Urban Waterfront Redevelopment in Greek Cities

A Framework for Redesigning Space

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The paper examines urban waterfront redevelopment in Greek cities, regarding them as a group of cities rather than focusing on each case independently. It attempts to set up a theoretical framework for the redesign of space based on three considerations: (a) the development prospects of Greek cities, and especially smaller Greek cities, within the European urban system, (b) the potential of urban design as a means of economic development of cities and the ways such a ‘use’ of urban design may be adopted by Greek cities in urban waterfront redevelopment and (c) the main morphological and spatial characteristics exhibited in common by Greek cities and their waterfronts. The paper argues that in the competitive European urban system, urban waterfront redevelopment is a challenge for Greek cities – a pilot spatial terrain where ‘change’, ‘improvement’ and ‘development’ may operate: (i) ‘change’ of the established urban design practices from episodic and soft interventions towards large scaled interventions and avant-garde design of space, (ii) ‘improvement’ of the quality of space in the core of Greek cities, and (iii) ‘development’ of urban tourism by placing Greek cities on the urban map of Europe as a distinct group of cities with characteristic waterfronts. © 2001 Elsevier Science Ltd. All rights reserved.

Keywords: Urban waterfront redevelopment, Urban design, Greek cities

Introduction: urban waterfront redevelopment and the Greek experience so far

Urban waterfront redevelopment is already a well-established phenomenon internationally. Following the decline of old harbour sites and waterfront industrial areas in many cities all over the world in the second half of the 20th century, urban waterfront redevelopment started in north America with Baltimore’s Inner Harbour in the 70s and has gradually spread to Europe and elsewhere since the 80s. The intensification of the phenomenon in the last decade or so and its widespread importance have led to an increasing academic interest reflected in a series of international conferences and major publications focusing on different aspects of the phenomenon.

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1The causes of decline of central harbour sites and the relocation of port functions at the outskirts of the cities, have been well documented and analysed (see Hall, 1991; Hoyle and Pinder, 1992). The phenomenon is considered to be rooted in both the evolution of maritime technology (containerization, new port technologies, changes in the size and nature of ships, new transport systems for carrying cargo inland) and the development of industrial areas allied to port functions. These both led to a vast increase in the scale of ports in terms of land and water requirements, and thereby, forced the relocation of ports outside the cities on sites offering the required amount of space and better inland transports links.
2This is pointed out by the establishment of the Association Villes et Ports in Le Havre, which aimed to reinforce and deepen the understanding between port authorities, urban planners and designers and the academic community.
3A series of international conferences were organized in order to facilitate the exchange of ideas and experience on urban waterfront redevelopment: Le Havre (1987), Barcelona (1989), Genoa (1991), Venice (1991), Quebec (1993).
4For instance, from the point of view architecture, urban design and planning, a presentation of various cases of urban waterfront redevelopment is included in Bruttomesso (1993) as well as Breen and Rigby (1996). The economic and political forces behind a number of urban waterfront redevelopment and the relationships
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In Greece so far, the phenomenon has been confined to one scheme only – the renewal of Thessaloniki’s central harbour pier in 1997. However, in urban design discourse, urban waterfront redevelopment has been gradually rising as central topic in Greece during the last decade: On the academic level, theoretical concepts as well as design projects concerning four Greek cities have been presented (see Infussi, 1997). On the level of local authorities of cities, municipal authorities or/and port authorities of four cities have recently launched research programmes and urban design competitions for the redevelopment of declined and underused harbour piers and docks as well as the renewal of urban waterfront sites. Although experience on both proposed and realized redevelopment schemes is so far limited in Greece, one can still point out some early indications concerning the emerging framework of policy and physical redesign of space (Fig. 1).

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Redesign of space is focused on the the individual characteristics of urban waterfronts over-localised design approaches based on the ‘uniqueness of place’.

