

Designing a Multi-Functional Complex Using a Structural Contextual Approach (Case Study: Laleh Zar Region of Tehran)

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Abstract

Multifunctional complexes are some environmental and architectural areas that play their parts in society. Historical fabrics have an undeniable role in establishing urban identities. Failure to pay attention to the historical structures of a neighborhood or a city in many parts of the country could leave adverse impacts. Therefore, the characteristics of the past environments that contribute to the quality of designing multi-functional spaces should be examined by taking into account the effects of the environment on the urban spaces. This research investigates the role of context in multi-functional spaces and its effects on citizens, the urban environment spaces and urban identity. Also, theories are used to provide contextual indicators to design multi-functional spaces. Ultimately, guidelines are also offered based on the indicators and tables.

Keywords: multi-functional complex, contextualism, architecture, urban identity

INTRODUCTION

Today, urban spaces have an especially effective place in people's lives. Each urban space that surrounds us enjoys its usages and functions. In this connection, some spaces have various usages and respond to multiple needs. The spaces that may have different usages are called multi-functional spaces (Hasani, Saeid & Meschi, 2016). Contextualism as a common approach to urban development and architecture that values the context as a historical arena where the urban elements are recognized, designed and built. According to this viewpoint, the ideas and elements of past cities contribute to the formation of contemporary urban structures.

Thus, a context-oriented architect and urban developer should be able to understand the characteristics of a place and integrate them into a part of its design process (Toulai, 2001). Contextualism is a link between architecture and urban development in a certain context. In other words, a context

refers to a place where architecture and urban development are related. Urban developers' tendency to construct in the existing complex denotes the interweaving of the old and the new in a way a living and the desirable whole is created. So, there must be a specific commitment to the issue and introducing new architecture into the existing context (Toulai, 2001). Contextualists maintain that its internal forces or features do not characterize the elements of a city's fabric; rather are dependent on the environment and the surrounding complex. Thus, one cannot just look for characteristics and dimensions of phenomena, as well as the essence of the phenomena, without regard for the dimensions of time and context they are located. The unit of analysis in this approach is a review of buildings and spaces in relation to environmental factors, as any changes to them should depend on those factors (Toulai, 2001).

Each generation should redefine the old symbols they have inherited from previous

generations and reexplain the old concepts with the concepts of their contemporary time because architecture is an expression of space which helps create in the observer a certain experience of space concerning previous and future experiences (Feizi & Esmail Dokht, 2014). Each urban context is characterized by its scale, volume, spatial form, materials and architectural and urban development techniques that offer sensitive designers structural interventions and guidelines, with the society also presenting its controls. Thus, theoretical and philosophical debates mostly focus on the quality of this approach and the adaptation and coherence between new buildings and existing structural status (Feizi & Esmail Dokht, 2014).

Preservation of the framework of a place denotes copying and imitating the surrounding styles that can lay the ground for contextualism as a successful method in urban reconstruction. However, indiscriminate imitation of some old buildings could likely eliminate diversity. Thus, new contextualism designs don't want to be copies of an old building (Zhou & Zhang, 2015). Lewis Mafford suggests that imitation of the past will cause a boring future. Direct imitation of construction characteristics, and preservation of the things already existing, may help that space survive, though weakening the character and quality of that region (Zhou & Zhang, 2015).

A context may be a "fake thing," merely a superficial copy of a tradition. It may be an artificial thing relating to an emotional nostalgia that would help falsely improve itself in the memory. This type of feeling is strange and poor. Also, the past's concept of grief, sorrow and limited sweetness cannot be constructed this way (Zhou & Zhang, 2015). However, the criticism of the concept of context also helps search for new terminologies in contemporary architecture theories. George Dodds reasons that "revivalism" is a more comprehensive term than contextualism. True "site" realities,

introduced by Austin Allen, are also new terms proposed instead of context (Esin Komez Doglioglu, 2015). Context is a critical concept in architecture. Although inherent contexts affect the architectural design processes, contemporary theories pay little attention to them (Esin Komez Doglioglu, 2015).

