

Coastal cities – urban infrastructures

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Abstract

Urban regeneration in Britain frequently focuses around buildings and sees the object as a potential catalyst for the making of public space. This project proposes that the starting point is public space and infrastructure, its character and connectivity determining new building proposals.

The south east coast of the UK is characterised by a string of resorts that together create an urban strip approximately 160km long. However, the 19th and early 20th century recreational expansion that created it, while informing the strip's urban morphology, can no longer singularly sustain it. In the absence of any clear successor, the connection between town, hinterland and sea has eroded. As individual seaside towns, the trappings of fading popularity obscure the very qualities that were once so attractive. As an often unrecognized 'Strip-City' the coastal strip is hindered by poor infrastructure, especially that for transport, promoting pockets of extreme isolation.

Current regeneration is in danger of ignoring existing spatial characteristics that, historically, have been shaped by the combination of the closeness between town and sea and the ambition of 19th century engineering. Whilst developments are considered for 'key sites', the critical issue of spatial and infrastructural linkages – squares, parks and routes – that re-unite and re-define the urban shoreline is ignored.

This paper discusses the work of masters-level architecture students, which investigates ideas for the regeneration of coastal settlements and the creation of new programmatic territories that link infrastructure and architecture, interaction and space, city and water.

Keywords: architecture, urban design, coastal development, urban regeneration, urban infrastructural spaces, urban programmes.



1 Introduction

The following is not about urban transport per-se; rather, it is about the way in which infrastructure, particularly that for urban transport, can be the bedrock upon which many strands of urban design can be built. The work of the Architecture and Urbanism (A&U) Studio is now in its third year. It is one of three studios which direct the design studies of the masters-level Diploma in Architecture. Its interests are in the relationship between architecture and urban design and one of its defining characteristics has been the use of 'live' urban conditions in which to base year-long design projects – Study Bases – and from which to draw critical inspiration – Study Precedents.

The work discussed here is the result of one year's activities of a group of students and tutors – Coastal Cities (CC) – within this studio. The group uses as its study-base the coastal region between Southampton and Hastings, along the southeast coast of the UK, seeing within it a contextually rich variety of locations in which particular observations and local connections can be made, questions asked and strategies proposed. What has drawn the group's attention to this area is the way it appears to represent a number of urban conditions that are both distinctly unique to the UK – the growth and decline of the 19th century seaside resort, an urban landscape that is simultaneously urbanised yet remote and generally poor levels of transport infrastructure – and globally recognisable – the emergence of near-continuous, recreational seaside conurbations [1].

In discussing the CC group's work, this paper summarises the rise and fall of the English seaside resort and current attempts to reverse its decline. It offers a brief critique of the UK's southeast coastal belt and its infrastructure and discusses precedents offered by the urban conditions of another urban coastal location – Barcelona. Finally, it describes the hypothetical critical design responses made to a specific location on the southeast coast – Hastings.

2 The coastal resort

As an island nation, our relationship to the thin border between land and sea, and our fondness for the seaside town, is deeply rooted. However, when visiting a seaside town what we are most aware of is a palpable sense of nostalgia, a feeling for that which is no more, an image of the glorious town in decline. This feeling is acutely observed in Paul Theroux's book 'Kingdom by the Sea' [2].

For over 200 years the seaside played a central part in English summer holidays. In the 18th century the search for health encouraged the development of the resort. During the 19th and early 20th century swifter transport, by water, rail and finally by car, made seaside towns more accessible; and by the end of this period, most seaside resorts were well established. With the implementation of the 1871 Bank Holiday Act, regular holiday weekend trips became part of the culture of all classes of society. The promenade through the big city was transplanted to the seafront as resorts around the country assumed the role of urban recreational counterpart to their industrial hubs. The architecture and engineering of this new urban paradigm, which gave expression to its promenades, piers, hotels and stations, was never afraid of being bold, quirky,