(a) As far as local authorities of cities are concerned, urban design competitions or/and research programs are usually ‘confined’ to the precise parts of the waterfronts belonging to the particular authority’s jurisdictions. This is clearly pointed out in the case of Volos: within a time period of 6 months, between autumn 1999 and spring 2000, port authorities and municipal authorities did separately launch and finance respectively a research program and a national urban design competition.

(b) The development potential of the site gets restricted

(c) International experience gets marginalised

between those forces and urban planning and design, are examined in Hoyle and Pinder (1992), Malone (1996). The impact of leisure activities, historic and heritage opportunities for visitors and in general the role of urban tourism in the redevelopment of urban waterfronts in many countries, are analysed in Craig-Smith and Fagence (1995).


These projects were carried out under the ‘Heracles Program’ financed by Heracles General Cement company. The aim of the program was to contribute in the efforts of the Greek cities to improve the quality of built environment so as to meet the requirements of the new era following the integration of European communities. For this purpose, ten Greek and Italian urban designers were invited to work separately on five urban areas that are located in four Greek cities and exhibiting spatial problems common in many Greek cities. The areas are (a) ‘Ippodromos’ and ‘Falirikos Ormos’ in Athens, (b) the area surrounding the central railway stations in Athens, (c) the harbour site in Patras, (d) the central waterfront in Volos, (e) ‘Epano Skala’ in Mitilini. Ten projects were carried out while eight of them did somehow concern urban waterfront redevelopment.

This refers to the cities of Patras, Alexandroupolis, Kavala and Volos.

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Figure 1 The emerging framework of policy and physical redesign of space in Greek urban waterfronts

Figure 2 The city of Volos; the central harbour pier and the city’s central waterfront
concerning the renewal of two adjoining parts of the urban waterfront – respectively the central harbour pier and the central section of the city’s waterfront (Fig. 2). There has been no co-ordination of local authorities concerning planning or/and redesigning of space. As a general trend, local authorities tend to formulate a policy that marginalizes redesign of urban waterfront as a whole while treating it in a fragmented and episodic way.

(b) Projects by academics and urban design practitioners (see Infussi, 1997) do exhibit a consideration of the city’s waterfront as a whole or, as self-contained parts. However, these projects are often based on a sort of ‘over-localized’ design approach: redevelopment or renewal plans are focused on the individual and special characteristics of the waterfront sites in each case – such as for instance, historic and architectural heritage. Thereby, redesign of space is operated in the context of ‘the uniqueness of place’ rather than within a framework interpreting urban waterfront redevelopment in Greek cities – as a group of cities – and allowing specification in each separate case.

This framework of policy and physical redesign of space in Greek urban waterfronts – that is gradually getting established – seems to exhibit inherent limitations for the redevelopment schemes themselves (Fig. 1):

- The physical redesign of space itself may get restricted.
- The development potential of the place may get limited.
- International experience on urban waterfront redevelopment may get marginalized.

All the above limitations are clearly shown in the case of Thessaloniki. The renewal plan of the underused old harbour pier adjoining the city’s centre, was focused on what had been considered the most important and special characteristic of the site – the 19th and early 20th century harbour buildings. The great emphasis on the historic and architectural heritage of the site (see Papakostas et al, 1995) confined redesign of space to soft interventions – mainly concerning conservation of buildings and open spaces and redesign of interior spaces only (Figs 3 and 4). As a consequence of both soft interventions and the existing morphology of buildings and spaces, the whole renewal scheme was adopted to a ‘mono-the-matic’ or single-dimensioned re-use of space – the creation of high culture spaces only (exhibition halls, congress halls, etc). This kind of re-use of space was in great contrast with international experience and literature pointing out mixed uses, and leisure activities in particular, as key-factors to success of urban waterfront redevelopment schemes (Tunbridge and Ashworth, 1992; Falk, 1992). The single-dimensioned re-use of space has limited the development potential of the place: high culture spaces having the inherent limitation to exclude certain groups of users, prevented the place from getting integrated into the centre of the city and the lively public open spaces in the adjoining historical area of Ladadica. Most of the time, the redeveloped site remains ‘dark’ and underused only attracting certain groups of people when cultural events are hosted.