Unlike a specific architectural style, contextualism can be regarded as a set of values that help determine the conduct of architecture (Abdel & Moniem et al., 2017). Considering the expansion of residential and administrative towers as well as shopping malls, modern architecture has failed to meet the needs of a family for living in a house; thus, in this kind of architecture, if these elements are arranged among each other unsystematically, they will not create a coherent city. Now, we must get these elements along each other to complete their forms and activities and create a living urban life.

Because of the growth of the upper-class population, the Laleh Zar region moved northwards, as luxury commercial units were also erected there; meanwhile, due to the less presence of the low-income people in this region, most of the wholesalers or sewing shops were converted into manufacturing shops and electrical appliance malls. Despite the presence of high-rise buildings, this region has, thus far, failed to get back to the commotion and crowdedness of the past, as it becomes an abandoned and no-resident area when the working hours end, creating a frightening scene for the pedestrians. As stated, this study aimed to design a multi-functional complex using a structural contextualism approach in the Laleh Zar region of Tehran. Iran.

Theoretical Foundations of the Research **Multi-functional Spaces**

The expansion of urbanity and shortage of undisputed lands, on the one hand, and dissemination of the culture of using space in Western-style building construction, on the other hand, caused owners in large cities like Tehran to turn to construct multi-story

buildings, which entailed major interests for the society; thus, increasing social interactions across neighborhood levels. Expanded combined use denotes a building or complex that includes various land applications. This term is usually used when residential, administrative, commercial, entertainment and child care uses or social uses like school, library and state services are combined. Expanded combined use has recently become a common form among designers because the appropriate and dense use of the land is considered a suitable opportunity to convert it into an easy working and trading site. Cycling, walking and trips benefit people and reduce commuting and energy consumption in the transportation sector. Expanded combined use, if designed well, is aimed for a greater objective than constructing a building, like developing a site, art progress, and creating a real sentiment of place. The abundant benefits of expanded combined use must be determined by the transportation engineers, i.e., what they consider as “internal dominance,” or points from a to b must all within this expansion. To develop expanded combined use, more activities, determination of the classification zone, parking lots, planning to use the land, and planned land development conditions are required so that a developer, administrator or constructor make sure and get the project running. The benefits of expanded combined use include the dense use of the land, reduction of traffic and energy consumption, creation of a sense of attachment, easy access to several places and time management (maximum utilization in the minimum possible).

Contextual Architecture

Contextual architecture is defined as architecture that has created a relation between a specific site and its expanded visual and physical environment. This study provides a comprehensive definition of the

contextual architecture of various levels; in sum, from a historical and philosophical point of view and a critical regional aspect, American architects offered principles and techniques while practicing contextual architecture in the mid-twentieth century; these criteria could be used as a basis for the design and graded evaluation of a building or a set of buildings which are symmetrically adaptable (Wolford, Jane, 2005). Contextualism first addressed merely structural dimensions, later gradually turning into human aspects and extending its scope of studies to incorporate social and cultural characteristics of the society. Contextualists maintain that the elements of a city’s fabric are not characterized by its internal forces or features; rather are dependent on the environment and the surrounding complex. Thus, one cannot just look for characteristics and dimensions of phenomena, as well as the essence of the phenomena, without regard for the dimensions of time and context they are located. The unit of analysis in this approach is a review of buildings and spaces concerning their environmental factors, as any changes to them should depend on those factors (Toulai, 2001). This study has examined three structural, historical and social-cultural areas. Historians maintain that the past offers objective lessons for the current urban development. If a society disassociates itself from the past, it has rendered the human struggle void. Man, in a sense, has no nature; man has a history. The only difference between human and natural history is that the former can never start from the beginning (Toulai, 2001). Traditionalism is inspired by the past visage of the city, positing that the new development should have a close relationship with the surrounding environment. It also focuses on the urban environment, which is familiar to the people. Patrice Geddes was a staunch advocate of preserving architectural and cultural traditions and a harsh critic of the imposition

of Western urban development over non-Western societies. The new tendency, inspired by the Historical Preservation Movement to design cities, and made tradition an inspiration for the new thinking, was neo-traditionalism. Traditionalism focused on social objectives and deemed as important the return to the old institutions of the Agora public arena, temple and venues due to their spatial importance.