exuberant and idiosyncratic. It built upon the huge speculative ambition in the early 19th century, the impact of which even filtered into Jane Austin's unfinished novel 'Sanditon' [3], and it continued to develop right up to World War Two. However, from the 1960's, mass tourism developed and expanded beyond the shores of Britain, leaving many coastal towns empty of holidaymakers and local economies in decline. In fact their fleeting return to popularity in the immediate post WW2 years of austerity provided a disincentive for them to invest in infrastructures that could have enabled them to counter the foreign travel industry that would follow. Today, perched on an eroding landscape, many seaside towns continue to suffer from under investment and inadequate infrastructure and so struggle to maintain a foothold. They are in need of creative solutions.

Seaside towns are unique because of their particular climate, their remoteness, their ageing and transient populations. They exist, literally, at the edge and, as settlements along the line where land meets sea; they represent a liminal condition to which we are drawn and yet feel to be so remote [4]. To regenerate such towns requires radical solutions and urban design ideas need to look beyond conventional precedents.

In recent years a number of organisations and initiatives, which concern themselves with this problem, have emerged. A week-long conference, sponsored by CABE, was held in 2002 to promote seaside regeneration. From seafood stall to new public landscaping masterplans, a whole range of projects was seen to be potentially capable of recreating a spirit of confidence and ambition. The Communities and Local Government Select Committee now recognises the uniqueness of the acute demands as well as the huge potential of seaside resorts compared to other towns. Many local authorities, regional development agencies and private corporations across the whole of the UK have created partnerships with the aim of regenerating and promoting coastal areas. Last year the newly restored De La Warr Pavilion in Bexhill hosted the 3rd Coastal Towns Conference – a gathering of public and private bodies from across the southeast coastline from The Solent to the Thames Estuary – to disseminate and discuss issues and initiatives.

3 Strip-City

From Southampton to Hastings, settlement has spread in the only way it can, as fiercely protected landscapes to the immediate north squeeze it along approximately 160 kilometres of coastline to create a near-continuous urban belt.



Figure 1: Strip-City.



What interests us is that formal or coordinated recognition of this coastal ribbon appears only to have recently emerged. Certainly, the South Coast Towns conference network demonstrates an emerging recognition, as does the South East England Regional Assembly's (SEERA) demarcation of the needs of the Southeast's coastal belt against those of other parts of the region. The South East England Development Agency (SEEDA) continues to direct considerable resources towards the region's coastal towns and, at a more local level, networks are forming to learn from and act upon shared information. Nevertheless, a seemingly conventional view of the region's settlement pattern sees the monocentric hub of London at the centre of a rural hinterland, dotted with self-contained towns. Another view, however, is of numerous, sinuously connected urban and sub-urban, polycentric webs that collectively house a population greater than that of the capital.

We have come to use the term 'Strip-City' for our chosen web – a long and thin amalgam of coastal towns, cities, suburbs, villages and protected landscapes, theme and caravan parks, marinas and water-side retail centres, promenades and piers, arcades and gardens, hotels and boarding-houses, which houses approximately 1.9 million people [5]. Many parts of Strip-City display depressed and imbalanced cultural, social, economic and demographic conditions; and all appear subject to poor levels of transport infrastructure (albeit with marked differences between its eastern and, more industrialized, western end) when compared to other conurbations in the UK.

Yet, despite its size, no single rapid road or rail system links any of its main centres (see Fig 2), while road and rail journeys along its full length take two and three-quarter hours and three and a quarter hours respectively [6]. The disjointed and excluded nature of Strip City is put into sharper focus when viewed within the wider context of southeast England and northern France and their respective rapid road and rail networks (see Fig 2). In the southeast, a predominantly radial motorway system, centred on London, takes precedence over the east-west orientation of the coastal settlement – a situation much less evident on the other side of the channel. As for the UK's only rapid rail route, linking it to mainland Europe, Strip City is removed from Ashford International by only thirty two miles (from its eastern end) but by journey times of an hour by road and forty minutes by rail [6].

