



# Recognition of river areas in qualifying city space and the role of these areas on developing the modern life by using sustainable design factors, case of study: dez river of dezfoul in Iran

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### ABSTRACT

Today, the existence of natural elements such as sky, mountain, jungles, coastal area, untouched natural zones, water, and deserts have brought many meaningful ideas to the minds of the urban designers and city dwellers. The importance of these elements lies in the fact that they are free from tension, busyness and mental pressure, which are the gifts of civilization to human being. Dez River can be a potential tourism attractor to entertain people and can decrease the stress of living in a city. It, also, can have a beautiful view and boost the quality of life. This study aims to recognize the river significance in urban structure and its role in identifying the sustainable landscape and urban ecological corridor, which surrounds the city. It also attempts to present the principles which should be considered in planning the riverbank wall, by examining this wall near Dez River. By investigating urban structure and river role in forming and developing the future view of the city, the river boundaries, as the urban green belt and respiratory corridor, are determined. Therefore, after presenting some definitions related to the subject of the study, we discussed the sustainable design and its factors for river wall. Also, by introducing such factors, we suggested some approaches to treat Dez River and to achieve an organic and expandable structure in order to build the green corridor on the riverbank and to turn the corridor into a dynamic and live center for the city.

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### Introduction

In developed societies, the human's activities and relationships to preserve their sustainability make him to accept the impressive structure and function of natural systems. Among these systems, the rivers, which play an important role in cities' metabolism in a way that their absence in the city structure may result in serious problems in human's life while living in their urbanized environment, are considered as inseparable and necessary elements of the city structures (Shoultz, 1382). Human being, river, and city are the three factors that are significant in today's society. They influence on each other and, as a result, changing one of them might cause the others to change. Human needs are satisfied in urbanized environment in various ways. On the one hand, the societies are still unable to satisfy many of the urban needs and some approaches are needed to fulfill these needs. On the other hand, river can be a part of these approaches, which can fulfill a few of these needs with regard to his economical and societal as well as ecological conditions. Human, by predicting the future dangers to ecological system and urbanized environments, tries to exploit nature and to use natural elements and methods in order to compensate for the mistakes they made in urban developing processes (Guenonn, 1995: 175). Thus, the rivers are important elements because, as a natural member of the city, they can regulate the urban ecosystem and urban health. In addition, they can affect the ecological element related to the spatial, visual, and aesthetical values of the city. In recent decades, the officials

have attempted to protect environment and to revise the false ideas about the concept of river (Azizi, 1380).

Since discussing every subject and examining its different dimensions requires having a full knowledge of and inspecting several theoretical aspects of the subject, in the current study applying and planning for three concepts of human being, river, and city can help us to develop a delightful and scenic space beside the river in a way that is in harmony with nature and have no adverse impact on natural ecosystems. To this end and to recognize the Dez River significance in urban structure and its role on identification to sustainable landscape and ecological urban corridor and the level of human's expectations from green and organized corridor of Dezfoul, three stages are considered as follows:

1. the recognition and evolution of river significance in relation to the environment, human, and landscape.
2. the expected problems with regard to the river zones.
3. the study of sustainable development of factors in the recognition of Dez River as well as suggesting some proposals for the administrative approaches.

In fact, by enlivening the original identity of the river, the urban designers and architects are looking for the ways to combine the concepts of the riverbank and the potentials of having a riverbank in a city with the concept of city in order to boost the quantity and quality of city space and city environment (Cosgrove, 2003: 120). In other words, using the element of

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water and numerous reflections as well as river as the natural elements and sustainable ecosystem in urban space are main issues in developing city to achieve a comfortable city space (Antrope, 2006: 190). That is, designing river wall in a dynamic and sustainable riverbank, by considering river ecology, and achieving a sustainable approach to build the city wall and to build a memorable communal space are of critical goals.

