THE EFFECT OF DISTRESSED FABRIC REGENERATION ON THE PRESERVATION OF URBAN IDENTITY

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ABSTRACT

One of the biggest challenges that cities are faced with is the impact of the deterioration of urban space quality on the exacerbation of quality of urban life. The regeneration program of valuable urban fabrics seeks to plan and design valuable urban spaces through a detailed understanding of city conditions and an analysis of the obtained data to facilitate future urban development. Adopting a quality enhancement approach towards urban spaces, the present descriptive-analytical study aimed to propose strategies for the improvement of the regeneration and renovation processes of distressed urban fabrics in order to preserve urban identity. Results indicated that, concentration on the fabric of urban spaces and the development of a plan to improve their quality is a strategy towards the regeneration and renovation of distressed fabrics, a lack of attention to which causes urban fabrics to lose their spirit.

Keywords: Distressed fabric, urban space, environmental quality, regeneration, identity

INTRODUCTION

Distressed fabrics represent a significant area of many of the Iranian cities, which, due to the specific challenges they pose, have been excluded from the domain of urban life, becoming a problematic area of cities. In addition to presenting physical challenges, these fabrics diminish social, economic, and cultural qualities of cities and urban spaces...
and disrupt the presence of humans in such areas. As a discipline dealing with the qualities of built environments, urban design is regarded as a field that is related to the regeneration and renovation process of distressed fabrics. This article will seek to account for the role of improving urban space conditions in the regeneration and renovation process of distressed fabrics. Distressed or historical areas represent a considerable portion of the Iranian cities. Yet, the history of addressing them has been relatively short, in a way that, Iran is trailing behind the developing countries in this regard. The necessity of conducting more in-depth reviews and investigations could be easily seen. Moreover, the inconsideration of some of the companies involved in the renovation and regeneration of distressed fabrics towards the physical, historical, and identifying values of such areas, as well as the hesitation shown by Iran Cultural Heritage, Handcrafts and Tourism Organization (ICHTO) in establishing historical boundaries and introducing new regulations and policies to limit their involvement have further contributed to the isolation of these valuable sites.

According to statistics, approximately 100 thousand hectares of distressed areas have been identified and registered in the country. This number reaches to about 150 thousand hectares if the remaining small towns are included in the equation. If the net population density is considered to be 80 people per hectare, the number of inhabitants living in such areas reaches to about 12 million individuals. Given the high statistical probability of earthquake threats and natural disasters in the country, one could easily imagine the irreparable damages that would be inflicted in the event that such phenomena actually occur. It is therefore necessary for all distressed fabrics, including those which lack protective value, to be renovated and regenerated after the integration of each unit, and even if they lack any identity from architectural or urban planning perspectives. The regulations regarding ancient and historical areas are different than ordinary areas, in that, they require protective and renovative knowledge to be implemented to their benefit.

Old fabrics are referred to those parts of the urban fabric that were constructed before the year 1920, and which are self-organized. These areas highlight the historical identity of cities and, therefore, are of local value, whose demolition or renovation is not only unnecessary but need to be carefully preserved in their original shape. Old fabrics are often mistakenly equated with distressed
or worn-out areas, leading to the adoption of irreparable measures on certain occasions.

1- The Definition of Regeneration

The regeneration program of vulnerable urban fabrics seeks to plan and design valuable urban spaces through a detailed understanding of the status quo and an analysis of the obtained data to facilitate future urban development.

2- The Purposes of Regeneration

The purpose of valuable urban fabric regeneration program can be mainly summarized as maintaining/revitalizing urban framework and spirit, regarding which the following subcategories can be proposed as the constituents of the main purpose:

1. The preservation and renovation of urban fabric and framework;
2. The systematization of the valuable old city cores;
3. The preservation and revival of cultural, historical, physical-spatial, and urban architectural values and the introduction of these values from urban level to national and international levels;
4. Preparing the ground for tourism development and the benefiting of city from the generated revenue;
5. The management of physical urban development in harmony with the existing environment;
6. Preparing the ground for physical urban development by taking the existing conditions, facilities, and limitations into account;
7. Improving the condition of infrastructural and superstructural utilities and the fair distribution thereof for the benefit of the general public.