4 Barcelona – study precedent

Although clearly different from any one seaside town along the southeast coast, Barcelona, when considering the scale, complexity and totality of Strip-City, offers an urban reference that is highly relevant since it demonstrates, in its urban development programme from the 1980s onward, a process of reinventing its coast in order to reintroduce the city to the sea. Furthermore, it is interesting to observe the extent to which this regeneration programme has been shaped through an alignment between urban space and transport infrastructure [7].





Figure 2: Rapid rail and road.

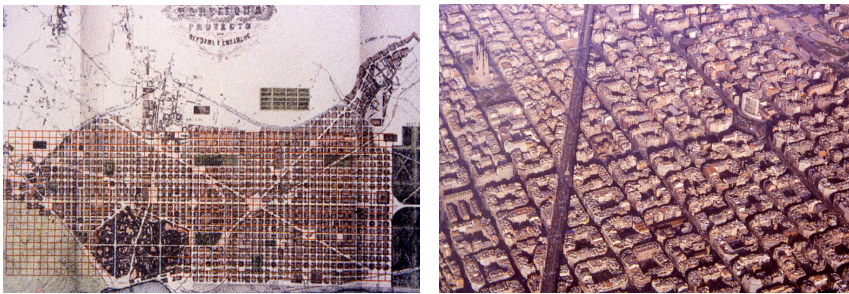


Figure 3: Barcelona – Cerda Grid.

4.1 An urban system

Ildefons Cerda's proposals in 1859 to allow for the 'Reform and Expansion of Barcelona' represent more than just an expansion plan [8]. An engineer by profession, Cerda wished to devise a comprehensive urban system that attended to the city's infrastructural needs at a level both specific and general, at a scale both local and universal.

We recognise his 'Eixample' or Expansion Plan today through the distinctive gridiron (see Fig 3), creating 113m x 113m blocks and intersected by diagonal boulevards that traverse the city [8]. Ingeniously, the plan wished to provide the means to ensure a number of simultaneous urban prerogatives, defining a framework for building footprints and heights and allowing, through a range of singular and collective urban block combinations, for the provision of open spaces within and across each block. This in turn ensured some control over living densities and the ventilation of spaces. At a macro-scale, the grid provided the framework for both movement across the terrain of the city and for services beneath it. But the integrated nature of this system goes beyond civil engineering and provides the means for civic urban quality. The boulevards, created both along certain routes within the grid and diagonally across it, provided the spatial set pieces – parks and promenades – for the new city's public realm; just as the 45° chamfered corners [8] of every block turned each intersection into a space for interaction.



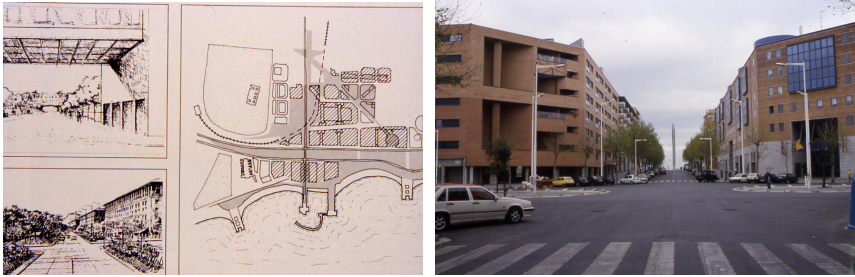


Figure 4: Former Olympic Village – urban spatial structure.

4.2 Movement and urban space

This extension of the ‘engineering’ brief has, it could be argued, established a working principle which continues to shape Barcelona’s urban development today.

From Barcelonetta and the former Olympic Village of 1992 to the ‘Forum International 2004’ site, a strategic programme can be observed that utilizes infrastructure as a generator for a comprehensive spatial, social, cultural and economic urban programme. Within this programme reside the spaces that define the way the city operates. Strategically, the Olympic and Forum projects have acted as catalysts and anchors for completely transforming 8 kilometers of coast from what was effectively an open industrial sewer into the city’s ‘seaside’. But, in addition to the sheer scale of ambition and transformation, there are clear strategic principles shaping this new urban structure.

