Assessing social impacts in urban waterfront regeneration

Rauno Sairinen*, Satu Kumpulainen

Centre for Urban and Regional Studies, Helsinki University of Technology, P.O. Box 9300, 02015 TKK, Finland

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Abstract

The target of this article is to identify the social impacts of urban waterfront regeneration. For this purpose, four different dimensions of social impacts in urban waterfront planning are presented: resources and identity, social status, access and activities and waterfront experience. The four social dimensions refer to the different ways of experiencing and using the edges of the sea, lake or river to make an understanding of their qualities to the community. The contents of this typology are illustrated by analysing some basic features of three different newly built waterfront areas in Helsinki. The article is based on post-evaluation.

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1. Introduction: the importance of social aspects in urban waterfront regeneration

The social dimensions of urban waterfront regeneration plans have become increasingly important in urban politics. In coastal urban areas, the competition for waterfront space, the need for public access to the shore and the conservation of waterfront biodiversity as a natural resource have become an increasingly topical issue in urban policy (see e.g. Breen and Rigby, 1991; Petrillo and Grenell, 1985). The issue is complex, contradictory and full
of pressures based on different actors and views. The varied physical context and multiplicity of needs make design both a challenge and an opportunity.

By ‘urban waterfront’ we mean here the water’s edge in cities and towns of all sizes. The water may be a river, lake, ocean, bay, creek or canal. In a waterfront ‘project’ or ‘plan’ we include everything from a wildlife sanctuary to a container port, and the full spectrum of uses in between. The ‘project’ may be planned as a unified undertaking, or it may be a haphazard development occurring over time, with multiple owners and participants. For our purposes a waterfront project may include buildings and areas that are not directly on the water but are tied to it visually, historically or ecologically or are linked to it as part of a larger scheme.

During the last centuries, the urban waterfront areas have undergone large transitions (see e.g. Breen and Rigby, 1991; Hudson, 1996). As more people have found more ways to take delight in the waterfront, it has increasingly been taken away from public uses.

Use of the urban waterfront has been usurped by giant ports and extraneous uses, such as warehouses, factories and transportation. Nevertheless, during the last decades, the attraction of the urban coastline has been recognized and efforts have been made to preserve what is left of it. Since the 1970s, numerous waterfronts have undergone a reorientation from ‘brown fields’ or ‘green belts’ to commercial, residential and recreational areas. New laws have been passed and planning tools developed in order to regulate what can be built near the water. It can be said that contemporary urban waterfront redevelopment and regeneration projects represent today an international undertaking in urban planning and politics (Feldman, 1999).

Urban waterfront redevelopment as we know it today embodies the historic alteration of land and water uses along the edges of thousands of cities, large and small, throughout the world. Complex and multifaceted, current waterfront redevelopment trend is attributable to a number of factors, notably: (1) Technological changes post World War II, which led to abandonment and/or deterioration of thousands of acres of industrial land across waterfronts, (2) The historic preservation movement, (3) Heightened environmental awareness and water cleanup, (4) Consistent pressure to redevelop central city areas, (5) Public (state, federal and municipal) urban renewal and related assistance.

These and other forces combined have brought about dramatic changes in the last 30 years that have altered the face of urban waterfronst for present and future generations. The recent shift from industrial uses of the urban waterfronts is as profound as the initial eighteenth and nineteenth century development of harbours and shores for industry, and their use in earlier times for shipping, storage and shipbuilding.