3- The Types and Characteristics of Urban Distressed Fabrics

Due to the passage of time and a lack of adequate investment for their preservation, distressed fabrics exhibit unique characteristics that include: a lack of access to the interior sections, absence of proper infrastructure, environmental problems and a high pollution level, a lack of leisure facilities, poverty and deprivation, vulnerability to earthquake, low per capita utilities, overpopulation (high population density), dense unsustainable buildings, insecurity and social problems [4].

The “distressed” state of a fabric is understood by its inefficacy or low efficiency compared to other urban fabrics [2]. Such areas have become a source of difficulty for decision makers, administrators, and the people living in historical cities. In such areas, the hidden national cultural and civic values are overshadowed by their inability to be adapted to modern-life requirements [3].
In April of 2006, the Supreme Council of urban Planning introduced three indices for the identification of these boundaries: fine granularity: city blocks, more than 50% of whose parts are less than 200 m in area. Impermeability: city blocks, more than 50% of whose passages are less than 6 m wide. Instability: city blocks, more than 50% of whose buildings lack structural systems [1].

Four different types of obsolescent urban fabric with completely different characteristics can be distinguished by studying their similarities and differences: 1- old distressed fabric (valuable and valueless), 2- Intermediate distressed fabric, 3- Modern distressed fabric, and 4- rural and peripheral distressed fabric.

4-The Types of Intervention in Distressed Fabrics

In urbanism and urban planning, various strategies and interventions are proposed to improve the quality of urban centers, or more accurately, old and often distressed urban fabrics. Based on the extent of commitment to the past, there are three types of intervention in regeneration, renovation, and reconstruction. The least intervention in and the manipulation of the existing physical condition is achieved through regeneration [9], and includes a series of measures taken in the shortest possible time to improve the physical fabric condition that has reached to a state of exhaustion due to over performance. Regeneration is carried out when a relative state of exhaustion is reached from a functional perspective [10]. The basic principle in this type of intervention is to adhere to the past and preserve the identifying features of the space in question.

With the aim of utilizing the actual and potential facilities, and through reinforcing the positive aspects and reducing the negative ones, regeneration is achieved by: 1. Protection, 2. Preservation, 3- maintenance, 4. Conservation, 5. Restoration, 6. Consolidation, and 7. Repair. This kind of intervention is peculiar to those fabrics that have historical and cultural values, the manipulation of which requires the observance of ICHTO rules and regulations [8].

5-Cities are not Merely Physical Entities

According to Mumford, city is a collection of primitive groups as well as collective purposeful unions. The former is represented in the form of families and districts which could be seen in all communities, whereas the latter is peculiar to cities. He, then, introduces two distinguishing features of cities:

- The essential physical tools for the existence of cities are: a fixed form, stable
housing, permanent facilities for collection and exchange.
- The essential non-physical tool, which is the social division of labor that guarantees not only economic life but also cultural processes[12].

City is much more than a collection of individuals and social facilities. It is more of a state of mind, or an amalgamation of habits, traditions and organized ways of thinking that have become integral parts of such habits. In other words, city is not merely a physical mechanism or a built environment. It is involved in the social process of people who form the city. It is a product of nature, especially considering that the presence of human creates a reality called “city” which in turn gives rise to societies [17].

Cities are also interconnected with the society; the civil society that is influenced by the presence of human. City is the result of the overall interaction among social agents whose shape is a function of the nature of their interaction.

As spatial realizations, cities represent cultures that they have given rise to. Therefore, as products of culture, they are capable of functioning as cultural patterns. The reason why many of the prepared urban plans are faced with challenges is that, the people behind such plans do not have a clear understanding of the concept of city. As a pure physical reality, city has been the subject of numerous studies; yet, the results are often ineffective. Therefore, other factors have to be at work.

Cohen defines the term “urban environment” in two ways: social environment and built (artificial) environment.

Social environment is “the spatial representation of social institutions”, which has been studies by sociologists and geographers. On the other hand, built environment is concerned with the physical space. Therefore, the matter of interest to architectures is the “morphology” of environments [11].