Throughout, the new beaches and marinas are bordered by a ribbon of leisure and sports parks (see Fig 4), which provide not just a buffer between the new urban neighbourhoods of the city and the exposed coast, but also a generous ‘green corridor’ in which the city’s orbital road system and rail network is embedded, hidden, landscaped – accommodated. This symbiosis between urban infrastructure, space and landscape is extended also to architecture when one observes how, in the new neighbourhoods bordering the park, it is the adoption of Cerda’s grid system that defines their order, scale and spatial syntax.

5 Hastings – study base

Hastings marks the eastern limit of our Strip-City and represents a microcosm of its ills and potential. To its immediate north and east lies the landscape of the Weald. Such juxtapositions of urbanised and protected landscapes characterise much of the coastal strip and intensify the tension between conflicting interests of growth and preservation, accessibility and isolation.

The town’s historical significance predates its growth as a seaside resort. It acquired strategic importance under William of Normandy and maintained a sizeable fishing fleet well into the 20th century. As a resort, Hastings grew initially as a centre of a fashionable exclusive lifestyle. With the onset of the railways, however, its growth became so rapid that it effectively moved, creating a new town of promenades, arcadian vistas, grand hotels and elegant villas, and

leaving its former fishing settlement to fend for itself. Hastings retains a great deal of heritage – a legacy of its former elegant past as a thriving resort and of an earlier seafaring tradition. But despite promoting these historical assets the town has witnessed substantial decline over the last four decades.

In attempts to redress this trend, a regeneration programme, which focuses on ‘education, business, broadband communication technology, transport and urban renaissance’ [9] is being orchestrated by SEEDA who have convened a development company – Sea Space – set up by the Hastings and Bexhill Task Force. Architects MBM (masterplanners, coincidentally, for Barcelona’s Olympic Village) have developed an urban masterplan for the two towns. Architectural competitions have been held, attracting names such as Foreign Office Architects, and Foster Associates. Greenwich, Brighton and Sussex universities have been involved in setting up new further and higher educational facilities there. This has led to significant building projects in the town. Large sites have been bought for development and regeneration programmes are underway for outlying housing estates.

In the light of its precedent studies, the CC group wished to question those aspects of the regeneration programme which appeared to put faith in the creation of new buildings to provide urban regenerative impetus, rather than new urban spaces tied to new infrastructures. The group’s design projects, exploiting its academic removal from various firmly and justly held positions and imposed constraints, wished to explore the question of infrastructure and connectivity, transport and communication, seeing Hastings as a location within a larger cultural, political and geographical context – that of the Strip City – not as a series of architectural objects but as an urban landscape of movement and interaction.

6 The projects

Seven connected programmatic territories were investigated (see Fig 5), designed as contained urban spaces that sought to use the character of the seafront, radically readdress the town’s existing points of arrival and transform the edge along which town and water meet. Two of them are described here.

6.1 Environmental islands

Behind the promenade, opposite the town’s pier, the land rises sharply before leveling out onto an area of playing fields – a ‘green island’. To the pier’s west runs a neglected covered walkway, incorporated into the sea defense wall.

The scheme rests on a rejection of the coastal defense philosophy represented by this wall and proposes an offshore reef that opens up a new territory between it and the existing edge (see Fig 6). The placement of the reef creates two small bays, each one providing for a different leisure programme – nature and sport. Acting as a threshold between the two a combined linear building and raised route leads out from the inland green ‘island’, replacing the pier, accommodating a new hotel and spa and connecting one island to the other. The linear structure performs the role of the seaside pier and offers to hotel guests and promenaders



alike, the opportunity to look back at the town. Beneath the hotel, vehicular access is provided, connected to a sunken through road along the original seafront that allows this part of the promenade to become a linear park. Between the new pier and the west bay a canopy covers a range of outdoor sports facilities. These terminate at a long pool that runs back into the spa, lying beneath and extending out from the raised walkway between the hotel and the reef. From the hotel to the east, a series of boardwalks extend out to the dunes that make up the bay on this side. While the hotel structure provides the main architectural component in this scheme – the pier – the canopy and reef express the scheme’s environmental and engineering premise. Both provide a continuation of the environmental programme by supporting photovoltaic cells and wind turbines respectively, which power the complex.

