

Turning the Tide

by

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Executive Summary

This report assesses the contribution that waterfronts are making to urban renaissance in Britain, and follows up the report of Lord Richard Rogers and the Urban Task Force *Towards an Urban Renaissance*, and other research concerned with changing attitudes to urban areas. It is based on seven short case studies of places where the waterways have been an integral part of an urban regeneration success story. It also draws on a review of the extensive international literature, a survey of local authorities which followed up earlier surveys conducted ten and twenty years ago, and discussions with the sponsors of the research: British Waterways, Crest Nicholson, English Partnerships and King Sturge & Co.

The report is primarily aimed at providing developers and planners with practical advice for getting the most from urban waterfronts through a series of management checklists, and examples of what is possible. But it should also contribute to the ongoing debate on how to improve Britain's urban areas. The main conclusions are summarised below.

Added value

The urban waterfront is a vital part of our national heritage; and provides an important breathing space and natural habitat in many crowded areas. As waterways also served industry, they run through a large amount of the derelict and under-utilised urban land. Docks, canals and rivers all have an important role to play in urban regeneration and ensuring that development as far as possible takes place on brownfield sites. Because of the 'magic' that waterfronts can create, particularly as far as residential and leisure uses are concerned, they also offers some of the best opportunities for promoting an urban renaissance, that is for attracting people back to live in urban areas. Thus the urban waterfront can contribute to a more sustainable form of development. Hence schemes need to be evaluated in a more holistic way than they have in the past.

Over the last twenty years there have been significant changes in what we expect from waterside development. Private investment and job creation is no longer enough,. Design excellence and environmental sustainability also matter. The case studies of major projects in Birmingham, Bristol, Lincoln, London's South Bank, Manchester, Newcastle and Sheffield show that waterfronts are at the heart of some of the best regeneration success stories, and that it is possible to create places that have a distinctive identity, while making the most of their heritage. Our survey of 40 local authorities reveals there are a wide range of developments underway in smaller towns and cities, for example Barry and Gloucester, with almost every imaginable use. Canals and rivers are beginning to form the backbone of wider regeneration strategies from the Huddersfield Narrow Canal to the River Wandle in London.

Living Places

By looking back over the last 25 years, it is possible to detect a real shift in priorities and expectations. Then the problem was largely attracting investment, in some cases under any terms. Retailing, and the American festival marketplace experience in Baltimore and San Francisco was the inspiration for many early waterfront developments, and both London Docklands and Cardiff took most of their big ideas from the USA. Those developing British waterfronts are now looking increasingly to Europe as well as to English examples for inspiration, with a much greater stress on creating 'living places', that mix both leisure and

housing. The Continent provides relevant models for linking waterfronts to urban centres, strengthening the image of the town, and increasing vitality through a broader mix of uses.

The big issue now is how to secure a compatible balance of uses, that is living, not mixed up uses. One lesson from research is that this cannot be done all at once: the ‘big bang’ approach, exemplified in projects such as Canary Wharf, is generally not sustainable or cost-effective. Regeneration can take a generation (20 years). Successful mixed use development requires a balanced incremental development approach to ensure that activities complement each and that the location is easy to reach, and pleasant to walk around at all times, with each stage of development opening up wider opportunities. The evolution of Bristol Harbourside provides a particularly good model. The options include commercial leisure, arts and culture (which often involves reusing a historic building), eating and drinking and even hotels. Retailing can easily fail if it is not on the right scale, and needs to complement, not compete, with the town centre. Though specialist shops are hard to make work, open markets can sometimes be a good way of bringing in the community, but their management is demanding. Business premises can range from artists’ studios and workspace for small businesses, to prestige offices, and help to keep places alive during the day.

Good urban design

Successful waterfronts have to tackle some basic urban design issues, including how to overcome the isolation of many urban watersides, how to improve the environment, create a sense of places, and how to overcome fears for security. This depends on designing well-connected places, with integrated public transport links, like the tram that links Manchester with Salford Quay, and almost certainly a good network of pedestrian routes. The best schemes, like London’s South Bank, link the open spaces to form what is effectively a linear park. They also ensure there are enough bridges and crossings to knit the waterfront into the fabric of the urban centre. Other key factors for success are adaptive re-use of existing buildings, public art (including events), regular maintenance and active stretches of water.

Waterfront Renaissance

The ‘winning schemes’ that attract most praise and are most frequently visited, are successful in both economic and social as well as physical terms. This is as much about process as the product. While each place should strive to be unique, there are some common management principles. The four steps to urban renaissance are: an imaginative vision, a phased strategy, orchestration of investment, and the maintenance of momentum. The ingredients include revealing the potential; providing the initial impetus; engaging the community; starting small; involving developers at the right time; attracting settlers; evaluating the outcomes and celebrating success. These are exemplified in both the main case studies and some 50 other examples. The overall message is that urban waterfronts can provide the catalyst for urban renaissance and that the tide is turning.

Introduction

This report assesses the contribution that waterfronts are making to urban renaissance in Britain, and draws on good practice to recommend how the quality of development can be improved. It is based on a review of relevant published studies, a survey of local authorities, a series of case studies, and discussions with the sponsors, who have a wealth of experience. The report is primarily aimed at providing developers and planners with some practical advice for getting the most from urban waterfronts, but it should also contribute to the ongoing debate on how to improve Britain's urban areas.

Successive reports, including *Towards an Urban Renaissance* by the Urban Task Force under Lord Rogers, have called for a halt to urban dispersal, and for action to make our towns and cities more liveable. A key theme is that 'Urban neighbourhoods should be attractive places to live. This can be achieved by improving the quality of design and movement, creating compact developments, with a mix of uses, better public transport, and a density which fosters a strong sense of community and public safety.' (Rogers, 1999) The big unresolved issue is finding the catalyst to turn declining areas around, and the Task Force was criticised for drawing its main examples from abroad, particularly Barcelona where the context is very different.

The main message of this report is that a quiet renaissance is already happening on British waterfronts – the canals, docks and rivers to which most towns owe their origins. British Waterways estimate that half the population lives within five minutes drive time of a waterway. Much of the derelict urban land is also close to water, as this is where traditional industries located. Urban waterfronts now provide some of the most impressive examples of regenerating run-down areas. This report draws some lessons for good practice to suggest what strategic planning, urban design and development partnerships can do to make the most of the special qualities of urban waterfronts in securing urban regeneration.

The major question the report addresses is what approaches should be adopted to achieve success. The challenge is not just attracting investment (though this is essential), but using scarce resources to bring a place back to life. This raises five questions that are explored in the sections that follow:

1. What makes waterfront revitalisation special?
2. How should success be evaluated?
3. How can a diversity of uses be achieved?
4. How can urban design and regeneration strategies help to revitalise redundant waterfronts?
5. What does a renaissance require?

We have not attempted to do a full audit of waterfront development - as this was beyond the means of this study - but rather to raise some common issues, and put forward some guidelines for future development. We have sought to compare experience between towns and cities, large and small, on how to secure the best use of urban waterside sites, where possible using examples that are truly sustainable, that is, that should pass the test of time.

The research has been guided by an Advisory Group representing the sponsors. It was first backed by English Partnerships, who not only were heavily involved in a large number of major waterside developments,

including Bristol Docks, Chatham Maritime, and Newcastle Quayside but are also committed to the principles of quality in design and mixed use. Support has also been provided by British Waterways, who have already done much to promote the potential of waterside development, including commissioning a number of research studies, the chartered surveyors King Sturge, who have a particular involvement in the development of industrial sites, and Crest Nicholson, a national housebuilder and major developer of mixed use schemes. We have also drawn on advice from the London Rivers Association and the discussion at their conference *The Art of Successful Waterfronts* in December 2000. The views expressed are those of URBED and needless to say, URBED has sought to be objective, and takes responsibility for any errors or omissions.

The Added Value of Water _____ 1

What are the real benefits of waterfront development? The urban waterfront (which includes canals, rivers, docks and even lakes) is a vital part of our national heritage. The waterfront was the roots of most of our towns and cities, and provides an important breathing space and natural habitat in many crowded areas. It also contains a large amount of the derelict and under-utilised urban land, and therefore has an important role to play in urban regeneration and offers some of the greatest opportunities for promoting an urban renaissance. Its development cannot therefore be evaluated simply in terms of jobs or property values, and a wider and longer-term perspective is needed.

Current practice

The starting point for this study was a postal survey in 1998 of local authorities with an interest in waterfront development, which followed up similar surveys roughly ten and twenty years earlier. It is often said that only three things matter in property development 'location, location, location!' However, the survey, which covered sites ranging from large docks and former riverside industries to smaller canals, found that the value of a location could be changed over time from a liability into an asset. The 1998 survey of local authorities identified 46 new waterfront schemes. Many of them are referred to in this report as examples. The schemes varied in location and size, however more than half of them were developed on rivers. Nearly all schemes were mixed use, with over 30 of them having a residential component. The survey revealed that waterfront developments have wider benefits for the areas concerned as they stimulated market confidence and investment in the surrounding area. Two thirds of the schemes were led by developers, however nearly all proposed developments involved pre-application negotiations and larger schemes usually had specific development plans and briefs. Proactive planning is becoming more common.

It is the larger cities that have received most publicity, and they face quite special challenges. On the one hand they often have very large areas of derelict land looking for new uses, on the other hand they are for the most part experienced in promoting urban regeneration, and in packaging the finance needed for complex development schemes. It is therefore not surprising that the most quoted examples of urban regeneration tend to come from cities like Birmingham, where efforts have been going longest. However, our survey shows that the 'magic' of water can be just as important in smaller places-diversity of uses can be secured in sites as small as one hectare. There is now a flotilla of mixed-use flagship projects, which have been undertaken in Britain. It is no longer necessary to look just to Baltimore, Barcelona - or even London - for ideas and inspiration, as there are exciting projects in every region. With so much development going on, often dependent on public funding, it is important to know how to judge success, what creates value, and how to turn visions into results. The most important qualities that contributed to a waterfront renaissance were categorised as buildings and spaces, integration into the surrounding environment, distinctive architecture, and traffic calming and management.

For every well-publicised project, there are many more that run up against local opposition. Failure to reach agreement and delays in packaging finance often means that projects miss the development tide,

and that much of the planning and design work is wasted. In securing winning schemes local authorities are involving the community, and where consultation has been extensive there has usually been major public support for the proposed development.

A number of lessons can be drawn from experience over the last twenty years. First of all, the physical constraints can be overcome, given time and money. The changes can be seen by comparing URBED's surveys of 1979, 1989 and 1998. The focus of development efforts has spread, as the more obvious 'plum' sites have been taken. In cities, waterfront development is spreading out on the edges of existing schemes. Of over 90 schemes that were surveyed in 1989, 70 were on rivers, 27 on canals and the balance were ports and harbours. The survey showed that some planners were cynical then about waterside regeneration: 'Regeneration of waterside areas seems to be the latest fashion'; or 'The water has little real contribution other than as a landscape feature'. However by looking at a scheme over time and in its wider context the real benefits become apparent.

The 1998 survey suggested that canals and rivers are becoming an integral part of wider regeneration strategies that transform run-down areas through pilot and flagship projects. Thus the reopening of the whole of the Kennet and Avon Canal, linked a series of historic towns and leisure attractions in Wiltshire, which has boosted tourism in places like Bradford on Avon and Devizes. This is being followed by even more impressive projects, such as the total restoration of the Huddersfield Narrow Canal, which is costing £28 million, thanks to support from the National Lottery. The most ambitious project of all is the Lowlands and Firth and Clyde Canals in Scotland, where £70 million is being spent on what is termed 'The Millennium Link'. Despite the availability of large grants, none of these projects would have been possible without some 'early wins' by waterside development that demonstrated the contribution that it can make to urban regeneration.

Project appraisal

If waterfront developments are in fact contributing to the 'urban renaissance' they must be judged in wider terms than their direct economic impact alone. A different framework is needed to design and manage successful projects, and also to judge how much to invest in them. Such a principle has been accepted in the Government's new policy framework for British Waterways 'Waterways of Tomorrow', which recognises its basic role as a custodian of a national asset. A similar approach could be applied more widely to other waterfronts and environmental resources. What British Waterways have called 'the ripple effect' of some waterfront schemes could be the major justification for public investment. Given the huge variety of waterfront locations, what if anything do they have in common? There have been a host of studies and international conferences on waterfront regeneration, but there has been surprisingly little published on how to evaluate individual schemes. Consultants have undertaken some research for British Waterways, which assess the economic impact of waterfront developments, which proved quite useful. However published studies tend to deal with individual case studies, and to present a picture at a point in time, usually from one perspective, often that of a visitor; they often show the range of benefits secured, and sometimes record the costs. The challenge is how to take account of the wider impact that waterways can have on urban regeneration, that is on turning the tides of dispersal that are taking activity and investment out of town. (which is what our case studies have sought to do.)

Research for British Waterways suggests that even apparently successful projects like the newly constructed Brecon Canal Basin cannot always be justified by conventional economic criteria alone (as the activity could often have taken place elsewhere). Case studies by ECOTEC compared economic benefits with the costs. They included some major commercial schemes, such as Aston Science Park, as well as more modest projects, such as the development of the canal basin at Welshpool on the Montgomery Canal. The report covered the kinds of uses other than housing that might have benefited from a waterside location, and was part of a wider study to develop appropriate methodologies. Given the importance of showing impacts, particularly on employment, the case studies tried to show the difference that the canal project made. They focused on floor space created, temporary construction employment and permanent employment, plus estimated visitor numbers and expenditure. The results were generally not very encouraging; it was hard to show that the water did much more than make marketing the property easier.

An important issue is therefore whether waterside projects actually do provide a catalyst for the area's regeneration, for example by boosting confidence and raising demand, thus bringing urban land back into beneficial use. Would a new lake be just as effective as a canal or river? It is certainly clear that many British urban waterfront schemes have set the pace for urban regeneration, bringing people and jobs to previously no-go areas. Research at the University of Newcastle (Willis and Garrod,) suggested that proximity to water increases property values by up to 18 per cent on the basis of what the surveyors they interviewed thought. However while surveyors generally expect an uplift, in fact the evidence from this research was far from conclusive. What really seems to matter is demand in the wider area. While housing, and in some cases leisure, can derive benefits from views of water, these are unlikely to be appreciated until the environment has been made safe and attractive, and the area's image has been transformed. The water can provide a timeless quality, which creates the initial 'magic', but as examples like Gloucester Docks and Birmingham's Brindley Place show, development can take several decades to bring about a change of image. Hence a more holistic framework is needed for evaluating success that takes account of both environmental quality and the waterfront's historic significance, as well as the overall economic impact.