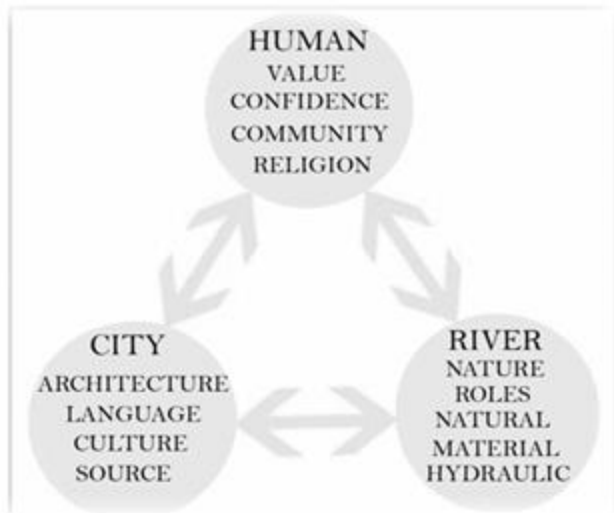


Fig.1. The relationship between human, nature, and city [authors, 2012].

**The recognition of river significance in relation to the environment, human, and landscape**  
**River and environment**

By the pass of time, just like the environment which has promoted and population that has increased in proportion to the environment, the way human treats the environment has been improved. Human who lived near river developed their business and changed their expectations (Dourant, 1376). In traditional system of exploiting in Iran, rivers were being abused in different aspects and river scene was changed because of the increasing trend of removing its water, building dams, removing the sand and gravel of the river bed and ignoring the river boundaries.

**River and ecosystem**

River, as a natural element in a city, can have a positive environmental effect or, in other words, is a respiratory passage of the city. Building green spaces near the river is a great help to enliven the plant textures and the existing park in the city so that they can be suitable places to entertain people (Meskari, 1380). Rivers are the habitats of a vast number of aquatic insects, fishes, fluvial and limicoline birds, and mammals. The ecological relations among them are the guarantees for their existence. The migration of the birds to the lakes in different seasons gives a fantastic view to the river and is considered as an important factor in making the city an unforgettable place in the eyes of the tourists and travellers. Thus, providing the birds with the necessary conditions to migrate to such places is a way to attract tourists and to create a beautiful landscape.

**River and human (the main factor in interpreting the environment)**

Human understanding about river and its surrounding area may give him beneficial information about the people's attitudes and behavior toward city and organic wall of the river. To achieve this goal, the knowledge, feeling, and behavior of the river users should be specified. Note that personal, cultural, and

educational background of the individuals can directly and substantially affect the way they treat the river.



Fig. 2. Dez River and urban texture [authors, 2012].

Table. 1. The criteria for the river evaluation [authors, 2012].

River	Main criteria	Secondary criteria
	Morphology	River engineering, river dynamicity, river with linear direction, river with twisted direction, river with sinuous watercourse (braided), river with many streams or tributaries (meander),
	Typology	River mouth, river width and shape, volumetric flow rate of the river, the area of river mouth, the pattern of drainage
	Environmental factors	Ecosystem, plant coverage and the variety of the plants, the types of aquatics, the types of birds in different seasons
	Natural behavior	Flood, upsurge, river ebb and flow, river overrun, erosion of the river wall

**Individuals' expectations of the river bank**

Near the city river, there is a permanent river which passes right through the city and brings it aliveness and vitality. This vitality is brought by the variety of spaces near river and persuades the citizen to go to the riverside. In this way, the most important entertaining place in Dezful Town is the riverside. The activities that are done near the river can shape the riverside view. Building restaurants, cafeterias, riverside parks, amusement park, and others can influence the river in different ways. The height and strength of the river tides, the river level, and the natural or artificial sky line can determine the river characteristics. Considering cultural, social, economical, historical, and ecological issues are necessary to achieve a dynamic and prominent structure for the riverbank, as the human societies are looking for the ways to Fig. out the identities of the city.

Fig. 3. The Dez Riverbank and Dezful citizen [authors, 2012].



