IMPROVING THE QUALITY LEVEL OF URBAN LANDSCAPE IN COMBINATION OF TWO ARTIFICIAL AND NATURAL ELEMENTS (CASE STUDY, WALL OF DRYRIVER OF SHIRAZ BESIDE URBAN RAILWAY)

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Abstract

Keeping nature in the heart of city is effective on urban life. Valleys, river valley and urban gardens are the most important elements linking human being, city and nature. As one of the natural elements in urban landscape, river plays important role in dynamics of cities to direct nature in the heart of city. River and its bed gather some parts of city in each place and are changed, channelized, polluted by people. Urban development eliminates the freedom of these dynamic elements.

Today, by revitalization of the concept of river, new meanings as lung of city, recreational-touristic corridor, natural intracity artery, etc. are inferred of this meaning. Based on the growth of population of cities and increase of intracity trips in many big cities, it is necessary to have an efficient public transportation and based on space limitation, the location of urban railway should be considered in urban design. Thus, considering the margin of dry river of Shiraz as an intracity natural bed to perform this urban project for rapid transportation is the proposed solution of Shiraz Municipality.

Unfortunately, by these two natural and artificial elements beside each other, no great solution in interaction of these two elements is presented. In this study, by investigation of the existing evidences, it is attempted to respect the nature and maintenance of natural urban structures regarding human resources development to apply municipality power of passenger transportation privilege and propose some effective solutions to improve the quality of proximity of these two contradictory elements.

Keywords: Urban space, Active and vital city, Natural structures, River of dry valley of Shiraz.
Introduction

Iran is low-rainfall country. By relying in their experiences, our ancestors selected the cities and places in the locations to make the most out of the water of mountains and valleys for sustainable continuance of city. Drilling wells and guidance of water of valleys are some forms of operation of water of these resources. Based on their experience, our ancestors found that healthy water and gardens making people happy are important factors of having a healthy life in each city. Thus, more than 200 cities of country are formed beside mountain and in the path of relevant valleys. Urban valleys and gardens are the most important elements of linking human, city and nature and sustainability of development of cities is guaranteed [1].

The wide presence of citizens in these cities and presence of 10 thousands on holidays in the spaces of river-valleys show their position in current urban life. Thus, the importance of these valleys is not only based on their natural and environmental value and each of them are turned into historical, cultural and environmental capitals over time. The development of cities and increase of urban population have increased the need to river-valleys and the existing trends show ignoring this natural legacy of cities.

Blond urban development is occurred mostly in remaining of natural and open spaces and by destruction of landscapes, natural range of valley-river is reduced [2].

River and its bed, play important role in human life. Urban River is the intersection of land and water in cities. It is a location linking the people in cities to nature and their existence element. Optimal use of natural graces and linking intracity urban spaces to existing natural spaces besides fulfilling human needs guarantee the survival of natural environment and it leads to vitality of urban space [3].

In research domain, technological aspects: Subway, natural landscape: River is beside each other. The aim is linking between nature, technology and city as the spaces with their unity are separated and have definite character. We live in the era in which nature and industry are two inseparable elements and they should have close relationship in urban space. In recent decades, industry and technology are dominant on nature and in the present era, the shortage of natural space in cities is felt and urban communities have established nature in cities or renovated the forgotten natural spaces and found that development cities should be with friendly proximity with natural elements.

Subway in the margin of river and cutting of natural bed with concrete rigid wall of surrounding gardens is a crisis and it can not be ignored and we can link it with natural and urban bed and respect the presence of water and gardens and show it for human being in the present speed.
The features of natural elements in urban landscape

In urban landscape, the balance of elements and artificial environment is an important goal in urban development and it increases the quality of life and recycling effects of nature and city [8]. Water plays important role in environmental quality of city. There is a complex relationship between water and city and it needs specific processes affecting all levels of urban management.

Dry river in shiraz city has created different features in urban environment. Besides historical, geographical and morphological aspects, we can refer to other dimensions as water quality, vulnerability of flood, access, increasing value of landscape and aesthetics and using it to increase attraction of city view [9].

