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The nature of big villages and small towns: Towards creating ideal small settlements

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Iran is a country with over 1,013 big and small cities and 63,898 small, average and big villages. Complexities of life in big cities on one hand, and the shortcomings in basic facilities of small villages on the other, have raised many problems concerning living in them. However, a certain group of such settlements can be quite recognized, that is, some big villages and small towns with relative capacities of economical activities and environmental, social and physical potentials can act as mediators between big cities and small villages. Due to such facilities and also because "sustainability" is rooted in the essence of villages, it is possible to convert them to ideal settlements. This paper argues that urban planning principles can also be applied to various living complexes including villages, and this provides the possibility of using urban planning principles of New Urbanism and Urban Village movements for rural settlements. For this purpose, the concept of sustainability is elaborated, the desirable indicators of utopias are introduced from viewpoint of social reformers, the main features of indigenous urban planning in Iran are recounted and finally the possibility of realization of the doctrines of ideal settlements in such big villages and small towns will be discussed.

Key words: Iran, village, indigenous urban planning, Utopia, Ideal small settlement.

INTRODUCTION

The concepts of "sustainability" and "sustainable develop-ment" were introduced in the mid-twentieth century and became pervasive in the realm of social, economic, environmental and settlements theories (Wheeler, 1998). Subsequently, they became a basis for formation of global paradigms to the extent that, in recent decades, numerous terms such as sustainable development, sustainable architecture, sustainable cities, etc. have been repeatedly defined by scientific circles and official organizations, and now there is a rich extensive literature of definitions, concepts and derivatives of sustainability.

One of the most important doctrines set forth in sustainability which should be taken into full consideration is its viewpoint towards history, traditional settlements and the lifestyle of the people in the past. It has been an important concept in pre-modern urban and rural communities. Perhaps that is why contemporary urban and rural movements and schools, each of which a

manifestation of a part of sustainability, are searching for their ideal exemplar and referent in old cities and traditional communities. Studying and reviewing contemporary theories of urban and rural planning, from "New Urbanism" movement in the United States of America to "Urban Village" movement in England, suggests that almost all of these movements are after the dream of revitalizing and contemporizing the physical form and content of urban life set forth in pre-modern cities (Habibi et al., 2011).

The study of settlements of Iran from 1956 to 2006, detailed statistics of which are available, show that in addition to increase and growth of the number of cities (up to 510% growth), large villages also have always developed. Based on these studies and the comparison of the number of villages in 1956 with that of 2006, number of villages with a population of less than 99 has increased by 154%, number of villages with a population

of 99 to 499 has decreased by 3%, number of villages with a population of 500 to 999 persons has increased by 156% and "number of villages with a population more than 2500" has increased by 407%.

Due to population thresholds for urban and rural areas, almost all large villages, just after reaching the intended population threshold for becoming a city, are no longer considered as rural settlements and are added to the list of urban areas.[1]

The aforesaid areas, that is, large villages, which are among the oldest and most sustainable living centers in Iran, can be considered as the mediator loop between large cities and small villages and the desire of people to live there is intensified and their number is steadily increasing.

It should be noted that although "indigenous urban planning principles" include the adjective of "urban", but they can also act as a basis for design and implementation in villages and can be applied as guidelines for deriving rules and principles for rural texture design (Habibi et al, 2011), particularly in aforementioned settlements.

RESEARCH METHODOLOGY

Providing suitable environment and housing appropriate to the needs of rural communities is among the major issues in planning and development of small settlements, and searching for its theoretical background is of great importance. Since the rules for design of indigenous rural texture are *not* totally different from the principles of indigenous urban planning, and they are not independent form the principles and doctrines of contemporary urban planning theories, rules of indigenous urban planning can be used, directly or indirectly, as a basis for design of or as guidelines for inferring design principles to be applied to rural textures. By citing these principles and the historic background of traditional cities and villages, this paper is in search of the grounds for realization of desirable physical forms in small settlements.

The paper uses obtained indicators for different types of large and small cities and villages to determine the kind of settlements that are potentially suitable to become an ideal settlement. The descriptive-analytical research method is based on written and library studies, and also on the basis of indicators and theories that have been concluded through deduction and induction.

