



Revitalization-based Architectural Heritage Conservation (Case study of revitalization of introverted residential type in Iran's historical-cultural urban fabrics)¹

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ABSTRACT

Residential superstructures with introverted (interior courtyard) morphology constitute a major part of historical-cultural urban fabrics of many regions in Iran. One of the most important issues involved in conservation of such urban fabrics is how to address the revitalization of superstructures located in such urban fabrics. As a result of the wide spread and extensive number of the residential type buildings located in historical urban fabrics of cities, which relate to Islamic period, designers and urban revitalization planners have no choice but to revitalize residential use of a major part of buildings of this type. In addition to providing proactive conservation for urban fabrics on the basis of revitalization of their underlying element (housing), this will have a significant effect on solving the housing problem in cities in general.

Revitalization of traditional residential type to modern residential type requires sensitive and specialized interventions, which must be conducted according to specific theoretical bases, in such manner that while observing revitalization rules and standards governing historical-cultural buildings and urban fabrics, there would be reasonable and desired interaction with the lives of modern Iranians.

Keywords: conservation, revitalization, residential, architecture, historical-cultural

INTRODUCTION

Proposition of Problem

Wide spread and numerous valuable historical-cultural buildings of Iran constitute a heritage with excellent properties. While there is consensus about why they should be protected, we are faced by complicate and sensitive problems with regard to the process of addressing them and how to protect and revitalize them while observing their originality in interaction with modern life, which require planning and designing based on knowledge of different aspects of the issue.

Existence of hectare of historical and cultural urban fabrics with different types of use – which, however, are mostly residential (Falamaki, 2007: 174) – indicates necessity of scientific and systematic planning regarding the said field. This article is focused on broad spread and huge number of this residential type in these historical-cultural urban fabrics and necessity of making some architectural interventions aimed at adapting these buildings with norms and customs of the life today, as well as the need for respecting historical, cultural, identity-related, physical and traditional dimensions of their life in the past.

This issue must be considered in the light of the change of the traditional residential use to modern residential use on large scale, which must be conducted according to architectural design mechanisms and systematic interventions, which shows the special and of course very important attitude adopted here with regard to the issue of housing. Failure to use residential potentials of these residential urban fabrics is a serious problem which, if eliminated, will be an effect step to reduce problem in the field of housing. It is evident that spread, importance and physical and spiritual potentials of historical-cultural architecture of the urban fabrics can not be ignored or marginalized in favor of huge new construction activities which ignore the potentials of the historical urban fabrics of the cities.

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Question of the Research:

Historical-cultural urban fabrics are considered an integral physical part of the cities on the one hand, and represent fragments of the history and identity of a society on the other hand. Fragments which are not used or rarely used today because of inattention or lack of systematic bases with regard to the manner in which they should be addressed, and constitute only a part of the physical area of the urban fabrics. In other world, maximum use has not been made of potential of such urban fabrics and especial their residential potential, and the few existing uses or limited changes of use from residential to nonresidential – including administrative, museum, service, etc. – doesn't meet the systematic planning requirements with regard to the huge number of residential units in these urban fabrics.

The question of the present research is “what should we do to revitalize the residential use of such wide spread historical-cultural urban fabrics?”

Hypothesis of Research

From point of view of this paper, the general solution for systematic conservation and revitalization of such urban fabrics lies in changing their traditional residential use to modern residential use while respecting their physical, historical and conceptual qualities. Respecting these qualities doesn't mean that every physical intervention in these buildings must be prohibited.

There are naturally some interventions which must be made to these life containers compatible with modern life, but such interventions must avoid any destruction or removal, and must observe authenticity and identity of the historical value of the urban fabrics, do not affect basis visual and conceptual qualities of cultural-historical architecture of the urban fabrics. Such balance in design requires methodology and epistemology of the process of addressing such buildings which will be discussed below (Groat, 2005: 75). In other words, if we are supposed to plan and design for historical-cultural urban fabrics (while protecting them), focus on condition of residential type and provision of restorative solutions required for this type will be among serious topics influencing the results to obtained in the field of urban revitalization, in such manner that arriving at answers which are logical, systematic and acceptable to housing sector can be an important and effective answer to a major part of the problem (Falamaki, 2007: 175).

Theoretical Framework

In general view, the structure of historical-cultural urban fabrics was designed and constructed according to the life style and architecture of the past. Therefore, they are not used, partly used, or improperly used today due to their incompatibility with today's condition. Nonuse will certainly lead to decay and destruction. Such destruction will not be simply a physical one, but also a cultural destruction which has realized in form of destruction of physical examples of the civilization of a nation.

On the other hand, today's lifestyles and consequently demands are different with those of people who lived when these works were created.