The relationship between river and city

	Main criteria	Other criteria
human	<b>Aliveness</b>	<ul style="list-style-type: none"> <li>- Combining the colors of the elements near the river, considering the commonly green background</li> <li>- Non-blocking form and location of the artificial elements for the river view by the</li> </ul>
	<b>Flexibility</b>	<ul style="list-style-type: none"> <li>- Equipping the space for especial ceremonies like the celebrations should be possible</li> <li>- Building a place for the individuals to be together or pass time solely</li> <li>- Structuring a place and providing the facilities for children to play freely or to be supervised by the parents when they play</li> </ul>
	<b>Security</b>	<ul style="list-style-type: none"> <li>- Part of the aliveness and flexibility near the river is dependent on the connection between river and riverside as well as the possibility of using river flow potentials. Therefore, some restricted areas should be considered for swimming, boating, and the like.</li> <li>- The artificial and natural elements near the river should be secured enough. That is, the river flow should not be capable of harming the elements</li> </ul> <p>Building some proper curtain walls by using good coverage to prevent the staff of river wall from falling</p>
	<b>Entertaining capacities</b>	<ul style="list-style-type: none"> <li>- The existence of live activities at nights with good distribution in riverside, building suited structures for the travellers to stay long and for people to study near river</li> <li>- The possibility of playing sports like riding bicycle, playing chess, walking, etc to pass free time</li> <li>- The active presence of children in the space adds to the entertaining capabilities of the place</li> </ul>

The environment is supposed to be a way to build social relationships. Individuals transfer their values, feelings, and information or behaviors by the aid of environment (Linch, 1384). By investigating the way the cities are formed and developed and the effect of natural elements as well as environments on the development of the cities, it was found that the natural element intervention is the most decisive factor in the process of city expansion (Kaplan, 1995: 56). Water is the first factor in binding human kind to a certain land, as it is the basic component for human to live with. Thus, the first places for the cities to be developed were near the rivers. These essential streams are the main reasons for relating numerous spaces and, therefore, can greatly influence the city texture. Since the rivers play pivotal roles in the structure of the big cities, examining the effect of their historical, cultural, and morphological background in city development is vital. The rivers, with respect to their characteristics and roles in city development, are divided into three groups.

- A. The rivers on whose side, the city skeleton is formed,
- B. The rivers which pass through the city skeleton like Dez River,
- C. The rivers which, thanks to the development of the cities, are recently taken into consideration.

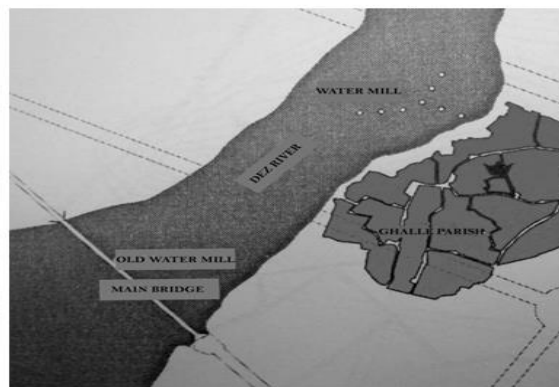


Fig. 4. The location of Dezful in Sasanid period on the today's city network [authors, 2012].



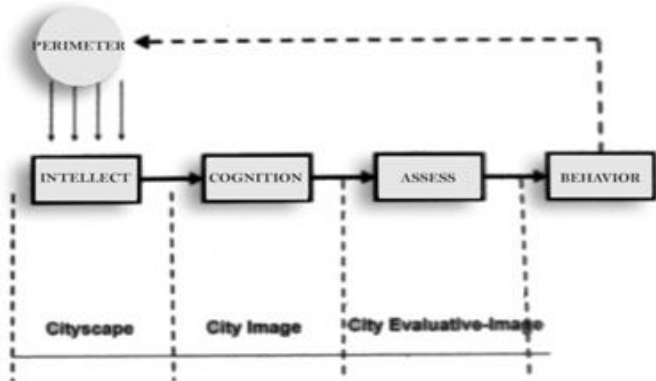
Fig. 5. Providing the opportunity of visiting visual beauties of the city and riverbank for people [authors, 2012]  
Urban landscapes (the elements and criteria of suitability)