RESULTS AND DISCUSSION

Desirable settlements from viewpoint of reformers

Overview of viewpoints regarding the ideal city shows that human being has had different ideas and opinions for shaping his environment through history in order to achieve social perfection. These ideas and theories which have been expressed with some terms such as utopia, and in recent decades with eco-city, healthy city or livable city, have always attended to from ancient times by social reformers and theorists, and these people have proposed some requirements for its achievement.

Hippodamus (479 B.C.), who is somehow considered as the father of city planning, has defined three uses, that is, holy, public and private for the land of a settlement. Also, he has divided people into three social classes of craftsmen, farmers and the military and allocated the space of settlement to these groups accordingly and has suggested two main access roads for traffic within the settlement. He considers the population of ten thousand people as the minimum number of people for the formation of a livable habitat (Sartipipour, 2009).

Plato (427 B.C.) believes that the administration of the city should be given to philosophers, and holds that the ideal city will be realized only through wise administration of it. His emphasis on the idea of philosophers' governance highlights the necessity of applying wisdom, thinking and contrivance for management of settlements. He believes that the extent of the city should be so that interaction among each and every one of its residents and the public would become possible. Plato proposed 5040 as the ideal number of citizens of a city. Form his viewpoint, perfection of settlement is possible in case of establishment of justice, wisdom and harmony among three parts of self (that is, the senses, the intellect, and the body), and through unity among different knowable things. He thinks that if the population of a city exceeds this number, direct participation and decision making of people, as the best method for people to intervene in their own affairs and destiny, can not be realized; consequently, the city administration goes the wrong way. His ultimate goal which is noticing wisdom and self-sacrifice for community interests is still practiced (the *Republic*, Plato).

Aristotle (384 B.C.) with regard to desirable settlement believes in self-sufficiency of a settlement in fulfilling the needs of its residents and also its management. Aristotle believes that low number of people can not form a settlement; however, in the case of high population, it is difficult to determine social labor divisions and establish control. Like Plato (1976) he understands that the increase of the population beyond a certain threshold is synonymous with poverty and hunger, and believes that in such cases the rate of population growth will not match the speed of product and land development. He even considers the beauty of a city synonymous with its size and extents, and remains doubtful about proper administration of very large cities.

Among the old theosophists of Iran, Farabi (872-950 A.D.) is the most famous figure who has a thesis and a book about the ideal city. Farabi believes that the noblest goodness and the ultimate perfection can be achieved through civil society. He argues that a civil society is a society which possesses the required facilities. For this reason, he calls "Madineh", that is, *city*, as the smallest type of perfect society because its people are able to meet their own needs. In Farabi's view, a perfect society (utopia) is the location for growth, awareness and mysticism, and perfection can be attained by human only

through living in such utopia (Farabi, 1992).

Among scholars who disliked urbanization and citizenship and thought that the perfection of urbanization coincides with metamorphosis and alienation, was Ibn Khaldun (1332 to 1408 A.D.), a Tunisian historian and sociologist. He believes that the main cause of formation of city and its function is satisfying the desire for comfort seeking, entertainment and luxury (Sartipipour, 2009).

The views regarding ideal city in the West considerably increased after the Industrial Revolution.[2] Uncontrolled spread of cities, poor living conditions and health conditions, dirty and smelly alleys and unsuitable and unhealthy passageways, and general inability to resolve these problems on one hand, and the evacuation of villages on the other, attracted the attention of many Western thinkers. These situations led many Western scholars and experts to think about desirable social and economic characteristics and size of settlements and other features, and they even went to implement such ideas in some cases.[3] In such plans, a collection of facilities required for living complexes including schools, libraries, clinics, churches, and concepts such as housing, employment, etc. were proposed.

Socialistic thinking, collective life and public ownership can be obviously traced in many of these ideas many of which entered as indicators for ideal city into the field of urban planning and urban design. Saint Simon, Robert Owen, Charles Fourier, Ebenezer Howard and Tony Garnier were among the pioneers of this kind of utopia after the industrial revolution (Habibi, 1996). Later, other figures like Le Corbusier and older members of Congres Internationaux d'Architecture Moderne (CIAM) completed these theories and suggested some ideas like park-city which was negated by environmentalism with its emphasis on the hierarchy of house, street, and region.