**Investigating a framework for redesigning space on Greek urban waterfronts**

In order to avoid such negative effects, as those described in the case of Thessaloniki, and use urban waterfront renewal for supporting economic development of Greek cities in the new competitive milieu, the theoretical framework for redesigning waterfronts could be investigated on the basis of three considerations:

(a) The development prospects of Greek cities, and especially smaller Greek cities, in the era of globalization and the new competitive environment – the European urban system.

(b) The potential of urban design as ‘a means of economic development’ of cities in the era of globalization and the ways Greek cities may adopt such a use of urban design in urban waterfront redevelopment.

(c) The main morphological and spatial characteristics exhibited in common by Greek cities and their waterfronts.

**The ‘global urban system’ of Europe and the development prospects of Greek cities within it**

In the last decade, a growing number of studies with different scientific concerns appear to converge in that the dynamics of urban networks have been strongly affected by late twentieth century economic globalization (see for instance, Castells, 1989; King, 1990; Sachar, 1990; Sassen, 1994; Amin and Thrift, 1995; Savitch, 1996; Hall, 1998; Short and Kim, 1999): More than ever, markets appear to transcend the borders and interests of nation states while the ability of individual countries to direct their internal economies and shape the manner in which they interacted with external structures, has declined accordingly. These changes reshape urban networks and rearrange the distribution of opportunities and income in cities, regardless of the cities’ degree of participation in the global economy. As Shaw (2001) states, all cities in almost every nation have been affected to a greater or lesser degree. Changes involve urban networks as well as the organization of space within individual cities (Shaw, 2001; Sassen, 2001).

In Europe, the process of economic globalization along with completion of the internal market and the abolition of internal frontiers within the European Union in the last decade, have altered the function of the European urban system. European cities are increasingly linked to forces external to their national
boundaries and they appear to function as unified network of urban settlements (CEC, 1992). Some scholars go as far as to argue that ‘Europe is becoming a community of cities rather than a community of nations or/and countries’ (Simioforides, 1998, p 144).

In this global urban system, European cities do not structure a single or/and strict hierarchy but they rather form overlapping and flexible hierarchies according to their particular performance in different sectors and activities (e.g., manufacturing, services, high technology, tourism, etc.) as well as spheres of influence – regional, national, international (CEC, 1992; Petrakos and Economou, 1999). In this framework, the key process is an increasing competition8 among cities to upgrade their status in the hierarchies of the global urban system; or in other words, an inter-city competition for a new centrality9 (CEC, 1992; Brotchie et al., 1995; Cox, 1995; Duffy, 1995; Simioforides, 1998).

In the framework of competition, the development prospects of cities are often regarded as associated to certain parameters that are presented (CEC, 1992; Simioforides, 1998; Petrakos and Economou, 1999) as key factors to success: (a) diverse economic base and qualified human capital, (b) services with high technology and strong local linkages to knowledge based institutions, (c) developed and modernized infrastructures (transport links, telecommunications, etc.), (d) high quality of urban environment – built environment, public open space, urban life, and (e) the institutional capacity to develop and implement future oriented development strategies. In respect to these factors, formal studies commissioned by the

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8Harvey (1989a) describes various strategies by which cities may compete for investment or resources: (i) competition within the spatial division of labour (improving technology, infrastructure and cutting labour conditions), (ii) competition within the spatial division of consumption (attracting and retaining tourists and high income residents), (iii) competition to become financial, governmental or informational centres, and (iv) competition for governmental distribution.

9The term ‘new centrality’, often encountered in recent literature on cities in the globalized economy, remains open to interpretations. For instance, Sassen (2001) writes that new technologies and globalization engender a whole new problematic about what constitutes ‘centrality’ today (a) in an economic system where a share of transactions occurs through technologies that neutralize distance and place and (b) since centrality has historically been embodied in certain urban forms — the central business district.
European Union (CEC, 1992) as well as other academic studies (Petrakos and Economou, 1999) attempt to analyse the function of European cities as a global urban system and anticipate the development prospects of distinct groups of cities formulated in it – metropolitan cities, larger cities, smaller cities, as well as cities in the core of Europe (old core, expanded new core) and cities in the periphery (economic or/and geographical) of Europe.