Social and cultural contextualists posit that culture creates a set of rules which the developed form represents. People use culture, i.e., values, worldviews and common symbolic systems, to give meaning to their environment and convert the vacant space into a place. The basis of the place theory is the understanding of human and cultural characteristics of a structural space (Toulai, 2001).

The goal of contextual architecture is to preserve the beauty of the site nature using some precise design that concerns its surroundings. Contextualism in urban design and planning was first defined in the 1960s. Caroline Rowe was one of the leading figures who condemned the violation of modern urban designs and their destructive effects on historical cities. Many of her seminal contributions were related to the urban form relative to the architectural language. Her seminal work that led to the school of contextualism was a critique of modern urban design and architecture theory, which posits that types of modern buildings were adaptable to traditional urban forms.

Infill Development and Modern Urban Development

Consistent with the modern urban development regulations, much emphasis has been laid on the applied planning of sustainable lands, involving infill development, mixed uses and increased density. Infill development in this regulation serves as a tool to protect the environmental resources and economic

investment and stabilize the social body. Thus, emphasis is also laid on increasing mixed uses and activities of commercial centers there. To Williams, compact neighborhoods of mixed uses have increased access to urban services and facilitated social justice (Mir-Moghtadaei, Rafieian & Sangi, 2010).

The infill development model is directly associated with the growth of the smart city (a component of sustainable urban development), also regarded as part of its strategies and principles. In recent years, many cities have founded their neighborhoods' development models on smart growth strategies and principles. These principles increase access to uses, reduce vehicles per capita, and create neighborhoods of combined uses. The strategies related to smart growth also include encouragement to infill development. Urban smart growth and infill development are similarly characterized by the fact that both methods of development are thought of as a proposed method to reform dispersion, with the infill development implemented specifically in the campuses constructed (Mir-Moghtadaei, Rafieian & Sangi, 2010). Uncertainty about the time, costs, and complexity of the site preparation has made it difficult to measure and compare land potentials used in the housing sector. Thus, uncertainty in achieving developmental goals can be considered a barrier. This kind of development is not a common or systematic model, as investors are less familiar with it.

On the other hand, requirements in an infill developmental plan are not evaluation criteria, and failure to evaluate the indicators to select suitable lands for the development are other existing problems and barriers. Urban infill development projects can only be residential and involve mixed uses and development with diverse applications. This kind of development can be in a prefabricated form, in small or high-rise units, or be reconstructed, restored, revived, etc.

Table 1: A summary of views of experts and critics about regional-global interaction (source: Bayazidi, 2013).

| Critic | Viewpoint and theory |
|------------------------|--|
| Fumihiko Maki | In reality, globalization denotes that people of the world cannot make use of all local artistic traditions and expressions as an accomplishment of human civilizations |
| Robert Charles Venturi | Globalization is excessively boring because it has lost its environmental spirit. |
| Paul Andrew | It is cultural exchange and the possibility of representing creativities that bring about the architecture of a nation; rather than the determination of the sources that have inspired them |
| Zonis | The goal of regionalism is to create diversity while benefiting from global advantages. |
| Rapaport | Providing an incomplete housing design, allowing residents to play a major role in designing their houses |
| Farhad Sasani | Only local arts can engage in the global discourse; i.e., those arts that are not merely from museums |

Table 2: summary of architects and their works on the regional-global interaction

| Architect | Their works and characteristics |
|---------------|---|
| Alvar Aalto | Säynätsalo City Hall, attention to technology and place |
| Jørn Utzon | Kuwait Parliament Building; integrating general and local characteristics |
| Louis Kahn | building in Dhaka, Bangladesh |
| Andō Tadao | Shopping mall convention project in Naha Okinawa; Attention to the importance of shadow |
| Raj Rewal | Olympic village housing in India |
| Moshaver Pite | University of Aghakhan and Kerachi hospital complex |

An infill development protects the lands outside the city, on the one hand, and plans for the vacant and defenseless spaces inside the city, on the other hand.