Patrick Geddes proposed using other sciences in urban planning especially sociology. Other characteristics of ideal city were suggested by some people such as Lewis Mumford who was a follower of Geddes, Ernest Burgess who viewed urban issues from an ecological perspective and Leonard Duhl with his viewpoint as a synthesis of ecology and health, and the idea of healthy city was suggested by him for the first time.

Among other major theories about the ideal city with more emphasis on physical dimensions, the theory of visual quality and image of good settlement by Kevin Lynch can be mentioned. He suggested five factors, that is, paths, edges, nodes, landmarks and districts as the main factors for image of a good city.

New urbanism theories

From early 1970s, some critics and designers such as Leon Krier, Christopher Alexander, Robert Stern, Colin Rowe, Vincent Scully, Jacqueline Robertson, and Gordon Cullen, etc. called for more attention to sustainable

architecture and urban design principles (Plater-Zyberk et al., 2010). They sought to learn some lessons from traditional urbanization in finding solutions for contemporary regional and urban concerns. Some doctrines such as "protecting open spaces", "development of public transport system", "supporting compact and pedestrian-oriented neighboring units" and "green construction" are their most important proposed principles (Plater-Zyberk et al., 2010).

Some of the suggested solutions include supporting pedestrian movement, providing links in texture, creating mixed land uses, creating different types of housing, increasing texture density, focusing on the monuments of historical value, participation of residents in organizing the texture, maintaining and strengthening traditional structures, and use of design tools for creating safe places. Such solutions are not limited to a specific level but cover all residential surfaces.

Simultaneously, with the urban recreation movement, the concept of urban villages becomes one of most important forms of development for creating urban development based on mixed land uses and pedestrian-oriented approach and on a sustainable scale. The term was first coined in the 1960s by Herbert Gans (an American sociologist). In his book, "Urban Villagers" (1962), he provided an analysis on the second generation of Italian-Americans. His study showed that the traditional concept of neighborhood and family is representative of a social group. In other words, all residents of an urban village are living in a certain neighborhood and often spend their time with each other. Although the term may firstly seem paradoxical, however, it reflects the people's desire for autonomy and social life among all of them (Caves, 2005; Cowan, 2007).

The current notion of urban villages which has mainly developed and manifested itself in England in the 1990s (Caves, 2005), emerged with the publication of the book of Leon Carrier and found its physical expression in the works of a group called Urban Villages Forum while the works of Jane Jacobs and Christopher Alexander were the background for the emergence of this notion. "The core idea of this notion is based on a sustainable, human-oriented and multi-purpose development matrix which was thought to be suitable for creating new neighborhood units and restoration of texture of existing urban units. Since the idea is elaborated by social, economic and environmental sustainability, the areas called "urban villages" should possess attractive aspects for living, working, recreation and investment, and consequently oppose sprawling, discrimination and self-alienation that prevents from vitality and viability of small and large cities and towns" (Caves, 2005).

Given these issues, the most important principles and doctrines of urban village and contemporary urban planning schools can be summarized as coexistence and harmony with the surrounding environment in the region, stressing on the exploitation of indigenous culture and

architecture, focusing on saving energy, providing access to basic urban services like water, electricity, sanitation etc., enjoying the benefits of existing infrastructure, maintenance of green and natural zones, attaching importance to life in local communities, a mixed pattern of housing and providing affordable housing for all people, as well as using participation of residents in organizing and use of texture.

Indigenous urban planning in Iran

In indigenous urban planning in Iran, the physical form of the settlement is determined in harmony with its surroundings and the region. Indigenous urban planning in Iran, thus, following its prevailing worldview, shows the unity of expression and spatial hierarchy from the largest to the smallest physical scales where each scale comes after reflection of the unifying principle of the world. The most notable spatial element of Iran's traditional settlements is the existence of squares or small squares (called *Meidancheh*) as the center of gravity. Indigenous urban planning attempts to realize the principle of balance (spatial equilibrium and physical balance), that is, the very same principle that the world itself rests upon, and all urban elements are used as an artistic and verbal composition to express this principle.