Urban landscape is the point of touch (5) between "human" and "phenomenon of city" and, thus, a momentous part of the knowledge and feelings of the citizens about the environment are influenced by the landscape. In other words, the shape of the city in the layer of urban landscape is changed to a directly sensible quality. That is, the urban landscape is the real reflection of the existing reality of the city. By the help of this medium, urban landscape, the small members of the city structure find the opportunity to be seen (Linch, 1379). Urban landscape (1) can be defined as the product of the cooperation of all the five senses with urban space in the first steps of understanding (2). It is evident that following the long-time relationship of human kind and space, the deeper aspects of the urban space in the intellectual urban landscape (3) and evaluative-intellectual urban landscape is being recognized and evaluated. Finally, human behave in a certain way, in accordance to his understanding, knowledge, and the results of his evaluations. In Dezful, too, most of people evaluate their own capabilities by referring to the river, which is the most important symbol in a city. In this way, river is not only the measure of the city but also plays a critical role in the formation of traveller's and citizen's thoughts about the city.

**The problems that might be encountered by when developing Dez Riverbank zone**

Rivers, dispensed with the natural changes, are influenced and altered by the human's activity to a great extent. Impounding the rivers by dam, exploiting the sand and gravel of the river bed, and the pollution by municipal sewage effluents and trade and agricultural discharges, all are effective in this alteration of the rivers and, thus, human environment (Richardson, 1375; 32). The complications that these activities

bring can be very dangerous and unchangeable, as the economical, social, and environmental life of the city which include tourism industry, urban landscape, and others are connected to and dependent on the river.



**Fig. 6. The river significance in the relationship of human and the environment [authors, 2012]**

Unfortunately, the lack of knowledge about system of river controlling and the irresponsible intervention of human as well as the absence of clear instructions and principles about how to use river caused increasing damages to be done on the rivers in a way that the river is going to lose its suitability for the animal habitat. The special characteristics of the river such as its upsurge, inherent dynamicity, churning current, and its wide area make it difficult to supervise, control, and setting its boundaries as a habitat; even in a national scope (Silvia, 2003; 67). Rivers are thought to be country's vessels. So, protecting and sensibly using them needs not many reasons. The variety of biophysics and functions of the river in its direction from beginning to the end has created a diversity of unique habitats, which are only interpretable when are studied with in the light of their continental, topographical, geological features in the river direction. Ignoring the boundaries of river bed in different ways is done and part of this ignorance is the result of the development of the city. Note that part of it can be efficiently managed so that it is done in a less harmful way. Different types of changings, modifications, and boundary ignoring are done by the following actions:

- building the roads beside the river (on the river bank)
- regulating and modifying the river
- building urban-service equipment in the river (Richardson, 1357; 22-23)

**Table 3. Evaluation criteria of the city [authors, 2012]**

	Main criteria	Secondary criteria
city	Urban landscape	The type of city, the clue and the focal points of the city, the location of separating elements, urban continental conditions
	Cultural factors	Cultural heritage, society of the city, religion
	Structural factors	Accessing paths of the city, parking lots of the city, transportation facilities, the locations of the walk-sides
	Environmental factors	Pollution conditions, visual potentialities, acoustic and odor capabilities

**Recognizing the sustainable development factor in recognition of Dez River and suggesting some administrative approaches**

With thoroughly identifying and knowing about sustainable development and without using some creativity to react to the material and spiritual and psychological demands, human cannot create a space and the conditions which boost his environment

quality and quantity and make the environment suitable for a comfortable life. Thus, with identifying and exploiting the criteria of sustainable development and the how of its quality and quantity reflection in the approaches which recognize its role in relationship of the human, city, and the river, as the three-factor method (Mingers, 2001: 290), we might achieve a sustainable environment. Numerous theoreticians have talked about sustainable development. The important point, in this regard, was found to be the identification of the variables which play a decisive role in sustainable environment. Hence, three principal criteria are functional, aesthetics, and environmental parameters (Golkar, 1358: 41). Briefly, it can be said that the following points are effective in sustainable development of the relationship of the river and city in order to create a dynamic environment:

