UNIVERSITY OF NOVI SAD TECHNICAL FACULTY "MIHAILO PUPIN" ZRENJANIN, REPUBLIC OF SERBIA

with partners

Politehnica University, Timisoara, Romania Obuda University, Hungary Mogilev State University of Food Technologies, Belarus



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"ECOLOGY OF URBAN AREAS 2014"

Zrenjanin, october 9-10, 2014. Serbia

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with partners POLITECHNICA UNIVERSITY, TIMISOARA, ROMANIA OBUDA UNIVERSITY, HUNGARY MOGILEV STATE UNIVERSITY OF FOOD TECHNOLOGIES, BELARUS

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INTRODUCTION

University of Novi Sad, Technical faculty "Mihajlo Pupin" from Zrenjanin, in partnership with Politechnica University from Timisoara in Romania, Obuda University from Hungary and Mogilev State University of Food Technologies from Belarus has organized the Fourth International Conference of Ecology of Urban Areas 2014 (URBANECO 2014). This partnership significally improves the quality of conference organization and work, as well as contribution in area of regional cooperation with other universities and scientific institutions.

The objectives of the Conference URBANECO 2014 are: presentation of current knowledge and the exchange of experiences from the field of sustainable development of urban areas which is one of the major problems of modern civilization. The ecological aspect is the dominant factor in achieving sustainability. The importance of ecological aspect has developed a need for an International Conference "Ecology of Urban Areas 2014" which has the goal to integrate scientific, technological and experimental knowledge in this field. Another importance is gathering researchers from this field with aim of expanding regional and international cooperation, raising the level of professional and scientific work at University of Novi Sad and Technical faculty "Mihajlo Pupin", expanding cooperation with institutions and encouraging young researchers within this field. Taking into account that this Conference is international, the importance of this event is obvious for the town of Zrenjanin, Banat region, Vojvodina and Serbia. Organization of URBANECO 2014 by University of Novi Sad, Technical faculty "Mihajlo Pupin" from Zrenjanin represents this scientific-educational institution as one of the major representatives of economic and social development in Banat.

Within this Collection of papers are presented all accepted papers received for IV International Conference Ecology of Urban Areas 2014. The papers are divided into following sessions: Air quality, Management of solid urban waste, Water quality in urban areas (ground water, drinking water, waste water and facilities), System of ecological management (ISO 14000), Economics of sustainable development of urban areas, Noise and vibrations in urban areas, Electro and electro-magnetic pollution in urban areas, Climate changes and urban pollution, Spatial planning and greening in urban areas, Development of urban areas, Environmental aspects of traffic in urban areas, Impact of agricultural activities to urban area, Public health and the ecology of urban areas, Soil and degradation of soil, Nanotechnology in environmental protection, and Transfer stations in the system of management of solid communal waste.

We would like to express our gratitude to the Ministry of Education, Science and Technological Development of Republic of Serbia; Ministry of Energy, Development and Environmemnatl Protection; Provincial Secretariat for Science and Technological Development; Provincial Secretariat for Protection of Environment and Sustainable Development.

Finally, we wish to thank all the authors of papers and participants in the Conference in hope that we will continue our cooperation successfully in the future and that each new year will bring better ideas and solutions to help raise awareness of the responsibility we hold today for the well-being of future generations.

President of the Organizing Committee Ph.D Milan Pavlović

Zrenjanin, October 2014.

WORD OF THANKS

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ECONOMICS OF SUSTAINABLE DEVELOPMENT OF URBAN AREAS

IV International Conference "ECOLOGY OF URBAN AREAS" 2014

ECO-CULTURAL SYSTEM PLANNING OF THE EXISTING BUILDING STOCK: THE ANALYSIS OF THE CITY OF İZMİR

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ABSTRACT

From its emergency and inclusion into the literature, the term "sustainability" is being used mostly for defining or mentioning to the physical environment. However, sustainability is more than this. It can be defined as providing the best life conditions for living creatures in modern city environments for maintaining continuity in the natural environment by protecting the historical and the cultural elements. In order to provide this continuity, the cultural sustainability has important role. The ecological culture can be identified as the soul and the source of the eco-city in which direct expression of ecological relation between the society and nature is provided. Not only adapting the ecological culture for new structures but also to existing building stock is also important for the enhancement of the city and the urban. In this research, the existing building stock of İzmir that needed to be enhanced in social and cultural terms will be analyzed. Through this analysis, the effect of individuals, the management system and the social morals over the social sustainability will be mentioned. By referring to the other examples from the world also, an eco-culture criterion is tried to be set for the existing building stock of the urban.