The magic of water

Much of the initial inspiration for waterfront development came from the USA, where there is a movement known as the 'New Urbanism.' Waterfronts are seen as more than just places for imaginative property development. The special quality is highlighted in Daniel Burnham's plan for Chicago, where he said: 'The Lakefront by right belongs to the people. It affords their one great unobstructed view. These views calm thoughts and feelings and afford an escape from the petty things of life.' The American landscape architect Azeo Torre in *Urban Waterfronts* (1989) points out that: 'It is at the edge that man is at his best, that life is most vibrant. It is the lure of water, its spell, its reflection, its endless movement and change, that best captures man's imagination and provides a variety of applications from business to recreation, from calm to passive activities, the water's edge is where life is most diverse and unique.' Torre argues that the key elements of successful waterfronts are image, authenticity and function. This idea, that waterfronts have a wide symbolic function – bound up perhaps with their timeless or spiritual qualities, explains why there is often major

controversy over what would happen at the water's edge and who would benefit. Water is a fundamental part of what is now referred to as the 'public realm.'

It is useful to see how ideas are changing. *Waterfronts: cities reclaim their edge*, which is based on 75 award-winning schemes, picked from 500 entries to the Waterfront Center's Award scheme, is primarily concerned with those that create new urban quarters to connect the city with its waterfront by a variety of design solutions. *The New Waterfront*, described in Breen and Rigby's second book (1996), is about places which are not only conserving a valuable heritage, and in ways that are sustainable, but that are also usually adding something beautiful and memorable to the city scene. The Waterfront Center judges schemes against five key features: sensitivity of the design to water; quality and harmony of design; civic contribution; environmental values and educational impact. The list of award winners show that the quality of the landscaping and public art once only seen in a few American waterfronts, can now be found in many other places, from Darling Harbour in Sydney to Newcastle Quayside. The strengths of the best places include historic landmarks as well as stretches of open water, and above all a series of attractive spaces in which to walk. Baltimore is usually regarded as one of the best examples, but the true lessons are often missed. The great appeals of Baltimore Inner Harbour - diversity and critical mass - result from development being co-ordinated by the public sector, but undertaken by many individual developers over several decades. Baltimore, like most industrial cities, faced the problem of finding new roles for its central areas. Regeneration started with projects to create a replica of a historic ship, and with 'Sunny Sundays' to draw families in. A consultant's plan then provided the confidence for the city to acquire the derelict waterfront, and to set up a development agency to promote its reuse through a series of partnerships

In the USA concern over the number of 'formula approaches' to replicate successful models, like Festival Market Places, which often only resulted in failed 'pastiche', led to the issue of the *Urban Waterfront Manifesto* in 1999 by a group of practitioners (including Nicholas Falk). This put forward a series of 13 principles organised under the themes of planning and development, including the all important idea that 'the understandable desire to achieve instant results should be resisted in all except the smallest steps. Development over time allows a richness of character versus the sameness of a one-time 'Big Bang' approach'. The manifesto can be consulted on the Waterfront Center's web site www.waterfrontcenter.org. One important principle is that water is feature to be honoured and celebrated – not to be treated merely as a cosmetic or just as a commodity'.

Similar principles have been taken up in Europe too. The London Rivers Association has published a series of reports based on conferences, such as *Rivers of Meaning* in 1996, with a theme of 'starting from the river' which advocates design approaches that respect the character and distinctiveness of Waterways and creatively express the relationship between the natural and urban environment. Its conference in 2000 - *Designing Rivers* which was organised in association with URBED, reaffirmed the idea of water being an integral part of any development, not just a backdrop.

In a presentation drawing on world wide experience, the Director of the International Centre Cities on Water in Venice, Rinio Brutomesso, set out five key factors for success, which can be summarised as:

1. Water must be a central characteristic not an afterthought
2. The identity of the site and original features should be enhanced
3. A balanced mix of uses should be sought
4. The waterfront should be integrated with the wider urban area
5. Projects should be pursued in an atmosphere of collaboration.

The conference revealed wide ranging support for the idea of proactive planning policies and strategies to promote better designed waterfronts, as both developers and community groups could see the value of a quality public realm. There was a stress on effective dialogue from the start involving all the stakeholders, and the need for looking as far as a century ahead. However over-pressed and under-resourced planning departments, are no match for private developers and inflated land values. Hence an important conclusion was the need for ‘templates’ and checklists, along with more models of good practice, and the idea of leading by example.(see the final chapter for suggestions). There was also a realisation that proactive planning is not enough. Management also matters, allowing spaces to be used flexibly over time, and enabling master plans to be implemented in stages. A report based on the conferences is to be published by LRA and URBED.

The wider benefits of regeneration

The best examples of urban waterfronts have brought dead areas back to life, in ways that provide somewhere interesting for visitors, and have boosted investment in the surrounding city centre or towns. Our case studies suggest that the direct benefits from successful waterfront development can be assessed against three very different objectives:

- Conserving an important part of our national and natural heritage (which includes historic buildings by the water, as well as canal and dock structures).
- Extending people’s quality of life, and making urban living much more pleasurable (for example by attracting more people into towns, and drawing in expenditure from outside)
- Stemming the process of decay, and giving new hope or vision to a run-down area (for example through investment in leisure and recreational activities).

The spin-off benefits can also be very beneficial to the local economy as our case studies illustrate. These may include:

- Providing specialist shops and local employment as in Newcastle with its Quayside market
- Boosting civic pride, and giving an area a stronger identity or image at both a local and national level, notably in Birmingham’s Brindley Place.
- Encouraging entrepreneurial ventures (which is one reason why the USA has been so successful in creating jobs to replace those lost through technological and other changes), of which Bristol Harbourside is probably the best example
- Attracting people to work or study, and creating new employment such as in tourism or a new college, as in Lincoln, for example

Conclusions

- Waterfronts are acting as a catalyst for urban regeneration, through their timeless quality or ‘magic’
- The value of a scheme needs to be judged holistically, including the use of water, urban design and the public realm, and community impact.
- While the economic value may be limited there are wider benefits both direct and indirect that can justify reinvestment.

A Holistic Framework 2

Over the last twenty years there have been significant changes in what we expect from waterside development. Private investment and job creation is no longer enough. Waterfronts are now at the heart of some of the best urban places, and there are a wide range of developments underway with almost every imaginable use. Canals and rivers are forming the backbone of wider regeneration strategies: waterside development is becoming a catalyst for urban renaissance. The development of previously isolated waterside sites can be used to justify investment in new transport infrastructure. While an early influence on British development was the American experience with its festival marketplaces, the most publicised Continental examples have provided inspiring examples of attractive places to live and visit. They provide good models for an urban renaissance through linking waterfronts with urban centres, and promoting a better identity or image for a town or city through the quality of their environments, as well as diversity or mix of uses. However, there are now many British examples to be drawn on.

Views on what characterises success have changed over time. The reawakening of interest in urban waterfronts is still relatively new in the UK. Though most British towns and cities grew up alongside water, and built canals and docks to make access easier, their centres moved away from the water during the 19th century, unlike cities on the Continent, where more people continued to live near their work. While waterfronts could be called the ‘soul of the city’, for they are in many respects timeless, British towns turned their backs on their waterfronts until recently. Industrial development cut them off, subsequent decline left them abandoned, and in many cases dangerous. Urban ring roads finished them off. Watersides became forgotten or even ‘no go’ areas, often associated with violence. Little thought was given to the wider role of waterfronts, and ring roads and ugly buildings were accepted as facts of life. Canals and docks became derelict and disused. No future for leisure or tourism was imagined in the 1950’s and 1960’s.

Development trends

The renaissance in Britain started in the 1970s when technological change in the form of the container revolution released large sites for redevelopment in former ports throughout Britain, of which the largest area was London’s Docklands. At the same time the decline of traditional industry led to the closure of factories and mills on urban canals and rivers. When URBED published the first British survey on development of 22 city ports in 1979 in Planning magazine, the focus was on former docks, and the overwhelming conclusion was that the potential had not yet been realised. The major obstacles were seen as reaching agreement, funding infrastructure, and attracting firms to set up.

1980 was designated Urban Renaissance Year by the Council of Europe in an attempt to get towns and cities to make the most of their heritage. Few of their demonstration projects involved waterfronts, notable exceptions being St Katherine's Dock and Hope (Suffrance) Wharf, Rotherhithe, both in London. As waterfronts had been places of employment, the priority then was seen as generating new jobs. In Europe too, the interest in urban waterfronts was primarily in supporting their role as ports.

A major conference organised by the international centre Citta d'Aqua in Venice in 1986, identified the common overwhelming problem then as reviving the economy of waterside areas that were over-dependant on a commercial port. Liverpool provided the classic example, where a single main use or employer results in a dependency culture, with low levels of entrepreneurship. Projects to create maritime research centres, as in Genoa, or to expand waterside universities, as in Amsterdam, were seen as important, but they could only use a fraction of the space available. Housing and mixed use developments were not seen as important at the time. Many of the case studies in the books that followed conferences tended to cover 'grand projects' such as business centres and opera houses. A conference in Hamburg in 1999 probably marked the turning point in giving principal attention to housing and more mundane uses.

Evaluating Success

The publication of URBED's report *Vital and Viable Town Centres* (Stationery Office, 1994) drew attention to a new problem - a decline in the hearts of many of our town and city centres as a result of competition from out of town. This report, and the associated guidance note PPG6, stressed the importance of mixed uses, or diversity, to keeping the attractions alive. The research suggested that Britain was following the example of American cities, whereas it should be trying to emulate Continental cities. Most Continental cities have always treated their waterfront as part of the city's heart and soul, thus making them successful economically, as well as places and desirable places to live. The liveliest waterfronts are not in the USA but in cities like Amsterdam, Stockholm and Istanbul that are bustling with boats and visitors. As well as classic waterfronts, like Venice, there are important modern examples of creating environments for sustainable urban living, such as the vast lake in the centre of Hamburg, or the redevelopment of the former shipyards on Gothenburg's North Shore.

A variety of models

Our survey shows that waterfronts are at the heart of some of the best urban places, and that Continental ideas are starting to work in the most surprising places. The survey discovered that a much wider range of developments are now underway, in a greater variety of situations, as the following examples illustrate:

- In city centre schemes like Newcastle's Quayside, or Cambridge Quayside, specialist retailing and leisure uses add to vitality, and the draw of the evening economy.
- Well thought through waterfront development can lead to the regeneration of the developing areas, as in Birmingham's Brindley Place.
- In smaller towns, waterfronts are adding to diversifying the centre's attractions, and add to the town's cultural life, a good example being provided by the River Wey Navigation in Guildford.
- Edge of centre housing schemes like Kelham Island in Sheffield, or Kendal Riverside are not only providing attractive places to live and work but also the pleasures of a quiet waterside walk.
- Some projects like Exeter Riverside, are creating new urban quarters or villages, and helping to repopulate the centres. The Exeter experience demonstrates that a local authority led initiative can successfully reverse the spirit of decay and neglect

- Waterside schemes have created new urban parks and open space, such as Mile End Park in East London, which are making old inner city areas fashionable again, and providing a boost to private housing development.
- There are a number of linear corridors such as the River Wandle in London, or the Huddersfield Narrow Canal, which are creating new recreational opportunities in the urban fringe, and where the attractions form 'string of pearls' along the water's edge.

Conclusion

- The fashion has shifted from grand economic development projects to mixed use schemes involving a high proportion of housing.
- Once the waterfront has been developed, regeneration tends to spread into adjoining areas.
- Canals and river are becoming the backbone of regeneration strategies, like a string of pearls.
- Waterfronts can create good urban places and revitalise town centers

Living Places _____ 3

There are now a wide range of developments underway with almost every imaginable use. A major issue is how to secure a compatible mix of uses, and this cannot be done all at once. Successful mixed use development means not only ensuring that activities complement each other but also that the location is easy to reach, and pleasant to walk around at all times. Water is a key ingredient in many successful leisure venues, and the best place to start is with the water uses themselves. The options include commercial leisure, arts and culture (which often involves reusing a historic building), eating and drinking and even hotels. Retail can easily fail it is not on the right scale, and needs to complement, not compete, with the town centre. Though specialist shops are hard to make work, open markets can be a good way of bringing in the community, but their management is demanding. Business premises can range from studios and workspace for small businesses (an excellent use for old buildings), to prestige offices, and help to keep places alive during the day.

Mixed uses

A series of design guides, for example *By Design (1999)* and the *Urban Design Compendium (2000)* have advocated the benefits of mixed uses. Yet many waterside schemes in the past have been suffered because by developers were only interested in one main use. Bringing waterfronts back to life for a diversity of uses, can tap a number of trends. The changing demographic profile, with people having children later and living longer, means there are many more people who appreciate using the facilities that only city centres used to offer. These include a choice of places to eat and drink, cultural facilities, and fine buildings. FPD Savills report *Land Use in Cities (1998)* concludes that 'the market has discovered that a mixture of land use types can create a critical mass over and above the sum of the parts which makes each component of a large scheme work'. In other words and complex schemes can be profitable as well as desirable and lend themselves to higher densities, which in turn can support a higher quality of public realm.

While mixed uses and higher densities may seem harder to achieve in smaller towns and industrial cities, there are a number of good examples where small-scale development has created an interesting new destination with moorings providing the focal point. Thus in Newark in the East Midlands, the riverside now boasts a range of interesting projects, including both private and social housing, and the restoration of a derelict warehouse as offices, as well as several good museums. Mixed uses can be feasible, given time in both large and small towns and it is therefore important not to allow pressure for early results or high land values to reduce the long-term value of a comprehensive scheme. Where there are town wharves, as in Brecon or Guildford, they can often become a focus for community-led efforts to diversify the town's attractions. Uses such as theatres or arts centres derive extra popularity and hence value from being on the water. While the examples of genuine mixed-use development on smaller sites are still relatively rare, they can be made to work provided the local authority is willing to play a positive role, for example by preparing a development brief.

Housing

Housing is the most important single user of space, and the key ingredient in urban renaissance. Back in the 80's the only schemes tended to be single use, warehouse conversions along the Thames, such as in Limehouse, and there was scepticism over whether there would be a market outside London. Yet waterside housing has proved popular even in cities that are generally suffering from declining demand for housing in their centres, such as Newcastle, Sheffield and Sunderland. Housing has also been successfully developed on former industrial sites in towns as different as Bootle and Bridgenorth. Swansea provides the most impressive example, as the old local docks were actually being filled in whereas now they form a memorable 'urban village' with a profusion of public art and attractions such as an expanding industrial museum. Housing has often been used to cross-fund new leisure facilities such as marinas, with Brighton and Port Solent in Portsmouth providing probably the most ambitious examples to date.

The 'ripple effect' is probably a bit of a misnomer. It is not so much the view of water that lifts values, as the ability of well-designed and distinctive housing to appeal to a group of more affluent people who would otherwise have had to live in the suburbs and commute. It is these pioneers who are prepared to pay for something a little different, who pave the way for others with more conservative tastes. They effectively **turn the tide**, and make it easier for subsequent developments to succeed. This is one of the reasons why it is so important to ensure high standards of design from the start. However in many cases the opportunities for further development will be constrained so, it is important to have a strategy that promotes and maintains a diversity of uses.