River Valleys, linking human being, city and nature

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Based on their experience, our ancestors found that healthy water and gardens making people happy are important factors of having a healthy life in each city. Thus, more than 200 cities of country are formed beside mountain and in the path of relevant valleys. Urban valleys and gardens are the most important elements of linking human, city and nature and sustainability of development of cities is guaranteed.

The wide presence of citizens in these cities and presence of 10 thousands on holidays in the spaces of river-valleys show their position in current urban life. Thus, the importance of these valleys is not only based on their natural and environmental value and each of them are turned into historical, cultural and environmental capitals over time. The development of cities and increase of urban population have increased the need to river-valleys and the existing trends show ignoring this natural legacy of cities.

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The contrast of cities and river-valleys with each other

We remember Venice with its channels, Isfahan and Paris with its rivers and Bushehr and Marseille with their coastal ports. Most people in such cities evaluate their situation to water as the most important urban symbol. In such conditions, in our country, this natural grace is a barrier and is hidden behind rigid walls to control the risks of flood, torrent and stormy waves of sea and fields in the margin of rivers and sea can be used for urban constructions. In such condition, listening to water is forgotten gradually and the edge of water is turned into a place for traffic of car, pedestrians feel as strange in there as they have no time to wait and sea water and the cars don’t let them to enjoy water noise. One of the outcomes of this strange feeling is pollution of water and their edge. The people who considered water as one of the sacred elements and respected it, they don’t fear that it is used as a natural rubbish bin. Those people who get comfortable beside river on holiday ignore it easily. The pollution of rivers has adverse effects on people in contract with water but they ignore this important issue.

The important point in this pollution endangering the life of waterfront as urban space is transgressing the waterfronts. Now, there are some buildings occupying not only the edge of water but also covering the river. As buildings approach water, their natural wall is endangered as to provide safety against flood, torrent, the first approach is turning wall of water to rigid parts and elimination of natural side of coast or the front and it disturbs the visual problems in interaction between river or sea or its natural bed. In case of such problem, the effect of benefits of private sector, weakness of executive supervision of public sector namely Municipality are unavoidable [5].

In each place, rivers gather cities and are dynamic members in city. IN terms of situation, rivers are located either in one side of city as used for defense or pass the city structure and they are seasonal and can be located in city with the development of city. These rivers have no role in initial formation of city but further developments are along them. Dry river of Shiraz is in this group. This river had defensive element in the past in Shiraz city and it was outside of initial core. Most of fields and gardens were in its margin and shiraz was extended as linear to east and west and this area passes the middle of city. Urbanization had great effects on water resources and rivers were the most sensitive resources. They are changed, channelized, polluted by people. Urban development eliminates the freedom of these dynamic elements [10]. According to Pedroli:” None of current rivers in active economic areas are not free flowing [11]. When illegal constructions are extended to river bed, to avoid the destruction of buildings by flood, concrete or stone channel is constructed and this has adverse effect on River. By establishment of concrete or stone wall we avoid soil humidity to building and the surrounding vegetation and threes will have no water.
River and urban landscape: In recent decades changes, with the attempts of various environment protection organizations, the concept of river was restored and new interpretations are inferred. Some concepts as lung of city, recreational-touristic corridor, natural intracity artery, urban edge, coastal wall, urban healing landscape, natural view of city, etc. show the revision of communities to the restoration of river [6].

The effects of city on urban river valleys

Urban river valleys are destroyed gradually. To achieve space, human being changes the nature. We transgress the existing river valleys of our city and perform our beneficial construction. We divide the gardens and own its natural green space and the remaining spaces of this transgression are turned into a location for waste. When these illegal constructions were extended to river bed, to avoid the destruction by flood, concrete or stone channel is established and by establishment of concrete or stone wall we avoid soil humidity to building and the surrounding vegetation and threes will have no water [7]. To avoid transgression of private sector, we decide to determine a border for self-built flood. This law is neither observed by people nor by municipality. At best, Municipality applies the space of these channelings to construction the street and at worst, by violating law, construction beside riverfront is started. Some urban managers cover the channels for cars or establishing a linear commercial center (Seoul River).