Key words: eco-culture, sustainability, urban planning, existing building stock, İzmir.

INTRODUCTION

Since its first emergency in 1980's, the term "sustainability" was used to provide the best relation between the economy, the society and the environment. Although it is that much comprehensive, sustainability is thought only as a physical issue related with its detailed aspects like material usage, daylight, ventilation or acoustical factors. Sustainable use of natural resources encompasses not only ecological and economic, but also social cultural dimensions (Throsby, 1999; Council of Europe, 2000; Hawkes, 2001; Littig and Grie β ler, 2005; Forest Europe, UNECE and FAO, 2011). In addition to this, it is also thought that sustainability can only be applied to new buildings rather than the existing building stocks. However, sustainability can be defined as trying to provide the best living conditions for each and every single living creatures in built environments to resume the continuity in both the natural environment and natural resources through conserving both the historical, cultural and social elements and items.

As it is obvious, cultural sustainability has the same importance with the physical sustainability for maintaining physical, social, cultural and economic continuity. In addition to being physical beings, buildings and structures are also the cultural collective memories. Aldo Rossi in his book, The Architecture of the City, indicates that while the single building is the object of architecture in the city, the collective cultural process construct cities over time (Rossi, 1984). According to his theory, to understand the complexity of the city as an artifact a morpho-typological classification system must be used. And he defines this artifact as an evolutionary process of adapting building types over time, where old forms can take on new meaning. It is similar to the critique of modernism where form followed function. Rossi concentrates on the historical European city, and these cities' metabolism can be defined as regionally self-sufficient by means of the need for food, water and human security.

In addition to this, cultural sustainability also comprises social sustainability in terms of social relations, individuals and management factors. Rem Koolhaas, in his book entitled *Delirious New York* uses the "culture of congestion" statement that stems from modern technology and high-rise buildings of Manhattan. He offers new design models with high-density metropolitan architecture that produces new social relations, but also new problems. In his model, by using mass transportation and high-density living, it is succeeded to achieve great efficiencies in metropolitan life. In this system, the metropolis is a highly organized machine with strict social hierarchies that separate rural and urban space and people (McGrath & Pickett, 2011).

More shortly, cultural sustainability can be defined as the soul and the source of the eco-city in which direct expression of ecological relation between the society and nature is provided. Not only adapting the ecological culture for new structures but also to existing building stock is also important both for the enhancement of the city and the urban, and the cultural continuity to next generations.

In this paper, the existing building stock of İzmir that needed to be enhanced will be analyzed from the perspective of cultural and social sustainability. In the literature review part, ecological culture will be firstly defined. Afterwards, its components will be lined up and the importance of ecological culture will be mentioned. The goals of the ecological culture and its 4 principles will also be touched upon. The requirements of the enhancement from the perspective of ecological culture in exiting building stock will be listed and some important international examples will be given. In the case study part, the details and the methods of the case study will be elucidated. Through the situation analysis, the effect of individuals, the management system and the social morals over the ecological culture will be mentioned. The problems and the needs that make cultural and social sustainability enhancement required for the existing building stock of İzmir will be listed. With the proposals that will bring forward, an eco-cultural criterion will be set for the existing building stock of the urban built environment.

CULTURAL SUSTAINABILITY

Before mentioning the cultural sustainability, it is better to define what "culture" and "cultural" is. "Cultural" relates to a non-biological system of development and adaptation (Steward, 1955). Culture thus includes any kind of heritage from the past, ranging from how people interact and do things to any kind of object or environments that are a results of human constructions or use of landscape. For transferring all those heritages to new generations, cultural ecology should be provided with its every aspect. Cultural sustainability can be counted as the forth element of the sustainability after ecological, economic and social sustainability (Konuk, 2009). In other words, urban ecological culture can also be interpreted as the special expression of ecological culture on the city scale. The reason why cultural sustainability is defined as the forth element of the sustainability is its new emergency into the literature.

Although there is still no exact definition of the cultural sustainability, 2 definitions come to the forefront:

1) The duty and the responsibility of transferring the cultural values and indicators to the new generations which were obtained from the before generations through adding new ones (Cebeci & Çakılcıoğlu, 2002).

