Methods of Shaping in Urban Design Forms - Case Study: Tehran (Doulab) Catholic Historic Cemetery

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ABSTRACT
Planning and designing urban spaces is a multi-faceted complex task on which no absolute consensus has been reached by experts yet. A wide range of various topics are included in sustainability of a city which necessarily interacts with each other. Importantly, this interaction is a factor affecting sustainability of a city and therefore, the urban space. Different beliefs and internal and external contradictions emerge for almost all the measures planned and implemented to promote sustainable development. What seems to be important, is the selection of ideas based on the insights and needs of the study area. In order to evaluate urban sustainability and investigate all the issues, a city should be considered as a whole. A simple definition for sustainable development is: Preparing a context for a balanced appropriate communication between human and his surroundings. Actually, a major concern of this type of urban development is to create or optimize spaces which involve 3 main principles including:

a) Biodiversity
b) Social justice
c) Dynamic and sustainable economy

Meanwhile, position of different urban spaces and the proper city form which can guarantee this positioning favorably, in terms of both function and shape, is a process on which no consensus among theorists and researchers has been achieved yet. Some believe in compact urban form as a favorable one to achieve the principles of sustainable development whereas others consider this type of urban form incompatible with biodiversity, as the most important principle, and believe in a balanced compact urban form (ecological city) seeking their preferred Utopia in these cities. In this paper, considering certain theories on urban forms involving sustainability principles and the level they meet function and shape sustainability of our case, cemeteries similar to the case in terms of history and identity are comparatively and analytically studied to find out how an urban form with all three sustainability principles can meet identity and socio-cultural needs of this type of urban spaces.

Key words: Sustainability, Urban form, Cemetery

INTRODUCTION
Today, the attention and interest toward sustainable development has broad dimensions so that fans of researching on it include a wide range of educational institutions, national and local governments, international political institutions, global organizations, research institutions and local communities.

There are a wide range of topics in this study area such as global sustainability, ecology, green economy, sustainable commercial, agricultural and forestry activities, sustainable tourism, green environmental rules, sustainability in energy issues and issues concerning political economy.

While there may not seem to exist any significant relationship between this type of researches and urban form-related thoughts at first glance, due to the effects urban forms have on research subjects mentioned earlier and yet the assistance from these researches to clarify urban form-related ideas, their results are very important. On the other hand, some underway studies on sustainable development are more related to urban issues. In those studies, issues such as sustainable development through land use planning, sustainable buildings, urban forms and
energy and of course, density are addressed in achieving sustainability. Most of the studies mentioned are still in theoretical stage and functional studies and field trials are required in order for them to be proved.

As a place for cultural interference of various countries such as Russia, Poland, France, Italy and Iranian Christians, today, Doulab historic cemetery is a jungle with tall plants which show the long history of the graves.

Lack of effort to preserve the cemetery has caused precious tombs such as Mina Khosh Taria, the Gorgian prince, which was a beautiful building in the past and has been also registered in National Index, to be destroyed and many tombstones are so old that are on the verge of destruction.

Tomb of Mina Khosh Taria, the Gorgian prince

Abandoned cemetery and its inappropriate greening

In this study, we try to evaluate urban development measures in terms of sustainability and provide policies which result in the most sustainable urban forms for our case.

When visiting the cemetery, its improper situation is obvious, many tombs have been stolen and many others are being destroyed and the ignorance may lead to disappearance of the cemeteries remained from mid- nineteenth century in Tehran.

If factors discussed in urban spaces sustainability are applied properly for the cemetery, a sustainable and favorable urban form is achievable in future. These factors include:

- Creating social diversity through residential and service mixed use in adjacent spaces of the cemetery
- Location of the cemetery near commercial services so that it is accessible on foot or by bike
- Preserving natural environment and the enriched culture in the cemetery
- Compact natural plans (compact tissue and area)

The case study indicates that the place lack all the factors already mentioned and careful studies are required to achieve a balanced sustainable urban form.