Table 3: Dimensions and concepts of evaluation from the view of infill development

| Infill development | | |
|--------------------------------------|---|--|
| Social-economic | Functional | Structural-environmental |
| Engaging residents in all activities | Reducing and removing the general visage of the parking lot | Updating a general plan and zoning codes |

| | | |
|--|--|---|
| Creating public and private participation to provide financial credits | Locating places with the inherent potential for infill development | Using special plans |
| Working with neighbors constructively and usefully | Separating the cost of parking lots from the cost of housing | Increasing transportation choices |
| Reviving old and declining communities | Using common parking lots | Reducing and removing the general visage of the parking lot |
| Stabilizing and supporting local businesses and non-profit organizations | Creating a clear link between public and private spaces | Attention to the reports of environmental impact on projects |
| Preserving the traditional image of the neighborhoods | Creating a sense of security and safety with design elements | Administration by open development agencies |
| Space dimensions and scale should create easy and peaceful interactions among people | Providing the possibility of sidewalks and cars inside the urban block | Providing urban guidelines and strategies |
| Ensuring the usefulness of the new development for the community | ----- | Reconstructing existing houses as a preferred choice for developers |

Investigation of a case sample outside Iran

Table 4: Review of the Louvre Museum (Source: authors)

| | |
|--|--|
| Louvre Museum |  |
| Place and Year of construction: | Paris, France, 1989 |
| Type of school: | Infill building, facadism |
| Architect: | I.M.P |
| Architectural analysis: | <ol style="list-style-type: none"> 1. The foundation, designed to be annexed to the Louvre Museum, is made of a large glass and steel pyramid surrounded by three smaller pyramids transporting light to the space below the courtyard of the Napoleon section. 2. The foundation of this glass-made pyramid creates a symbolic entrance with figural and historical importance and strengthens the main entrance. 3. This structure is one of the most consolidated forms that justifies its transparency, as it is made of glass and steel; this structure suggests a gap with old architectural traditions. This work belongs to our times. 4. The scale of the large pyramid, designed in proportion to the famous Pyramid of Giza, was just beyond a simple adjacency of this modern structure, as compared to the historical nature of the Museum; here, the French Renaissance architectural style of the Museum has created a considerable impact that is associated with design beauty and details. |

| | |
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| | 5. The glass-made sloped walls of the pyramid follow the gable roof of the Museum, as this heavy and dark view of the Louvre intensifies the transparency of the foundation design. |
| Architectural critique: | Most critiques about this revivalism were aimed at the very subject of the architectural styles rather than the annexation of the Museum. Most critics felt that the aesthetics of the modern design of the foundation was in full conflict with the classic architecture of the Louvre Museum, which is revealed in a strange form. |

Table 5: Review of the Crystal Museum in Canada (Source: Authors)




| | |
|--|--|
| Canadian Museum |  |
| Place and Year of construction: | Toronto, Canada, 1912 |
| Type of school: | Infill building, Deconstructivism |
| Architect: | Daniel Libeskind |
| Architectural analysis: | <ol style="list-style-type: none"> 1. This project is today known as Michael Lee-Chin Crystal, which is made of a five-story building that reminds royal crystals. 2. The architectural style is deconstructivism, 25% glass and 75% steel. 3. It provides a superb view of the city of Toronto, specifically at the upstairs of the Museum |
| Architectural critique: | Even though many observers praise beautiful glass buildings, incompatibility and dissimilarity of the new design with the old building of the Museum, now sitting next to it, was announced as the main cause of choice. |