1. Paying attention to wild life, environment, ecosystem, and how well the aquatics grow
2. Harmonizing the ecological and environmental quality of the river with its bank, as a natural and organic structure of the city
3. Determining the boundaries of the river by considering its seasonal outflows
4. Motivating officials to increase the consistency of the river and the river bank activities
5. Environmental considerations

**Identifying the case of study (Dez River) and its zones**

In categorizing the river, with respect to its structure and role in the development of Dezful City, Dez River is considered as a permanent river in Iran which passes right through the Dezful skeleton or, in other words, it passes through city structure (it can be said that this river play the most important role in forming and developing the city). In Dezful history, the city core was formed at one side of the river and, then, developed to the other side. The natural element of the city, Dez River, which is extended through the length of the city has a significant effect on city ecosystem and ecological quality. In addition, the case of artificial environment and understanding the city structure is greatly influence by this river. The river is, also, effective in organizing the natural as well as the man-made structure of the city, as it acts like a spine which connects the vital member of the city to each other. Dez River has devoted much of the structures of its surrounding area to itself. On the one hand, the outflow of the river is dangerous for city dwellers and, on the other hand, the aquiferous view of the river makes a great visually distinctive setting for the people to vis it. This river adds to the ecological area and quality of the every new environment in the city. These are the points which are important for the having a sustainable design.

**Dezful city zone, in relation to the Dez River wall**

Preparing aqua-spaces and building aqua reflections in urban different places are what the societies can do in order to create suitable urban spaces. In this line, it seems necessary to have more devoted attention to Dez River and suggesting approaches that suit its bank and preserve identity. Concentrating on the cultural, social, and economical issues as well as the city identity has an undeniable effect on the path of achieving a proper structure for the riverbank. This is while the lack of knowledge in this regard has created environmental-urban problems. Urban societies are looking for the ways to recover the lost identity of the city. Thus, planning an approach, which suggests good ideas for the riverbank and knowing the surrounding areas of the river can be the keys to solve the problems.

In this section, the zones of the design, in accordance to the changes in the profile of each river bank part, is drawn in some sections. For each section, the pros and cons of that part are enumerated; the part near the city texture and the river, in relation to these two areas as well as the status of roadway and walkway in that part and the way human and river relate to each other are shown. Also, the existing facilities and services (furniture, light, ect.) in each part are illustrated. The very existence of these zones near the city gives a special quality to the city. With changes in city texture, the riverbank zone changes and finds a new shape and plan. Further, the extent to which the zone design, as a joint between the city and the river, can influence the neighboring texture is determined, according to each part characteristics. The neighborhood of the riverbank with its neighboring urban texture and the joint between the river and the city cause the two to have more impact on each other. In the coastal area of the study, some protection equipment was built to protect people against the river outflows. This equipment sometimes makes it difficult for the individuals to get in direct touch with the river. That is, the equipment should be placed in a way that in addition to keeping the place and riverbank structure safe and secure, maintains the maximum association of people with the river in order to increase the environmental quality of the area. In this zone, both the drivers and the pedestrians are present in a way that in some parts of the site, the accessibility of the drivers caused the connection of the riverbank with the city to be lost and the riverbank area become dispersed in a few segments. Thus, separating the driver path from the pedestrian one is the biggest challenge to be resolved. The connection of the vital parts of the city to the river bank makes the river bank more active. The walkway, although is consistent and in line with the riverbank, sometimes weakens the pedestrian linkage with the river. However, in some parts, this walkway is developed in accordance to the necessities and special features of that part. In this zone, no plant coverage can be seen and the level of facilities (furniture, areal equipment, etc.) is very low. The area of the study with respect to its features and memorable elements which stay in the minds of the visitors and planned functions for encouraging the exploiter to invest is poor.

#### First zone: nature zone (river margin)

The natural margin of the river is the space in which every type operation should be done thoughtfully and with much care. This is because the river flow increases in the rainy seasons and the snow melts on the spring of the river, the river might experience upsurges. Thus, the river boundary is always in contact with the river outflow and, therefore, taking proper approaches to prevent the erosion and hinder the process of weaken the riverbank wall is deemed critical.