![Figure 1- Seoul River before restoration.](image)

Turning river to concrete stream besides destruction of landscape and its natural identity increases the water speed. Thus, we are obliged to increase the height of channel walls.

To avoid falling of pedestrian to channel, its edge wall is getting tall and no one can see the water and in case of any falling, he cannot be saved. In dry seasons, these locations are full of hooligans and addicts. Most residents and organizations dump their waste into it and then they complain of odor, pollution, rats and insects. Odor and pollution of these locations cause that not only the prices of these buildings are reduced, walking of pedestrians can be
impossible beside the river. Not considering some paths in the wall of channel makes dredging machineries entrance impossible and pollution is increased. Dredging is manual and much time and cost are dedicated. Thus, not only we eliminate vital elements against pollution of cities, but also we destroy the recreational green space as the recreational place of citizens. Also, you can be astonished of gathering of families in green refuges of highway and island at the middle of squares at summer nights [7].

The effects of river valleys on city and urban landscape

River valleys are important resources in terms of protection of natural resources and restoration of habitats in populated cities and they are an extension of natural suburban phenomena into the city. The extension of structure of cities into agriculture fields and development of suburban townships has destroyed the remaining of forests, reduced the extension of green space and destructed the diversity of animals. The current cities have small share of green space by parks and private gardens in every locations of public structure of city. Beside shortage of green space crisis, various limitations, urban river valleys are valuable source for development of ecological approaches of these corridors and connection of green spaces of urban suburb into the city [8].

Besides, rivers provide recreational-leisure grounds of citizens. Thus, design and planning of urban water coasts is increased in recent years.

Seasonal river valleys

Mostly in our cities, nature, valleys and its seasonal rivers are ignored and by calling them as stream, we mostly have forgotten them. These rivers flowing from mountain to plain create green valleys as flowing naturally into city and vitality of nature can be restored in city. Today, we not only destroyed valleys of our city for construction (Road paving in dry river front and construction of concrete wall beside river and Railway) and the river in its middle is used as torrent passing.

![Figure 2- Construction of Metro beside River.](image-url)
It seems that the main problem is our attitude to this natural grace and if we consider the rivers, green spaces as stream, it is decreased to a bed of a destructive factor and if the water is destructive in it, not only we don’t observe its health, we try to eliminate it rapidly. If we consider river and its front to protect flood and natural disaster in our detailed and master plans, even after its formal approving, we don’t observe this border and it is a wasted space as its evil is much emphasized than its good. Neither its green space is considered, nor its cool breeze. Thus, we don’t consider river and its surrounding providing air circulation in city and connecting various townships to each other and it is considered as destructive. In our culture, barrier is eliminated. We can transgress it and if we cannot win, we control it. We think like this but we get astonished of others behavior and acts.

Thus, this attitude has adverse effects for city and its rivers and we should take a serious revision to be saved.

The valleys of our cities are transgressed and its gardens are divided and its natural green space is owned [7]. By eliminating these natural graces, besides landscape and its natural identity destruction and elimination of its vita aspects to eliminate pollution in city, we destroy recreational green space of citizens. Also, you can be astonished of gathering of families in green refuges of highway and island at the middle of squares at summer nights [7].

The necessity of organizing urban river valleys

Based on risks of urban environment and natural environment, human communities attempt to refer to nature and use natural methods and compensate their mistakes in urbanization changes. As it was said, rivers are important items and besides extensive effects on ecosystem of city and control of health of city as natural organ and ecologic element of spatial, visual and physical organization have showed their role as an important element in urban landscape.

In the book city view, Lynch interpreted the cities as beautiful. Most of the cities in the city view are designed beside river and water spaces. In this book, lynch says that there is an opportunity to build the new cities as they have vivid view, their manifestations have consistency and clarity. To do this, the residents should take a new method to give forms to their life to be manifested and its organizing should be possible in time and space in various stages and show
urban life [6]. The specific features of rivers are intrinsic dynamics and free range is limited with the development of
cities. These natural elements are live ecosystems as destroyed by human intervention. Adverse outcomes of human
activities in riverfronts are dangerous for human environment as economic, social, environment and urban landscape
like tourism, urban landscape, urban signs in each city are dependent on its river. Protection of these elements needs
no reason [3].