2) The composition of the true principles and the strategies for developing the protection politics to maintain the cultural values and trying to provide their usage in addition to their salt protection by also considering that the modern cultural circumstances can change (Beyhan, 2004).

Through these above 2 definitions, it can be understood that the 2 common points to provide the cultural sustainability are the provision of the required politics and the ownage of the individuals. Social and cultural sustainability criteria encompass objects and structures, such as historical remains and habitat for people and values such as sense of place, local culture and traditions (Fairclough and

Rippon, 2002; Antrop, 2003; Palang and Fry, 2003; Claval, 2004). Rather than having an exact definition, cultural sustainability is always being defined with its aims (Konuk, 2009):

1) Trying to solve global trends which effects cultural diversity in local scale

2) Guaranteeing that cultural politics are at the center or urban management politics

3) Being able to request from all the national and international facilities to improve and strengthen their point of views toward cultural sustainability

In other words, basically; ecological culture seeks to establish the core values, morality, and the ethics of harmony with nature and sustainable development of the society.

The 10 key elements for providing the cultural sustainability are as (Konuk, 2009):

1) Sustainability of the Culture: Inoculating people the sustainable life style and make them reflect their learning into every aspect of their lives.

2) Globalization: Highlighting the importance of protecting the culture being affected from the globalization.

3) Protecting the Heritage: Protecting the cultural heritages, human experiences and infrastructures away from the effects coming from the outside.

4) Space Perception: Bringing the importance of the symbols, structures and art to the forefront and trying to provide a holistic point of view in which both economic and cultural improvement can be obtained.

5) Local Information and Traditional Habits: Protecting the traditions and local properties and trying the make them sustainable.

6) Cultural Social Improvement: Highlighting the importance of the protection of the values by individuals by themselves.

7) Art, Education and Youths: Trying to impose that youths, art and education are so important in cultural sustainability.

8) Sustainable Design: The shoring of nature friendly design, recyclable structures and urban design. Also they were seen as a part of cultural sustainability.

9) Planning: How the culture can be integrated into the planning phase of the existing urban and improvement plans are important and it can be obtained through the perception of the sustainability with its whole aspects.

10) Cultural Politics and Local Government: Culture and politics should work together with integration for obtaining higher life standard.

As it was understood from the above 10 items, ecological culture can be handled through both human consciousness, idea, belief, organizational, institutional and regulatory forms of the cultural patterns. For constructing the ecological culture, 3 different categories can be classified as (Zhang, Y., & Su, Meirong, 2013):

1) Social factors: Political, economic, cultural, educational and other aspects.

2) Industries: Agriculture, industry, tourism, construction and other fields.

3) Implementing actors: Governments, enterprises, public institutions, communities, schools, families.

These all elements of these above 3 categories have different and crucial roles for obtaining an ecological culture and cultural ecology.

To improve urban ecological and cultural construction with unified guidance and operations covering a wide range of ecological and cultural construction, a cultural of an eco-cultural framework was proposed with 3 levels, 3 approaches and 4 brands (Zhang, Y., & Su, Meirong, 2013).

If all these elements can be provided, cities with high quality can be provided in cultural, scientific, educational and environmental terms. Cities according to their characteristics have to play on the basis of:

1) Rich and unique culture: Mining the city for cultural resources, combined with the city's history, culture, music, architecture, landscape and characteristics will help to integrate various cultures, ideas.

2) High-tech, environmentally friendly technology: In the process of building a material and cultural ecology, resource efficient recycling is the principle of high-tech, environmental technology and industry.

3) Advanced, green education: Public education ensures the sustainable development of urban ecological and cultural construction. Increased investment in education and construction, with an emphasis on creating green primary and secondary school environments.

4) Harmonious and friendly environment: Ecological material culture through the visual manifestation of the silent appeal of spiritual and cultural ecology and ecological protection within the institutional culture jointly create a warm, friendly environment and build a socialist material civilization, institutional civilization and spiritual civilization and the organic unity of a harmonious society and thus attract talent, capital and surrounding.

Within a holistic approach, most basically; the success of the cultural policies and ecological culture can be provided only by maintaining (Mercel, 2002):

1) Cultural vitality, diversity and conviviality;

2) Cultural access, participation and consumption;

- **3**) Culture, lifestyle and identity
- 4) Culture, ethics, governance and conduct.