During last decades various policy concepts have been used in order to govern the structural changes in urban land-use, also urban waterfronst. Roberts (2000) has distinguished five different periods in the evolution of urban regeneration: a) reconstruction (1950s), b) revitalisation (1960s), c) renewal (1970s), d) redevelopment (1980s), e) regeneration (1990s). The move has been from physically oriented sectoral renewal schemes towards a more comprehensive form of policy and practice with more emphasis on integrated treatments. The ideas of regeneration have meant an introduction of broader idea of environmental sustainability containing also the social dimension and community targets.
The various regeneration periods have also influenced the urban waterfront policies. Today, urban waterfront regeneration takes place in a societal environment of increased capital mobility and inter-urban competition (Malone, 1996). Because cities have to compete for investments and affluent residents, city governments cannot merely ‘manage’ the development, i.e. focus on the redistribution of resources, but have to actively pursue investments and publicity to survive in the increasing inter-urban competition. Thus, the new economic configurations are accompanied by more flexible, fragmented and entrepreneurial forms of governance (see e.g. Healey et al., 1995; Feldman, 1999). Urban governance has expanded to involve not only the government but also a range of private and semi-public actors. This approach to urban governance, based on public–private partnership, flagship projects, aggressive marketing and consumption-oriented projects such as retail and tourism centres, has been labelled entrepreneurial urban governance (Harvey, 1989), and it is often well exemplified by large-scale urban waterfront regeneration projects.

When talking about urban waterfront regeneration, we can not forget the strategies of urban densification. One of the leading policy strategies of growing cities is to increase the density of the urban structure in order to advance sustainable development by minimizing investments in infrastructure, energy consumption and emissions from private car traffic (see e.g. Jenks et al., 1996; Päivänen, 1999). These urban densification processes have intensified the planning and building of waterfront areas near the city centres. Thus, the compaction strategies have provided environmental arguments to ‘redevelop’ these sensitive areas, which were traditionally difficult and contradictory questions for policy makers.

Urban waterfront regeneration projects are not just examples of new governance styles and policy targets, but also objects of intensive local planning debates and even conflicts. The citizens and various interest groups have been widely interested in how the urban waterfronts are planned. What are the real reasons and targets? For whom are the plans made? What kind of environmental or social effects do the plans have?

For urban development the waterfronts are often strategic areas, because their usage has direct (or indirect) impacts on the image of the place (coastal city, city beside the lake, riverside town) and on social equity (waterfronts as areas of high-price housing and gentrification), and at the same time they quite often represent unbuilt natural resources or green areas in the urban structure.

These complex and frequently adverse planning conditions have created new requirements for the waterfront planning processes and methods. Today, the renewal of urban waterfronts needs to be planned more cautiously than in earlier times. In this context, considering the social impacts and aspects of waterfront regeneration has become increasingly important task for both the legitimacy and the actual substance development of waterfront projects and plans.

This task is closely related to the general developments of impact assessment practices in urban planning (see Sairinen, 2004). The impact assessment procedures and participatory planning practices are one of the main methods, which have been developed to satisfy the general legitimacy qualifications of ‘cautious’ land use planning. But there are some major problems in this field. The whole question of how and when we assess the impacts of town or general plans is a rather new matter in urban planning systems all over the world. Environmental impact assessment has been used widely in urban
infrastructure projects (project level) and sometimes in strategical level (such as city development plans), but the impact assessment of concrete land-use plans has been very poorly developed area. The social impact assessment of land-use plans has been much more weakly developed area. To conclude, there is a clear need for developing the contents of social impact assessment of urban waterfront planning and regeneration.

2. What is social impact assessment?

Social impact assessment has no single, universally accepted definition. However, its content and subject matter consist of distinguishable components that consistently appear when the SIA process is implemented. According to the International Association for Impact Assessment, “social impact assessment (SIA) includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions” (IAIA 2003).

Based on the writings of several SIA practitioners and researchers we can identify following features characteristic to the SIA process (Dietz, 1987; Burdge, 1998).

– SIA is relative to environmental impact assessment (EIA).
– It is done in advance during the planning phase in order to offer better knowledge-base for the decision-making processes.
– It is a tool for developing alternatives and determining the full range of consequences for each alternative.
– It is a tool for developing mitigation, adaptation or compensation measures for the harmful social impacts.

Usually, social impacts have contextual features and they represent complex social relations or dynamics. The nature of social change will vary with the type and size of a development project (or plan), as well as with the nature of the community in which the project is located. To study social change social scientists must switch from their traditional focus on structure in social organisations to a more dynamic assessment of the social impacts of planned change (Burdge and Johnson, 1998).