An advocate of Modernism regarded cities as physical entities that could be managed through zoning or establishing hierarchies. In his 1966 article under the title A City is not a Tree, Christopher Alexander criticizes such a view.

Modern cities are often identified with their physical elements (buildings, sites, etc.), which are well-designed; yet, the collection of which produces disorganized or psychologically unhealthy wholes. The reason is that, just as the available tools to a person, the majority of decision makers relate cities to the hidden lifeblood of individuals and societies through the implementation of
some plans and facilities. The fixed component of cities is their form. However, the presence of humans contributes to the occurrence of some events in the surroundings that make residents understand another factor other than the urban form, i.e. the factor that affects the urban quality. In this way, a viewpoint is provided that seeks to link human experience with human understanding.

6-Urban Identity

“Identity”, as one of the most important factors in providing a better understanding of the concept of city for citizens, has played a significant role in this regard due to the modern view towards cities and man-made environments. Historical connection to the past in the form of using familiar forms is the simplest practical solution that is available at the beginning of facing with the issue of identity. While the positive aspects of this approach should not be overlooked, it should be remembered that the mere application of historical forms cannot account for the various aspects of urban identity. This is because the morphological effects are among the perpetuating factors of identity in cities. Despite its frequent use in the related textbooks and dialogues to urban planning, the metaphorical concept of urban identity is an easy yet impossible concept to grasp. It is easy because each person can create a mental image of this concept by thinking of historical backgrounds, ancient sites, and cultural roots of comprehensive environments; and yet, it is impossible because any question regarding the nature of the current identity of cities has remained unanswered.

By combining humans with their comprehensive living environments, the senses of attachment and dependency to such environments are heightened to the point that separation from which is perceived as an irreparable shortcoming. When we look at phenomena which have been arisen from the intervention of the new elements in the known environment to individuals, we realize that they motivate them to react to what they perceive as new. The dependency to the environment stated above is then brought to a new equation which takes a new form [18]. In contemporary urban planning, a rigid order has replaced the previous social diversity in the past [15].

Cities had, once, a personality and life of their own. Nowadays, however, such personality and life has been replaced with similar monotonous masses [14].

In his “Good City Form” theory, Kevin Lynch proposes seven criteria or values for evaluating the good city form. These include:
vitality, meaning, relevance, access, monitoring and control, efficiency and fairness.

He explains and evaluates each of these criteria with a series of sub-dimensions. The “meaning” criterion included five sub-dimensions: structure, identity, transparency, congruence, and legibility. Identity and structure are the morphological components of meaning. These two features explain such aspects of the form which enable us to understand environment and time and present them according to our own patterns. “Meaning” is used to refer to the extent to which cities can be clearly understood, as well as the extent to which they are mentally identifiable. They also refer to the ability of residents to visualize cities in a specific time and location, and the extent to which those mental constructs are related to urban values and identities through urban cultures and subcultures associated with the concepts of community [16].

Identity is formed and changed in the process of economic and political developments within the context of history and at the heart of a more widespread social structure that includes the society. Therefore, a static view towards the concept of identity does not lead to its understanding [17]. In other words, identity can be equated with “meaning” and in the context of city it can be regarded as the recognition of one place and distinguishing it from other places, which is “the product of human interaction and experience” in cities. It is necessary to bear in mind that, urban identity is meaningful only when residents feel that their cities and place of residence belong to them.

7-Environmental Quality from the Perspective of Urban Design

Various definitions of quality, as well as the hierarchical understanding of human beings that tries to grasp the quality of objects from two domains, i.e. subjective and objective, have resulted in various types of quality. Accordingly, the qualities that are related to the “subjective domain” are perceived to reside in the mind of individuals. On the other hand, the qualities that are related to the “objective domain” are those that belong to objects. They reside in the mind as “external entities” as are related to factual realities. Mental qualities can be defined as values that are hardly quantifiable or measurable. The related qualities to (in) appropriate speech and the beauty of objects are among this category, which are measurable and are related to measurable functions such as weight, height, and speed.
The subjective-mental values of an object, known as “qualities of desirability”, such as beauty, stem from individuals, whereas the objective measurement scales of objects, known as “qualities of capacity” stem from the objects themselves [5].

