activity ending and its value as a resource changing as a result. The value of this land as a site for both industrial/port activity and now urban development has largely been linked, as would be expected, to its location – in the first case because of being at the interface between land and water, facilitating mode transfer of goods and passengers between shipping and land-based transport; and in the case of regeneration and urban development because of its often fairly central location providing an opportunity for city expansion linking up with an expanse of water now seen as supporting amenity and leisure activities. This land has normally (since the 19th century) been under the control of a public or semi-public body, such as a local authority or a port authority, or of an industrial concern. The process now taking place is generally one of transfer of control of public-sector land to the private sector, and of increasing 'privatization' (sometimes in organizational *modus operandi* if not in ownership) of semi-public landowners, while access to the land is widened through the creation of new public and semi-public spaces. Key factors that are seen in this process as influencing the qualities of the resulting physical built fabric are how this land is parcelled up and transferred, and who controls what development takes place on the land and how it is used. For example, allocation of large areas of waterfront to large developers, to masterplan and development as a single concern are seen as conducive to different results compared to allocation based on small-scale plots going to different developers and designers. In addition, landownership influences the type of use – for example, ensuring public access to the water edge, if this is publicly owned, or applying planning policies which determine the use of the water to influence the use of adjacent

land, if this is privately owned. The question emerges as to whether the types of land and landownership on regenerated and redeveloped waterfronts around the North Sea have features in common. And are these distinct from those elsewhere?

The state's capacity to allocate finance for development (or, rather, redevelopment) of this land is generally diminishing worldwide (at least in relative terms to private-sector capacity), with the private sector having growing financial leverage. The allocative structures emerging around the financing of waterfront regeneration tend to be based on public–private partnerships, with the public sector often financing decontamination, key infrastructure, public spaces and flagship developments, while the private sector invests in developments that will produce a clear financial return, such as residential and office buildings.

In this process the labour force involved in the activities carried out on the waterfront pre- and post-regeneration tends to change, with shipyard workers and

stevedores being replaced by construction workers, and these in turn by office workers and service staff. This has implications for the relationship between the regenerated areas as a workplace and the location of workers' residences, and for the sense of belonging that workers may have. Dock workers traditionally often lived near the ports, concentrated in specific housing areas, while the new service economy in regenerated waterfronts is staffed by people who may live anywhere in the metropolitan or city region.

With regards to production of the built fabric, various forces are at work on the allocation of construction resources. Globalization is fostering increasing worldwide trade, making materials cheaper to source in emerging economies and countries on the periphery of the capitalist system, continuing the trend started through the colonial trade routes and intensifying this (Jenkins et al, 2007). As a result, the built fabric of regenerated waterfronts can incorporate a range of materials, from tropical timbers from Latin America to granite from China. An opposing force or structure is that driven by increasing environmental awareness and regulation, linked to the other two types of relation: authoritative structures and systems of meaning. This supports the valuing of the existing built fabric as a resource because of its embodied energy and the alternative it offers to the extraction of non-renewable materials (in addition to its symbolic value as heritage, which increasingly has an economic value attached). These are strongly contradictory forces. How are these affecting waterfront regeneration around the North Sea, an area which was at the core of the development of the colonial trade routes and which is bordered by countries that currently have some of the most stringent building regulations in the world (a result of the welfare state and later also driven by the European Union's normative structure)?

Energy is another resource that influences city development at macro and micro levels. As described in Chapter 1, technology based on the tapping of different sources of energy drove changes in forms of transport, which in turn spurred urban development around waterfronts. Energy sources have also underpinned urban development in more indirect ways, such as the discovery of oil in the North Sea, which has supported urban growth and different forms of waterfront development (including new industrial areas such as oil terminals

and refineries). The exploitation and distribution of these sources of energy have been related to increasingly centralized organizational forms linked to complex distribution networks, as well as to a concomitant growing commodification of energy. Although this concentrated control of energy production continues in the development of some renewable forms of energy capture, such as offshore wind farms, a growing drive for decentralized energy production is emerging, with new

developments increasingly being required to cover part of their energy needs from onsite sources. This is beginning to change the way in which urban developments are designed. Waterfront developments are a particularly interesting case in this respect because of the potential they have to use water and wind as sources of energy. To what extent is this potential being realized in waterfront developments around the North Sea? And how have national policies in the area which pursue high levels of renewable energy influenced these developments?