Thus, in the SIA research we have to apply various kinds of theoretical models or concepts and investigate the case-specific conditions. When seeking after causal relations, it is good to remember that causal models incorporate also the idea of multiple causality, that is, there can be more than one cause for any particular effect. On the other hand, social impacts refer not only to causal relations but also to social meanings and subjective (or communal) values. In addition, one of the key elements of SIA is that it provides methods for analysing social effects from the views of various population groups (social, age, ethnic, etc.). Thus, SIA must operate within the context of the different perspectives and value sets of the various actors.

The methodology of social impact assessment favours a quite pluralistic approach, which can use both quantitative and qualitative analysis. Through this kind of pragmatic approach we can find suitable ways in linking social theory to empirical research.
Public involvement (or public participation) and social impact assessment are (and should be) clearly interactive in a planning process. The issue of community participation raises many questions about the extent and validity of the knowledge and opinion of local communities, and about the right of local communities to determine their own destinies independent of outside interference (Burdge and Vanclay, 1998, Creighton et al., 1983). Firstly, the public involvement process can serve as a means of collecting valuable data on specific SIA variables. Interviews, surveys, workshops, etc., are all frequently used as public involvement tools and can easily be used to study effects on local social structures. Secondly, the general community does not necessarily know what the likely effects of development will be. Thirdly, strong public support for a project does not mean that there will not be any major social impacts.

SIA will be most successful when fully integrated into planning at the appropriate level of jurisdiction (Burdge and Vanclay, 1998). When this integration is accomplished, both social and environmental factors become central to planning decisions, rather than being treated as external or peripheral to the planning process. Achieving such integration requires a sound understanding of the nature of planning on the one hand, and how advances in knowledge about impact assessment and its many methodologies can fit into modern planning models on the other.

3. The social dimension of urban waterfront regeneration

The social impact assessment of urban waterfront planning examines the different ways of experiencing and using the edges of seas, lakes or rivers and understanding their qualities for the community. Here, the objective of SIA is to increase the awareness of planners, decision-makers and the whole community about the social and cultural aspects of waterfront areas, such as the physical, recreational, and cultural relationships between a community and the waterfront. Generally, the main planning question concerns the relationship between human-modified and natural environments. In addition, one of the main tasks of SIA is to predict how the nature of a community will change as a result of a specific project and to identify the stakeholders, the winners and the losers of the proposed activities.

The social dimension of urban waterfront regeneration can be divided into four categories: resources and identity, social status, access and activities, and waterfront experience (Table 1). The categories are based on an analysis of earlier SIA-studies and urban waterfront studies. These categories can be used for identifying and analysing the social impacts of urban waterfront plans and projects.

When analysing the social dimensions of waterfront regeneration the degree of water “dependency” is significant (Wrenn, 1983). A threefold classification of water dependency is possible:

1. Water-dependent uses (waterfront location is indispensable)
2. Water-related uses (maximizing the advantages of waterfront location)
3. Water-independent uses (neither dependent nor related to waterfront).
In social impact assessment various impact categories could be analysed according to these different uses. The degree of water dependency and the possible impacts are dependent on the interests and perspectives of the people involved. First of all, people who use waterside areas for residence, place of work, or recreation are associated with waterside areas for housing, industry, commerce, transport, and a variety of leisure and recreational facilities. Secondly, those people who view waterside areas as a public resource are concerned about the quality and use of waterside areas even if they themselves may not directly use or benefit the resource. It is the second group of people who are inclined to use a water-related corridor as a recreational and environmental resource (Craig-Smith, 1995).

4. Waterfront regeneration in Helsinki

In this chapter, the case-study areas, three new waterfront areas in Helsinki City in Finland, are introduced (look Fig. 1). In the following chapters, the four dimensions of social impacts of urban waterfront planning (see Table 1) are presented by using these cases.

Case-study areas are used in order to identify, construct and at the same time illustrate different features of social aspects in urban waterfront planning. The article is based on post-evaluation using expert interviews (land-use planners from Helsinki) and literature reviews as methods. The case studies are not empirically or methodologically comprehensive case analysis, but a kind of test cases for applying the impact typology and for developing further the substantial understanding of urban waterfront regeneration.