Table 6: Review of the Reichstag Dome (Source: author)

| | |
|--|---|
| Reichstag Dome |  |
| Place and Year of construction: | Berlin, Germany, 1992 |
| Type of school: | Infill building, facadism |
| Architect: | Norman Foster |
| Architectural analysis: | <ol style="list-style-type: none"> 1. The stone-made fabric plays a basic role, with the glass and metallic structure (dome) opening and spreading the space to serve as a symbol of Germany's open and free popular government. 2. Herbal oil is used to supply the energy of this building. Contamination caused by this fuel is much lower than by fossil fuels. Generated Carbon Dioxide is 94% lower than that produced by fossil fuels. 3. A full glass dome allows for sunlight and daylight, thus creating natural ventilation inside the place. 4. Visitors pass through the Main Square and entrance of the building to use the large elevator to access the rooftop and finally the dome, as they can see the parliament representatives inside the structure. 5. There is an expanded terrace on the parliament's rooftop, in the middle of which is a large glass-made dome; inside the dome, there are two ramps against each other, one is for the visitors' climbing up, and the other for their climbing down. 6. On top of the dome, there is a cavity for natural air ventilation. Also, in summers, solar energy is used to supply warm |

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| | <p>water, some amounts stored at 300 m inside the ground for winter usage.</p> <ol style="list-style-type: none"> 7. In the middle section of the dome, the upper side of which is towards the downside lies the parliament arena, surrounded by a large number of smart moving mirrors which, in daylight, reflect the natural sunlight towards the inside of the building, also transferring the light of the inside to the below of the dome. 8. Outside the dome is a moving machine to clean the glasses that function in the horizontal and vertical directions of the circular dome environment. 9. Under the dome structure, there are hemispherical pieces of the shutter (Louvre Museum) to control the light that moves with the movement of the sun. These shutters are smart and present the entry of annoying light. |
| Architectural critique: | ----- |

Table 7: Review of House of Dior (Source: author)

| | |
|--|--|
| House of Dior |  |
| Place and Year of construction: | Seoul, Korea, 2015 |
| Type of school: | Multi-functional complex, minimalism |
| Architect: | By renowned French architect Portzamparc, while Peter Maurino designed the interior space |
| Architectural analysis: | <ol style="list-style-type: none"> 1. A new, fluid, tall, statue-like ambitious structure conforms to the site. 2. The architect said: "I wanted to develop a building to represent Dior and to represent the work of Christen Dior. Thus, I wanted to make the facades fluid, like soft white silk garments. These surfaces |

| | |
|--------------------------------|---|
| | <p>which extend to the top, and the moving waves passing through by some lines, are made of tall glass shells as precise as airplane”.</p> <ol style="list-style-type: none"> 3. The unique six-story boutique of Dior includes accessories, beautiful jewelry, watches, female clothing, male shoes and clothes, a special gallery, and a café. 4. The interior space, designed by Maurino, is designed based on female riches. 5. At the entrance to the building, there are two complicated facades of interwoven foliage between the white sail-like folding, designed by the French statue maker Claude Lalanne. 6. Objects hanging over the facades are made of glass and aluminum designed by the Korean artist Li Ha Bul, a prominent Asian female designer. 7. At the upstairs, which house the Dior café, there is a beautiful space that, after shopping, serves as a suitable place to discover a unique space that provides comfort for rest. |
| Architectural critique: | ----- |


Table 8: Review of multi-functional Malmö Liv complex (Source: author)

| | |
|--|--|
| Malmö Liv |  |
| Place and Year of construction: | Malmö, Sweden, 2015 |
| Type o school: | Multi-functional complex, minimalism |
| Architects: | Tiago Pereira, Rene Nedergaard, Sveinung Chercka Simonsen, Mads ¹ Dyssel Engel, Caroline Zakrisson, |