In this framework, the majority of Greek cities with the exception of Athens and Thessaloniki, represent smaller cities in the periphery. And this group of European cities is expected to face particular constraints in getting integrated into the new competitive milieu. Because, in contrast to smaller cities located in the old core or in the expanded new core, smaller cities in the periphery usually suffer from major structural weaknesses such as inadequate infrastructure (physical infrastructure, telecommunications), limited inward investment and dependence upon indigenous small firms technologically underdeveloped. Problems of ‘peripherality’ may be partially offset by the creation of networks within the global urban system which disseminate best policies and good practice in various sectors and activities as well as provide smaller peripheral cities with access to technical resources – otherwise monopolized by larger cities with their advanced services. However, smaller cities located in remote rural areas or/and relying upon declining economic activities (eg non-competitive agriculture, obsolescent industry and old port infrastructure), are going to be hit harder by the increasing intensity of competition. Especially those smaller peripheral cities lacking of resources (eg indigenous resources such as exploitable cultural heritage, attractive natural environment, or other...
recourses such as infrastructure, qualified human capital, etc) to restructure local economy towards flourishing economic activities (eg tourism, services, new technology industry, cultural industry) are considered to have particularly unfavourable development prospects (CEC, 1992; Petrakos and Economou, 1999).

Therefore, it can be said that a large number of smaller Greek cities – with the exception mainly of those characterized by tourism development due to cultural heritage or/and attractive natural environment – are likely to face difficulties in the new competitive environment.

Urban design as a ‘means’ of economic development of smaller European peripheral cities and Greek cities

In the above, rather disadvantageous, group of cities, urban design may become a determinant factor for their development prospects; it may constitute a helpful tool serving in the direction of addressing ‘peripherality’ and decline and restructuring local economy towards services and urban tourism (Gospodini, 2000). This can be developed as a two-fold argument:

First, as previously presented, one of the key factors (Fig. 5) affecting the competitiveness of a city for new investments and resources within the global urban system of Europe, concerns the quality of the urban environment – built environment, public open space, urban life. Therefore, on a general level referring to all cities, urban design appears nowadays to undertake a new enhanced role as a means of economic development.

It can be said that in the era of globalization, the relationship between urban economy and urban design, as established through out history of urban forms, is getting reversed: while for centuries the quality of urban environment has been an outcome of economic growth of cities, nowadays the quality of urban space has become prerequisite for economic development of cities; and urban design is consciously used a means of enhancing the development prospects of cities (Gospodini, 2000).

Second, especially for smaller peripheral cities, the role of urban design can become critical: As Kantor (1987) states, cities in the post-industrial era have become ‘captives’ of a highly competitive economic environment in which traditional factors (eg geography, physical infrastructure) that once affected the location of new business to a specific place, matter less than ever. Due to the capacity of capital to switch locations, all cities – with the exception of ‘global cities’ (Sassen, 2001) having sufficient power to mastermind volatility of capital – have become interchangeable entities to be played off one against another forced to compete from positions of comparative weakness for the capital investment (Kantor, 1987). In this process, as Boyle and Rogerson (2001) argue, the task of urban governance has increasingly become the creation of urban conditions sufficiently attractive to lure prospective firms; and this has entailed what Cox (1993) termed New Urban Politics (NUP). In order to secure development and growth, ‘localities’ or individual cities now have to offer even more inducements to capital – whether it is a refashioning of the city’s economic attractiveness (eg tax abatements, property, transport facilities) or alterations to the city’s image through manipulation of its soft infrastructure (eg cultural and leisure amenities) (Boyle and Rogerson, 2001). This has generated the ‘new urban economies’ among which cultural and leisure economies are the most widespread and perhaps the most visible manifestations of economic novelty in cities (McNeil and While, 2001). ‘Urban regeneration has become a growth industry in itself as a variety of options have opened to urban leaders seeking to rebuild their cities …. Derelict industrial sites have been turned into heritage parks, old canals or waterfronts have become housing or restaurant areas, and warehouse conversions have helped build up urban living into something chic’ (McNeil and While, 2001, p 298).