The general institutional framework and at the same time the planning cultures of Finnish urban waterfront planning have been under heavy changes during last 10 years. There was made an amendment to the old Building Act already in 1994 about the

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| Resources and identity | – Main characteristics and strengths of the area |
| | – Opinions of the environmental, cultural or historic values |
| | – Significance to the visual, social, and cultural identity (city image, community identity) |
| Social status | – For whom (social, age or ethnic groups) are the housing and service areas planned and built? |
| | – Role of social/private housing |
| | – Segregation and/or gentrification processes |
| Access and activities | – Are the waterfront areas accessible to the public? |
| | – What kinds of activities are possible? “Water dependency” |
| | – Easy or difficult approach to waterfront? |
| | – Traffic and parking questions; waterfront routes |
| Waterfront experience | – Presence of water (sea, lake, river, etc.) |
| | – Restorative experiences, importance of visual messages, physical touch, tastes, voices, moving in the space, sense of transition as identification |
requirements of impact assessment in land use planning. The problem was that the planning practices did not take these requirements seriously (YM 2002, 30). We had to wait for renewing the whole planning legislation to make the impact assessment more real in urban planning.

The Land Use and Building Act, which came into force on 1.1.2000, brought many reforms. It introduced new roles of different administrative levels of planning, changed the quality criteria and verification procedures and added openness and communication requirements.

According to the Land Use and Building Act there should be adequate investigation of a plan’s potential environmental impacts, including implications for the community economy, social, cultural and other effects. Thus social impacts are mentioned separately in legislation.

According to the Land Use and Building Decree (1999) environmental impacts are understood as direct and indirect effects on:

- people’s living conditions and environment;
- plants and animals, water, air and climate;
- flora and fauna, biodiversity and natural resources;
- regional and community structure, community and energy economy and traffic;
- townscape, landscape, cultural heritage and the built environment.
There have been several urban waterfront regeneration projects in Helsinki in the last 15 years. Occasional projects were carried out already in the 1970s and early 1980s, but the possibility for large-scale waterfront revitalization was brought up in 1984 in the so-called RAMA-report, which listed possible areas for revitalization (RAMA, 1984). Some of the areas housed ports or port-related industry; some were wasteland or home to small-scale industry. However, these areas were predominantly on municipal land, which ensured that the construction works of the first area could be started already in 1988. Waterfront will be a central focus for planning in Helsinki for years to come, since the construction of a new freight harbour outside the dense urban structure will free the last central areas for redevelopment by 2008.

Ruoholahti was one of the first waterfront areas to be built after the new planning focus of the 1980s. The area has a central location, only 1 km southwest from the city centre. Ruoholahti is the first of the three artificial capes that are to be revitalized in the Western Harbour-district. The other two currently house a port, a passenger harbour and shipbuilding industry.

The residential area in Ruoholahti is situated directly on the waterfront, the adjacent office area lies close to important traffic arteries. The construction of the residential buildings began in 1991, whereas due to the economic recession the construction of the office buildings was not started until 1997. The aim was to create a dense housing area for altogether 9000–10,000 people and new jobs for 5000 people.

The social structure of the new residential area was carefully planned, although no concise social impact assessment was made. Residents’ opinions could not be taken into consideration during the planning process, since Ruoholahti was an uninhabited brown field area with no existing housing. As post-evaluation the residents of the new Ruoholahti were interviewed on two separate occasions in order to find out their experiences of the new area. (Vehviläinen, 1992, 1996).

Aurinkolahti is situated in eastern Helsinki approximately 15 km from the centre in a district called Vuosaari. The population of the district has risen rapidly in the last 10 years due to the construction of new housing areas, and it is estimated to reach 39,000 in 2010. The older parts have no straight connection to water, whereas the newer parts, including Aurinkolahti, are situated on the waterfront.