What could be termed 'institutional resources' are also a significant aspect of allocative structures. Processes of waterfront development often involve the creation of new organizations, which contribute to different aspects of the development process, such as information centres, support organizations, community organizations, etc. In addition, these processes occasionally generate the restructuring of existing organizations, such as municipal departments, in response to different development needs, preparing technical information, managing onsite work, etc. Allocation of resources for the operation of such organizations, as well as giving these organizations power to allocate resources are key elements in the implementation of waterfront regeneration.

To summarize, the above resources tend to be allocated by the state and the market in varying proportions and forms, while, generally, civil society has a very limited contribution, mostly because of the very limited control that it has over such resources.[4] Civil society does, however, have more scope to influence waterfront regeneration through its participation in authoritative structures and in the construction of systems of meaning.

Authoritative structures

Healey (2007) suggests that *authoritative structures* can include the constitution of norms, values and regulatory procedures. Such structures can take the form of organizational arrangements, including, for example, different levels of state organization, from local, national and regional through to transnational. Waterfront regeneration has taken place during a period in which the role of the state in many places has shifted from being a provider to being an enabler – a shift that is reflected at an international level in United Nations declarations and policies. This shift has taken the form, for example, of partnerships between state-sector organizations and private-sector companies, which have become a widespread norm for investment in infrastructure, and are also characteristic of key examples of waterfront redevelopment, such as London Docklands. A related phenomenon has been that of the creation of 'arm's length companies' to which the public sector has delegated powers and resources in order to 'free up' development processes from bureaucratic

procedures. What models have been developed and implemented around the North Sea? Do these reflect worldwide trends?

These shifts in authoritative structures have been criticized for putting regeneration processes outside democratic control as they privatize some of the rights to allocate. However, the idea of increased democratic control – through participatory as well as representative democracy – has underpinned experimentation with 'citizen participation', albeit normally within already existing authoritative structures. In waterfront regeneration these initiatives raise issues related to 'who' participates, ranging from how to mediate between the interests of existing residents (often former workers in the defunct industrial or port activities) and those of incoming investors, to how to design participatory processes when there is no (or very little) resident population on the site, and thus the beneficiary population is arguably at city level. In this respect waterfronts around the North Sea offer a wealth of experience. Has this experience shown new ways of engagement between civil society and the state and market which have shifted the ways in which authoritative structures operate?

The above processes must still conform to regulatory procedures linked to planning which, because of how planning is defined in Europe, tends to be a state activity. The European Union is the relevant supranational organization that is increasingly influencing regulatory procedures relevant to developments – including waterfronts – around the North Sea (e.g. through environmental legislation). However, at national, regional and local levels there are also different traditions of regulation, a key example being the difference between the discretionary approach of the UK planning system and the more prescriptive planning systems in continental Europe.[5] To what extent does the diverse nature of these regulatory systems have an impact upon the processes and products of waterfront regeneration around the North Sea?

Systems of meaning

From an institutionalist perspective, such norms, rules and regulations and the organizations which implement them are based on *systems of meaning*, which they, in turn, influence. Healey (2007) lists frames of reference, ideology, rationalities and discourses as examples of such systems of meaning; Madanipour (1996) refers more simply to 'ideas'; and Landry (2006) refers to culture.

Such systems of meaning permeate actions related to city-building at many levels. City marketing, for example, relies on the generation of new narratives about cities in which urban planning and design have a strong role to play in how systems of meaning interplay with the political economy. In dealing with footloose capital,

two options are available: to quickly adapt to market shifts; or to mastermind market shifts (Harvey, 1989). Both have been used through urban design by European cities in the last couple of decades, with cities in the older industrialized areas constantly changing approaches to meet market needs, as well as creating and managing markets through innovative design, and cities outside this old industrialized core (especially smaller cities) often being unable to quickly respond to market shifts and therefore attempting the longer-term strategy of producing innovations in design conducive to new

market trends (Gospodini, 2002). Examples of the former include London and Paris, with the redevelopment of London Docklands being a market-led process (with all its pitfalls) and the Parisian large public projects being more state driven. An example of a smaller city on the European periphery is Bilbao, where the creation of new symbols through innovative design using 'starchitects' (Guggenheim Museum and other waterfront developments, Bilbao Airport, the distinctive metro system) has contributed to the paradigm of iconic architecture as a beacon for investment (Gospodini, 2002; Sklair, 2006).