Behavioral tendencies and mechanisms of factors influencing architecture have changes, and consequently, the living containers which meet the requirements of lives of human and are acceptable to them have also changed. Modernity and its epistemological effect on societies, technological advancements, and our machine-based life style, for example, significant role of automobiles in our daily life, different social, occupational, ethnical and local relations, etc. are facts which must be considered clearly and delicately in restoring traditional residential buildings to modern residential, at the same time as respecting their historical values and authenticity. On the other hand, one can never ignore the influence of the container on the contained (effect of architecture on human being), and only consider the impression the contained takes from the container (human being from architecture).

Certainly, emphasis on morphological and conceptual conservation and respect for traditional type of building in process of revitalization indicates attention of intellectual bases of this paper to those aspects of architecture that affect human being, which must be defined in logical and realistic interaction and balance with today's residential use of the building.

Therefore, in first part of this text, we consider the authenticity (Feilden, 2007: 152) in mechanism of revitalization of traditional residential building with respect and attention for feedbacks of architecture which affects human (the container on the contained), and in second part, we address methodology and analysis of mechanism of the impression the past's residential container takes from today's life.

Experiences Assesment

Revitalization plan based on improvement of urban issues within the historical-cultural urban fabrics with planning for elimination of housing problem has always been the focus of attention of different architectural and urban societies (Habibi, 2005:71). We believe that knowledge of different aspects of this issue and paying attention

to local issues and specifications of life in Iran are very necessary and effective and can help eliminate the housing problem, some cases of which will be considered below.

Income-creation-based urban revitalization approaches have been on planning and designing agenda in many historical-cultural urban fabrics of England as a motivational factor along with reinforcing and guaranteeing of settlement of residents in old urban fabrics. For instance, in urban restoration of Lester city, providing housing for people in historical-cultural areas using change of use based on modernization has been on revitalization agenda (Kalantari, 2005: 120).

In Italian urban fabrics, conservation of old urban fabrics as social and cultural treasures is conducted by keeping the demographic structure of these areas, in such manner that very much stress is placed on the dynamic role of components of these urban fabrics and regional life (Kalantari, 2005: 129).

In restoration of old area of Baltimore, the US, revitalization is conducted using economical stimuli along with prevention of movement of residents of residential elements of the old area. This is conducted using retrofitting of historical-cultural buildings and improvement of social services in old area of the city. In this process, material-economical approach is much stressed (Tajbakhsh, 2000).

Urban restoration of Cairo, Egypt, was conducted with emphasis on values and historical elements within the old area, revitalization of cultural-historical properties along with improvement of condition of residential places, By taking some measures including revitalization of historical urban fabrics, defining new uses compatible with the original condition, and improvement of social structure of residents within the area by moving the low income residents out of the old city, the general living condition in the said area was revolutionized (Hanachi, 2007: 41).

CONCLUSION AND DISCUSSION

- Special situation and historical nature of old urban fabrics limits possibility of intervention in them. After preparing these spaces and proving them to users, possibility of making alterations to these buildings, whether to the interior spaces or exterior parts, is controlled, in such manner that all alterations, appending and removals shall be conducted under supervision of competent legal authorities so that issue of conservation is not overshadowed. Any intervention must respect the original idea and architectural techniques as well as historical-cultural values and evidences as much as possible (Giorgio, 2004: 229).
- Proper respect for any culture requires that its physical heritage be seen in its cultural context. Value of every historical monument lies not only in its individual unique elements but also in its entirety as a specific product of an architecture from a specific time and place. Removing interior structures of the building and simply keeping its façade doesn't meet conservation criteria. Reasonable understanding of such principles will clarify limits of purposeful and originality-oriented interventions, removals and appending in process of revitalization.
- Design and allocation of one historical residential superstructure to one or more families is an idea with which we are faced in this alternative. Therefore, it is necessary to adopt architectural measure and creative solutions in turning these spaces into elements compatible with modern residential uses, in such manner that spatial and architectural values of houses in the historical areas are not reduced.
- Dimensions and proportionality of passages, and in general, the architectural and urban properties of historical urban fabrics allows use of common automobiles. Therefore, provision of proper spaces for parking lots in some parts of these urban fabrics according to what was discussed in this paper is among issues which require study, planning and design. Use of special vehicles which are made compatible with these urban fabrics is another solution in the world today.
- Observation of rights of safety, security, health and respect for privacy of people (according to the standards) who are due to live in these spaces are among the requirements of such plans. In this regard, as mentioned in this paper, we are faced by challenges in some cases, which can be overcome or at least minimized by observing certain design considerations. Naturally, among requirements of reaching logical and creative solutions while protecting these buildings is acquiring knowledge of their different aspects. Historical-cultural, physical-architectural, technical-structural, technical-facility, aesthetical, comparative, contextual-environmental, and pathological knowledge are among basic knowledge which must be obtained by designer with regard to the subject. Full knowledge of the design team of the building in question along with knowledge of theoretical bases of architecture, revitalization, as well as general technical and architectural issues required in the field of architectural design lead to a proper ground for planning and designing revitalization.
- In this residential type of building, courtyard very much influences its surrounding environment due to its central situation, and from another point of view, because several households are supposed to be organized around this central space, therefore, it is stressed that concentrated traffic pressure be directed to other places. In this regard, one can define access doors independent from the central courtyard. In introverted type, most accesses and spatial