By interpreting all these above basic information on ecological culture and cultural ecology, some principles can be set while evaluating the existing building stock in terms of socio-cultural sustainability (Türker, 2011). Firstly, while making eco-cultural system planning into an existing building stock; it should be considered that it is not only a physical enhancement but also a semantic revolution. In addition to this, the authority making this eco-cultural system planning should be aware of the urban dynamics of the epochal. The meanings and the emotions should not also be disregarded. They are all important part of the cultural reservoirs of cities from the perspective of the individuals. Also, time is another effective dynamic over the eco-cultural system planning evaluation process. The

traditions of the specific city should also be considered like their daily habits, their religious places, their social infrastructure and their ethic values.

Some important international and national examples in terms of eco-cultural system planning of the existing building stocks can be listed as (Türker, 2011):

- Cubist Casbah Housing Madrid, Spain
- 124 Apartment Block Eco-Rehabilitation Szczecin, Poland
- Germany, Berlin Kreuzberg Housing Eco-Rehabilitation
- England, London Southwark Neighborhood Eco-Rehabilitation
- Familistere Godin, Guise, France
- Denmark, Copenhagen Housing Revitalization Program
- Fener-Balat Rehabilitation Project, İstanbul, Turkey
- 37. & 42. Streets Rehabilitation Project, Tarsus, Turkey
- Turkey, Mardin Participatory Urban Rehabilitation Project

CASE STUDY

As a case study, the existing building stock of İzmir was analyzed from the perspective of eco-cultural enhancement. Firstly, the history of İzmir was divided into 3 as from Smyrna to the establishment of Turkish Republic, from the establishment of Turkish Republic to the end of 1960's and from the starting of 1970's to nowadays. The whole existing building stock of İzmir was categorized by referring to above periods. After periodical division, each periods' indicator buildings were listed. Through this method, it was aimed to maintain the continuity of İzmir's buildings which remind people the cultural and social properties of their past.

SITUATION ANALYSIS & THE NEEDS THAT MAKE CULTURAL & SOCIAL SUSTAINABILITY ENHANCEMENT REQUIRED IN THE EXISTING BUILDING STOCK OF İZMİR

İzmir as being the 3rd biggest city of Turkey, it is Turkey's best-developed industrial cities with İstanbul, Kocaeli and Ankara. When it is looked to employment division of 2006, service sector takes the first place whereas industry sector takes the second place. As being one of the most important trade cities, İzmir still maintains this characteristic.

The followed politics that caused changings in city economics after 1980's also changed the spatial structures. With the enlargement of service sector and increasing of productive services; there were some other centers raised up in conjunction with the housing zones besides Kemeralti like Karşıyaka-Mavişehir and Çiğli at north, Bornova at west, Balçova and Narlıdere at south. As traditional centers, Konak, Çankaya, Basmane and Alsancak were all affected from this process and it continued in 1990's also. In result, Konak and Kemeralti were transliterated into places where wholesale and retail trading were rolled up. However, there was no big difference in the trading and entertainment traditions of Alsancak but the profile of inhabitants here was changed with a great impact. In addition to the decrease in the young population, in some areas; some marginal groups started to live in which resulted with security problems in some streets at nights.

When it is looked to the existing building stock of İzmir from the perspective of social and cultural values, indicators can be identified according to the important "*thresholds*" of the history of the city. In this research, they have been classified as in the following:

- 1st period: Beginning from the ancient Smyrna to the establishment of Turkish Republic
- 2nd period: From the establishment of Turkish Republic to the end of the 1960's
- 3^{rd} period: From the 1970's till today

1st period: Beginning from the ancient Symrna to the establishment of Turkish Republic

The ancient city of Smyrna was the home to Roman and Byzantine civilizations following the death of Alexander the Great. Under the sovereignty of the Roman Empire after 133 B.C., the city benefited from the Acropolis at Kadifekale and the Theater that existed during the Hellenistic period. One of those still remaining rare works of buildings is the Aqueducts bridging the two sides across the Kemer River at Kızılçullu.