Demand has been encouraged by waterfront locations being branded as 'stylish' places to live. The efforts of the initial urban missionaries and pioneers, who include artists, have been critical, even though in due course rising property values often squeezes them out. The publicity given to warehouse conversions along the Thames, such as in Limehouse and St Katherine's Dock, in the 1970s in time trickled through to provincial cities. From there it has spread outwards, as entrepreneurs such as Urban Splash in Manchester responded to the challenges.

Our study found it is possible to develop waterside sites for private housing even in locations where social housing is unpopular. St Peter's Riverside in Sunderland has been going up as nearby housing has been demolished. In time other housing can be attracted nearby. In Bristol Crest Nicholson have developed very successful new housing at Pooles Wharf on the fringes of the city centre in a part that would not have previously been considered at all desirable. In all these cases the first projects involved significant public investment, both in creating an attractive public realm and removing signs of dereliction, and also in pump-priming the development of difficult or contaminated sites. In other words the risks have been minimised. Where new housing has been most successful, car parking has been incorporated in ways that provide security for the residents, without obscuring free access or views of the water for others.

Waterfronts have provided scope for innovation in house design, including much denser development than is usual in Britain. A good example is provided by Pennylands adjacent to the Grand Union Canal in Milton Keynes, where the results were used in advertising to encourage people to move to the New Town. There seems to be a strong demand in all major cities for apartment living, which now includes converted warehouses, and serviced shells in the form of 'lofts'. It also embraces purpose built housing for young urban professionals, particularly in commercial centres, such as York. In some cities, such as Southampton, many of the flats are second homes or company lets. In Swansea, their owners have rented out a significant number, usually it seems to young people without children. Hence the market for waterside living is often tapping a new niche market as far as town or city is concerned, and boosts the local economy as a result. Waterside living is attractive to these groups because it offers something different, though safety and crime prevention measures always need to be considered.

Marketing brochures suggest that most occupiers go for the sense of space and quiet (not unlike living in the country) the security that comes from being in a block that is well maintained and of course, the views. A further attraction that is stressed in some marketing literature is the ability to walk to work or to use the city's facilities (*But Would You Live There ¼?*, DETR 1999). The lack of a garden can be compensated by the provision of a private balcony or a semi-private waterside space, and in some cases shared facilities help create a convivial neighbourhood. Though some house builders have produced their standard house types in a waterside context.

All the best schemes have introduced distinctive and more urban forms which have met with considerable success. Other developers have been persuaded to amend and tweak standard designs to suit waterside locations. Traditions of canalside design do mean that standard semi detached homes in suburban layouts are not well suited to the waterways of England. Even in relatively depressed markets, such as Tipton in the Black Country, higher quality of design can be secured through having a range of developers, in this case partly as a result of the efforts of a Development Corporation.

Leisure

Leisure uses also benefit from access to the water, though in very different ways, and there are a number of notable projects. One of the major attractions is the changing water itself. Where possible this should include boats and it is useful to have boat trips or activities like rowing and canoeing or even boat restoration that provide interest for spectators. Gloucester Docks is a good case in point; as important as the treatment of the water's edge is the use of the water itself. This in turn calls for boathouses and slipways, as well as moorings and boat facilities for water, rubbish etc. Good waterfront planning is needed to create destinations, for example to make interesting marinas rather than 'boat parks'. Active management of the water and its surrounds to reduce conflicts between different groups, for example anglers, cyclists, bird-watchers, canoeists and motorboats. Tidal stretches can be even more attractive than enclosed stretches of water, as they also draw flocks of birds and provide ever-changing vistas. Artificial stretches of water as in part of the London Docks are not always so successful: people like to watch things going on and water moving, even if it is only a fountain. Historic boats or fishing boats can often provide considerable colour and interest, even though they also may bring associated debris and clutter, therefore there is a need to promote water space planning. An often neglected section of the

community are residential boat owners, which includes owners of historic boats, most of which need someone on board to provide security. An important element in the early days of developing St Katherine's Dock in London was the provision of moorings on reduced rates to the owners of historic boats, and free moorings to boats owned by the Maritime Trust. Regrettably such concessions tend to be taken away when the area takes off financially. Yet activity on the water undoubtedly helps make a place look more liveable. In contrast, the vast empty spaces of some docks can be eerie and off-putting.

Some idea of the problems in realising the potential of an urban waterfront can be gained from the experience of the City of Westminster with the Regents Canal, whose London terminus was originally at Paddington Basin. A joint venture between British Waterways and Trafalgar House secured planning permission for a mixed-use scheme with a high office content around 1990, but fell victim to a property recession, and also ran into objections to the original retail content. Ten years later saw the opening of the Heathrow rapid transit link, and the restoration and development of the station. With more favourable conditions, a comprehensive scheme is now going ahead with a much greater residential content, but with property values having increased apparently to £5 million an acre, judging from the sale of adjoining land.

British Waterways waterspace strategy for the water uses at Paddington Basin, developed through a series of consultations. URBED's initial report proposed making space available for a range of water users, including trip boats, historic boats, trading boats, visiting boats, canoes and anglers, all of whom had separate and sometimes conflicting demands. The strategy also provided for the full range of 'water watchers' including residents, workers, tourists, the elderly and disabled, and children, with lively focal points, green pedestrian routes, and managed moorings. The danger is that the search for ever more valuable private development squeezes out public uses such as these which require a degree of tranquility. The answer is developing locations on the fringes of 'hot spots' or Late night Zones, and ensuring access to the water is always maintained on one side or the other using bridges to generate interest and activity and to mark changes in land or water uses.

Because waterfronts can be attractive places to visit, they also draw operators of pubs and eating places (though not necessarily 'good' restaurants that rely on a regular clientele for their business). Major investments have been made by the national leisure companies, an example being Pitcher and Piano in Newcastle Quayside), as well as some independents. There has been a huge growth in eating out, and many pubs now make their profits from food rather than drink. Waterside locations are particularly popular as family destinations, and the best examples are where the inn has taken responsibility for landscaping and improving the waterside as well as for restoring historic buildings. A notable example is the complex around Snape Maltings in Suffolk, which started with a concert hall, and other schemes include Bridgewater Dock in Somerset, and Castlefield Park Manchester, one of our case studies. Market towns in attractive countryside areas are natural points for developing tourism, and the canal can provide a focus for regeneration efforts. Two good examples in North Yorkshire are Skipton on the Leeds - Liverpool canal, where the environment of the conservation area has been enhanced, and Selby, which has benefited from Single Regeneration Budget funds. In South London Merton Abbey Mills a project

promoted by URBED and Urban Space Management has shown it is possible to create an oasis in what was previously a desert of derelict industrial land by converting old industrial buildings into shops and studios, plus a small theatre, and places to eat and drink, with a craft market at weekends providing the magnet. Finance was provided through a loan from the adjoining Sainsbury Savacentre development. The keys to success there have been intensive site management plus ample car parking.

An important attraction for young people has often been live music. Waterfronts are natural locations for clubs, which can bring their own share of problems if they are too close to residential areas (a problem that arose in the early days of St Katherine's Dock, where the residents of new council housing objected successfully to people drinking outside a highly popular new inn). Hence it is essential to have a development brief and strategy that keeps conflicting uses apart from each other.

A number of schemes have also attracted hotels, though these can be a mixed blessing if the design is mediocre. More can be accomplished when the area is already established, as for example is happening in proposals for linking the Swansea Maritime Quarter with Wind Street, now there is a clear planning brief to show the way. Some of the best examples are independent hotels, such as the pioneering warehouse conversion in Copenhagen, and these have been joined by the Malmaison hotels in Newcastle and Leith Docks in Edinburgh, and by 32 The Calls in Leeds. Birmingham was disappointed that the Hyatt Hotel, which forms the cornerstone of the Convention Centre, did not measure up to the quality of its American forerunners. It is probably only when a hotel group is really competing for a site that quality design can be assured, and it is therefore best not to include a hotel in the initial stages of the development.

Watersides can also involve various type of art uses. The classic example of Sydney Opera House has led to a number of other attempts to create icons for ambitious cities. Because of the space they offer they are also a natural location for new museums and arts centres. In some cases these have formed elements in a mixed-use development, a classic example being the Arnolfini Gallery in Bristol which has based in three separate buildings. In some regeneration projects, such as Salford Quays, they form free-standing attractions. There 'signature architecture' (Libeskin's Imperial War Museum and LOWRY Stirling's Lowry Center) is being used to help regenerate the wider area, with the great names of architecture being commissioned to produce iconic buildings. However, projects do not have to be grandiose to have an impact, as Nottingham Canalside illustrates well, an early place to reuse a canalside building as a pub and museum. Sometimes the initial vision will come from a voluntary group or independent museum, though problems can arise in covering running costs, as the example of Exeter Riverside highlights, where its museum eventually folded.

Commercial

Supermarkets have been a major main user of large waterside sites, particularly in smaller towns. Our survey revealed that by far the fastest schemes to develop were those involving new retailing. Unfortunately some of these projects have done little to help the town centre, and have wasted valuable waterside frontage with car parking. The lesson is that Waterfront is uses need to near a relationship with

the water and encourage public engagement with the waterspace. Where the local authority has produced a planning brief, as in Melksham or Calne in Wiltshire, a better scheme has resulted. Market towns rely on drawing in car-borne customers, so unless the supermarket is closely linked to other shops, and the environment of the centre is upgraded at the same time, the town may well suffer from the diversion of trade. Water alone may not always be enough to put a location on the map. The real magnet is activity. Camden Lock started as a terminus for boat trips, and now, with over 1,000 stalls, is one of London's biggest tourist attractions. Initial activity can include interim uses such markets or car boot sales, or even festivals, though short-sighted development can look very out of place as the area begins to take off. Yet, without that initial activity, it might have been impossible to attract the subsequent investment. Other more sterile uses such as car parking and hoardings can be great generators of cash, and until recently competed in both Manchester and Leeds with the value of sites for housing developments. As it seems commonplace for initial developments to fail appropriate, interim uses are often worth organising to generate a sense of what the area could become. At their best, as in Newcastle Quayside, markets can provide one of the principal community benefits.

However, specialist shopping can be hard to make work and the waterfront draws trade away from the city centre it is not a real benefit. Merton Abbey Mills in South London shows how an oasis can be created in an apparent desert whereas Tobacco Dock in Tower Hamlets failed, even though £70 million was invested. The key is probably having the right management and responding to local markets first by filling a gap, but for every success there are many failures. The best examples, such as the superb complex under the railway at Leeds, complement and reinforce the city centre. In contrast, neither Sheffield nor Coventry Canals Basins has as yet established themselves as venues or 'watering holes', and lack critical mass, though they provide a pleasant relief from their respective cities. Efforts are now underway to ensure these sites are beneficiaries of future regeneration improvement funding.

Watersides are ideal locations for various forms of commercial leisure. Many multiplex cinemas have taken advantage of the large space available for both development and parking, as well as the ambience. However, there is a world of difference between the specialist shopping and visitor attractions of say Baltimore Harbor, or Camden Lock which are a pleasure to walk around, and developments which rely on car-borne visitors, and become dominated by roads or car parks.

Workspace

The final use that needs mention is workspace, which can range from studios for artists and craftsmen to offices for national companies. Again, there seems to be a process in which a new location gradually gets accepted, leading to changing demands for space. The most basic demands are from local small businesses looking for space either to start up or to grow. Often these can make use of existing buildings, but the viability of reuse very much depends on the nature and condition of the buildings, and their location. Many projects have depended on local authorities actively wanting to conserve existing buildings, and taking a proactive approach to planning. In areas of low demand it has also been helped by making grants towards conversion costs, an example being the Weavers Triangle in Burnley. In larger cities, local entrepreneurs have provided the driving force, as with the Design and Innovation Centre, the

first major project at the Calls in Leeds, and local developers have often gone on to promote other major adaptive reuse projects in the area.

There are also examples of innovative and growing businesses acquiring space in waterside areas when the values are still relatively low. Perhaps the most famous is Virgin, which Richard Branson started on a barge on Little Venice on the Paddington Arm of the Regents Canal. The area now has one of the largest concentrations of creative people in London, helped by building conversions such as Bennie Gray's Canalot. Canal-side mills in Lowell, Massachusetts became the headquarters of Digital, the original leader in small companies and in Bradford a computer company now occupies much of Salts Mill on the Leeds Liverpool Canal. Ransome Dock in Wandsworth on the Thames is an excellent example of workspace integrated with a mix of other uses.

Large organisations sometimes take waterside locations for prestige offices, the extreme example being Canary Wharf, however, despite the associated shops or catering establishments, these hardly count as mixed use, as they generate little pedestrian activity. Indeed, some of the examples that have been encouraged through Enterprise Zones and lack of planning controls may better be described as 'Mixed Up Development' (or MUD). More worthy of praise are some of the landscaped business parks that have made use of artificial lakes to enhance their appeal. Significant examples are Stockley Park in West London adjacent to the Grand Union Canal, and the legacy of the Garden Festival in Stoke, next to the Trent and Mersey Canal. However, both of these projects, though next to leisure uses, have not fully integrated the commercial development with the wider leisure opportunities presented by the waterways. A longer-term vision for the regeneration of the waterway corridor north of the festival site is being prepared to build upon the commercial success of the redevelopment of the Garden Festival.

Conclusions

- Local amenities need to play a proactive role in securing genuine mixed use development, and pressure for early results should not undermine the long-term regeneration potential.
- Waterfront housing needs to be distinctive and to make the most of the public realm and waterspace
- Waterfront strategies and masterplans should cater for both water users and water watchers
- Lively leisure uses are an obvious use, but need to be kept away from housing
- Hotels tend to follow not lead
- Art and activities can make areas more distinctive and should have permanent places in larger schemes
- Retailing must reinforce the water/city relationships and not be car dominated
- Workspace can make early use of existing buildings, but care is needed to integrate it with other uses.

Good Urban Design _____ 4

As well as diversity there is a major urban design issue: how to overcome the isolation of many urban watersides, and how to improve the environment and overcome fears for security. This depends first on well-connected places, which can involve new public transport links, and almost certainly a well-designed network of pedestrian routes. The best schemes link the open spaces to form what is effectively a linear park like a string of pearls. However the best schemes also ensure there are bridges and crossings to darn the waterfront into the fabric of the urban centre. To create places of character, that are instantly memorable, experience shows that adaptive reuse of existing buildings, public art (which includes events), maintenance and active stretches of water all play a part.

One of the most difficult challenges is how to turn spaces that seem dead or dangerous into living space where people will feel secure and enjoy the experience. There is a paradox that in some parts of the country local people once fought to get canals filled in (because they were seen as 'dangerous places'), whereas in others they have been fighting to get them reopened! Simply opening up access to the waterside, or tidying up the environment is not enough. If there are not the right uses to generate activity, and hence enough people around to make places safe and comfortable, urban watersides will suffer.