The construction works of Aurinkolahti started in 2000. The aim has been to build a dense, high-quality housing-area for approximately 4000 people, where the location on the waterfront, as well as the surrounding natural environments are taken into account as well as possible. All housing will be non-subsidized and owner-occupied. A special aspect in the planning of Aurinkolahti is public–private partnership. Paulig Group, which occupies a coffee roastery in the area, was actively involved in the planning process.

Although no comprehensive SIA was made in Aurinkolahti, social aspects affected the decision to build only private housing. The predominantly city-subsidized housing structure in some older parts of Vuosaari had lead to an unbalanced social structure in the district. By building high-quality private housing in Aurinkolahti, a more balanced social structure and a better image for the region were hoped to be achieved.

Arabianranta is situated 4 km northeast from the city centre. The construction works started in 2000, and by the year 2010 the population should reach 7000. An interesting feature in Arabianranta is the concentration of art and design schools and cultural
industries. This “Art and Design City” is developed adjacent to the Arabia porcelain factory, which has been operating in the area since 1873. The aim has been to build an area, where the latest technology (wireless communication network) and new innovations in housing (the so-called Future home-project hosted by the University of Art and Design) enable new forms of living and working.

Arabianranta is the only one of the three case-study areas, where a separate SIA was made. The report on social impacts (Toukolanranta, 1994) is part of a series of impact assessment reports made by the Helsinki city planning department for Arabianranta. Reasons for such an extensive impact assessment include the nearby natural conservation area and bird sanctuary, the important cultural and industrial heritage as well as the existing housing in the adjacent Toukola.

The SIA report analyses the social-demography and social status as well as the identity of the area before and after the new development. The report states that although the area has historically had a fairly low social status as a working class district, the status has improved slowly since the 1970s. Gentrification has been especially strong in the idyllic wooden house areas. This development is likely to continue with the construction of the new area.

The main social objectives in building Arabianranta were to maintain and create a versatile social and housing structure, to create a positive image for the whole area, to cater for weak population groups and to provide adequate services. The whole planning process included public involvement in different levels.

5. Resources and identity

In the first category of the social dimension of urban waterfront planning the following questions can be asked:

– What are the main characteristics of the waterfront area?
– Which resources can be considered as strengths in the area?
– What are the environmental, cultural or historical values of a specific area and what do citizens/visitors think about these values?
– Do the waterfront areas have significance to the visual, social and cultural identity of the community?
– Does the city/local community make use of waterfront areas as part of local identity?
– Do some resources contribute to the image of an area?

The sea has always been an important element in Helsinki. It is a traffic artery, as well as an important part of the city’s identity and image. In recent years the city has been striving to open up its shores, and today almost the entire long coastline is accessible to the public. Waterfront redevelopment projects can help shape the image of the whole city, when old derelict areas on the waterfront are cleaned up and the presence of the sea is being utilized better.

The maritime character of Ruoholahti was generated by the canal that runs through the residential area and opens up to the Gulf of Finland, as well as by the nearby freight
harbour. The sea is also present in the street names of Ruoholahti. A further characteristic
is the location in southern Helsinki just 1 km from the city centre close to old, highly
valued residential quarters. It is seldom these days, that a completely new residential area
so close to the centre on the waterfront can be built, which has made the planning of
Ruoholahti a real challenge. The aim has been to make Ruoholahti a part of central
Helsinki by extending the dense urban structure of the centre southwest. Another aim has
been to give all residents and visitors alike the possibility to enjoy the waterfront by
creating high quality public space on the shores of the canal. Cultural values are
represented by the Cable Factory, which presently houses e.g. artists’ work rooms,
galleries, a restaurant and museums.

_Aurinkolahti_ is characterized by the versatile natural areas nearby: the sea, the
archipelago and the forests. The location by the sea has been taken into account well by
leaving the waterfront open to everybody and by granting as many people as possible a
view to the sea. A special characteristic is the public beach in front of the residential
buildings, which makes Aurinkolahti unique in Helsinki. Although the apartments are
mostly private and owner-occupied, the beach is likely to attract residents from other parts
of Vuosaari at least in the summertime. The image of Aurinkolahti (="the Sunny Bay") as
a well-planned and expensive residential area on the waterfront will, no doubt, affect the
image of the whole Vuosaari positively.