In the 11th century, İzmir was the central city of the first Turkish Principality founded at West Anatolian coasts. As a result of the First Crusades, the Latins occupied the harbor district and the Turks located in Kadifekale Citadel, which leads to the city being divided into two parts as Yukarı (Upper) İzmir and Aşağı (Lower) İzmir and the city maintained its dual structure till the end of the 17th century (Güner, 2005).

As the city of Izmir became a great harbour city after the second half of the 17th century, a customs building and a bedesten were built. With the rise of commercial activity the numbers of inns in the city were increased rapidly and new mosques around the Inner Port were built like the Şadırvan (1636), Kestanepazarı (1667) and Kemeraltı Mosques (1673). Additionally, Armenian and Jewish districts were established in addition to existing Rum district. After the abandoning of the residents of Kadifekale district, the dual morphological structure of the city was over.

In the late 18th century, the Levantine population of the wealthy class people began to settle in new villages which will have turn into new suburbs gradually such as Buca, Bornova, Seydiköy (Gaziemir) and Karşıyaka for summer housing and providing shelter for potential epidemics. With this decentralized settlement pattern, the city gained its metropolitan structure.

During the 19th century a number of improvements were seen in the city: International bank branches were opened, The French and Ottoman Post began to service, and consulates of 17th different countries took place. Additionally, railway constructions started and Alsancak and Basmane railway stations were built. In 1867, by the construction of Kordon road and the quay, the Levantines, merchants, the Jewish, Rum and Armenian citizens of the Ottoman began to move their offices to the coast.

Beginning from the 1913 till 1922, the period of Governor Rahmi Aslan, Bahribaba Park, and the foundations of Orphanage, National Library, National Movie and Girls' High School were built to modernize the city with a contemporary appearance.

Indicators of the period:

- Ancient Ruins of the city: Bayraklı, Kadifekale, Agora, Tilkilik, Basmane, Yeşildere area
- Historical city center: Kemeraltı, inner port
- Historical districts that reflects cosmopolitan character of the city like Turk, Rum, Armenian, Jewish quarters.
- Levantine villages in Bornova, Buca, Karşıyaka and Seydiköy (Gaziemir)
- Significant buildings and traces (pathways, roads, squares, materials, etc.) at Kordon, Punta area, Alsancak, Konak, Varyant, Bahribaba Park, Karataş and Göztepe.
- İzmir Harbour District: Old Water Gas Factory, soap, oil, tobacco, fig treatment and cement factories and depot
- Social and cultural pattern of the inhabitants of the city

2nd period: From the establishment of Turkish Republic to the end of the 1960's

In the year of 1922, as a result of the İzmir Fire physical, cultural and social topography of the city were ruined. Armenian, Rum and Levantine districts were affected largely and only Belle-Vue (Kordon Road) was partly rescued from these burning areas.

By the foundation of the Turkish Republic in 1923, with the improvements in all cities in Turkey, the urban reconstruction movements in İzmir had also been started with the ideology to reflect the identity of the new Turkish Republic by the help of architecture and city planning.

Indicators of the period:

- İzmir Harbour District: Electricity Factory (1928), Orient Factory (1924), Old Tile Factory, Old Sümerbank Chintz Industry, Old Tariş Alcohol Factory and Old Floor Factory
- Gazi Boulevard, Cumhuriyet Square
- Kültürpark (Culture Park)
- Modern publicity buildings: opera house and cinema
- Mimar Kemalettin Street and environs (Buildings that belong to 1st National Architectural Style period)
- Public memory buildings: museums and libraries

3rd period: From the 1970's till today

One of the most important developments in this period was the Condominium Act (1965) that intended to bring together small capitals to facilitate individuals in acquiring houses of their own. This led to the change in the scale with the building height figure of 24.8 meters (Eyüce, 2005).

1973 Master Plan of İzmir was the most important issue that determines the development tendencies around the Bay as along the axes of north-south and east-west.

After the second half of 1960's, the International Style examples were seen at the significant buildings of the city. In some administrative buildings in the city center, contemporary and liberal look were being reflected.

By the year of 1980, with the rapid and different culture of consumption, pot-modern implementations were seen in the city especially in the commercial axes of Karabağlar and suburban villages in Narlıdere.