New connections

The extent to which the waterfront comes alive is very much dependent on the quality of the linkages with the surrounding area. Hence the vision and masterplan needs to take in a much wider area than the narrow strip along the water. Much more attention is now being paid to sustainability and to linkages through to town and city centres. This is important as many waterfronts have been cut off from the centre by ring roads and urban motorways (like Aylesbury and Coventry), and sometimes railways as well, as in the case of Leeds, where railway arches have been opened up and cobbles re-laid to improve the links. People will not willingly use underpasses, or elongated bridges. The most exciting schemes reconnect cities with their waterfront, as for example has been done now in Barcelona, Cologne, and Birmingham by either lowering main roads, downgrading them, or bridging over them invisibly as in the Mile End Park. A cost effective solution may sometimes be to provide crossings at grade level, with appropriate changes in surface to signal to drivers that they should watch out. In smaller towns, the waterfront is still unfortunately often separated by derelict land from the town centre, but offers space for much needed housing.

The best schemes are not only distinct places in their own right, but act as extensions of the town or city centre, thus boosting its overall pulling power or attractions. Their success as attractors depends on their accessibility, how easy they are to reach, and the quality of their linkages or connections. As waterside locations start by being isolated, and water presents the ultimate barrier to movement, great urban design skills are required to knit the waterfront into the surrounding urban fabric and to create mental as well as physical access. The extra value created by development can help to justify the initial investment in infrastructure, for example with new pedestrian bridges being used to create confidence as well as easier access. Accessibility can be greatly enhanced if the development is 'put on the map' by new public

transport links, which can take many forms. Waterside development is sometimes used to support the case for new infrastructure. Canary Wharf suffered initially from its isolation, and scepticism about the development potential of the London Docklands led to the interim solution of the Docklands Light Railway, which made use of an existing viaduct. The huge costs of the subsequent public investment in new roads and the Jubilee Underground line, should bring out the importance of taking proper account of accessibility in the initial master planning exercises.

New forms of transport can boost property values. Castlefield Park has benefited from both the investment in the Manchester Tram, which has been a real success, and also from the income from car parking. The area in effect acts as kind of park and ride point for the city centre. However, unless the revenue goes to the organisation promoting regeneration there is a danger of development being blighted. This is because parking can be more lucrative than development. One impact of the extension of the rapid transit out to Salford has been to raise the demand for housing in the Salford Dock scheme. There are a number of places where a network of existing railways has been used to provide better access to the waterside as in Newcastle's Metro, now extended out to Sutherland. Bristol Docks has even used a steam train and the innovative Parry People Mover (which uses kinetic energy and battery power) to add to the attractions and link them together. Resorts like Brighton benefit from the Volks Electric Railway, but so far little use has been made of trams to open up waterfronts (unlike Portland and Seattle on the West Coast of the USA). Water transport can be used to provide an instant improvement, as well as an additional attraction for visitors. The ferry in Bristol Docks came out of a competition to come up with '40 Good Ideas' for the future of Bristol. Camden Lock's success stems in part from its location on the Underground, but also from the potential for walking along the canal towpath or going on a boat trip to the 200 and Little Venice. In larger cities with river ferries zig zagging between banks can sometimes be promoted as part of the city's public transport system.

As good places are discovered and developed, they become more interesting for everyone to visit. Though the individual attractions may get publicity, it is undoubtedly the overall experience that produces the 'positive image' and lasting success (which explains why some of the copycat schemes like Tobacco Dock are not as successful as was predicted). Most people seem to prefer 'real' regeneration with authenticity to an ersatz experience. The quality of the environment that water creates can contribute a positive identity to an area. On the Continent, major waterfront schemes such as the Guggenheim Museum in Bilbao, with effective links to their city centres, have also created positive images for industrial cities, and have played an important role in 'place marketing'. Positive identity is a crucial component for urban renaissance, and several of our case studies are referred to in the report of the Urban Task Force, *Towards an Urban Renaissance*, (DETR 1999). Brindleyplace in Birmingham has been particularly well received, both locally and nationally. New bridges are also valuable in creating a sense of identity as well as improving linkages. The distinctive Pero bridge across the docks in Bristol, the Calatrava designed bridge to cross the Irwell in, Manchester, or the more modest bridge at St Saviours Dock in Bermondsey, may have cost far less than Tower Bridge or the Golden Gate Bridge, but they stand as equally important symbols of the process of urban regeneration. They also help express the 'soul' of the waterfront, through their flowing lines. One of the most valuable aspects of a successful urban waterfront is to extend the public realm, providing

places for all kinds of activity, from quiet contemplation or an assignation to exercise and creative activity of all kinds. Every one of our local authority survey respondents agreed that successful waterfront schemes involved providing public access to the water. Yet the examples in Britain on the whole lag behind those in the USA, where well-assigned public parks and open spaces are seen as an essential element in urban regeneration.

Public Realm

Success also depends on the quality of the public realm or open spaces, and this benefits from people living nearby providing ‘eyes in the street’. A good quality public realm helps to attract private investment. People are unlikely to invest in an area that looks unwelcoming or inaccessible, which is why Bristol’s initial investment in high quality landscaping along the floating Harbour was so important, and why Swansea’s extensive public art programme has been so vital to changing the image of the old docks. Where waterfronts are accessible on foot or by public transport, they also contribute to sustainable development. The added value of views over water comes in part from peace and quiet, and so great care is needed to separate the busy night time areas from the tranquil places. Reading provides a classic example of an urban waterfront, in this case of River Kennet, being used to promote a more continental town centre, the Oracle with its Waterside cafes and bars which in turn is attracting many more people to work and live in the centre. Some insights into what leads to success can be gained from the report *Streets as Living Spaces*, by Environment and Transport Planning, based on 21 case studies in five different countries. Though not relating specifically to waterfronts, in their conclusion ‘What are the lessons?’ they state that ‘A number of features are needed in addition to pedestrianisation. Among many are pedestrian access to water. Nearly all towns have rivers, canals or a lake. If this is not available fountains will help, but they are not as important as the "natural" form of water.’ Their analysis of the most successful places suggests that the practical ingredients include:

- ‘to have space for watching, sitting, doing things
- plenty of chairs, benches and informal possibilities to sit and relax and to watch something (other people, water, even cars)
- to be able to participate in an activity which is already taking place (sitting, standing around, and eating together where other people are already eating)
- looking at something, for instance shop displays, statues, fountains, markets sunshine and protection from the wind.’

Significantly when asked which part of the town people preferred, the answer was either lakes or squares. This suggests that there is a desire for both nature and space in urban areas, which waterfronts can provide, given the right basic plan. The schemes that have been most successful in attracting both investment and visitors have created memorable places. There are a whole range of places of note, particularly in the metropolitan cities, some of which have won awards. In the Urban Design Group’s *Good Places Guide*, no less than 40 out of a possible 150 suggested schemes involve waterfronts. These include St Katherine’s Dock, Camden Lock and Stockley Park in London, Brindleyplace in Birmingham, Lincoln Waterside, and the Quay in Exeter. They also picked several of our case studies, including St

Augustine's Reach in Bristol, and Castlefield Park in Manchester.

Whereas the British waterfronts are now producing some good 'winning waterfronts', many towns suffer from the tendency to treat urban waterfronts in isolation. It is intriguing that in the USA, which has built its economy and culture on the principles of private enterprise, there has been a far greater advocacy of the value of urban parks and landscaping, both in books and in completed projects. The size and success of American landscape architecture practices compared with their much smaller British equivalents are living proof of this. These in part reflect the realisation of both public authorities and private investors that it is the quality of the spaces, and the linkages to the centre rather than the buildings themselves, that draw the customers and make developments vital and viable. This has begun to be learnt in the UK through the use of design guidance such as English Partnerships '*Time for Design*'. Where co-ordinated efforts are put into upgrading the landscape, as for example with some of Groundwork's projects with British Waterways along the Regents Canal in London or the Mersey Basin campaign, it becomes easier to attract public funds, and to promote private investment.

However there are huge differences around the country in the market and in the way the space is designed. Thus a major city like Birmingham or Newcastle has enough young people who want to meet each other to ensure that the waterfront comes alive at night, particularly on weekends. A similar potential could be predicted in Leeds or Sheffield, but there is not yet a critical mass of attractions on the circulation routes to make them 'honeypots' or oases. Even Swansea, which is exemplary on many counts, did not draw enough visitors to its Maritime Quarter to support the initial range of attractions on offer, though this should change now that a café quarter links the different parts of the Old Town together. In smaller cities, the potential would seem much less, and yet Exeter, Cambridge and Guildford, for example, have all created living waterfronts as a result of well-designed public spaces and linkages. Their success shows the importance of treating the waterfront as part of the city centre, and of ensuring that there are enough crossing points and 'watering holes' to encourage promenading. It is also vital to separate the area where people live from the areas people are likely to make noise at night. Again Brindleyplace does this very well with Symphony Court being on the appropriate bank to the walkway.

Linear Parks

There are far fewer British examples of new parks and waterside open spaces than in the USA, but notable exceptions are the Lea Valley Regional Park, the exciting Millennium Park at Mile End on London's Regents Canal, and Nene Park in Peterborough, which formed the spine of the Development Corporation's Strategy for the New Town. The essence of a park is an extensive public space that is well looked after. One of the ways of changing an area's image, and hence boosting confidence, is to implement a series of improvement projects along a corridor such as a river valley or transport route. Strategies for waterways like the Leeds and Liverpool Canal or Coventry Canals have encouraged local authorities to promote projects at nodes along them, packaging funds from whatever sources of grants are available. The success of such schemes are the result of many years of effort by many different people.

Walkability is just as important. The success of the London Eye and the other attractions along South

Bank riverside walkway show how it is possible to transform a whole area by opening it up to people on foot (see Coin Street case study). However people reach a waterfront (and many will inevitably come by car, particularly for leisure purposes), the critical issue is how easy and pleasant it is to walk around. Where the waterside forms part of a pedestrian network, as in Birmingham or Exeter, a whole new 'circuit' has been created. Young people in Newcastle 'promenade' along the Quayside at night and up to Grainger Town or over the Millennium Bridge. A crucial task for urban planning is to 'mend the holes' in the urban fabric, and this is where the skills of the urban designer need to have precedence over those of the highway engineer. This means reinforcing natural 'desire lines', and using development to recreate streets and squares. Rather than relying on grand sounding concepts such as new urban boulevards or piazzas, the secret is often to reconnect forgotten links through carefully located housing. An interesting example is the pedestrian suspension bridge in Exeter Riverside, whose cost was largely covered by the sale of Council-owned land for housing development, which enabled car parking to be moved away from the historic Quayside.

Public art

Public art has an important role to play in creating the feeling of a linear park or special quarter. Where it has been applied on a large enough scale, as in Swansea for example, where a 'Percent for Art' policy resulted in over a hundred pieces it not only changes the image of an area, but also transforms otherwise undistinguished or inexpensive architecture. Indeed there is magic about Swansea that has been brought out by extraordinary projects like the Observatory and evocative panels on buildings. Similarly in St Peters Riverside, Sunderland, public art has been used to create a permanent and subtle reminder of the lost shipyards, with full-scale stone replicas of derelict homes and their contents, while some brilliant examples of stained glass utilise one of the local industries. Perhaps even more heartening there has been the contribution of local schools. Fountains and special lighting can all help to create a sense of magic and reinforce local identity and character. Public art does not have to cost the earth, as investment in high quality landscape design can allow the use of less expensive materials.

Great care is needed to create places that do not seem desolate when no one is around. Sculpture, seats and trees and lights show that someone cares and is looking after the place, and are treated as signs of confidence. Like scenery in a theatre, street furniture should convey a sense of somewhere special and there are a number of published guides for example, by British Waterways. Conversely broken surfaces, litter, and shoddy buildings can destroy the illusion far faster than it is ever created. The contrasts are particularly noticeable in the places where Development Corporations have been active, and where landscaped riverside walkways give out at the point where the City Council takes over, as unfortunately has also been the case in Sunderland.

Just as important as the permanent works of art and landscaping are temporary events. Spaces will not be used if no one knows they are there. Festivals and events can also change people's idea of an area. Surprisingly few of the survey respondents thought of these as important (perhaps because they were physical planners), yet all the best case studies have made frequent use of festivals to generate excitement and build confidence. This can be done even before any development has taken place, as for

example happened in Paddington Basin and Limehouse House Basin, using a theatre group that had done something similar in Bristol Docks. There can be artistic performances, including music and dance, or events such as the start of the Tall Ships race from Newcastle, or the inland waterways festivals that have been used to good effect in many places. By creating quality public places as part of waterside schemes, a memory can be created that will outlive all the times when the weather puts people off and urban quality may come simply from the enchantment of being alone, listening to the sounds that water makes. Whether it be Tall Ships, or wine as in Bristol, or music and boats, as in Gloucester Docks, normally reserved British people will come out in mass, and have a good time, given the opportunity.

Good urban places

One of the most important aspects of an urban waterfront is to extend the public realm, providing places for all kinds of activity, from quiet contemplation or an assignation to exercise and creative activity of all kinds. The examples in Britain on the whole lag behind those in the USA, where the idea of new public parks and open spaces is regarded as an essential element in urban regeneration. However there are a whole range of places of note, particularly in London and the metropolitan cities, some of which have won awards or have been cited in the Urban Design Group's *Good Places Guide*. Indeed no less than 40 out of a possible 150 suggested schemes involve waterfronts to some extent.

Urban waterfronts have been playing a major role in urban regeneration, as can be seen from the winning entries in a number of award schemes. BURA (the British Urban Regeneration Association) has given 38 'best practice' awards in the period 1992 to 1998, of which over a quarter involve waterfronts. These included a number of new quarters, such as Gloucester Docks and Swansea Maritime Quarter (both in 1992), and the Albert Dock in Liverpool, or the International Convention Centre in Birmingham. There have only been two linear park winners, Castlefield Canal Basin in Manchester and the mile long Saltaire-Shipley corridor, on the Leeds Liverpool Canal. Saltaire, known for its model village, is particularly interesting because it included the renovation of the New Mill into 143 private residential apartments and the headquarters for the local health authority, a pioneering development for Bradford. This is the classic mixed use project in which the waterside has helped to create an attractive environment which is now enjoyed by both the local community and visitors.

A number of other projects such as Atlantic Wharf, Cardiff or Pembroke Street Plymouth are located near waterfronts, but the water has been incidental rather than key to regeneration, and do not really involve a mix of uses. There have been two relevant Scottish winners, the Irvine Harbourside Initiative in Ayrshire and New Lanark which have involved much smaller places, the latter renovation of Robert Owen's industrial landmark now drawing 400,000 visitors a year. However on the whole award winners have tended to be in the larger cities and have depended on substantial injections of public funds. This could be simply a reflection of who chooses to submit awards, but could also indicate that the smaller opportunities have tended so far to be ignored.