The historic idea of the resort that wishes to extol the healthy virtues of the sea is pursued through the creation of an entirely new landscape that is as radical, in its wish to give form to 21st century environmentalism as was the town’s 19th century transformation.

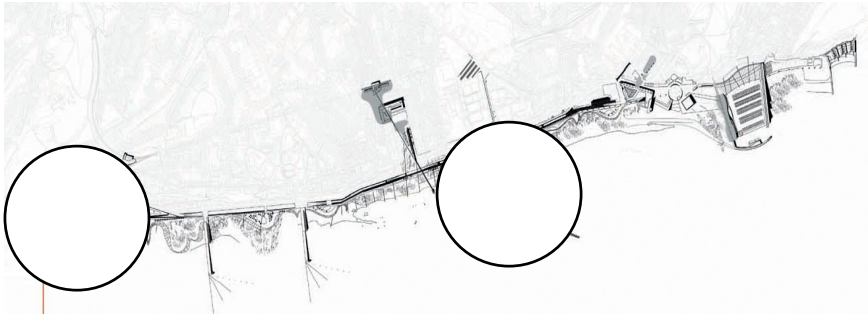


Figure 5: Combined projects – highlighting the two described.

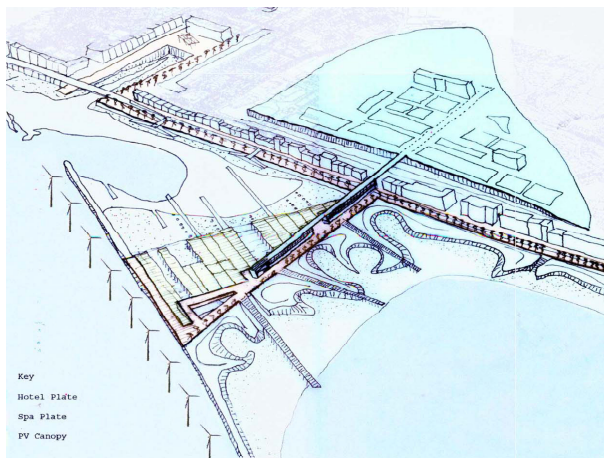


Figure 6: Environmental islands.

6.2 Coastal communities

At the western end of the town a field marks the site of the former lido, which was still attracting thousands of visitors until the 1940s. At one end the main road turns in from the beach and allows direct connection between site and sea.

This scheme explores the possibilities for higher living densities as a way of responding to high housing demand in the southeast, and a means to create the right circumstances for greater investment in transport infrastructure and using this to generate a spatial 'gateway' to the western end of the town. By seeing Strip-City as a location worthy of urban intensification, the scheme seeks to define a set of principles for urban housing development that is generically responsive to the uniqueness of coastal locations.

Strategically, two alternative routes that run parallel to the coast – Boulevard and Park – are countered by a democratic response to seaside development, which orientates housing perpendicular to the shore (see Fig 7). The Boulevard forms a northern built edge to the site from which housing runs south toward the beach, cut through by the Park on its way, which connects it to the local facilities contained therein, and makes a clear distinction between housing immediately next to the sea and that which is set further back, between Park and Boulevard.

New urban spaces at the east and west end of the site, directly addressing main coastal and London line stations, acquire significance by defining the points at which Boulevard and Park split and converge. Between the two, the Boulevard creates an urban spatial quality and scale that can accommodate the main road, the scale and mass of housing and the activities generated by the ground and first floor mixed uses. The Park, which runs at a lower level on this sloping site, creates a contrastingly informal vista through the development and is focused around a continuous body of water, fed by an existing stream. At the Park's eastern end the water has a recreational use, so reinstating the lido memory. To the west, water and park gradually take on an environmental programme, filtering 'grey water' and providing 'soft' coastal protection.