#### The characteristics of this zone

The river margin is always the witness of the large volumes of sediments, resulted from the sinuous flows. Considering some paths to access the mud in order to wash them is vital. Note that building solid walls in this zone cannot be considered the right procedure.

#### Second zone: city zone (Riverbank Park)

City zone is the same linear structure near the river margin. It is visually as well as functionally in contact with east riverbank and first-class local stream and the neighboring bridge.

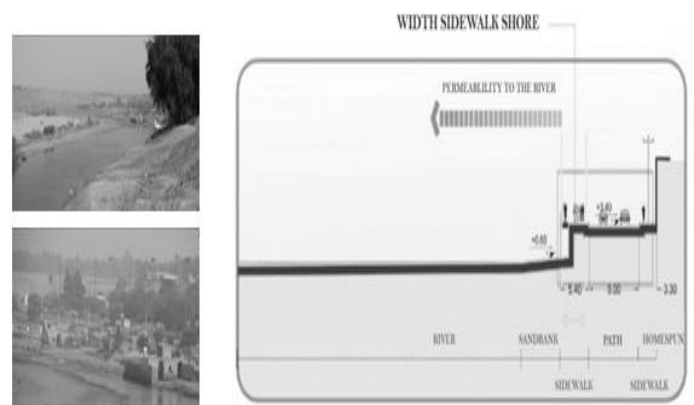


Fig.7 Nature and river margin of the river in close relationship with the changes in the seasons, erosion, and process of weakening the riverbank wall [authors, 2012].

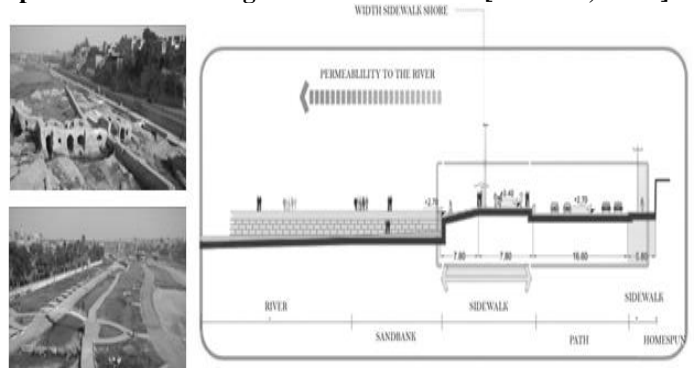


Fig. 8. Linear structure near the river margin and the landscape mills make it a beautiful scene [authors, 2012].  
The characteristics of this zone

This zone is the space which connects the river to the city. Therefore, the activities, functions, and the contacts should be in proportion to the city scale and should increase the city quality. As this part of the area creates most contact of different classes of people in the city with the riverbank, the collective and entertaining places are prepared for this space.

#### Third zone: Middle zone (riverbank road stream)

Middle zone is the first-class walkway and because of its location has divided the site into two sections. It is aesthetically very pleasing.

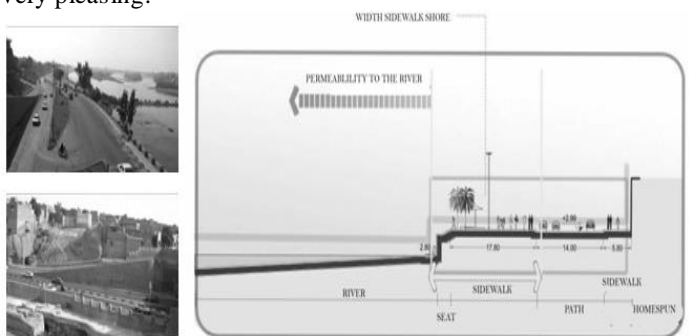


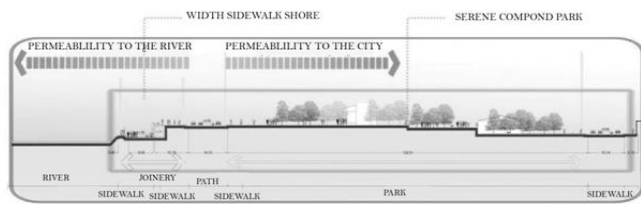
Fig. 9. City vessels near the space of the study plays key roles in connecting the west and east of the river with the city belt and downtown [authors, 2012]

#### Characteristics of this zone

The function of this zone is to organize the roadway and walkway in order to increase the security of the pedestrians, decrease the car dominant on this space, make it easy to access the river from the city and increase the possibility of using the river bank areas by people in the city.