connections were through the central yard, so it is recommended that the role of courtyard in these connections be reduced in the process of revitalization. Defining uniform interior connections in a residential unit without mediation of courtyard (while observing interior separation of private and public spaces of a specific unit) is among distinctions of modern residential buildings with traditional ones, which must be considered in design of revitalization. This not only makes connections compatible with demands of today's life, but also helps reduce effects of noise and visual pollutions affecting households because of existence of central courtyard at the house, and also improves privacy of units.

- It is recommended for design of main entrances of residential units to provide possibility of access independent from the wide and uniform space of the central courtyard. Division of the central courtyard into "connective ways at the margin of courtyard" and "wider spaces at its center" using divided map of gardens and courtyard's furniture can lead to significant effect of "probable presence of people in courtyard" on "residential units". However, this can be observed as a design tip in original state of connection of spaces with the central courtyard, which should not be interrupted in process of revitalization. In this building, although public spaces have window (visual access) to courtyard, accesses from courtyard to its confined spaces surrounding it are through a half-open space, which lead to definition of visual and perceptual hierarchy from open space to the close space and vice versa. Therefore, these potentials must be properly used in revitalization plan.

- It is necessary to separately define and design the required residential uses of each of residential units in process of revitalization. In this regard, it is a requirement to define and design separate bathrooms for individual units.

- Since sky lighting is not good in spaces in southern side (with north-faced façade), and in eastern side (with west-faced façade), it is recommended for these spaces not to be used as residential units. In other words, these spaces had better be turned into residential units in combination with part or whole of spaces in their adjacent side. To answer the question whether or not we divide some historical central courtyard building into multiple residential unit, issues such as population density, economical dimensions and buying power of purchases or future users of units, geometry and spatial qualities, privacy of division, climatic dimensions, etc. are considered, which collectively give the final idea. Of the said aspects, some – like climatic dimension and space sky lighting mechanism – can be considered as a general rule in revitalization design, but in most cases, decision must be made according to specific conditions of the building to be revitalized. Therefore, we only mention some of the most important topics. It is also important not to define basements as separate units. A basement converted into a residential unit will be in a lower quality level in terms of sky lighting and other factors, compared with other divided units. Therefore, it is recommended for the basements to be integrated with the spaces above them. In this case, stair system will be designed and added in interior space.

- In cases where old stairs are supposed to be used in parts of the revitalized building, it is necessary to modify their height. Usually, this can not be done by destructing and removing the olds historical stairs and constructing new ones due to conservation standards or spatial limitations. Therefore, creative methods are used to control dimensions of the old stairs (for example, each stair is divided into two new stairs or every two old stairs are divided into three new stairs by appending wooden stair treads and exposed frame worked on the old stairs where the new is distinct from the old at the same time as they are in uniformity). However, if possible, one can use new stair systems integrated into the historical texture by removing or altering some spaces. In these cases, appending stair system significantly alter the view or affect originality of the texture in question; in other words, it must be located in and designed for places with the least visual attraction.

- In cases where visual or acoustic effects of residential common parts on interior spaces of units are higher than accepted, one can use double-glazed windows or two-layered windows with colored outer layer (in its original form), and patterned inner layer. This solution is acceptable from perspective of energy saving as well.

- We are faced by absence of sky lighting and decreased natural lighting and air conditioning at depth of spaces located at four corners of the spaces surrounding the central courtyard of these buildings. Considering these spaces are of second or third order (in terms of view and their effect on spatial and morphological perception of these buildings), we can improve their sky lighting and air conditioning using ducts or optical void. Also, it is necessary pay sufficient attention to properties of these spaces when allocating their uses.

- In the end, we should like to remind you that any intervention in architectural of spaces of these buildings is acceptable only if the most important conservation issues are considered in process of restoration and revitalizations (Falamaki, 1996: 236); which are as follows:

- 1) Interventions should not cause any serious damage to originality and identity of the work.

- 2) Interventions must be made only in line with revitalizations plan and for the purpose of continuation of the life of the work (with consideration of requirements of modern life to be lived in them).

- 3) The principle of "distinct yet uniform" must be observed in use of new construction materials and in spatial interventions in connection with revitalization.

- 4) Principle of “reversibility” must be observed in designing revitalization.
- 5) The maximum possible use must be made of historical physical components of the work, and the minimum possible intervention must be made. Naturally, the valuable historical layers are respected in this process.

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