7 Conclusion

Urban ambition and inventiveness characterised the way in which towns such as Hastings transformed themselves when faced with the overwhelming demands of industrialized tourism. The decline that has befallen most seaside towns stems in part from a process of retreat over the past half-century from the idea of transport infrastructure as a useful regenerative force for urban design (as witnessed in Barcelona) to the singular degenerative question of whether or not urban transport is profitable [10]. This is not to say that agencies such as SEEDA are in any way lacking in determination, and we have seen how countless regeneration programmes for coastal settlements have emerged in the last decade. Nevertheless, the demands faced are no less challenging than those of the 19th century and rely for their success upon a coherent view of urban movement and spatial connectivity.

The studio's studies have approached the subject of urban regeneration from a position that uses the spatial, cultural and infrastructural linkages – squares,



parks and routes – as the starting point. They consider the needs of the town sufficient to demand urban redefinition that is radical but which utilizes its reciprocity with the sea – its one constant resource – and a drive towards making that resource accessible.

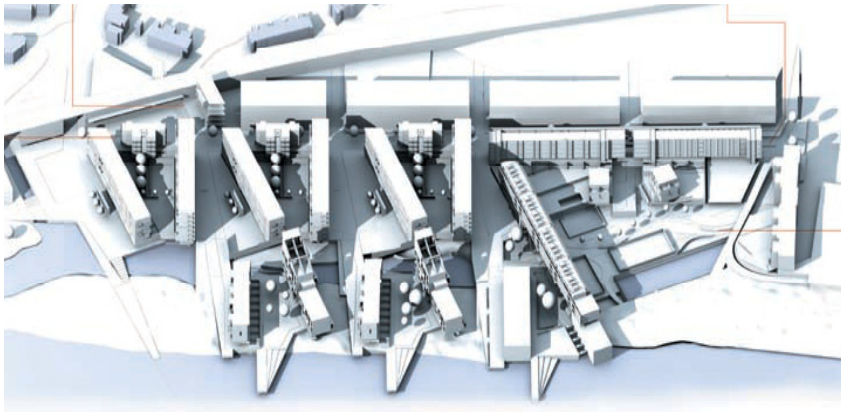


Figure 7: Coastal communities.

Each design scenario attempts to explore the limits of the land-sea edge condition and to use the possibilities offered by the simultaneous but conflicting requirements of openness to and shelter from the sea.

It is this fundamental conflict between the sea's ability to attract and to threaten that encapsulates the uniqueness of the coastal town. In such towns we are presented with the biggest of urban spaces – one that ends at the horizon. That space defined the scale of the 19th century promenade – a place for urban spectacle and movement – and it could define the spatial syntax of the 21st century seaside town.

References

- [1] Maas W, Costa Ibirica, Actar, 52-69, 1999
- [2] Theroux P, *The Kingdom by the Sea*, Penguin, 46-47, 199, 326-328, 1983
- [3] Pevsner N & Nairn I, *The Buildings of England*, Penguin, Sussex, 62-64, 1965
- [4] Theroux P, *The Kingdom by the Sea*, Penguin, 199, 1983
- [5] Based upon 2001 census records for all local authorities within defined area
- [6] AA-advised journey times and National Rail, 2005
- [7] Montiel JC, Clos O, Zafon JL, Gual C, Buhigas M, *Barcelona in Progress*, 2004, Lunwerg
- [8] Gausa M, Cervello M, Pla M, *Barcelona: A Guide to its Modern Architecture*, Section A, 2002, Actar
- [9] Sea Space publication, Hastings and Bexhill Renaissance, 2004
- [10] Theroux P, *The Kingdom by the Sea*, Penguin, 326-328, 1983