¹ Archidaily


| | |
|---------------------------------|--|
| | Sally Rudgaard Jessen, Thomas Walcher, David Fink, Kirsten Sennicksen, Morten Fough |
| Architectural analysis: | <ol style="list-style-type: none"> 1. Malmö Liv is a dynamic building that serves various architectural functions. The point of departure for the building design was the traditional architecture of the modern Scandinavian area, which is transparent, functional and accessible with an open and concentrated floor story. 2. The idea was to create a “house in the city to develop a building which will contribute to the existing urban life.” The context includes materials, colors, and various sizes of different building regions, as the building design refers to the future. 3. The building is composed of twisted cubes of different sizes, corresponding to the direction and height of the buildings surrounding it. 4. Its façade is designed with a homogenous expression which appears to be a kind of architectural sculpture. 5. Various building uses are organized in the form of separate elements, similar to a small city. 6. Like cities of the Medieval centuries, which were curved, there are narrow alleys around the squares and lobby squares taking the form of small congregations where visitors can sit and enjoy the demonstration of the channel and the park. 7. It has a large symphony hall, a flexible saloon and a conference hall 8. The interior space is simple which is made of rough black and white concrete, stone, wood, and brass aimed at protecting the open nature of the building |
| Architectural criticism: | ----- |

Table 9: Review of Kourosh's multi-functional commercial and cultural complex (Source: author)

| | |
|--|--|
| Kourosh commercial and cultural complex |  |
| Place and Year of construction: | 2014 |
| Type of school | Multi-functional complex, Minimalism |
| Architect | Javid Nejad |
| Architectural analysis: | <ol style="list-style-type: none"> 1. This building is notably resistant to earthquakes. 2. Minimalistic principles, which are proportionate to the volume and identity of buildings, are observed on this building in a modern form. Its façade combines Frameless and Spider windows, stone and ceramics, and composite aluminum, equipped with two LCDs of large dimensions of 13*10 and 17*10 to display cinematic campus movies and advertisements. 3. The entrances of the building not only have an identity distinct from the body of the building façade but also have a great appeal, thus enjoying desirable conformity. 4. The volume of the Spider glass-made cube, located in the southwestern corner of the building, covers the second to sixth stories, thus giving special importance to the building. In the meantime, the pleasant demonstration of the hall includes Fast food and Coffee Shop spaces in all these stories. 5. Large and appealing void of the complex on the first basement floor has become a central lobby by the implementation of floor covering; this lobby has distinct features. |


| | |
|--------------------------------|---|
| | 6. The presence of a beautiful fountain, along with unique lighting and congregation, hall and appealing artistic spaces are the characteristics of this building. |
| Architectural criticism | 7. Located in district 5 of Tehran, the Kourosh commercial and cinematic complex has 14 cinematic saloons containing 2500 chairs to be the largest cinematic campus in the country. However, this complex was supposed to be an area for the welfare and amenities of the citizens due to its easy access to shops, restaurants and cinemas; now, since it is located on the Sattari Highway, which has heavy traffic, it has become a disrupting factor of public peace. |

Table 10: Review of Ji multi-functional commercial and residential complex (Source: authors)

| | |
|--|---|
| Ji multi-functional complex |  |
| Place and Year of construction: | Winner of architectural design competition |
| Type of schools: | Multi-functional complex |
| Architect: | Moshaver Asar engineers |

| | |
|--------------------------------|--|
| Architectural analysis: | <ol style="list-style-type: none"> 1. This design aims to achieve a long-term plan to create a flexible and dynamic urban complex in a land of 54 hectares. The first measures in this area began with constructing a public garden aimed to develop greenery spaces, annex it to the building structure, and connect four sections of the space together. The physical plan of the design includes 173 hectares for commercial, administrative, and design uses. 2. Protecting and developing the existing green spaces 3. Creating a spatial relation between the interior spaces of the complex with the city 4. Creating a flexible urban structure capable of connecting all project components 5. Avoiding interference with the walking and driving spaces and allocating free spaces to the walking spaces 6. Access to a free and flexible plan 5 that can change based on future needs |
|--------------------------------|--|