_Arabianranta_ is mainly characterized by two elements, water and art. However,
Arabianranta differs from the other two areas since, being situated on the mouth of a river,
it is not essentially maritime in character. However, many apartments have a view of the
bay and people enjoy the pedestrian and bicycle ways on the waterfront and the nearby
green areas and small islands.

The art and culture-image has a strong historic basis, since Arabianranta is home to the
Arabia porcelain factory, which has also given its name to the area (Arabianranta = shore of
Arabia). In the renewal of the area the cultural image is further emphasized by creating
“The Art and Design City”, a concentration of art schools and art-related companies. The
residential area and the art industry are bound together by letting artist create works of art
in the streets and squares, in some cases even inside residential buildings.

6. Social status

In the second category of the social dimension of urban waterfront planning the
following questions can be asked:

– For whom (for example various social, age or ethnic groups) are the waterfront areas
planned and built?
– What is the role of social/private housing in forming the social status of an area?
– How can social segregation be prevented?
– Is it possible that the waterfront plan could produce gentrification?

Every urban waterfront redevelopment project is unique. The purposes for constructing
a new area vary, as do the users the area is built for. One can, however, distinguish six
main themes that waterfront redevelopment projects can be grouped into according to their main use (Breen and Rigby, 1996):

– commercial waterfront
– cultural, educational and environmental waterfront
– historic waterfront
– recreational waterfront
– working waterfront
– residential waterfront

Due to the growing population in the Helsinki region and the pressure for more housing and office space especially near the city centre, the emphasis in waterfront redevelopment projects has been on residential and office development. Both the growing population and the attractiveness of living on the waterfront have tended to rise the apartment prizes. The main tool for decreasing the tension between private and public interests has been the balance between social and private housing.

The three case-study areas of the article represent the residential waterfront, although aspects of the recreational and working waterfronts are also present. The purpose here is to find out what kind of a role social and private housing have in forming the social status and how social segregation is prevented.

In Ruoholahti, the aim has been to build a residential area with a mixed social structure. This has been achieved by constructing a variety of city-subsidized housing for people with different needs, ranging from social rental apartments to the so-called Hitas-apartments, which are owner-occupied but whose price is controlled by the city. Only 3% of the apartments in Ruoholahti are privately built and owner-occupied. The so-called mixed houses, where different forms of housing (owner-occupied, rental, subsidized, etc.) exist in the same building, were developed as a means for achieving a socially balanced population structure. These mixed houses have been mostly well reviewed by all the parties, and Ruoholahti can be seen as having a well-balanced social structure (Vehviläinen, 1996).

The residential area of Aurinkolahti contains only private housing. The reason for the lack of social housing is the aim to balance the predominantly social and rental housing structure of the district of Vuosaari, as well as to boost up the public image of the whole district. Gentrification might affect residential buildings nearby, but buildings with social housing are not affected due to the form of housing. Boosting up the image of Vuosaari is a fine idea, but some questions remain: Do residents of older parts of Vuosaari consider Aurinkolahti as a separate area or as an elemental part of Vuosaari? Do the new residents consider themselves only as residents of Aurinkolahti, or also as residents of Vuosaari? Does the positive image of Aurinkolahti really affect the rest of the huge residential area?

The social structure of Arabianranta was thoroughly considered in the SIA in 1994 (Toukolanranta, 1994). The report states that in order to maintain and create a versatile social structure, the emphasis would have to lie on city-subsidized housing (rental, owner-occupied Hitas, etc.). An emphasis on private housing could have led to high property prices due to the closeness of both the city centre and the sea. With the construction of different kinds of housing, people with different means have the possibility to live in the
area. Inside the area, it is important that all residential buildings, city-subsidized or private, will be of the same high quality. People’s interest in Arabianranta seems to be high, and gentrification is likely to appear in older residential areas nearby.