RESULTS

Sustainability of urban spaces is achieved through following measures:

a. Use of expert participation of the community: there are some citizens and working groups in the city with a lot of remarks on historic changes and evolution of their living place. These people are not in sight. They should be found in order to enjoy their participation and historical memory.

b. Encourage cooperation among people from all levels; in order for a neighborhood to grow and improve, a controlled utilization of all groups and occupations is required and this leads to a favorable development and growth.

c. Skip design codes and consider experiences and realities: what seems good on paper may not necessarily be good and appropriate when it comes to implementation. Actually, questions such as “is the space beautiful?”, “is it comfortable?”, “is it accessible for public” and “what do people demand to use the space?” should be answered by a project.

d. Reduce greenhouse gas levels:
   - encourage people to walk instead of driving
   - improve weather conditions
   - reduce consumerism and waste and promote recycle culture in society
   - reduce the use of renewable energies

e. Design and plan for people: each decision should increase social interactions and public participation in decision making. Spaces such as parks, streets, sidewalks and other public spaces should be open to people from all ages and cultures and act as a place for continuous and active participation by different groups of people.

f. Define social identity: a place with a good social identity increases the sense of attachment to that place by citizens and as a result public participation in all levels of development plans rises.

g. Adopt to changes: our world is changing. Some of these changes are predictable but some not, such as sudden economic changes. Changes in weather can be predicted using technology and knowing them helps us to make flexible decisions.

h. Learn how to act: using experiences and experimental projects to ensure success and have new ideas

i. Move on the right path: movement and progress never stop because changes are always there. There is no end in successful projects (The corporation of the City of Pickering, 2014)

j. Try to create large public spaces: large spaces are created as a result of people’s participation so they should be designed according to their needs.
2. Sustainable urban form is achieved when following characteristics are met:
• Compactness
• Sustainable transport
• High density
• Mixed land use
• Diversity
• Passive solar design
• Greening

However, there are some theories discussing if sustainable urban form results from compactness or not. Some believe in high density to include social justice and sustainable urban form and others oppose it as a disruption for dynamic economy and biodiversity (Kostof, 1991).

What seems to be certain is that, in terms of environment, high density in ecologically valuable areas is considered as unsustainability but in areas with many abandoned and uncultivated lands, it is sustainability.

In this study, regarding the objectives, research method, theoretical principles and data required for analysis, library method is used to collect required document about the literature and the document needed to introduce the research scope. Field study is also applied in form of interviews with pundits and people to identify needs and problems of the case.

DISCUSSION

Similar Samples and Records

Pere lachaise cemetery

Pere Lachaise is the Largest Cemetery in Paris and One of the Most Famous Cemeteries in the World

The cemetery is located in district 20 of Paris and in 1994 it was registered as a historic place in France. After the Great French Revolution, following Paris's new law, cemeteries were moved out of the city for which a large garden that belonged to Father Lachaise, Louis XIV’s trusted priest, was purchased by municipality to be designed by Alexander Theodor Bouvier and finally it was opened in 1804.

In this 44-hectare garden, there are 5000 trees and it is considered as the biggest park in Paris. Famous French and world figures are buried in this cemetery.

Sadegh Hedayat, the Iranian writer, translator and intellectual, died in Paris and he, beside other French and world cultural and political figures, was buried in section 85 of this cemetery.

Pere Lachaise is a symbol of human difference and, at the same time, equality. Followers of different religions; Catholic, Orthodox, Protestant, Judaism, Islam, Buddhism and... are buried in this cemetery.

There is also a place for cremation in the cemetery for those who must be cremated according to their religion or will. The Famous Communard Wall, the symbol of freedom and idealism of French people where 147 leaders of various parties of Paris were shot on 28th of May 1871 after their defeat, is in this cemetery. Pere Lachaise has a website which provides interested people with a camera to enter to and visit it.