Especially in urban waterfront redevelopment, following the cases of Baltimore, Barcelona, Cardiff, Genoa, Rotterdam, and many other cities, the appearance of such schemes in virtually every coastal city finally puts into doubt the competitive edge that can be gained by such strategies (McNeil and While, 2001). But if such planning strategies may end up to a zero-sum competition among cities, it seems that design can make the difference.

Due to the growing volatility of capital and the increasing competition among cities, long term planning can be at odds with the flexibility and the mobility which capital demands (Boyle and Roger son, 2001). Harvey (1989b) goes as far as to argue

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**Figure 5** Key factors for the development prospects of cities within the European global urban system; the new role of urban design

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<td>5. the city’s institutional capacity to develop and implement futureoriented strategies</td>
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*Urban design undertakes a new enhanced role as a means of economic development*
that in the post-modern condition, there is no ‘planning’ only ‘designing’. To play right with volatility of capital by means of ‘design’, Harvey suggests that there are two options: (a) being highly adaptable and fast moving in response to market shifts, or, (b) masterminding market shifts. The intention underlying the former option is to make short-term gains by responding in every phase to the market needs. The intention underlying the later option is to make long-term gains by manipulating the market tastes, opinions and needs and making them fit into the proposed design scheme (Boyle and Rogerson, 2001). This involves the generation of symbols and images (Zukin, 1995).

Building on Harvey’s argument, it can be said that in the European global urban system, the development path of metropolitan cities and larger cities in the core can simultaneously follow both of Harvey’s options in relation to design because they acquire sufficient power, mechanisms and human capital to either rapidly shift the design trends and practices so as to constantly meet the changing market needs, or have a normative attitude on the markets tastes, opinions and needs through innovative design. In contrast to this, cities in the periphery, and especially smaller cities in the periphery, lacking the necessary power, mechanisms and human capital to quickly respond to the market shifts, appear to have only the later option – ie, the production of innovations in design, that may generate new trends in the market and thereby, peripheral cities as pioneers, to secure their development and growth. Evidence to this can be provided by Barcelona and Bilbao, Spain. In both cases, avant-garde urban design schemes and large-scaled interventions introduced in urban redevelopment, seem to have acted as key factors to success; they seem to have made the difference for these cities among other cities adopting similar urban strategies to facilitate economic development.

In Barcelona – a former peripheral city now belonging to the expanded new core of Europe – the aim of improving the city’s image was fulfilled through large scaled interventions covering all districts of the city and operated in a form-based framework which marginalized planning while offering a great role to architectural and urban design (Busquets, 1998). Innovative design was pursued by means of national and international design competitions; and this design-oriented approach to the issue of improving the city’s status, has successfully transformed Barcelona into both an entrepreneurial centre and a tourist place. This is clearly shown by the first results concerning the increase of visitors; foreign travellers have increased a significant 43% whereas non-Basque Spanish represent a 20.4% growth (Plaza, 1999).

Especially the success of the Guggenheim building in attracting visitors, does reinforce a new international paradigm concerning the relationship between urban design, urban space morphology and urban tourism: Irrespective of the particular functions and activities accommodated in space, avant-garde physical design of both buildings and open spaces can make urban space morphology in itself and of itself a sightseeing and tourist attraction (Gospodini, 2001).

The strategy of using avant-garde design as tourism resource seems to have positive effects on both society and the planner’s dilemmas (eg high culture spaces, or, McDonaldization and Disneyfication of space?). Since the morphological – and not the functional – dimension of space is in this case used as the main pole of visitors attraction, high culture activities do not a priori exclude certain social groups from the redeveloped area. Irrespective of educational, cultural or economic status, visitors may at least get attracted in the area for experiencing new forms of urban space.