8-The Theories of Contemporary Urban Designers about Environmental Quality

From among the various works from which the quality parameters of living environments have been derived, five theories will be discussed in the present articles, including the theory of Jane Jacobs as the first contemporary theoretician and Ian Bentley, who directly addresses the issue of environmental quality in hope of creating a responsive environment. Finally, the work of Matthew Carmona under the title “Public Places – Urban Spaces” will be touched on.

In her 1961 book titled “The Death and Life of Great American Cities”, Jane Jacobs identifies five criteria for having a quality environment: appropriate activity before visual order, mixed use, mixed age concentration, the street, permeability (short blocks), social mix and consultation, and flexibility [22].

One of the best known series regarding the quality of urban design presented by technicians is recommended series of the Joint Center for Urban Design at Oxford Polytechnic Institute”. The said series has been collected by Ian Bentley and his colleagues in a book titled “Responsive Environments”, and on account of its comprehensiveness and ease of understanding, it is regarded as an important reference in professional and academic associations. Seven criteria that need to be observed in creating responsive environments have been mentioned in this series: permeability, variety, legibility, robustness, visual appropriateness, richness, and personalization. The final work that classifies the qualities of physical environments was published by Matthew Carmona in 2003. Titled “Public Places – Urban Spaces”, he classifies the effective qualities on the physical environment to seven components: access, hard and soft space, public space, safety and security, urban landscape, mixing and compaction, inclusive and time management of space [20].

9-Urban Environmental Quality Classification Models

Lang’s model: human needs: This model has been proposed by adopting Maslow’s Hierarchy of Needs theory. According to this model, the quality of urban environment can be classified in terms of the satisfaction of different types of human needs, which
include: physiological, safety and security, love/belonging, esteem, self-actualization, and cognitive-aesthetic needs. It is therefore necessary for urban environment to satisfy different types of human needs [23].

Appleyard’s model: modes of human perception: According to the proposed model by Appleyard, the different components of urban design quality can be organized and classified in terms of their response to various modes of human perception. He distinguished three modes of human responses to the environment. These include: the responsive mode, focusing on the emotional to the environment and using it as a stimulus for feelings and associations. The operational mode employed by most people as they go about their daily lives, such as moving from one place to another for business or meeting purposes, and the inferential mode, that seeks information from the environment to support the “operational” and the “responsive” modes so as to finally result in an understanding of its “meaning”. In this way, the “inferred information” reveals the personal and community identities of the environment and its related community, and lead to a sense of place [19].

Distressed fabrics are revitalized when the ground for their continuous development has been prepared and their self-correcting power is brought back to them. This is achieved by taking all contributing aspects to their exhaustion into account as well as by pathological studies of the fabrics. Paying attention to the environmental qualities of such fabrics and improving these qualities is a matter that should not be overlooked. In the present article attempts were made to propose a comprehensive model of the evaluation of qualitative indices so that the qualitative indices of urban spaces in general and distressed fabrics in particular could be measured.

10-The Appropriate Methods of Valuable Fabric Regeneration

There are several methods and models that can be used for the revitalization and regeneration of urban distressed fabrics or residential areas. The significance of these methods in the regeneration process is such that it casts doubt on the validity of any scientific research and renders the realization of its results impossible if these methods and models are not incorporated therein. Therefore, pragmatism and reliance on experience and limited observation without a logical order and cohesion in most cases lead to a failure to achieve the specified objectives, a feeling of frustration, and the wasting of time, energy, and financial resources. The result of this scientific inquiry
is the evaluation of different theories and the eventual rejection or verification of them, which would lead to the expansion of scientific horizons and the improvement of administrative methods.

In its initial stages, the global movement in support of the preservation of cultural heritage has gained great experience in such fields as single-building regeneration, upholding of the urban and rural environmental values, and distressed fabrics. Yet, given their diverse conditions, social orientations, and the relativity of common and value-based approaches, various appropriate methods have been proposed for the regeneration of rural distressed fabrics which will be discussed shortly [23].