#### Fourth zone: local zone

Locating the new residential structure in the site neighborhood had increased the designing potentials of the site. It seems sensible to take advantage of the capacity of this zone to increase the environment quality.



**Fig. 10. Visual beauties along the residential texture into the site and ended in the river and the rest of riverbank. The urban landscape of residential texture adds to the visual of the riverbank [authors, 2012].**

#### The characteristics of this zone

The mentioned zone is created with a combination and integration of the newly-built building masses with other three zones. Defining this marginal zone with the local identity to prevent from interfering with the existing activities of other zones and at the same time to blend the capacities of three zones is an important task.

To organize and make an efficient use of green urban corridor, using different intellectually and aesthetically aspects of functional elements and environment which are related to a sustainable development can be effective in painting the hue of a publicized place and in improving the urban view. Therefore, the approaches which are related to the designing the river wall are studied.

#### Functional criteria

Designing the spaces near the river has a key role in recovering its structure and encouraging people to come to such spaces. Near a river like Dez River, a public place to be with nature and to walk, set date, have a break, eat out, shop, etc is a place with lots of potentialities as a live place. Taking account of the local and functional as well as business and religious potentials, the river wall can be a potential economical place to construct big public marketing buildings to attract more users. Considering human activities in coastal areas are important in that the increase of human contact with riverbank increases the impact of each of the two on each other. Varying the functions of the riverbank area enriches the urban landscape. Expanding the coast is done in a way that maintains the life and activities near river. To achieve this end, the following actions should be made:

In the riverside, encouraging the activities relating to the two sides of the river. Equal structural and visual connections are important.

Remembering the key role of urban streams near the mentioned space and connecting the east and west of the river with urban and downtown.

#### The possibility of going into the river

The possibility of holding religious and cultural ceremonies as well as scientific and sport meetings and conferences

The possibility of managing water and coastal sports and the related international champion. Investing in water entertainments such as swimming, boating, skiing, water polo, and fishing

Organizing the walkway and roadway in a way that the pedestrians are in a more secure and dominant position than the drivers.

Encouraging people to do the sports such as boating and fishing in the safe places

Building some stairs with safe path to access the water where the river level is lower than the walkway

Building spaces that attract people in different times of the day and night including group activities, conferences, and entertaining places for children, teenagers, and adults.

Building suitable places to maintain the needed structure with the purpose of understanding river and riverside concepts.

Developing the staff needed for aqua-sports such as a harbor for boats and swimming dive in the area and building suitable places for the sports such water polo as well as making the place secure for the sport men

Linking with the river flow by boat, oaring, swimming, slingshot in the river

Motivating people to take part in the activities which are done in contact the river flow



**Fig. 11. Providing the facilities to shadow, which make no problem for air circulation and for supervisor view to the river and riverbank activities [authors, 2012]. Aesthetic criteria (both visual and intellectual)**

The aesthetic criteria impact on the principles, which by the pass of time provide the visual and intellectual integration of the viewer with the river. Therefore, in meddling with the river and its margin, the aesthetics issues must be taken into account. The place identity is one of the chief elements in determining environmental sustainability of the place. Developing any river bank should comply with its nature and should be a reflection of protecting it (Cantor, 1977: 158). This development should open a way to create a new Picture by narrating an ecological phenomenon and should be in line with the city culture and history. To reach this goal, the following points should be considered by the engineer supervisor who designs the development process building visually attractive view from river to coast and vice versa and from coast to river wall in both east and west coasts and from east coast to west

Making a beautiful scene on the river wall for the time that river ebbs away

The non-blocking volume and height of the bank buildings for the river natural view