All the above allows us to suggest that a strategy encouraging avant-garde design and large scaled interventions in the redevelopment of Greek urban waterfronts may support economic development and in particular urban tourism development in Greek cities, and smaller Greek cities lacking of indigenous resources.

**Greek cities and their waterfronts: features of urban space morphology**

For many decades, urban design in Greek cities, and smaller cities in particular, has been confined to small-scaled, episodic, fragmentary and soft interventions:16 On the one hand, as far as private land is concerned, development has been regulated by the state only through building legislation and master plans of the area controlling land uses and densities and determining the shape of the street system (Emmanouil, 1998). This sort of minimalism in state intervention along with land division into small-sized private properties, have entailed the fact that the physical form of urban space and the architectural landscape of contemporary Greek cities have been a product of a step-by-step development – literally a property-by-property design of urban space often without any consideration about neighboring properties or/and spatial entities such as the street, the

16Only in Athens and Thessaloniki large-scaled urban design projects have been recently realized, or are under construction, in association with great international events such as, Thessaloniki: the Cultural Capital of Europe in 1997 and Olympic Games of 2004 in Athens. Other exceptions are a limited number of housing estates designed and constructed during the last four decades by the Organization of the Working Class Housing and the Public Authority for Urban Planning and Housing.
Urban waterfront redevelopment in Greek cities: A Gospodini square, the larger area. On the other hand, as far as public land is concerned, master plans have been usually providing the city with minimum public open spaces and public amenities, distributed all over the plan. The shortage and dispersal of public land – whether open land or public open spaces – has confined urban design to episodic interventions (small complexes of public buildings) as well as moderate schemes for public open spaces.

In the context of the ‘over-fragmented’ and ‘collage-like’ morphology of Greek cities, those city-fragments that are characterized by homogeneity and perceived as self-contained parts in virtue of (a) common morphological features (strong formal character), (b) accumulation of public open space and public amenities (strong public character), and (c) topographical peculiarities (landscape character) are particularly important.

Such fragments may provide the city as a whole with an individual character or what Stefanou (2000) calls the ‘physiognomy’ of the city. In the era of economic globalization, physiognomy appears to be a critical parameter for all cities and especially for smaller peripheral cities like Greek cities; it can differentiate cities and make a city recognizable among others; thereby, it may reinforce the city’s competitiveness (Stefanou, 2000).

In the existing morphology of Greek cities, as presented above, historical urban cores and urban waterfronts represent the most significant elements of the Greek city’s physiognomy. As far as historical urban cores are concerned, conservation and renewal plans aiming to reinforce the city’s physiognomy have already been implemented in many Greek cities during the last two decades (see Voulgaris, 1998). Urban waterfronts, in virtue of their morphological and spatial characteristics, may become a unique spatial terrain – suitable for large scaled interventions and avant-garde design schemes that can promote economic development and urban tourism in smaller Greek cities without resources:

(a) The majority of Greek cities are coastal urban settlements. Urban waterfronts represent both a key morphological feature of Greek cities and a spatial terrain, shared in common by them.
(b) Many coastal Greek cities are in terms of physical form, characterized by a linear development along the coastline, and thereby, have waterfronts of substantial length often including public sites and public open spaces large in size. Therefore, in contrast to the shortage and dispersal of public land in the centre of Greek cities, urban waterfronts constitute a considerable amount of continuous public urban land suitable for large scaled urban design interventions.
(c) Quite a few coastal Greek cities which developed significant port activities in the 19th and early 20th centuries, have in their centres old harbour installations that have been getting underused in the last decades since port functions are gradually relocated at the outskirts of cities, on new piers and docks designed to satisfy contemporary requirements. Therefore, in contrast to the shortage of public land in the centre of the Greek cities, a large amount of public space at the important interface between built fabric and water, is getting redundant and thereby, ‘open’ to redevelopment. Moreover, in these cases, urban waterfront renewal, by means of conservation, redesign and re-use of old harbour buildings, can also add to the historical and architectural heritage of the city that is considered highly exploitable urban tourism resource (Ashworth and Tunbridge, 1990).