Indicators of the period:

- International Style examples: Eski Merkez Bankası (Old Central Bank), Türk Ticaret Bankası (Turkish Bank of Trade), City Hall for the Greater Municipality of Izmir, former Grand Ephesus Hotel-current Swiss Hotel, İzmir Chamber of Commerce Local Headquarters
- Formation of commercial sub-centers: Konak Atatürk Square, The Sosyal Sigortalar Çarşısı (Bazaar of Social Insurance Institution)
- Contemporary and liberal approach: Governor's Mansion of İzmir, Yeni Merkez Bankası (New Central Bank)
- Mass housing projects: EVKA, Egekent, Atakent, Mavişehir.
- Re-generation projects: Konak Pier, Mimar Kemalettin Street

PROPOSALS

When it is looked to the existing building stock of İzmir from the perspective of eco-cultural system planning, a classification can be made as: "cultural and social sustainability" in areas where industry left, re-functioning of the historical buildings at city center, adaptive reuse of structures that can be classified as modern architecture heritage constructed after Republic, adaptive reuse of civil architecture examples and monumental structures and revitalization of the structures and lands to city back which belongs to state and private firms and located in inner-city.

Within the scope of above classification; the applied/in the process of application/planned to be applied/proposed projects are listed below which are under the subtitle of "eco-cultural system planning" of historical and cultural heritage of İzmir.

- With a project that will be composed "Urban Readings"; different scaled, closed, semi-open and pin board like interactive information centers can be created to the regions, neighborhoods, streets, buildings and other historical areas which represents its periods through coloring each 3 different era's with separate colors.
- With a virtual communication web that will be composed, it will become easier to make a contact between the city dwellers, move commonly and generate new ideas. For increasing participation of the citizens in the next urban transformation, tweets, blogs, community sensing and mapping projects, games for change, smart mobs, festivals, workshops, painting competitions and flash events can be organized during the year in the different parts of the city.
- With a digital information system that will be composed, it can be provided to make city dwellers access all kinds of information. Through access that provided from every place with smart phones, i-pads, laptops; "urban digital maps" can be composed which are continuously updated. This system can also be supported by using a "magnetic card" which serves not just a physical transportation network but also an information network.
- A total urban system in which historical pattern (ancient ruins, historical commercial city center, modern industrial heritage at harbour area, etc.), singular buildings, green pattern and sea become integrated can be composed in behalf of ecological and cultural sustainability.
- To reinvigorate ecological processes within the city, possible opportunities must be determined such as using vacant lots for urban parks, constructing large parcels with more green areas by combining small parcel divisions, creating more pedestrian and bicycle ways in addition to public transport system by encouraging the lower levels of car ownership.
- Within the proposed urban system, the decontamination of the vehicle traffic as much as possible can be supplied through the circulation of the pedestrians, bicycles, trolleys, metros, buses and private cars can be provided at different levels and elevations and the composition of the lower-case car parking areas next to the city center.
- Through the adaptive reuse of the existing building stock with enhancement located at the axis of Basmane-İkiçeşmelik-Kadifekale and at the harbour district (Ege Neighborhood and nearby), positive contribution to İzmir's sustainable development will be ensured.
- If the re-handling of Culture Park can be provided also with its integration to İzmir, this place can be turned out into a 7/24 hours free public domain and it can be used as center of attraction from all ages. Also with some proposed performance activities in addition to the physical planning, it can be provided to make citizens to use this area much frequently and more efficiently.

CONCLUSION

It is possible to identify indicators and match them with verifier variables to support inclusion of social and cultural values in planning.

Because that each city's own historical, cultural and morphological structure is different from the others, the indicators defined in the eco-cultural system that will be proposed will also be different. By referring to that reason; the communal habits which compose the historical, social pattern and cultural structure and the requests of the citizens should be deeply analyzed. Afterwards, it can be provided to permit each citizen to use the environment equally and to reinvigorate ecological processed within their boundaries in ways that benefit citizens as well as the environment.

Each neighborhoods' and / or districts' one of a kind structures or buildings can be protected like commerce, industry or housing or mixed usage – commercial functions at the ground floor and the housing at upper floors. For each district, different sized and typed greenery areas, pedestrian ways, pavements, building heights or building densities can be defined.

For obtaining and living a more sustainable life; specialists from different disciplines can be encouraged to work together to make planning proposals in area-city-neighborhood-district-street scale through providing some design scenarios.

In these scenarios, the regions of the city which need emergent intervention should be handled primarily and in the process of the staging, some pre-studies like questionnaire, property determination, searching for financial assistance to other areas.

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