Rhythm, repetition, discontinuity, continuity, sameness, contrast, return to rhythm and back into contrast, prologue, epilogue, prelude, peak, descent, etc. all show themselves in the most skillful spatial composition and physical expression in urban planning (Habibi et al., 2011). Indigenous urban planning is based on humane space while scales, sizes, shapes, openings, closures etc. all intended to express this space.

Comparison of the notions of indigenous urban planning with principles and doctrines of contemporary urban planning theories particularly New Urbanism and Urban Village theories indicate their high level of affinity. Therefore, the comparative study of these two movements will not only reveal the conflicts and discrepancies between the features of indigenous urban planning and contemporary and universal urban and rural planning components, but also it reminds us of their likeness and affinity (Habibi et al., 2011).

Indigenous urban planning shows some notable and significant signs of principles and teachings of sustainability, and presents the interconnected manifestations of social, environmental and economic sustainability.

Review of urban planning theories and indigenous Iranian urban planning reveals that almost in all of them human life and human values, which are the innate attributes of human being, have been attended to.

Equality and balance between quality and quantity of population, environment and consideration of citizens' welfare are some important objectives pursued in this type of urban planning. Besides, observing aesthetic

principles and the tools and means provided by modern IT in general and digital revolution in particular for cities and villages and the possible effects of these two factors on physical spaces are among other objectives that should be pursued in the formation of ideal settlement (Sartipipour, 2009).

From what has been quoted from experts regarding the extents and quantitative scale of settlements, the population threshold of 5,000 to 10,000 people can be inferred; it is also the most important criterion for effective, active and productive participation of people in living residential complexes. The threshold also somehow determines the borders of a neighborhood within a city.

With regard to this criterion provided by theorists on the population threshold for ideal settlement, by the end of the year 2006 nearly 769 small urban or large rural areas could be found in Iran with such threshold. Among these places, 553 points were urban areas with a population of less than 10,000 and with total population of about 2.593 million people, and 216 large villages with a population of over 1.877 million people. Total population of these towns and villages was about 4.470 million, which due to benefiting from social, cultural and physical potentials and characteristics congruent with indicators and criteria set forth for the ideal city, they have suitable potential for realization of ideal settlements. A review of these settlements shows their high potential capacity and features.

Texture

The physical texture of these settlements is formed based on geographic and topographic features and has been influenced by climatic and environmental factors such as wind, precipitation, radiation and water supply and distribution system. Such factors have caused logical relations in the establishment and formation of buildings which have manifested themselves in an organic geometry in their texture. The same principles have given these settlements a specific identity which can be a model for their rehabilitation and physical development.

Housing

Indigenous housing in these settlements is a combination of bond between nature and ecosystem, and is the composition of functions, livelihoods, traditions, techniques, art and beauty. There are many patterns derived from architecture and engineering principles which can be found in all designed parts of such housings even for the smallest architectural details such as anteroom (where you take off your shours), stove and tandoor that all are shaped and influenced by human needs and can inspire architects for designing desirable housing.

Due to the fact that indigenous housing is the manifestation of the surrounding environmental, cultural,

social and economic characteristics and requirements of local communities, studying such an important issue and considering its features will provide us with useful information for appropriate and environmentally friendly design which will provide more public satisfaction and comfort.

Image and landscape

The vast latitudinal extents of Iran, the type of soil and vegetation, surface water network, climate diversity, altitude and the topography have created different climates all over the country. This situation has caused the formation of more populous centers with different images and landscapes due to increase of latitudes of cities and villages and moving away from hot and dry areas and reaching middle-latitudes and mild climates with lower temperatures and increased precipitation. Establishment, formation and extents of expansion and physical development of these settlements are usually determined by their potentials and capacities of their geographical environment, and this feature has given some of them a background of hundreds or even thousands years.

Pursuant to these conditions, image and landscape of these settlements have been formed in connection with various environmental factors and proximity to natural phenomena such as mountains, fields, rivers, plains, sea and their climatic conditions. Due to the strong bond between these settlements and their surrounding environments from the beginning of formation and establishment of them, organic images with relatively novel, beautiful and different landscapes have been emerged which can be regarded as a kind of visual capital that must be preserved and protected by all means.