Three methods and perspectives have been proposed by experts for the preservation and regeneration of distressed fabrics. These include: museum, cellular, and organic perspectives which are discussed below:

**A- Museum**

The operational scope of this method is limited and its functions are straightforward. In this method, the aim is to preserve parts of the fabric from the physical-spatial perspective, which is achievable with a small amount of money.

The preservation of cultural heritage is dependent on the maintenance of distressed fabrics. Making interventions to achieve this goal is approved of in this method. In this viewpoint, the preservation of identity and ancestors’ legacy is preferred over modern life requirements. As a result, due to a lack of incorporation of necessary changes for daily modern life purposes and the rural infrastructural shortcomings and inadequacies that are rooted in such a viewpoint, the residents of these fabrics are left with no choice but to leave the area. Following the disintegration of the social fabric, the physical fabric would also be subject to destruction.

Through a logical continuum, the museum perspective leads to the endangerment of life opportunities, condemning future generation to live according to the values of other in some cases. In other words, it makes them live in environments that are not derived from their life necessities. The adoption of such strategies cannot be extended, as it leads to the disruption of rural functions and the serious endangerment of rural life by the passage of time.

When applied in parts of distressed urban environments or complexes rather than in single buildings, the problem of museum perspective becomes more noticeable, as the adoption of such a viewpoint turns the distressed valuable complexes that should
serve to improve the functional-spatial qualities of urban life, into unavoidable sources of difficulty.

Each work of architecture or urban space, whatever historical background it might possess, stems from the functional necessities of its time (physical, aesthetic, etc.), in the creation of which, the improvement of the functional environmental quality and spatial superiority have been considered. Therefore, the capacities of these works in furtherance of physical-functional desirability of urban spaces should be made use of.

In summary, an extremist viewpoint towards preservation poses a major threat to the actual life of distressed fabrics, and diminishes their distributable values. Museum protection is incapable of coping with the social, cultural, and physical damages inflicted as a result of cleansing policies and detailed redevelopmental plans, and is always prone to being at the developmental boundaries [24].

B- Cellular

In this method, the associative value of spaces within the whole system is lost, i.e. the emphasis is on the preservation of the environmental value irrespective of its relationship with the organic whole. The scientific values achieved through this method that should be passed on to future generations are proportionally more limited.

In such a condition, a viewpoint would prevail over the city and its destiny that often introduces, regularly and ceaselessly, specific modifications to distressed and damaged urban spaces.

Without noticing the warnings or comments on the old memorials of valuable ancient urban buildings, it is seen that the cellular view towards distressed fabrics has been employed in the service of economic rehabilitation, and the mainspring of preservation is to regenerate and renovate the economic structure. The starting point of these measures is the revitalization and regeneration of parts of city that have lost their potential and efficiency due to physical exhaustion and limitation in accessing modern technical and welfare service networks.

In this perspective, the maximum attention is directed at the quality of constructional works and the appearance of the reconstructed or regenerated fabric is regarded as a value that every individual can appreciate.

No constructive idea can be seen in the cellular approach to distressed fabrics that leads to the perpetuation of cultural values. In this approach, the residents of distressed
fabrics are not usually involved in the investigations and decisions that are related to the design and regeneration of their respective areas.

The outcomes of this approach could be observed in the urban and rural areas of London, Munchen, Roma, and Florence. These areas have literally managed to return life back to distressed fabrics and to incorporate modern life in these fabrics by maintaining modern values along with old ones, in such a way that, the most expensive rural or urban areas in such regions are distressed centers.

Among the most important characteristics of urban regeneration using the cellular approach are the relative maintenance of the physical form of buildings, the reinforcement of regenerated spaces, and the amalgamation of the regenerated fabric with the adjacent space [24].

C- Organic

With the organic approach, the originality of the fabric is maintained and what has remained from the past will be passed on to future generations with all its value still in place, which is an enormous burden to bear.