Equally important as the schemes that win awards or professional commendations are the many minor schemes that enhance the quality of life in urban areas. A good example is the restoration of the towpath

along the Regents Canal in North London, which now forms part of a major cross borough partnership led by Groundwork in association with British Waterways, and which won a major Single Regeneration Budget award. What matters is not so much the quality of individual places, though there are some highpoints such as Cumberland Basin in Regents Park, Little Venice, or the stretch of moorings by the tunnel in Islington. Rather it is the experience of being able to escape so easily from the traffic, and journey along a timeless and natural world. From this perspective, the buildings simply provide a backdrop to a free and unquantifiable ways of passing time.

What makes a place successful, and in particular how can urban areas make the most of their waterfronts, which range from old docks and river basins, to canals and lakes? In particular, given the differences between places in terms of size and location, what processes lead to developments that are truly sustainable, and hence will be valued for years to come? The answers come from looking at places that have come back to life, as well as those that enjoy continuing popularity, both as places to live or work, but also as attractions for both visitors and the local community alike. Here are some suggestions from URBEDs' ongoing research:

Principles for a successful Waterfront

Spirit of place: the idea of *genus loci* is an old one, but is still relevant to the places that work best. The best waterfronts, from Bristol to Baltimore:

- Look unique
- Provide a continuous and cared for public realm
- Interprets and respects the past, while avoiding pastiche

Integration with the surrounding area: good urban design means stitching areas into the wider context. The best waterfronts:

- Are a short pleasant walk from the rest of the town or city
- Offer attractions for all parts of the community
- Respect the area's history and architectural heritage

Resourcefulness: good development responds to demand, and makes the most of existing assets. The best waterfronts:

- Make full use of the water for both pleasure and work
- Attract uses that get extra value from the views, security and tranquillity that water provides
- Protects and improves the water quality, and with it natural life.

Conclusion

- Good connections are vital, including direct linkages with the rest of the urban center
- The quality and design of the Waterfront itself should be an integral consideration in granting planning permission

- The aim should be to create living places, which means avoiding conflict between residential areas and the 'evening economy', and generating enough footfall to keep places feeling safe
- Linear parks can be a useful concept when boosting confidence and promoting a linked series of improvements
- Designers should aim to create somewhere distinctive while improving the social, cultural, intellectual and physical access to the Waterfront
- Public art and public events help to express the special nature of waterways

Principles for Waterfront Renaissance _____ 5

The main lessons from urban regeneration is that ‘winning schemes’, the ones that attract most praise and are most frequently visited, are successful in economic and social as well as physical terms. This is as much about process as the product. Regeneration requires a more holistic approach than has often been adopted, and typically takes a regeneration or over 20 years. It involves a common set of principles: discovering the potential; providing the initial impetus; engaging the community; promoting adaptive reuse; starting small; involving developers at the right time; attracting settlers; evaluating the outcomes and celebrating success. The principles can be applied through the four stages of developing an imaginative vision, a phased strategy, orchestration of investment and maintenance of momentum. There are checklists of ten steps under each stage.

Some waterfronts have always drawn visitors, examples being Amsterdam, Hamburg and Venice. These used impressive buildings to attract trade, and have appealed to tourists throughout the centuries. But most other cities, including London, relocated their ‘merchant palaces’ away from the increasingly smelly river, and restricted access in order to make the area more secure for commerce and warehousing. The most visited international regeneration ‘success stories’ now include Seattle, San Francisco, Baltimore and Boston in the USA, as well as Darling Harbour in Sydney, and Barcelona and Bilbao in Europe, all of which have taken a holistic approach, through partnerships between the local authority and a range of private organisations.

The real issues thrown up by this review of the state of waterfront development in the UK, we believe, are how successful development respects and builds on its historic and geographic context in ways that continually open up fresh opportunities and respond to local needs. The best of what might be called the ‘winning’ waterfronts are continually in a state of improvement through plans that are flexible over what goes where. The best schemes integrate or link the existing town or city centre with the new waterfront, thus combining the heart and soul of the city in one walkable set of places and spaces. As a result the ‘winners’ tend to be alive most of the time, whereas the ‘losers’ look forlorn, for lack of people.

The successful models need to be seen as a process for managing change rather than a product to be copied. In the early days of Docklands, the Development Corporation copied the red pavements used in Baltimore, rather than the underlying process of community engagement. Local authorities and developers should not try to commission replicas, as a unique identity distinguishes the ‘winners’ from the ‘losers’. Nor should reliance be placed on a single developer to produce a turn-around as renaissance depends as much on how the area is managed and promoted as it does on physical development. Most areas will benefit from having a number of driving forces or champions. Furthermore, while waterfronts will change from what is originally planned, their investment and environmental value will endure provided the elements are properly linked to the rest of the town or city centre through a masterplan of strategic framework. Hence elements of the process can be emulated, even if the products need to be tailored to local circumstances.

In recent years many local authorities in the UK have also woken up to the potential for regeneration, and their 'vision' has broadened to take in social and economic as well as physical concerns. But with largely unquantifiable benefits, and competing demands for limited resources, it can be difficult to justify getting involved, which is why it is important to learn from the experience of what has already worked elsewhere. A number of important lessons for the management of regeneration can be drawn from our case studies, and also from the fifty other examples from our survey in terms of what has worked and what has not. These have been turned into check-lists which should help in assessing proposals and drawing up schemes. Both the points in the check-lists, and the selection of the case studies themselves have been influenced by the results of a series of conferences, including those run by The Waterfront Center in Washington, which led to the production of a Manifesto. Here the lessons have been organised around the four stages in managing an urban renaissance that emerged from URBED's research report *Living Places: Urban Renaissance in the South East*, which are an imaginative vision, a phased strategy, orchestration of investment, and maintenance of momentum.

Out of many possible case studies (see Appendix B) we picked six significant places where a major transformation had taken place, and which are in general thought of as successful places now, reflected for example in terms of awards and press coverage. We selected a range of situations, including canal, river and dock based schemes, with smaller as well as metropolitan cities. The case studies are from Birmingham's Brindleyplace, Manchester's Castlefield Park and Bridgewater, Bristol's Floating Harbour, London's Southbank and Coin Street, Newcastle's Quayside and Lincoln's waterfront. In each case we focused on how the renaissance had been brought about.

Vision

The case studies highlight the importance of the process for promoting and managing regeneration. The starting point for any successful regeneration scheme is an imaginative vision that can excite people to drop their differences. American experience suggests that the best schemes often follow a pattern of neglect followed by citizen protest over demolition, and certainly a similar process applied to several British case studies such as Coin Street and Bristol. The resulting controversy leads to the creation of public private partnerships which then commission master plans, and where necessary assemble sites. The key ingredient is positive planning, which needs to be done at a strategic level to take account of the wider and longer-term interests of the surrounding area. A multi-disciplinary approach that engages all the stakeholders is vital. Organisations such as the Regional Development Agencies and English Partnerships can provide leadership by identifying suitable sites for development as part of strategies for water corridors or major regeneration programmes, for example Millennium Villages. Action planning techniques can generate fresh visions that will enjoy community support, and funding from national and regional agencies can add value to local initiatives.

The starting point for successful projects is literally seeing strengths and opportunities that others have missed, what is often called a 'shared vision'. Once a few pioneers, often artists, have begun to see the potential, using sites for example for public events, it gradually became easier to adopt a new shared vision of what their role might be. It is no coincidence that many award winning projects feature waterfronts being used for public celebrations. Bristol's success in attracting Lottery funding for its

Harbourside scheme, which came from some imaginative partnerships, in turn was helped by the experience gained in the early arts projects. Conversely its problems in implementing the commercial parts of the scheme have in part stemmed from differences in views on how the new scheme should fit into the wider context, such as preserving views from the Cathedral.

New sources of public funds would not be going into waterfront projects without proactive planning. A very different form is now being undertaken as public property owners like British Waterways and development agencies like English Partnerships recognise the importance of development strategies, planning briefs, and environmental impact studies. Indeed, British Waterways design and planning staff has grown from 10 to 40, with much of their work being for or with local authorities and strategic agencies. The old days of relying on private developers to make the running has been replaced by an enthusiasm for partnerships. Developers are increasingly involved in consortia, rather than trying to do everything themselves. Action planning events can help provide ideas and inspiration, and set an agenda for subsequent work, as for example in the unpromising circumstances of Erith, in the Thames Gateway corridor.

Management checklist

1. Has a proper analysis been undertaken of the area's strengths, weaknesses, opportunities and threats?
2. Were the main stakeholders and communities involved in developing ideas for the site(s)?
3. Have examples and models from elsewhere been fully used?
4. Has there been adequate consultations on proposals?
5. Is there an agreed and published master plan and site briefs?
6. Do the proposals generally have popular support?
7. Will good use be made of the water areas?
8. Will the proposals be financially viable?
9. Is the scheme likely to be sustainable over time without harming the environment?
10. Does the scheme help to strengthen the rest of the town or city?

Phased strategy

Where sites are blighted by contamination, lack of access, and non-conforming uses, such as scrapyards, in Lincoln and the centre of Newark, major public investment is required before the potential can be realised, and a public private partnership of some kind will be essential. The developers of Brindley Place give a great weight to the effect of good architecture and public spaces on creating a sense of place, and in turn attracting further investment. Funding for this needs to come from new forms of partnership, and there is a role for the Regional Development Agencies and English Partnerships to use their Compulsory Purchase Powers and then to benefit from longer term increases in site values.

Case studies of the most acclaimed projects show that regeneration, like growing a garden, takes time, and involves small-scale pilot projects as well as the flagship projects that make the headlines. Waterfront schemes often have to ride several property booms and bust. Different uses normally establish themselves in a kind of ecological succession. This means strategic rather than fixed end use plans as, for example, adopted for Bristol Docks are far more robust. Starting small is a good general principle, exemplified by the

achievements of Coin Street and Bristol Docks in particular

The easiest and most fundamental way of making a place distinctive is to conserve and reuse its existing buildings, and all of the case studies included some exciting examples of adaptive reuse. These do not have to be works of architectural beauty, and indeed one of the reasons why Bristol scored so highly in our assessment was the way they had reused so many simple buildings, like transit sheds, that others had knocked down. The Arnolfini has occupied no less than three different buildings. Art Space has similarly gone through several guises before attracting the funds to develop one of the old tobacco warehouses. The original use of the inland waterways as both a source of power and also transport of heavy goods means that Britain has a unique heritage of industrial archaeology. There are hundreds of redundant textile mills, and warehouses that once depended on water for transport. There is now a huge body of experience to tap, for example through the Regeneration Through Heritage website, and many of the most interesting projects described in *Industrial Buildings*, form part of urban waterfronts. Some of the projects have benefited from the restoration of the canal to operational use, as with the Kennet and Avon, which has added to the area's tourist attractions, or Sowerby Bridge in West Yorkshire, where the canals crossing the Pennines have been relinked. But other successful reuse and regeneration projects have been achieved even where the canal no longer connects up, as in the Stroud Valleys. This suggests that the magic of water does not have to include restoration to operational use.

Once the environment has been made safe and inviting, a wider range of uses are possible. As the image of a waterfront changes, so its potential for housing grows. In cities like Manchester or Bristol, there are now exciting conversions of historic industrial buildings, as well as new apartment blocks, both of which draw their value from views overlooking water, and the possibility of being able to walk or cycle to work. As the working day has not reduced, many people without families have seen the attraction of cutting back on travel time, and taking advantage of the richer social life that a city centre can offer. While this applies most in major cities that act as service centres to the wider region, successful projects have taken place in the most unlikely situations, such as St Peters Riverside in Sunderland on an old shipyard, or Swansea Maritime Quarter, where the Dock had previously begun to be filled in. Both of these projects owe some of their appeal to the imaginative use of public art, and the creation of marinas.

Management checklist

1. Is there a phased strategy for the waterfront that can be implemented incrementally?
2. Does it start by improving the environment and removing dereliction?
3. Are the proposed uses and buildings well integrated and connected with the surrounding area?
4. Are there pilot projects to build confidence?
5. Are there flagship projects that make the most of the opportunities?
6. Will there be the right mix of uses to create somewhere that is appealing and feels safe at all times?
7. Will there be a linked series of places to encourage people to walk or cycle around?
8. Will the completed development feel distinctive, with some good architecture and public art?
9. Has good use been made of existing buildings and structures?
10. Are there any uses that are unusual and make the most of the available sites?

Orchestration of investment

Even where a huge investment has been made in locating new cultural facilities on the waterfront, it is easy for the waterfront to be seen simply as a backdrop to luxury housing rather than as an integral part of the city belonging to its community. Overbearing blank walls with few public entrances next to equally inaccessible private apartment blocks or hotels end up creating sterile public places and refuges for rough-sleepers. The case studies demonstrate the value of a co-ordinated programme to improve the public realm, and achieve quality buildings. Examples in smaller towns such as Sowerby Bridge Riverside or Rochester show the value of a public body, such as the local authority, helping to assemble site and pump prime the regeneration process, and the danger of expecting a private developer to take on the whole job. Public leadership is crucial where development values are low and the private sector is wary of the risks involved. Occasionally it will be possible to pool ownership's, as in Bristol Harbourside, but usually it will be better to buy the existing owners out, when they lack the vision and capacity to bring about a renaissance. The renaissance of London's South Bank shows that it is possible to reconcile private investment and public benefits, for example through providing free access to the viewing platform on top of the Oxo Tower, or creating new gardens that benefit both the general public and the new property occupiers. Examples such as Swansea Maritime Quarter show the value of investing in quality design, and of a public agency, such as the local authority, taking responsibility for the design and maintenance of the public realm. Development briefs, which usually cover the preferred uses and densities, need to go further in setting out guidelines for urban design and water uses.

New forms of partnership and funding are needed to mobilise resources. The availability of 'challenge' funding, for example through the Single Regeneration Budget and the Lottery funds, has encouraged alliances of public sector bodies to come together, where previously they might have squabbled or waited for a private developer to take the initiative. A major example is the Cross River Partnership that links the City of London with Southwark across the Thames to develop opportunities around the Port of London. British Waterways, which has over 2,000 miles of canals running through nearly 200 different district councils, is promoting a new charitable trust to assist with fundraising and grants. In *Our Plan for the Future 2000-2004*, the 'third party funding', which started to climb in 1997/98, is predicted to accelerate, far outstripping grants and earned income. In London, a Single Regeneration Budget grant of £10 million is enabling British Waterways to collaborate with some 16 different authorities to promote improvements to urban waterfronts.

Management checklist

1. Were adequate funds provided for initial planning studies?
2. Is all the necessary land available to implement the strategy?
3. Is there a body, such as a partnership, committed to making the vision happen?
4. Is funding available for remedying contamination?
5. Is funding available for improving the environment?
6. Are there good interim uses for land that will not be developed for a while?
7. Has an appropriate developer(s) been found for key elements?
8. Is the scheme designed to attract private investment, for example by encouraging people to live in the area once it improves?

9. Will funding be committed to long-term maintenance and promotion?
10. Does the scheme represent a good overall return for the public funds invested?