In this context, 'urban design appears to be consciously "used" as a means of economic development of cities in the new competitive milieu' (Gospodini, 2002, p.59). In other words, in this phase of globalization, the quality of urban space is seen as a factor in attracting investment, and therefore affecting city competitiveness. Gospodini (2002) suggests that this reverses the historical relationship between the urban economy and urban design, with good-quality urban environments in the past having been made possible by economic growth, whereas they are now increasingly seen as enablers of economic growth – though this is arguable, as there has always been a two-way relationship. This is one way in which culture (if we see the urban design of a place as part of this) provides cities with a narrative about themselves (Landry, 2006).

This operates at the local level as well, with part of the task often faced by waterfront regeneration being that of transforming the way in which it is perceived by residents in the rest of the city it belongs to. This underpins a range of activities from marketing of the waterfront within the city (often by developers – i.e. the market), through citizen participation activities linked to planning projects (usually led by the local authority – i.e. the state), to awareness-raising activities such as design competitions, festivals and the location of information units within the area (often run by civil society organizations, including academia, professional bodies and neighbourhood associations). These can be the platform for new discourses around the use of the waterfront centred on notions such as re-linking city and water, making the waterfront accessible, and spreading the benefits to the wider

surrounding communities, though the reality does not always match the rhetoric.

Such new physical and social discourses underpin both outward city marketing and inward awareness-raising, and they may originate from different sources, a typical one being the interface between planners and local politicians. In this context discourse can be seen as 'the policy language and metaphors mobilised in focusing, justifying and legitimating a policy programme or project' (Healey, 2007, p.22). But discourse does not take the form of words only. The actual designs of places and buildings can be interpreted as discourse through what they 'say' about the intentions of agencies promoting them. In the context of waterfront regeneration, what specific discourses have emerged around the North Sea and what do they tell us about the interplay between the local and global in this region?

A political economy perspective

Much of the recent institutionalist literature that has developed around planning has focused on the latter two types of relation – that is, authoritative

structures and systems of meaning (and less on allocative structures). Some would argue that in the process a key means to understand the production of the built environment has been somewhat neglected: spatial political economy. This is a perspective with considerable explanatory power, particularly if we consider that 'rather than following function, form has increasingly been following finance' (Ellin, 1996, p.190). Ellin refers to the failure of postmodern urbanism to adequately consider the contemporary political economy, giving the example of False Creek, where a 'self-conscious attempt to build a postmodern landscape' failed because of the lack of consideration of political- economic constraints (Ellin, 1996, pp.156–157).

Political economy analysis has been applied to the study of waterfronts in geography (see, for example, Malone, 1996), and more application of this analysis has been advocated in both planning (McLoughlin, 1994) and urban design (Cuthbert, 2007). A fundamental critique of the political economy approach is the overriding importance it attaches to structure, which is seen to determine and dominate agency. However, new political economy approaches have developed, such as that known as the 'new international political economy, which look not only at how politics and economics influence each other, but also at how these are mediated by social (and cultural) institutions, and how the relations between all of these evolve historically, thus reflecting the preoccupation with the relations between structure and agency which has inspired new institutionalism, and going beyond structuralism to give scope to agency. This new political economy

approach has been applied, for example, to the study of urbanization in the rapidly urbanizing world (Jenkins et al, 2007).

An institutionalist approach can therefore incorporate a political economy analysis within it and thus permit linkages between allocative structures, authoritative structures and systems of meaning. Although all three are linked to the political economy, the first two have particular instrumental relevance; however, issues of meaning also underpin allocative systems at a deeper level.

In summary

The above framework is proposed as a way of understanding the forces and relations that impinge upon the design of the built environment. If we take architectural design as an example, this social product reflects the relations we have described. The resources used in terms of land, materials, finance, labour and energy all affect the design, and the political economy surrounding the allocative structure of these can be 'read' in the building. The design conforms to a host of written (building codes, etc.) and unwritten (social norms) rules which are enforced by specific organizations and by social expectations – authoritative structures. In addition, its engagement with systems of meaning and its use in the creation of symbolic capital is probably the aspect that has, in fact, most exercised architectural critics since the 1980s, when Postmodernism increased architecture's self-consciousness about its symbolic power. This is very evident with waterfront design, whether in terms of buildings or urban form-making and the images used for these by designers.