The implementation of the organic approach prevents these fabrics from resembling an isolated system by explaining the role of distressed fabrics in the spatial structure of city. The integration of the two fabrics should be performed gradually and with sensitivity in order for cities not to be faced with functional difficulties. In this way, no sense of dichotomy will be created in the city. However, if this integration is done carelessly, it leads to psychological and functional breakdown which, in turn, results in an intensified sense of dichotomy and the separation of the two parts.

The regeneration, renovation, revitalization, and facilitation of distressed fabrics should involve the linking of the past and present life of cities, and should also determine their developmental direction and future prospects. Moreover, the renovation of distressed fabrics should be carried out locally, i.e. comprehensive measures which require extensive financial, administrative, legal, and even management commitments should be avoided. At the same time, it should be noted that, the focus of the made interventions should be based on the employment of regenerative measures with regards to distressed fabrics so that they bring about urban development in their surroundings. Urban regeneration with the aim of achieving a sustainable development is highly compatible with the revival of distressed fabrics through the organic
method. The main characteristics of urban regeneration using this method are:
The preservation of the physical attributes of spaces;
The homogenization of village life conditions;
The reamalgamation of urban distressed areas, centers and the environment;
The participation of citizens in the regeneration of the city;
Addressing the issue of urban regeneration in multidisciplinary circles [25].

11-CONCLUSION

The ever-increasing rate of urban development and change has turned city life into an unpleasant experience for urban inhabitants. The main challenge in the renovation of distressed fabrics is the issue of abandonment, meaning that, the extent and complexity of such a task is outside a single organization’s capacity. During the renovation process, the physical properties of the city will inevitably undergo some changes and the danger of the fabric identity loss is inherent in the new physical form. On the other hand, a lack of necessary technical knowledge in the renovation of distressed fabrics has created an identity crisis which has been the subject of numerous studies. It can, therefore, be concluded that the unsuccessful experience of form-oriented renovation in the country is the reason for the lack of an accurate theoretical understanding of the multi-layer nature of urban identity.

Identity is the interpretation that human beings offer of their relationship with history as time passes by; the kind of history that is related to the different components of modern human’s life. Human identity is a multi-dimensional interpretation that comprises many of his life’s subjective and objective spheres; the kind of interpretation that is the result of the interplay among those components. The common position in the various definitions given for urban identity is that, it has at least two main dimensions: the first dimension is the kind of reality that is not seen, and the second dimension is the physical appearance that is visible to the general public. To present a definition of urban identity without incorporating these two main dimensions would make it a flawed and incomplete one. Based on such a definition of identity, a renovation plan must have a theoretical framework in which the visible physical structure is taken into account along with the invisible sociocultural aspects of urban identity. Furthermore, it should be noted that, urban identity acquires its meaning through life experiences and the city-human interaction (history and geography).
According to theory-based principles, due to human activities within the environmental context, a meaning is created that is the product of human interaction with his surroundings (history and geography). Therefore, these activities create mental memories that are either individual or collective. According to this theory, social life is in the form of a historical continuum, i.e. it is uninterrupted. Therefore, the more a space’s context is suited to resulting in experiences, the faster environmental meanings are created. In urban renovation, individuals with a sense of lost space move to the new location and the most important factor for the creation of a sense of space is the activities and events that occur in the new location.

The perpetuation of urban identity is not a quantitative matter that can be achieved through a mere intervention in the physical properties (the minimization of interventions); as it is for the interventions not to be compatible with the current social conditions and time. The interpretation of urban identity is similar to a view where the historical and geographical vectors meet; a place where an event has taken place. This is because a place is essentially an approach that brings originality to collective events and memories. Accordingly, it can be inferred that, view is a necessity for human and is among the factors that shape the environment, and is inherently meaningful. The perpetuation of the qualities of view in cities leads to the perpetuation of individual or collective social identities and the preservation of concepts. In the view theory, the concept of urban view is regarded as a subjective-objective, and human-physical phenomenon, as well as a social-spatial structure. In other words, urban view is a perspective that is only visible through human experience and human-environment interaction. This concept goes beyond the three-dimensional spatial concept of form and encompasses the “meaning” dimension.

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In collaboration with the engineering organization and use of documents in the engineering Organization of Gilan province.