Maintenance of Momentum

As many of the sites in industrial areas involve high development risks, due to contamination, fragmented ownership, uncertain demand, and blight, it becomes essential to find ways of looking after the public spaces. London Development trusts may also offer a contribution to the management of public space, as in Coin Street. In Bristol income from car parking is being used to fund ongoing maintenance. Problems with vandalism and anti-social activities may require positive measures that provide opportunities for young people to let off steam. The conflicting needs of the different users all have to be planned for, and carefully managed and maintained. The example of Chatham Maritime is particularly interesting, as it shows how a trust can be set up with contributions from all the main property owners to secure the ongoing maintenance of the public realm, and also the promotion of the whole area. This incidentally has been one of English Partnerships flagship projects.

While almost all of the successful projects could be described as partnerships, they usually owe their distinctive quality to the work of an individual, inspired by the possibilities or angered by the waste. This has led to the idea that towns need champions to make the most of their opportunities (see *Town Champions*, RIBA). Thus Calne, which is particularly significant for the quality of the new housing around new open space overlooking water, owes the development in part to the appointment of an architect as 'town champion' following the closure of the old bacon factories.

Community action is often important in providing the impetus - local activists who were concerned to protect their heritage, and who may have seen what has been done elsewhere. Once there is a shared vision, to which the main stakeholders are committed, progress becomes much easier. While Castlefield Park in Manchester is the classic success story, there are also examples in much smaller places, such as The Stroud Valleys Project, which was set up to implement the Stroud Mills Strategy, and smaller towns can often tap the efforts of enthusiastic volunteers to be tapped, with Ruskin Mill providing a particularly notable example of regeneration

As an area becomes better known, and its attractions grow, commercial developers get in on the act. This may mean relaunching a project or a building that has failed. The Birmingham case study shows how it took the failure of the original commercial scheme to produce the success of Brindley Place, after the Convention Centre proved itself as an attraction. Timing, not location, is all. An interesting example of the importance of timing is provided by the adaptive reuse of the old Power Plant on the waterfront in Baltimore which had stood empty for eight years, after failing as a theme park. This became immensely successful after a developer acquired it from the city, and turned it into a sports bar and entertainment area, a huge bookshop, a Hard Rock Cafe, and the regional offices and conference centre for the accountants Arthur Anderson. This interesting mix was only viable because the rest of the waterfront had come back to life.

Finally emerging is recognition both that regeneration is a long-term process - perhaps taking 20 years - and one that cannot be judged by simple physical outputs or land values alone. The change is most obvious in the USA, where waterfront revival is part of a much larger effort to transform attitudes to

what had been seen as declining city centres. It will take time for the simplistic ideas of 'leverage', imported from the USA, to be replaced by more sophisticated forms of project appraisal. However, the huge public costs imposed by grand private projects such as Canary Wharf compared to more organic schemes such as London's South Bank, should bring home the lesson that successful waterfront grow incrementally but within a plan, and they are integrated with the waterfront, rather than turning their back on it. They add attractions over time, but first make the most of existing resources, including working piers and the adaptive reuse of historic structures. They are essentially entrepreneurial and creative. Thus they tend to use public art extensively to help interpret and enhance the past. They treat the waterfront like a stage, with a programme of events and festivals, while retaining places for quiet contemplation.

Management checklist

1. Is there a properly resourced body responsible for the area's management and promotion?
2. Do visitors feel safe and welcome at all times?
3. Are the public spaces kept in good condition?
4. Is there a programme of public events?
5. Are facilities provided that meet the needs of the local community
6. Is the place popular with both local people and visitors?
7. Are the buildings well-occupied and in demand?
8. Are additional attractions and improvements planned or taking place?
9. Is the water used intensively and without conflicts?
10. Have lessons from the scheme been learned and made available to others?

Conclusion

The examples and case studies have shown the need to evaluate success over a longer period and a wider range of objectives than has typically been the case to date. There is no single measure, and instead periodic environmental audits and health checks are required. As the projects are often benefiting from significant public funds, and are of wider public interest, it would be valuable to make this process much more public too. One way is to set up a new awards scheme for urban waterfront projects. The checklists should provide the basic framework for submitting entries and evaluating them. The results could then be published, preferably on an Internet web site as well as in a printed form, to make the process of learning from experience much easier. The process of evaluation should also be linked to publicity events. Indeed one of the most important lessons to emerge from successful US projects is the idea of 'celebrating a victory every six months'.

Case Studies Appendix A

Birmingham's Brindley Place

The transformation of the centre of Birmingham provides an inspiration for how an industrial city can change its image, and create new attractions for visitors and residents alike by making the most of its waterfront, and its links with the rest of the centre. In the 1980s Birmingham City centre had a poor image and a doubtful future, yet 20 years later, Brindley Place and Gas Street Basin count as one of the largest waterside schemes in Britain, and are of a quality that matches international standards. A whole new central area has been created, in what had been a largely derelict industrial area, with some 3,000 new jobs. The development has undoubtedly helped transform the city's image. Thus it has much wider benefits than a crude comparison of the overall costs and the jobs created would suggest (£218 million for the commercial development would give a cost per job of roughly £70,000).

The starting point was the restoration of the canal towpaths along with new signing. These helped make people aware of the surprising fact that Birmingham has more miles of canal than Venice they provided some quiet walkways in the busy centre. Regeneration took off in quite a low-key way as one of British Waterways' flagship projects in 1985 with the development of a pub/restaurant and new offices at Gas Street Basin, which also provides some attractive moorings. The scheme initially served an essentially local market, and was not very visible, but it did show what was possible. The City Council then declared a Comprehensive Redevelopment Area covering some 15 hectares, and assembled most of the site.

Drawing on the success of the National Exhibition Centre, the Council promoted the idea of the International Convention Centre, and related Hyatt Hotel, which was built 3-5 years later, along with the huge National Indoor Arena. As a result of their flagship projects, the area began to attract visitors from all over the country. One of the keys to success was a new concern for urban quality, reflected in the downgrading of the Inner Ring Road, and the creation of an extensive public realm, with an abundance of public art. This came out of the 1988 Highbury Initiative symposium, which drew together experts from all over the world. It led on to a series of urban design studies for different quarters and elements of the vision.

Though the original idea for a Festival Marketplace collapsed when the developers went bankrupt, the scheme was redesigned and built by a small company in 1993, now Argent plc, which is owned by the Post Office Pension Fund. One of their first actions was to implement the proposals for the public realm in advance of having investors lined up for the main buildings. Brindley Place has become a great success, and opened up activity on both sides of the canal. The final phases included massive office buildings for British Telecom and Lloyds Bank. Prestigious new waterfront housing at Symphony Court had good views, and was secure as the towpath ran along the other side.

The waterside acted as a catalyst for the regeneration of the wider city centre in four main ways. First, the initial leisure element was critical to creating a sense of place, or putting the area 'on the map'; Gas Street Basin, though dwarfed by what followed, was developed in advance of all the other grand projects and showed the potential. Second, the canal enabled pedestrian links to be made with other parts of the city, thus

creating a mass of activity that would otherwise have been severed by busy roads. As a result Convention Centre is not just busy when events are on, but has become part of a whole new entertainment quarter, which hums with life in the evening. Third, the waterside provided a focus for the efforts of Birmingham City Council in improving the city centre's overall quality, for example through providing urban design briefs that ensured a much higher standard of architecture. The quality of the environment has in turn helped to attract office occupiers into the city centre who might otherwise have gone outside. Finally, the scheme provided the confidence needed to build high quality housing at Symphony Court, thus in turn triggering off the development of a lot more housing as part of a planned 'urban villages.' Without the waterfront taking off, it is hard to see the centre ever having become fashionable as a place to live.

Manchester's Castlefield Park and Bridgewater

Manchester provides a good example of a provincial city that has succeeded in attracting people back to live in its centre as a result of making the most of its canals, but in this case through the innovative concept of promoting them as a 'heritage park'. Over 20 years Castlefield Park, to the north west of Manchester city centre, has been incrementally developed into a thriving mixed-use urban waterfront quarter, from what was once a no-go area, initially using new leisure attractions as the catalyst. Castlefield stands at the convergence of a network of the Rochdale, and Bridgewater canals and the river Medlock that bisect the city centre, Cheshire Ring and also several distinctive rail viaducts that add a sense of drama to a tranquil area, and has been promoted as an Urban Heritage Park. The dereliction and blight of industrial decline had masked the potential of the area and the historic origins of the city. The location of the Roman settlement, world's first passenger rail station and numerous canals and warehouses gave the area a unique heritage which had become abandoned by the 1970s.

Pioneering projects to refurbish warehouses as business centres were led by a local bookmaker turned developer. Successive regeneration efforts were boosted by the Central Manchester Development Corporation who promoted the Urban Heritage Park. This is now a top visitor attraction in the North West and a key part of the revitalisation of the city centre. An arena and amphitheatre seating framed by canals and striking rail bridges act as an important focus for open-air festivals and performance. Initial developments erred on the side of conservation and historic appropriateness, but more recent additions, including Barca and Quay Bar have adopted contemporary modernism, which contrasts well with the worn red brick of the old buildings. Programmed events throughout the year attract throngs of crowds that spill out across Castlefield to the numerous bars and restaurants. The area's numerous bars and restaurants have reclaimed railway arches, canal buildings and wharves bringing a derelict area back to life. The Castlefield Arena also hosts free events throughout the year. Neighbouring sites are enjoying renewed interest due to their proximity to this booming area. The development of Knott Mill canal basin for residential apartments, which will have giant 'lily pad' planters, and the major Britannia Mills residential scheme by Urban Splash demonstrates the ripple effect of waterside regeneration. In effect Castlefield has become an urban playground for grown-ups, but retains its character as an authentic urban district with further development potential. The City Council is continuing the process, aided by an area management organisation based on the model of an American Business Improvement Districts.

The waterfront has contributed to the success of a number of projects that have given Manchester's city centre a new lease of life. Bridgewater Bank and Bridgewater South, are two linked residential developments straddling the Rochdale Canal, situated within central Manchester, in close proximity to the Bridgewater Hall, home of the Halle Opera. The schemes are contemporary in appearance yet respond well to surrounding building and the character of the streets, gaps in the street scene being successfully plugged. Provision of a new footbridge over the canal, hard landscaped public space and public house have helped make the most of the waterway. Residents are able to make use of the canal path to traverse the city in double-quick time to Castlefield and Canal Street, popular canalside bar areas. A major new cultural facility for Manchester, the Bridgewater Concert Hall has also been integrated into the physical fabric of the city through the re-instatement of a spur from the Rochdale canal to one side of the building. The massive angular form of the Bridgewater Hall, and a cascade of steps lead the pedestrian from

street level to a small public space and waterside bars. As the waterside is at a lower level from the street, traffic noise and other distractions are absent, providing an oasis of calm in close proximity to a city tramline and highway. The Bridgewater Hall façade presents a striking backdrop from the waterside, which is particularly dramatic at night when the Hall is illuminated and concert-goers are circulating through the building. The introduction of the canal spur to the heart of the Bridgewater Hall development has provided a special focus and character to the scheme, and the change in level creates a secluded but also hidden waterside space that appears to be for exclusive use which is actually not the case.

Another innovative feature of Manchester's waterfront is Canal Street, which has witnessed a remarkably rapid and profound transformation from what was a marginal city centre street to the focus of the evening economy and mecca for the gay community, known as 'the village'. The area's character comes from the Victorian warehouses and the restored Rochdale Canal that runs through the street in a deep cutting. Despite its apparent charms today up until the early 1990s Canal Street was in decline, twilight businesses had taken hold. The transformation of the area has been a multi agency process, involving Central Manchester Development Corporation, City Council and Police. However the catalyst to the revival of Canal Street has been a single bar of contemporary design and bold vision. Manto kickstarted and brought street life back to Manchester. The glazed facade, 1st floor balcony and pavement seating links the bar to both the street and canal side. The formula has been reworked numerous times since, creating a formidable array of bars, clubs, restaurants, and cafes. The Rochdale Canal distinguishes the area from other parts of the city that have not taken off with the same momentum. Against a backdrop of decline, a new city district has emerged from unlikely circumstances. The revival of the Canal and street itself gave the area the necessary uplift to assist in sustained property development most notably the relocation and conversion of the Shena Simon College building for loft apartments. Manchester clearly shows how leisure development and entrepreneurial developers can lead other forms of investment, and the benefits that can come from a public development agency overseeing the process. It is one of the few examples of setting up a management company to maintain and promote a mixed use area. It is also provides good examples of the adaptive reuse of old buildings.

Bristol's Floating Harbour

Bristol floating Harbour has been progressively turned around from a redundant dock into a vibrant mixed use, cultural destination in the heart of Bristol city centre, with the local authority playing a leading role, but largely behind the scene. The Harbourside transformation began over twenty years ago. After the last war, the docks were blighted by road proposals, but during the early 1970s Bristol City Council recognised the potential in bringing Brunel's Floating Harbour back to life through sensitive landscaping works. This first stage was to find appropriate uses to regenerate the docks, increase market confidence and mobilise investment. This happened in 1978 with the adoption of the Dock's Local Plan. Soon after the local authority produced detailed development briefs for early release sites. Following the successful marketing of sites in private ownership, the dock's image began to change. A handful of properties around the quay began to be renovated by individual local developers, including an arts centre, the Arnolfini, which has been in three separate buildings. The Council helped the process by converting listed Victorian warehouses into the Watershed Media Centre through a trust. The imaginative adaptive reuse of buildings around the dock was the key to the area's take-off. Not only are the uses complementary and make the dock vibrant for the greatest part of the day but the sense of place establishes the waterfront as the place to visit. The harbourside's traditional role and identity has been maintained through the Bristol Industrial Museum in an old warehouse and Brunel's SS Great Britain, which has been restored in its original boat yard. One of the warehouses has been turned into the city's Architecture Centre, while the other end at Cumberland Basin, a former tobacco warehouse is now an environmental centre.

Private housebuilders, such as Crest Nicholson, have created a major new residential community, with some very attractive developments in locations that would not have popular without the views over the water. For example, Pooles Wharf on the edge of Bristol City Centre is a fine example of high quality waterfront housing on a site that had been previously by sand barges. The dock is surrounded on the northern edge by high density terraced housing as was not previously seen as a desirable place to live. The development was completed by Crest Homes in 1998/9 and makes creative use a brownfield site through innovative two, three and four bedroom homes. The external design complements the local architecture and materials. The key qualities that make this waterfront development a success are:

- All of the homes front onto the Floating Harbour
- A pedestrian bridge over the wet dock provides public access to the waterfront
- High quality materials provide a 9 metre public realm, to allow public access to the waterfront.
- Robust housing styles are accommodated in three story high apartment blocks
- Quality street furniture and public art create visual interest and add to the scheme
- Landscaping provides open space and softens the edge of the development
- Corner apartment blocks have been designed to act as landmarks to the scheme.
- The colour of materials used complements the existing built environment.
- Attention to detail in brickwork and iron work, dealing adds to the visual interest of the development
- Provision of carports

The introduction of five-storey residential blocks on Cumberland Road has added to the vitality of the waterside and increased the opportunity for city living in the heart of Bristol. There are also some excellent warehouse

conversions into both social and private housing. Where possible existing buildings have been rehabilitated, and infill development respects the existing built form. Public space is generally informal acting as both a shared surface for essential traffic and pedestrians. There are bars and cafes in appropriate places.