The least amount of lightening for parks and riverside should be 5 luxes (the day and night lightening should be determined)

Properly designing the space along the residential texture and toward inside the site and the rest of the opposite east site

Creating variety, with the aid of textures, color, forms, and plant covering, in building elements of the space of the river to the west coast and the east coast to west

Providing the chance of understanding the visually appealing parts of any specific zone of the city and east coast to encourage people to visit the place

Nature symphony together with the sound of river flow and breeze as well as sounds of the birds (give tranquility and offers an opportunity for active and passive recreation)



**Fig. 12. Staying near the river and looking at the natural splendor of the river and the view of the ancient watermills inside the river [authors, 2012].**

#### Environmental criteria

Rivers, as the natural elements of the cities, can have positive effects on the environment or, in other words, can be considered as the respiratory organ of the city. Constructing green space near river is a great help to recover planting texture and the existing parks so that the sites near the river can be a suitable place to entertain people. Understanding part by part analysis of the riverbank, when designing a new function on the river surface and when the joint is to the built texture, is vital. The concept of the river consistency was suggested by Ribin Vanet in 1980. According to this theory, rivers are considered as open ecosystems which are in continuous change from the spring or upper course to the lower course or river mouth. Managing river margin and specifying river boundaries at the time of constructing and developing the city structure is crucial in organizing river bed and structure. The environmental factors in sustainable river development (and in organizing river wall), which should be considered, are as follows:

The possibility of recovering the environment

Providing suitable plant coverage to protect the river wall against seasonal upsurges and outflows

Not designing a river wall with artificial landscape, which is in contradiction with the nature of the river

Specifying boundary of the outflows on the riversides and limiting the construction on the margin

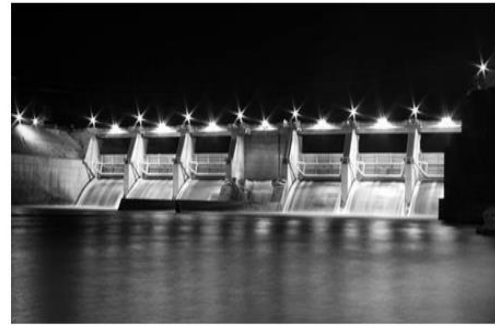
Covering the river margin with the suitable and adequate plants

Using the necessary approaches against erosion and destroying river upsurges by plant covering and the artificial elements including local staff

Controlling the sewage effluents and trade and agricultural discharges as well as the supervision on keeping the aquatic survival and planting some ground covering plant to stabilize the river bank

Determining the margin and creating a difference in the river margin in order to access to and dominate on it so that the control of sediments, as a result of sinuous river flow, and washing them after river upsurge become possible.

Using wave break, gabion, and mattresses to control river flow so that the river cannot erode the wall or at least the river erodes the wall less.



**Fig. 13. Staying near the river and looking at the natural splendor of the river and the view of the ancient watermills inside the river [authors, 2012]**

#### Conclusion

River is important as it is a natural organ of the city structure and is a powerful element to lead many human and environmental activities. Therefore, the river wall, as a coastal area, and the views from riverbank to the river and vice versa are considered significant points in the city view and human space, with regard to the river aesthetics aspects. Therefore, the view of river, river bank, and the related areas call for deeper examinations.

Building a proper place on the riverbank in order to improve its functionality and to create an active environment to live in and to have an active element in the city are goals which motivate us to step in the way of achieving a sustainable design. The activities of human societies, the measurements done by the city dwellers and today's conditions to live have made the coasts and riverbanks the most important places to develop and recover the cities. Thus, exploiting the potentialities of river margin by recovering the lost identity of the river, using inside-city bank, creating flexibility, enlivening the city, connecting the river to its sides, doing different collective activities, keeping the coast healthy, going to the river, creating plant coverage on the river, connecting the east and coast, giving the citizen the opportunity to visit the river, securing various elements near the river, and the likes is an attempts to combine coastal and river with the city and to boost the quality of living in a city in line with the sustainable development of the city.

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