Table 11: Review of Bentoun multi-functional complex in Tehran (Source: authors)

| | |
|---|--|
| Multi-functional Bentoun complex |  |
| Place and Year of construction: | Winner of the first prize in the international architecture competition in Tehran |
| Type of school: | Modern, contextualism |
| Architect: | WERK83 |

| | |
|--------------------------------|--|
| Architectural analysis: | <ol style="list-style-type: none"> 1. Form of this building follows points below: <ol style="list-style-type: none"> a) signs of Ziggurat, one of the oldest forms of this land b) a function of plan requirements 2. It has a social goal of retail sales in the region commensurate with the historical context of the neighborhood 3. Architecture/details: The façade is covered by engraved aluminum panels. This interior space protects against excessive heat, creates complicated shades and decorates the internal spaces. The height model is in proportion to the Farsi decoration. The office shutters and apartment windows are also made of panels, with the façade looking homogenous in the design. |
|--------------------------------|--|

Table 12: Review of common features of case studies (Source: authors)

| | |
|---|--|
| Presence of infill and protection of contextualism schools |  |
| Comprehensiveness with the maximum use of land |  |
| Statue-like structure sometimes called an urban sign |  |

| | |
|--|---|
| <p>The considerable presence of glass made materials for desirable vision and light</p> |  |
| <p>Dynamic and flexible relationship with the city</p> |  |
| <p>Highest collective communication in the complex</p> |  |

The statistical population of this research consists of multi-functional complexes which have adopted one of the schools of contextualism. The sampling method was a random sampling technique. In this research, 9 multi-functional complexes of different concepts, including contextualism, were randomly selected outside and inside

Iran, and each data was gathered using library sources.

Analyze of Site

The selected site is located in district 12 of Tehran, east of the Saadi St. site, north of the Johouri St. site and west of the Laleh Zar St. site. The site also includes part of the Laleh Zar St.

| Indicator | The Louvre Museum | Crystal Museum | Reichstag Dome | Dior House | Mal mö Liv | Kourosh | Jay | Bentoun | Score |
|---|-------------------|----------------|----------------|------------|------------|---------|-----|---------|-------|
| Minimum possibility of destruction | | | | | | | | | 32 |
| New annexations in the form of a separate building | | | | | | | | | 20 |
| Skylines | | | | | | | | | 29 |
| Hierarchy | | | | | | | | | 35 |
| Morphology of urban landscape | | | | | | | | | 32 |
| Volume-context balance | | | | | | | | | 32 |
| Non-dominance of new annexations over the historical building | | | | | | | | | 31 |
| Height proportion to or shorter than the historical building | | | | | | | | | 33 |
| Proportions and scale | | | | | | | | | 32 |
| Preservation of integrity | | | | | | | | | 32 |
| Place spirit | | | | | | | | | 40 |
| Time spirit | | | | | | | | | 26 |
| Familial similarity | | | | | | | | | 24 |
| Reinterpretation of early centuries of architecture | | | | | | | | | 32 |
| Familiar cultural symbols | | | | | | | | | 28 |
| Simple design | | | | | | | | | 32 |
| Respect for rhythm | | | | | | | | | 32 |
| Material compatibility | | | | | | | | | 32 |
| Details | | | | | | | | | 32 |
| Color | | | | | | | | | 37 |
| Height | | | | | | | | | 35 |
| Modern materials | | | | | | | | | 32 |
| Light | | | | | | | | | 32 |
| Transparent | | | | | | | | | 32 |
| Highlights | | | | | | | | | 37 |
| No copying | | | | | | | | | 32 |
| Reinterpretation of traditional details by modern details | | | | | | | | | 32 |
| Relation between old and new | | | | | | | | | 33 |
| Meeting the needs | | | | | | | | | 32 |
| Case score | 162 | 126 | 156 | 144 | 142 | 125 | 131 | 135 | |