In the second stage, Bristol City Council used statutory powers to secure the development of a Canons Marsh in ways that have enabled the city centre to fight back against out of town competition, with packages of funding, since private sector commitment was uncertain due to unpredictable economic returns. A feasibility study and plan produced by consultants brought all the main landowners together for the first time. Though sources of public finance are very limited, continuing partnership with English Heritage and English Partnerships plus agreements with private developers are realising the full potential of Bristol Harbourside. With partnerships in place, successful lottery funding bids have made it possible to develop the new visitor attractions of an expanded Exploratory and Wildscreen, which features animal films. '@Bristol' includes a film centre, an electronic and botanical house and Science World. High quality public spaces, including the Millennium Commission funded recreation of the old filled in dock as a series of fountains, link the old centre with the new waterfront. Though there have been strong local disagreements over the design of the commercial elements, because of the loss of views from the Cathedral, a new master plan for the housing and commercial leisure elements is expected to win approval.

Important themes in Bristol's city centre plan are the promotion of legibility and permeability. A good example is the Pero footbridge which links the Watershed and exhibition centre with the Arnolfini centre, hotels and other attractions also provides a memorable piece of public art. The dock now feels very accessible due to the grid layout of the blocks and because buildings front onto the harbourside, increasing legibility. The public and private realms interact due to the width of the shared cobbled surface, encouraging people to linger and use harbourside for informal recreation. This surface is approximately nine metres wide, and wider where it meets other streets. Three bridges provide crossing points, thus increasing permeability and legibility as they reinforce natural desire lines. The first bridge is at the main road and separates the harbourside from the town centre, which helps distinguish Harbourside from the city centre, as a special quarter. Both authenticity and accessibility are enhanced by the numerous boats that animate the water, including several ferries.

The Floating Harbour provides the spine for a whole series of developments that have rippled out. An important early element was the development of a landmark office buildings for Lloyds Bank. The most recent commercial scheme has been the creation of a whole new office quarter at Temple Quay next to Temple Mead's Station. A masterplan by URBED for Castlemore and the South West Regional Development Agency will complete the process through a mixed use scheme for the North bank, with three residential towers, that will bring both sides of the water together again. There is also a possibility that the University of the West of England will site its new media centre on the Floating Harbour. Bristol therefore reinforces the importance of linking the waterfront with the rest of the city centre, the potential for using creative activities to pioneer the early stages of renaissance, and the scope for using the waterfront to fight back against out of town competition. Bristol shows what can be done even when public resources are very limited.

London's South Bank and Coin Street

Coin Street's slogan is 'There is another way', and illustrates the possibility of using an unconventional delivery mechanism of a development trust to promote a mix of uses where developers would have built only offices, and how one success can lead to another. A former industrial area, stretching several miles from Waterloo Bridge and County Hall right to beyond Tower Bridge has been progressively developed as a series of attractions along a landscaped riverside walk, which now is one of London's most popular destinations, as it includes the Globe Theatre and Tate Modern. However the key to the renaissance of the South Bank has been the development around Coin Street, just west of Blackfriars Bridge. After a seven-year campaign to stop offices occupying all of the South Bank between Blackfriars and Charing Cross Bridges, Coin Street got underway with a grant of land from the Greater London Council. The developers, Coin Street Community Builders, wanted to show 'There is another Way'. Their first housing scheme was relatively unadventurous. However they went on to develop a highly successful short-term craft market, Gabriels Wharf, next to a new open space, and this started to change the image of what had been a very run-down area. Their next development of housing was much more exciting and has won many awards, while still being let to tenants through a housing co-operative.

The success of these projects enabled them to start their most ambitious project, the conversion of the old Oxo Building. This major mixed-use scheme has been developed by a development trust, Coin Street Community Builders, in association with a number of co-operatives. The Oxo Tower stands at a pivotal position on the South Bank of the Thames. The mixed-use scheme integrates 78 high quality social housing units with retail and restaurants. The undercroft of the former warehouse has been opened up with two stories of craft galleries and studios, attracting pedestrians from the South Bank and encouraging walks further downstream. A public viewing deck on the eighth floor next to Harvey Nichols Restaurant and a brasserie allows a breathtaking view along the Thames from Charing Cross to St Pauls. This has proved an attraction in its own right. In combination with the gardens, new housing and small businesses at Gabriels Wharf, the Oxo Tower scheme has established a major new visitor attraction in a previously dead area. A future project includes an innovative floating lido swimming complex in the Thames alongside the Oxo Tower. Full use has been made of a range of funding, including packaging grants with loans from the private sector. The group's achievements helped them to set up the South Bank Employers Group in 1991, bringing together all the major stakeholders on the South Bank under the chairmanship of the Development Director of Sainsburys, whose head office was located alongside. A strategy for upgrading the public realm found favour with the Department of the Environment, who provided a substantial Single Regeneration Budget grant to implement it.

The new development plus festivals and public art have transformed the image of the South Bank. Developments at Coin Street have been joined by others, such as the recreation of the Globe Theatre further along, connected by a riverside walkway that goes under Blackfriars Bridge. As a consequence what is effectively a whole new linear park has been opened up to the public.

The improvements to the public realm have attracted further new housing, including loft apartments, and perhaps the biggest project of all, the new Tate Gallery of Contemporary Art in what was Bankside Power Station. A new pedestrian bridge 'the wobbly bridge' designed by Sir Norman Foster links with St Pauls Cathedral, along with another new walkaway hanging off the old Charing Cross railway bridge

make the river much easier crossing and more attractive. Each new attraction, and improvements to the environment has helped narrow the contrasts between the North and South Banks. The area's connectedness with the rest of London has been greatly improved by the extension of the Jubilee Line, with a new station at Southwark (a location that would not previously merit an underground station). Each new attraction, with improvements to the environment, has helped narrow the contrasts between the north and south banks. Stylish high-density architecture has taken over from ugly prosaic public housing. The regeneration of the area has also transformed the image of Southwark Council, from a negative to a creative force. The highly acclaimed Millennium Ferris Wheel, known as the London Eye completes the picture of a vibrant waterfront area which all can enjoy. Bankside, as the area now is known, is now being promoted as one of London's first attempts to create the equivalent of a Business Improvement District, as a means of enabling businesses to play a part in managing and promoting the area in which they are based.

Newcastle Quayside

Newcastle shows how a masterplan and development briefs, plus substantial pump-priming from a Development Corporation can secure the regeneration of a whole city quarter in a relatively poor part of the country. In the early 1990s Newcastle's quayside resembled many other redundant waterfronts throughout Britain, but is now one of the city's most popular attractions. Dereliction was compounded by isolation, and the loss of the shipbuilding industry. The Tyne and Wear Development Corporation (TWDC) was established in 1987 with task of regenerating 48 kilometres of urban riverbank on North East of England. TWDC focussed resources on a number of flagship projects with the objectives of stimulating urban renewal, attracting international investment and boosting confidence. One of the Corporation's most ambitious projects was Newcastle Quayside. This involved extending the heart of the city centre to a new riverside quarter, developing high quality business premises, leisure facilities and new housing, and opening up the riverside as a promenade with extensive use of public art.

In 1992 after a competition the Development Corporation appointed the national development and construction company AMEC as its development partner. Together they commissioned Terry Farrell and Partners to develop a masterplan for the east quayside, which was given outline consent in 1992. With £170 million secured, the Corporation led the way by providing supplementary guidance for developers through the waterfront strategy and site specific briefs. However, the development process was not without setbacks. Major difficulties arose regarding land assembly and preparation of the site, so that TWDC had to use compulsory purchase orders.

The scheme initially comprised 50 residential units at the farthest eastern side (with planning permission for a further 205 units). Malmaison is an upmarket hotel in a Grade II listed co-operative warehouse where ironwork has been used creatively to give the eight-storey building a dramatic entrance. The renovation and conversion of the old Coop Buildings into a 139-bed hotel and renamed complex would not have happened without a £700,000 grant from English Partnerships. Other leisure uses include two bar/restaurants. Passive recreational uses include a riverside promenade, which has proven to be very popular as a thoroughfare, a space for lingering, a cycle route and, on Sundays, a lively street market. Commercial offices occupy a large area of quay developments, while extensive car parking is provided in two multi-storey car parks situated at the at the foot of the hillside. The renovation of Exchange Buildings, a £8.5 million scheme next to Tyne Bridge, completed the transformation of the Quayside.

Quayside is both striking and authentic. 'Signature' architecture has been adopted throughout the development, with each building differing from its neighbours but complementing the context in terms of scale and materials. Thus the bar/restaurant, Pitcher and Piano, is situated on the riverside promenade and acts as a landmark for Quayside. Built in a combination of stone and glass, it looks a little like to an ocean liner. TWDC invested £1 million in the public realm to provide high quality paving, lighting, street furniture and many original pieces of public art. The theme is fairly nautical with street furniture that does not create clutter. Investment in the public realm and the integration of A3 and C1 uses has created a riverside that is vibrant and animated by people day and night. The bars and restaurants, and the public spaces have made Quayside an extremely popular destination for local people. Newcastle is known as one of the good 'party cities', and Quayside is used for major events, such as the start of the Tall Ships Race. On Sunday a popular street market along the Quayside allows everyone to enjoy what has been created.

The original concept was to integrate the waterfront with the city centre. For so many years the riverfront had been redundant and even though its close proximity to the heart of the city, it was viewed as on the periphery. Cycle paths and pedestrian walkways have been incorporated into the scheme. However the success of the development is partly due to the 1154 public car parking spaces provided at Quayside in two unobtrusive multi-storey car parks. Quayside therefore increases the possibility of driving to the city centre as opposed to arriving by public transport, though it is only a short walk from the Central Railway Station and the metro station. The heavy through traffic should change as the City's Integrated Transport Plan is implemented. While Quayside as a destination is a success, this development has not entirely created a physical and mental link between the waterfront and the city centre. The original viaducts, including Stephenson's High Bridge, create a great sense of arrival as you approach Quayside from Dean Street, but the linkages remain weak. The legibility of the waterfront scheme in relation to the rest of Newcastle is still poor. The new millennium pedestrian bridge across to Gateshead and its new modern art museum and a bus link to the city centre should improve integration.

Seven years after the formulation of the masterplan, Quayside became a reality. The derelict land has been transformed, and high prices for the apartments are encouraging further development. The scheme has not only regenerated the waterfront but also boosted the image of Newcastle as a great European city. Historic buildings running down the hill have found new leases of life, for example as places to eat and drink. The Quayside has set new standards for mixed-use developments, innovative design and quality public space, which have won a series of awards, including one from the Washington Waterfront Center in 1998. The regeneration of the waterfront has partly been at the expense of the early Victorian business district of Grainger Town. This is because the more prestigious environment, modern flexible offices, and plenty of parking spaces offered by the new waterfront location have attracted existing professional firms of lawyers and accountants to relocate. However there is now a concerted effort to attract investments into new uses, which should be easier now that Newcastle has reclaimed its waterfront.

Examples of good practice Appendix B

St Peters Riverside, Sunderland

This new urban village has been built on the site of an old shipyard at the mouth of the River Wear, next to Roker. Some 800 homes have been sold at prices initially ranging from £70,000 for a small two storey house to over £160,000 for one of the apartments overlooking the marina. The development has created an attractive neighbourhood, with a mixture of two, three and four storey houses, plus blocks of flats, and the mix of slate and tile roofs creates the feeling of a fishing village. The heart of the development is a Marine Services Building, which contains a number of facilities, including an Italian restaurant on the top.

The development has created an attractive public realm through the extensive use of public art, including projects by local children, as well as major pieces that form part of a sculpture trail along a riverside promenade. This leads on to the National Glass Centre and a new campus for the University of Sunderland, with conference facilities. Significantly the new housing has been very popular, while quite close by post war blocks of four storey council flats have had to be demolished. The development would not have happened without support from the Tyne and Wear Development Corporation in clearing and reclaiming what were a series of derelict sites.

Westminster Canals: Implementing a vision

Mixed use development

Some idea of the time it takes to realise the potential of an urban waterfront can be gained from the experience of the City of Westminster with the Regents Canal, whose London terminus was originally at Paddington Basin. A joint venture between British Waterways and Trafalgar House secured planning permission for a mixed use scheme with a high office content around 1990, but fell victim to a property recession, and also ran into objections to the original retail content. Ten years later saw the opening of the Heathrow rapid transit link, and the restoration and development of the station. With more favourable conditions, a comprehensive scheme is now going ahead with a much greater residential content. A masterplan was prepared by Terry Farrell Associates consortium.

Water use strategy

URBED's strategy for the water uses was, developed through a series of consultations, proposed making space available for a range of water users, including trip boats, historic boats, trading boats, visiting boats, canoes and anglers, all of whom had separate and sometimes conflicting demands. The strategy also provided for the full range of 'water watchers' including residents, workers, tourists, the elderly and disabled, and children, with lively focal points, green pedestrian routes, and managed moorings. However when the original joint venture fell through, the strategy was put on the shelf.

One outcome of further URBED's work into the potential of the canal corridor was the recognition that the old gasworks site at Kensal Green, which had been partially developed as a Sainsburys' superstore, could become a major mixed use scheme. URBED proposed linking it through to the historic cemetery and nearby underground station subsequently encouraged the Peabody Trust to invest in the area. The housing association is promoting a mixed use scheme for a six acre site which had been zoned for industrial use, applying the principles of a Sustainable Urban Neighbourhood. Though URBED's initial study was undertaken in 1994, it took another five years before agreement could be reached with the site's owners British Gas Development in 2002 with an expanded canal basin. Other complications included securing planning permission for a scheme with a high proportion of housing, and financing the workspace element. This will help in making the Regent's canal more of a destination for boating. The problem of securing access across the cemetery has not yet been resolved.

Funding

The canals in London represent a hidden asset, but one which is gradually being improved. British Waterways have prepared a corridor study for improving the environment, and the City of Westminster set up a development trust to channel contributions from planning gain into related improvements. The initiative has been considerably helped by a successful Single Regeneration Budget application, promoted by the Groundwork Trust and a large number of partners, thus enabling collaboration between adjoining local authorities for whom the canal would otherwise have been of literally marginal interest. Paddington Regeneration Partnership has brought together all the developers around Paddington Basin. Paddington Regeneration Partnership is also working on proposals to upgrade the adjoining area of Praed

Street through one of the first Business Improvement Districts. The proposals for action were drawn up through a half day round table conference in 2002 run by URBED which brought all the stakeholders together.