(For instance, the cities of Thessaloniki, Volos, Patras, Kavala.)
Figure 7  Syntactic analysis of Thessaloniki; integration map. Light grey lines represent streets with low integration value in the city (segregated streets) whilst dark grey lines represent streets with high integration value in the city (integrated streets). The integration core of the city consists of the 5% most integrated streets (darkest lines). The waterfront area including the central harbour pier is located on the south (bottom of the graph).

Figure 8  Syntactic analysis of Volos; integrated map. Light grey lines represent streets with low integration value in the city (segregated streets) while dark grey lines represent streets with high integration value in the city (integrated streets). The integration core of the city consists of the 5% most integrated streets (darkest lines). The central waterfront area including the central harbour pier is located on the south-east (bottom right of the graph).
cities, the Agora was shifted from the geometrical centre of the city onto the waterfront, close to the harbour. In terms of space syntax, the waterfronts in these ancient Greek cities did not belong to the integration core of the city (Gospodini, 1993). However, the waterfronts did represent part of the city’s centre since there was located the Agora – the city’s most important space in political, social and economic terms. In contemporary Greek cities, an analogous relationship is still present. In contrast to many European and American cities, where the waterfronts have become redundant and underused following the decline of old harbours and maritime industries, Greek urban waterfronts constitute lively urban space and inseparable part of the city’s centre in many respects:

- In terms of land uses and density, waterfronts and the city’s centre usually exhibit common characteristics; high densities and mixed land uses (commerce, services, entertainment, housing). Moreover, waterfronts are always characterized by high concentration of entertainment spaces (cafes, restaurants, bars, etc).
- In terms of space syntax, waterfronts in many cases belong to the integration core of the city (Figs 6 and 7). In some cases, the waterfronts are very close to the integration core, surrounded by the core and well connected to it (Fig. 8).
- In terms of use-densities of public space, waterfronts – in accordance of course with their syntactic characteristics (see Hillier et al, 1993) – usually include some of the city’s most densely used public open spaces (pedestrian streets, squares etc).

Thus, it can be said that in Greek cities, as opposed to other groups of cities, waterfront redevelopment means intervening and redesigning the ‘heart’ of the Greek city. (c) Finally, from the point of view of urban tourism, this ‘great growth industry itself a reflection of the globalized economy’ using Peter Hall’s words (Hall, 1996, p 407), urban waterfronts are highly exploitable spaces due to their fundamental property of being the interface between built environment and water. From this property, according to Tunbridge and Ashworth (1992), stem inherent virtues which are exploitable as resources of urban tourism: (i) high degree of accessibility over both land and water that is exploitable by transport means providing both transportation and leisure – eg special sightseeing buses or trains, excursion boats, cruise ships, etc, and (ii) environmental amenity which is exploitable by means of promenades, views to both the sea and the city, particular types of activity spaces along, over and on the water.

Conclusions: towards a framework for redesigning Greek urban waterfronts

In the context of (a) the development prospects of Greek cities within the global urban system of Europe, (b) the potential of urban design as a means of economic development of smaller peripheral European cities and (c) the morphological and spatial properties of Greek cities and their waterfronts, as previously described, urban waterfront redevelopment in the case of Greek cities can be conceived as a ‘pilot spatial terrain’ where by means of avant-garde physical design and redesign of space, ‘change’, ‘improvement’ and ‘development’ can be operated:

- It can be a chance to change the established urban design practice from small scaled, episodic, fragmentary and soft interventions towards large scaled interventions and avant-garde physical design of space – that may enable Greek cities to improve their image and be competitive in the era of globalization.
- It can be a challenge to largely improve the quality of built environment in the heart of the Greek city while simultaneously built on the historic and traditional relationship between sea and the core of Greek cities.
- It could finally be a vision for urban tourism development in smaller Greek cities by placing them on the urban map of Europe as a distinct group of cities with characteristic waterfronts.

References

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