Materials

The application and use of vernacular materials in construction of residential units is another feature of these settlements' architecture. Vernacular materials and their production and application technology is a part of local capital of these areas which contains the beliefs, values, methods and tools of them, and has created a kind of knowledge based on which houses, shelters and settlements have been built during centuries (Emadi and Abbasi, 1999).

Many indigenous materials are not only resistant and durable, but have a variety of beautiful natural colors and can either be used solely or in combination with new materials to create strong and gorgeous buildings in compliance with their identity. The efforts taken to promote indigenous knowledge in these areas are not in conflict with new technologies, but they can be regarded as complementary measures.

The indigenous technology used in these settlements is efficient, affordable, dynamic and upgradeable, and because it has been tested over time and evolved at the heart of the natural environment, it has been adapted to local conditions (Sartipipour, 2009).

Cultural landscape

Most of these settlements have ancient historical background and are part of valuable cultural landscape which due to lack of public awareness are seriously endangered now. Moreover, the processes of restoration, conservation and protection of them are facing difficulty. This is mainly due to the fact that people are usually unaware of the historical and cultural values of old textures and monuments.

Inattention to and ignorance of the architectural values of them have led to premature destruction and damage of these heritages. Being endowed with cultural heritages consistent with physical texture and environment, and existence of valuable monuments are other potentials for formation of desirable settlements and can be considered as considerable drives for evolutionary sustainable development.

Conclusion

City and village are not two distinct living centers; rather, they are interdependent and interrelated areas. Therefore, the design principles of these two also have a meaningful relationship. Almost all of the reviewed theories on indigenous urban planning and New Urbanism emphasize on mixed land uses and focus on some diverse and affordable housing patterns so that the housing needs of all social classes can be fulfilled by them. Such a feature will strengthen the social interactions among all social classes of every age, race and income level which consequently provide living complexes with dynamism and vitality. In such a context, the importance of paying attention to public spaces and urban and rural centers as the spheres for preservation and protection of social relations becomes significant.

In the realm of physical texture, protection of open spaces and green areas, encouraging higher density of texture instead of sprawling, providing necessary space in order to promote real participation of residents, enjoying vernacular culture and architecture in addition to maintaining and strengthening traditional structures are among the sustainable and effective principles of urban development that can be adopted for rural areas.

Attaching importance and consideration to the outstanding position of small towns and large villages as the mediator loop between large cities and small villages on one hand, and the appropriate level of population in such areas as a prerequisite for social interaction and economic investment on the other, are the most important features and drives to achieve a desirable and

appropriate physical texture.

The existence of indigenous knowledge and traditional values in these communities and commitment of people to such values have provided them with an excellent social capital and wealth, relying on which the ground for sustainable and comprehensive development based on actual work and production will be prepared. Public participation and collaboration, and the importance attached by these people to "work" as a holy phenomenon are among the essences of traditional communities, and can be regarded as an important wealth and a good support for development of these settlements.

Accordingly, we can hope that due to the necessity of establishing a relation among human being, activity and space, a spatial organization would be achieved that combines welfare, art and architecture, so that the life can be enriched both in material and spiritual dimensions based on the fundamental principles of sustainability.

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Endnotes:

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[1] This shows that decrease of rural population, which is mainly attributed to emigration from villages to cities, has another reason. In fact, a portion of such decrease is due to the fact that larger rural settlements have been subtracted from rural areas and are added to urban ones; an issue which is not attended to in surveys and censuses.

[2] While the average urban population of the world consisted only 3% of the total world populations until the year 1800, the industrial revolution in European countries caused the vast emigration of people from villages to cities. According to the available data, now this rate is about 70% in developing countries and it is forecasted to increase up to 78% till the year 2025 (Mcgill, 1998, p. 464).

[3] In the early 19th century, the idea of "Falanster" was raised by Charles Fourier. Falanster, i.e. discipline and spirituality, was a self-sufficient economic unit which was comprised of a building with two branches. There were 162 people living a collective life there and classified by their age. This idea was pursued by Owen in "New Harmony". New Harmony village-city was founded on the basis of the ideal plan of Robert Owen by combination of rural life and industry for a small and self-sufficient community which was depended on agriculture and industry and had a population of about 2,000 in Indiana, US.