Verano Cemetery

With an area of 83 hectares, this is the main cemetery of Rome, Italy, where dead bodies of all people of the city, except Popes and Kings, were buried until 1980. The place is a unique art work.
Generally speaking, the aim of doing this research is to obtain urban form sustainability concerning the case, also to investigate if functional and physical situation of our case using sustainable urban form principles can be improved or not, to show that these changes are not dogmatic and deterministic, and to evaluate the effects and feedbacks of implementing sustainable urban form in surrounding environment and predict proper administrative mechanisms. Therefore, main objectives of our research are:

1. Use of sustainable urban form to achieve social justice, dynamic economy and biodiversity based on existing unutilized potentials and opportunities in the case.
2. Sustainability of the case in three scales including: society, neighborhood-quarter and building- Doulab cemetery considering the hierarchies and close relationship of the scales.
3. Use of space sustainability instructions, including:
   - Supported access and mobility between the case and the scope of communication with adjacent units
   - Connection between open spaces and important occupied areas within the site
   - Protection and restoration of nature and traditional and historical culture of the case
   - Compact natural designs
   - Develop tourism and create garden museum space and craft market in the case

Research Questions

1. What characteristics should the space specified in the case have to consider it as an urban space? And is any space in the cemetery, where social gatherings occur, necessarily known as urban space?
2. Can all types of urban spaces be sustainable? Or is it required for urban spaces such as cemeteries to have special physical and functional characteristics (appropriate context) in order to implement sustainability parameters in them?
3. What is urban form? Is it possible to design an urban form and consider it for all urban spaces or not? Is a special urban form designed for a cemetery based on its urban space? while this type of urban form may not necessarily be considered as a sustainable one in other cases.
4. Considering all the parameters defined in sustainable urban form, how is a solution proposed for the case with least negative effects in terms of visual, historic-cultural and social identity which can take advantage of potentials existing in the area?

Research Method

All scientific researches need a methodology fitting the subject. Choosing an appropriate method and continuously using it throughout research process is one strategic principle of a scientific research. Obviously, different evaluations are carried out on different methodologies based on the type, objectives and subject of the study. Therefore, in this study, different methods are used for data analysis. In order for this, comparative-case study method and, whenever necessary, descriptive method are used to explain quantitative and statistical information.

Because this study is carried out using cognitive bases from fundamental researches aiming to find and propose solutions in response to research problems, it is classified as a functional research in terms of objectives.

On the other hand, because the research considers and provides solutions for urban space sustainability in the case, case study method is applied in it.

Introducing the Case

The historic cemetery studied here is located in southeast of Tehran in district 14 which is also known as Polish, Akbarabad, Soleimanieh, Doulab, Orthodox, Catholics or Assyrian Cemetery.

Doulab Armenians Cemetery was under the ownership of France which was purchased by France and Italy Embassies and the representing Roman Catholic (and Vatican) Church in Iran.

The Polish section was purchased by Poland Embassy in 1942. Total area of the cemetery is 75000 square meters of which, 44000 square meters belong to Armenians, 14200 square meters belong to Catholics, 3700 square meters belong to Orthodox and the remaining belongs to Chaldean Assyrians.

50 percent of Catholic cemetery is for Polish and the remaining includes English, Czech, French, German and Italian tombs.

The cemetery is known as Christian on a website (Doulab Catholic Cemetery) designed by some European Embassies such as Austria, France and Italy to introduce this historic cemetery to the world.

As was mentioned above, the cemetery is owned by Russia, Poland, France, Italy … and permit by all the Embassies and approval of Armenians, Assyrians and Orthodox
agents required for individual visits makes it almost impossible to visit.

The First Tomb of the Cemetery Belonging to a Christian French Man

The Entrance of Polish Tombs
The address of Doulab Cemetery:

Iran, Tehran, Mahallati (Ahang) motorway, 10th of Farvardin Street, Imam Hasan square, northern Pasdar Gomnam avenue. It is located on Rezaei Tajerí avenue from west, on Mostafiz Street from north, on property office from east and the greenhouses of Pasdar Gomnam from south.

The area: 75000 square meters

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