Exeter Riverside: Regeneration through mixed uses

Exeter is a historic city that was heavily bombed, and hence is short of natural visitor attractions. In 1985 URBED were commissioned to draw up a development strategy for 13 acres on either side of the River Exe, with some 60 old industrial buildings totalling 160,000 sq. ft. Though most of the land was owned by the City Council and a development trust they had set up to reuse some historic warehouses on the quayside, the city lacked the resources to do much with the land, which was partially occupied by a sprawling collection of boats. The strategy was based on a series of studies, including research into prospective demand, cases studies of relevant models, recreational and development opportunities, and proposals for visitor promotion, and for a new bridge.

The essence of the vision was to develop a major new attraction for the City through the promotion of a series of distinct urban quarters, linked by a striking new pedestrian bridge. The Quayside was to be pedestrianised and new visitor car parks provided, along with a circular bus. The finance for this was to come from developing an old industrial area as new housing, and this was to be designed to be an attraction in its own right. The strategy, was largely implemented, with some interesting results.

Water uses

The basic 'soul' of the area, which comes from the use of the river for rowing and promenading, has been enhanced. Many more people now circulate across the new bridge, as well as using the old ferry. The high quality of the landscaping of the quayside, which retains a cobbled road, along with the reuse of the warehouses as a pub and offices, won a Europa Nostra award. However the maritime museum eventually folded, despite having played an important pioneering role. 115 years there are still a number of empty buildings, including the old power station, which have still not attracted a user.

Linkages

The linkages have been greatly improved, partly through the new bridge, and also an award winning car park, that links the Quayside with the cathedral, via a pedestrian bridge over the ring road. Though the new housing was designed to allow a pedestrian route through it, this has been made private. However people are pleased to walk round the edge, and there are a number of new shops and a wine bar, and a major new restaurant is planned. A good balance has been struck between different kinds of surface, including large areas of green space.

Buildings

The ground floors of the warehouses have typically been used for specialist shops, including crafts and sports equipment, as well as a variety of places to eat and drink. A major early project was the creation of a heritage centre out of a building that turned out to be a medieval wharf. However the idea of a budget warehouse hotel was not pursued though one was eventually built nearby. The offices did not initially let as well as the Trust expected. Now that the Maritime Museum has gone, one of the buildings has been turned into an art gallery, and there is quite a lot to see. The greatest success has been in creating distinctive four storey private residential developments in a location that was previously given over to council housing. Significantly this has included apartments without a view of the water, following the

eventual success of the initial scheme. Though the first developer went into liquidation during a recession, the great bulk of the investment has come from the private sector, with relatively limited public investment.

The Wey Navigation in Guildford

Guildford, the County town of Surrey, has grown rapidly, and with the highest car ownership in the country, tranquil places are rare. The Lonely Planet Guide dismisses Surrey and the town with the comment 'Guildford, an affluent town with an attractive High Street and an ugly cathedral, is the administrative centre.' Hence the Wey Navigation provides a valuable oasis in the heart of the town, and has been improved incrementally to provide an attractive linear park, which still has scope for further development.

Spirit

The waterway serves as a quiet link between the railway station, the town centre and the Castle Grounds, away from the main road that cuts through the town. It still retains a number of old industrial buildings and waterside features, like an old crane and distinctive locks. There are fine trees, and places to sit out and watch the boats or the ducks go by. A fine sculpture of Alice and the White Rabbit offers a pleasant surprise. Like many waterside areas, there are a number of pubs which have outdoor areas, though unfortunately car parking takes up a fair amount of the public realm. However, what makes the area special is the way two theatres have been developed, the Yvonne Arnaud overlooking the canal, and the Electric in the old generating station. Other uses include the back of the Debenham's store, and the District Council offices, as well as a number of offices.

Linkages

The river and canal offer lengthy country walks in what is otherwise a relatively built-up area. There are a number of bridges connecting up with the town, and it is relatively well signed with a few gaps. The council has widened the pavements to extend the public realm, and supports a week long Green Festival and other activities in the park. The canal is linked to the town centre by an underpass, with murals on it. The countryside feeling has been carefully maintained, with large trees, and was the setting for the TV version of *Our Mutual Friend*. As well as private moorings, there are 45-minute boat cruises.

Buildings

A major achievement has been the conservation and reuse of the old Dennis car factory which is a result of the local authority using funds from planning gain agreements. The ground floor has been turned into a popular Wethered's pub, while the upstairs are being converted into the Academy of Contemporary Music. The adjoining old generating station is now the Electric Theatre and used for events.

Gloucester Docks: A mixed use quarter for a historic city

Gloucester, the county town of Gloucestershire, suffered heavily from war-time bombing, and hence the regeneration of the largely intact 19th century docks is all the more important to the city's future. The docks served the Gloucester and Berkeley Ship Canal, which opened in 1827, creating an inland port. The docks are surrounded by large plain warehouses with relatively small windows, which do not naturally lend themselves to reuse. Attracting new uses and private investment was made harder by the location, which feels cut off from the city centre, and adjoins areas of Victorian factories and run-down Georgian housing.

The Docks from one of the largest sites owned by British Waterways, who promoted a mixed use scheme in the early 1980s, making it one of the first major waterfront regeneration projects. Some of the first uses on the site were private initiatives to set up their Antiques Centre, and the Robert Opie Museum of Packaging, which involved relatively low cost conversions, and helped to draw people to the site. These were followed by the flagship projects to convert one warehouse into the National Waterways Museum, and another into new offices for Gloucester City Council, who played a key role in boosting confidence in the location.

A partnership with a South-West builder developer then led to the imaginative conversion of a couple of warehouses with a new infill building, thus bringing an element of commercial specialist shopping and leisure uses to the site (though not perhaps as successfully as expected). Festivals help to bring the area to life. There are always some interesting large boats being renovated, as well as visiting inland waterways craft and a trip boat runs down the canal.

Subsequent projects have gone on to develop some office space and also residential units, as the quality of the environment gradually improved. Nearby McCarthy and Stone have built a large block of apartments for retired people, which look out to the river, but over a main road. But significantly, some 20 years after the regeneration process started, there is still a large amount of empty space in the warehouses, as well as derelict land, and relatively few new buildings have gone up. Plans for a 10 screen multiplex cinema, fell through and the Development Agency have acquired part of the site in 2001 to help realise the its full potential of this key site.

Trinity Bridge, Salford: a landmark and catalyst for regeneration

Trinity Bridge, the first UK commission of renowned Catalan architect Santiago Calatrava, has established an important link between Salford to Manchester city centre across the River Irwell. The angled central pylon, rising to 37 metres towers over the river-bank, forms a landmark in its own right, from which a lattice of suspension cables are attached.

The bridge and associated open space has helped revival of Chapel Wharf through its decisive location and bold design. It has become a vital pedestrian link for shoppers and workers in the vicinity. The base

of the Salford side of the bridge is public open space, Trinity Bridge has unlocked the potential of the waterside sites amidst a drab and overlooked inner urban area and crucially introduced a sense of excitement and pride of place.

Sheffield Waterside Study

Context

Sheffield is one of England's major metropolitan cities, with a population of nearly 500,000 (the fourth largest), and a full range of attractions in a location at the heart of seven hills. Like many British cities, it was developed on the back of waterpower, and then used its canal to tap supplies of coal and other minerals, after the Industrial Revolution. However it really took off in the 19th century as the centre of the steel industry, and while industry developed along the valleys, housing took over the hills.

After the last war, like other cities it has also suffered from the loss of traditional industry, and is having to find ways of revitalising its centre as a result of tough competition from Leeds and Manchester for office jobs, and from Meadowhall for retail trade. Though Sheffield's heritage is less obvious than in many other cities, with more than its fair share of ugly post-war concrete developments, the city has been pursuing policies aimed at revitalising its city centre, making the most of remaining old buildings, and of developing new forms of employment, including the cultural industries and also the 'high touch' activities of its universities. While it has benefited from public investment through a Development Corporation for the Lower Don Valley, and now from Objective 1 status, it has not yet found a new identity, or national image, unlike rivals like Leeds, Manchester and Birmingham.

Sheffield's history as a steel and cutlery making town means that it lacks fine architecture, and the kinds of buildings that are easily converted into other uses (like textile mills). Also land ownership tends to be very fragmented making regeneration all the more difficult. Furthermore, though the Council's efforts to lead the city's regeneration resulted in some attractive new buildings put up for the World Student Games, they have also left a financial deficit which has made it all the harder to attract investment to the city. However in recent years the city has secured public funding through both a Development Corporation and the Single Regeneration Budget, and as both of these have addressed the issues of the urban waterfront, they provide an interesting contrast.

Canal Basin

One of Sheffield's flagship projects has been the Canal Basin, now known as Victoria Quays, which is one of British Waterways largest land holdings. Attempts to produce a major private retail and leisure scheme failed to attract finance (as did the same developer's venture in Birmingham), and the Development Corporation ended up promoting a more incremental scheme near the end of its life. Judged in terms of both private investment and jobs, the scheme has been a success, and considerable investment has also gone into the public realm. National firms of solicitors have moved into new office blocks, assisted by grants. A new Stakis Hotel has incorporated public rooms in some of the old railway arches. Its success encouraged the refurbishment of a nearby office block for hotel use, and another hotel is expected soon.

However, despite the success of an initial festival, and some water use, with a couple of restaurant boats, and some short-term moorings, few people visit the basin, which feels quite sterile as a result. The

residential boats that form an interesting community were moved, and as a consequence the water area is relatively dead. The specialist shops and leisure attractions have not moved in as hoped, partly because the area is cut off from the city centre by a ring road, but also because the attractions that have been developed do not attract enough Sheffield people. There has been little housing, or uses that would benefit from water views. The conversion of a fine historic building into a family pub is perhaps too isolated to generate vitality, and the outdoor seating area is cut off from the water. The canal towpath has been upgraded, but it is not obvious where it leads, and so as yet it has not provided the city with a recreational lung.

Kelham Island

In contrast, in the nearby Kelham Island area, private investment in 'loft conversions' could well be the spark that open up the waterfront. After many years of uncertainty, a Sheffield based national housebuilder took the plunge in converting a historic riverside building, Cornish Place, into loft apartments, and managed to sell them all before the scheme was finished, at much higher prices than anticipated. This has provided the confidence for them to take on other sites, and there is now healthy competition for sites where previously there was no demand. While the first scheme to reuse a historic building, Globe Works, failed because it was too isolated and for management reasons, there is now a strategy in place, backed up by project management, to give investors and occupiers confidence. An important step forward will be in opening up the riverside outside the Fat Cat pub, and building a new riverside walkway, and bridge to the Industrial Museum. These in turn will expose a part of Sheffield most people have never seen, giving a sense of soul back to this industrial city that once secured Ruskin's interest.

Undoubtedly investment in the public realm, plus imaginative promotion, is helping to turn the tide. So too is a policy of encouraging private owner-occupiers, with regeneration schemes on housing estates typically involving one third private housing to two thirds public. The SRB is being used to ensure that the social and economic factors are taken into account, and a major success story has been the creation of a community enterprise to bid for construction work, thus ensuring that local unemployed people can benefit from regeneration. So too has been the application of the experience of the Wise Group in Glasgow to the improvement of public spaces. Unlike the Development Corporation, whose main concern was with involving private investors, SRB has been able to work with the community. Local people have been involved in drawing up the visions, and want to see mixed use development. So far the new housing schemes have proved extremely popular, helping to retain people who might otherwise have moved out to the periphery. A major issue is going to be how to maintain the quality of the public realm, and also where jobs are going to be coming from.

Future opportunities

A key issue is how to integrate the different parts of the city, in order to improve both mental and physical accessibility for all. While the Super Tram does not run through dense enough areas to be viable, since its management was taken over by a bus operator, its usage has gone up, and it serves as an important symbol of confidence in the future of Sheffield and its city centre. A good start has been made

on linking the railway station with the city centre, with the expansion of Sheffield Hallam University, alongside the very successful Cultural Industrial Quarter. A great boost has been provided by the creation of the Peace Gardens and the demolition of the ugly 60s office block the housed the Council's offices. An Urban Regeneration Company has been set up to commission and implement a masterplan that will knit the different parts of the City centre together, and strengthen its heart.

St Saviour's Dock Bermondsey, London: bridging the gap in a riverside walk

St Saviour's Dock footbridge has provided an important missing link on the riverside walk connecting Butlers Wharf and the Design Museum on London's South Bank. The conversion of New Concordia Wharf, a complex of adjacent warehouses abuts the water, creates an imposing backdrop which is offset by the lightness of the bridge which can be moved to enable access to the dock.

The timber bridge jetties complement existing wharfside engineering, the metallic bridge masts and cabling directly relate to the shipping heritage of the wharf and modern day sailing. The selection of materials, granite ramps across the jetties and stainless steel decking create an enjoyable sensory trip across the water, making the most out of the experience. The bridge also provides a vantage point, from which pedestrians can stop and linger awhile enjoying the water as part of a stroll down river.

Putney Bridge Restaurant, Wandsworth, London: appropriate development in a cramped space

Resting on a narrow sliver of riverside ground in close proximity to Putney Bridge, the Putney Bridge restaurant manages to squeeze a great deal from a remarkably constrained space. The insertion of this popular building into what was previously a wide pavement adjacent to a very busy road has been a major achievement and contributes to the renewed appreciation of the river. The likeness of the building to a barge and boat gives it a distinctive edge and lends itself as a local landmark. The introduction of a bright and busy use in this location acts as a beacon of change and civility in what was previously a windswept space and is a welcome and permanent variation to the floating restaurant concept.

Bridgewater, Manchester: creating an oasis in the city

A major new cultural facility for Manchester, the Bridgewater Concert Hall has also been integrated into the physical fabric of the city through the re-instatement of a spur from the Rochdale canal to one side of the building. The massive angular form of the Bridgewater Hall, and a cascade of steps leads the pedestrian from street level to a small public space and waterside bars. As the waterside is at a lower level from the street, traffic noise and other distractions are absent, providing an oasis of calm in close proximity to a city tram line and highway. The Bridgewater Hall façade presents a striking backdrop from the waterside, which is particularly dramatic at night when the Hall is illuminated and concert goers are circulating through the building. The introduction of the canal spur to the heart of the Bridgewater Hall development has provided a special focus and character to the scheme, and the change in level creates a secluded but also hidden waterside space that appears to be for exclusive use which is actually not the case.

Bridgewater bank and Bridgewater south, Manchester

Bridgewater Bank and Bridgewater South. These two linked residential developments straddle the Rochdale Canal, situated within central Manchester, and are close to the Bridgewater Hall, home of the Halle Opera. The schemes are contemporary in appearance yet respond well to surrounding buildings and the character of the streets, gaps in the streetscene being successfully plugged. Provision of a new footbridge over the canal, hard landscaped public space and public house have helped help make the most of the waterway. Residents are able to make use of the canal path to traverse the city in double-quick time to Castlefield and Canal Street, popular canalside bar areas.