7. Access and activities

In the third category of the social dimension of urban waterfront planning the following questions can be asked:

– Are the waterfront areas accessible to the public?
– How has the presence of water been taken into account in the urban structure of the area?
– Does the urban structure provide easy approaches to the shore for pedestrians and vehicles?
– Do barriers—artificial or natural—block the way to the water?
– Do traffic and parking pose problems near the waterfront?
– Are appropriate access facilities provided (ramps to the beach, trails, picnic facilities, fishing, boating, viewing, etc.)?
– Are the routes to the shore clearly marked?
– Have facilities been provided to allow citizens/visitors/tourists to make use of the recreational potential?

Ports and dockyards have long occupied the urban waterfront, which has made these areas strictly guarded and inaccessible to the public. Not surprisingly, an important aspect in waterfront regeneration is to make the waterfront accessible to people. Breen and Rigby (1996) emphasize this aspect especially since recreation on the waterfront has become so popular in recent years. They find with regret that in many cases where a waterfront area is used for residential purposes, the area is sealed off from the public with physical or psychological barriers. They emphasize that such barriers should be avoided and visible and attractive walkways should be constructed by the water.

In Helsinki, the city has been actively striving for opening its waterfront to the public. Most of the waterfront is nowadays open and lined by recreational trails. One of the most popular trails runs around southern Helsinki, although in some places this trail remains severed by port and other industry. One can follow this trail to the Ruoholahti canal, where both shores have been left open to pedestrians. There are no physical or psychological barriers on the waterfront so both residents and visitors can enjoy the area. However, there is no real possibility to get in the water, since the canal is artificial and the paving extends to the water. Thus one has to go swimming elsewhere.

The Aurinkolahti waterfront gives the expression of being both urban and natural. The marina and the beach are separated from the residential buildings by paved walkways, making the waterfront easily accessible to both residents and visitors. It is probable that the beach will attract residents from other parts of Vuosaari, although other beaches nearby will give the residents many possibilities to choose from. For residents outside of Vuosaari
the Aurinkolahti waterfront is far away, although Aurinkolahti is easily reached by the underground or bus.

The waterfront park in Arabianranta is connected to other recreational areas through a trail that runs through the park. The park is thus a part of the open waterfront. The park is easily accessible to everybody, since the residential buildings are not directly situated on the waterfront. There is a bird sanctuary on the opposite side of the bay, which was one reason for leaving the coastal strip unbuilt.

Although the present situation seems good in Arabianranta, the planning process was overshadowed by a conflict of interests between the residents of nearby areas and the city. The residents’ main request was that the waterfront park should be larger and the residential area less dense than planned. However, the planning department trusted that the quality of the whole area would improve with the diversification of the service sector, as well as with the improvement and intensified care of the green areas. The residents’ opinions were thus heard in the planning process, but they did not have any major influence on the final decisions (Eheyttävä yhdyskuntasuunnittelu, 2001).

8. Waterfront experience

In the fourth category of the social dimension of urban waterfront planning the following questions can be asked:

– How do people experience the waterfront environments?
– How important are visual messages (closed or open scenes), physical touch (textures of sand, rock and water), smells (sea breeze, cooking from cafes, industrial odours), voices (sea wind, birds, traffic) and moving in the space (how easy it is to move)?
– Does the approach to the shore provide a sense of transition, identifying this as the way to the waterfront?
– How do visitors to the area perceive the existing resources?

According to Karvinen (1997) the urban waterfront acts as a borderland between the controlled urban structure and the uncontrolled nature. On the urban waterfront the city residents have the possibility to encounter the wild nature by swimming in the water or just strolling along the shore on paths or streets. Karvinen states that in the construction projects of recent years the waterfront has been ritualized by emphasizing the presence of nature and the view to the sea. This has changed the nature of the waterfront areas by making them an object of visual aesthetics.

In the case study areas the presence of water can be perceived differently. In all three areas the buildings are relatively high and the urban structure is fairly dense. However, one waterfront is notably urban, two represent different mixtures between urban and natural or recreational waterfronts.