Figure 3- Seoul River after restoration (Source: WWW.Archdaily.Com).

The effects of urban train on city view and urban development

Most of traffic problems are dedicated to urban design and texture. The network of streets was not based on using
fields and it didn’t fulfill the needs of buildings and activity centers. City view or urban perspective include visible
forms of regions built by street map, architecture style and urban design and land use. Metro construction has great
effect on beauty of city view and if it is located in empty spaces of city (insecure) and cities, it increases safety and
reduces crimes. Metro is a part of urban transportation network and it has vital role in public transportation. This
network in urban development plans is one of the main elements. The importance of Metro in urban development
plans namely in metropolises is as they are not separated from each other as great part of activities of residents of city
depends upon this network. Thus, any urban development with architecture studies should be performed to achieve a
logical solution for the network. Now or in future, urban development plans deal with the principles regarding public
transportation network. Indeed, one of the important duties of these plans is to follow their regulations in their design
[4].

Goals, strategies and policies beside Dry River beside urban railway

We have some expectations of seasonal rivers like any other urban space and not fulfilling those causes that the space
has not required quality and it is in contradiction with our attitude of a front. The front of seasonal river should be
green and citizens should feel comfortable beside it. To achieve this comfort, relative residency and low structural
unexpected events in front space is necessary. We cannot also ignore the effect of strong presence of nature in
comfort to users of space. This nature has created specific conditions for seasonal entrance. These rivers don’t have
similar condition in a year and if they keep their nature as urban space, in various seasons as the River is dry, it can be used and it has required consistency. Adaptation is not adaptation with time conditions but of an adaptive front, it is expected to have mutual relation with the neighboring texture and the texture is obliged to accept natural conditions [7]. Traffic is one of the greatest urban problems wasting annually millions of hours of citizens and by air pollution can impose heavy economic load in society and government. The cause of traffic is numerous cars in city and this turns the streets to a big parking. Traffic and air pollution are two problems in close relation. Encouraging people to use public transportation namely railway is one of the most important solutions of reduction and control of traffic.

Railway is the main structure of public transportation system of a city. Today, the main foundation of public transportation of an advanced city is urban Railway. If other tools as bus, minibus or tax give service to great trip areas in city as located in city center, high concentration of them can create major problems in these regions. If central and commercial centers are covered by urban Railway, as these systems are less interfered with lanes traffic, the passengers can arrive easily. Thus, bus and minibus systems should feed urban Railway network or transfer passengers from minor routs to Urban Railway. Thus, public transportation and relevant activities have important effect on sustainable urban development and suitable urban plan is one of the plans of urban sustainable.

By considering the great urban problems in public transportation, we can use dry riverfront and increase transportation capacity. This path is first degree artery and plays important role in movement in high traffic hours. A strong relationship can be provided between two long paths in Shiraz city at shortest time. Placing two natural and artificial elements has some outcomes and we should create a good interaction between these two elements.

Conclusion

Landscape is an objective phenomenon and as we talk about an element of landscape, we should consider both its objective and its subjective aspects. Human being relation with landscape is a co-existence relation, for being natural, landscape needs human being intervention and as identity of seasonal river is based on its natural aspect but by high constructions beside river valleys and artificial landscapes, the identity of this artificial element is ignored and only its objective aspect is considered. We should attempt to respect River identity and use the feature of river front as a good artery to transfer urban passengers. By considering physical features of dry river front, we should attempt to maintain a public strategic plan and consider all natural and artificial benefits and considering this issue can have economic, social and environmental benefits for urban sustainable development and it has great traffic problems, cargo and passenger movement, damages of accidents, renewable energy loss. By construction of specific walls,
green space, green embankment and coordination of Railway Lines beside Dry River, its front is respect and a good association is provided between these two elements.

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