As the table above shows, the Louvre Museum has the highest rate of

contextualism among the cases studied, while the Crystal Museum and the Kourosh multi-

functional complexes have the lowest rate of contextualism. Also, a review of the indicators of these eight cases suggested that

Table 14: Guide Table (Source: author)

| Quality | Very good | Good | Medium | Weak | Very weak |
|---------|-----------|------|--------|------|-----------|
| Color | | | | | |
| Score | 5 | 4 | 3 | 2 | 1 |

Conclusion

Multi-functional complexes have a long history that dates back to the Medieval centuries. Thus, considering virtual communication systems, one should look for spaces that provide more public meeting opportunities. Multi-functional complexes serve as an appropriate guideline in a society with service and transportation infrastructure. The term expanded combined use denotes a building or site of the congregation that offers residential, administrative, commercial, entertainment and child care use and involves social uses like schools, libraries and state services. Multi-functional complexes also offer advantages to urban activities, help create more intimate relations between family members, reduce dependency on vehicles, reduce intra-city trips, increase public responsibility of their localities and coordinate public goals. For this, the components of an artificial environment made by humans should help create a special meaning in an orderly and coordinated way by arranging those components together. As Rapoport suggested, the organization of an artificial environment is also an organization of meaning. Structurally, space is vacant land, albeit with a range and goal that connects objects; when a space embraces a cultural content, it is called the place. Contextualism is a common perspective in urban development that regards the context as a historical arena where architecture and urban development are linked. The infill development may serve as a tool to protect natural resources, economic investment and the social body. For Williams, compact

vacant plots were regarded as infill, and new annexations as separate buildings held the lowest rate.

neighborhoods of mixed uses increase access to urban facilities and services and social justice.

The theoretical discussions of this research involve expanded combined use, semantics, regionalism, and infill development. In this section, theoretical discussions were tabulated. Expanded combined use has recently become a common subject among developers because the suitable use of the land provides an appropriate opportunity for converting it into labor and shopping. Findings revealed that the factors affecting the expanded combined use were dense use of the lands, reduction of energy consumption, reduction of vehicle commuting, reduction of traffic, speed, reduction of inter-city trips and comprehensive spaces for public gatherings, ad increased sense of attachment. Major contextualism concepts include an emphasis on special characteristics of a place and its use of it in contemporary design, historical perspective of the urban form and attention to the importance of the past in forming the present and the future; in the meantime, it was revealed that culture creates a set of rules which the developed form is a representation of it, as it emphasizes the protection of special characteristic.

Using contextual multi-functional complexes, an analysis of the case samples suggested that each indicator obtained a score from 5 to 40. The indicators with a score of less than 35 suggested it is weak or discarded in the plan. For this, a guide table is presented which offers solutions for each of those indicators so that they are utilized to design a contextual multi-functional and identity-based complex.

| Guide/solution Table | | |
|-----------------------------|--|--|
| Row | Priority | Guidelines |
| 1 | Protection of values | More attention to historical fabrics and attempts to protect the historical sites located in the Laleh Zar site |
| 2 | Respect for local and traditional characters | Each design should be proportionate to the local situation not in conflict with it; thus, the current commercial aspects of the Laleh Zar sites should be respected, despite being developed for the cultural and recreational aspects of the past |
| 3 | Vacant plots as infill | Use of abandoned and unused spaces as infill sites, and creation of a functional communicational bridge between the vacant plot as the infill and past historical buildings |
| 4 | New annexations in the form of a separate building | Separating the use of the annexed building from the infill building with a unique use as an urban sign |
| 5 | Skylines | Protection of the urban skyline, especially the historical Laleh Zar site that would avoid historical fabric deconstruction. |
| 6 | Height in proportion to or shorter than the historical building | The height of this project is low and measures the height of a four-story building, which is a sign of respect for protection of contextualism values |
| 7 | Time spirit | Creation of nostalgic spaces in the new fabric inspired by the old fabric, and attention to cultural and recreational functions of the past in the new design styles |
| 8 | Place spirit | Creation of gathering spaces for more communication of the public |

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