The sea plays a significant role in Ruoholahti, where water is incorporated into the residential area in the form of a canal which opens up to the sea. Buoys for motor boats and sailing boats line both sides of the canal and in the summertime a small ferry takes people to a nearby island. Since Ruoholahti is urban in its character, water as a natural
element is kept under control by extending the pavement into the water on both sides of the canal. However, the wind, the sounds and the smells make the presence of water easily felt in the streets and on the squares of Ruoholahti. This is not always positive, since especially in the autumn the cold wind pushes into all parts of the area through the wide, straight streets.

The *Aurinkolahti* waterfront is lined by a public beach and a promenade, which brings a south-European flair to the area. One prominent feature is the waterfront marina, which is situated in front of the residential buildings next to the beach. In addition, an artificial canal will be constructed in the eastern part of the area. It is obvious that the waterfront has been a focal point in the planning of the area and the sea can be easily felt at least in those residential quarters closest to water. The fairly densely built residential area is offset by the nearby natural environments and recreational areas on the waterfront.

The waterfront experience of *Arabianranta* differs from the other two areas, because the built-up area is separated from the water by a long and narrow park. It has clearly not been a planning priority to make the sea easily felt on the streets of Arabianranta. One insuperable fact is that the bay is shallow and situated on the mouth of a river and the open sea does seem to be far away from this sheltered landscape. However, many apartments have a view to the bay and the waterside park offers all people the possibility to get close to water. In Arabianranta, the nature offers peaceful environments for recreation and this seems to be at least as important to the area as the sea.

9. Conclusions

The target of this article was to identify and construct the social aspects of urban waterfront regeneration and at the same time illustrate their use in concrete cases. In land-use planning and also in urban waterfront planning there is a real lack of understanding the possible role and content of social impact assessment. This article provides deeper understanding of social aspects of urban waterfront regeneration and also a useful typology for social impact assessment.

The case studies were not empirically or methodologically comprehensive case analysis, but a kind of test cases for applying the impact typology and for developing further the substantial understanding of urban waterfront regeneration.

The social dimensions of urban waterfront planning and regeneration refer to the different ways of experiencing and using the edges of sea to make an understanding of their qualities for the community. An examination of recent literature reveals a variety of approaches to the interpretation and classification of waterfront uses. One way of looking at the impacts is to analyse the water-dependency of various local actors and interests. We can distinguish water-dependent uses, water-related uses or water-independent uses.

In this article, four different dimensions of social aspects of urban waterfront planning have been represented: resources and identity, social status, access and activities and waterfront experience.

The contents of the typology have been illustrated by analysing some basic features of three different waterfront cases in Helsinki: Ruoholahti, Aurinkolahti and
Arabianranta. The cases illustrated some variation of impact categories in different kinds of planning contexts. Generally speaking, the post-evaluation provides positive results. It seems that the regeneration planning in Helsinki has taken the social aspects such as social segregation quite well into account already in the planning phase. There does not exist any severe negative impact. Concerning the access and activities and waterfront experience, the cases provide clear context-dependent variation in impacts.

The typology of impact categories of our article can be applied generally to impact analysis of urban waterfront development projects and land-use plans. What would still need to be analysed in a proper SIA-process (and which has not been done here) is the differentiation of impacts according to various social, age and ethnical groups.

Social impact assessment provides possibilities to improve strategic management and land-use planning practices of urban waterfront areas, as well as the management of urban natural resources in general. Findings from impact studies can be fed back into project design to mitigate adverse impacts and enhance positive ones. As a whole, social dimensions provide information about the social effects but also understanding of the social significance, values and meanings of waterfront areas, as well as of the appropriate ways of conserving, preserving and changing these environments for mixed use (Waterfront Urban Development, 2002). This way, social impact assessment can also be seen as a tool for improving the social sustainability of land-use plans and regeneration projects.

The results of the SIA practices could increase also the awareness of planners, decision-makers and the whole community about the political–economic and social impacts and aspects of waterfront regeneration. In general, the main policy question concerns the relationship between human-modified and natural environments. It is important that the social, economic and also ecological impact assessment is integrated in the planning process.

References

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