

## Considering the Zendevari (lifelikeness) Factors in Badi Alsanaye's Mansion

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### Abstract

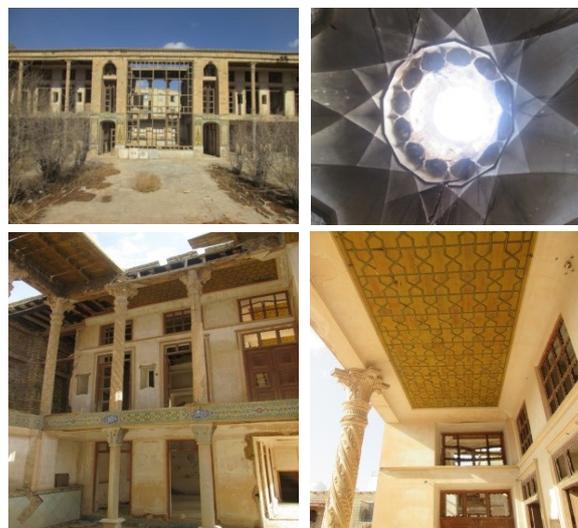
Historical textures are part of the national capital. Protecting from this texture and improving their qualities by special goals, can improve the national capital. These textures and frame and structure of them are exposed to fundamental measures and solving them is essential by recognizing the main problems and challenges of this texture. In the recent years sustainable development was on the top of international discussions. On 1987, the chancellor of Norway, Gruham Bontland, represented the first definition of sustainable development in international conference of development and environment. According to his words, "sustainable development is a kind of development which in addition to considering and proving today needs, doesn't put in danger the capacity and probability of next generation in fulfilling their needs". (WECD, 1987) The most important result in this conference was that: the root of environmental problems and sustainable problems are in human behavior (Brandon & Lombardi, 2005, P4). So the established standards by world council of sustainable development are also important social and economic factors. So getting to sustainable development needs to make balance between three regions of social, economic and environment. These three regions are affected on each other and any change in one of them for sustainability, need change and collaboration in the other two regions (Lombardi & Brandon, 2005, P 12). On this aspect, many frameworks and models are presented to choose clear standards for sustainable evaluation but it was suggested that, among all these methods, it was suggested to choose "global Zendevari framework in balance" (Iravani, 2005) and by evaluation of 25 layers in Badi Alsanaye's mansion we got to the result that until now, that precious building was not in balance and was running toward the erosion and destruction. So for keeping the life and surviving, it has needed a renovation plan.

**Key words:** Zendevari, Sustainable architecture, Badi Alsanaye's mansion, Balance, Renovation, Tables of Zendevari's years, Precious historical building

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### Introduction

Badi Alsanaye's mansion is one of the historical buildings in Isfahan. Because of placing in a historical place near Atiq square and the other historical buildings, it has special condition. The neighbors of this mansion are historical mansions like Ghaderian, Habibabadi, Kadkhodae, Heritash. This neighborhood makes a historical collection. According to the place and its neighborhood to Atiq square, with technical programming and proficiency, its renovation can be useful in dynamisms of this historical district. Dardasht district, by such a precedent and history, and having precious buildings such as bath, oil extraction, small bazaar ... and neighborhood of other historical districts like Shahshahan and Atiq square (Imam Ali) has a special occasion that by renovation can become another tourist centre in Isfahan. Badi Alsanaye's mansion with antiquity from Ghajar and beautiful architecture has become deserted because of time pass and inattention. In this article, according to Badi Alsanaye's occasion, district and architecture specialties, we are going to present a renovation and repair program for mansion, to bring back the identity and dynamism of this part. In this article, by studying the Zendevari factors in this mansion, it has tried to do a research about the Zendevari and sustainability of mansion.



### Literature Review

The mansion is in the possession of Iran's Omran va Behsazi Shahri technical company. The primary studies for presenting the repair and renovation program were done by Haft Eghlim architecture consulting company. It should be mentioned that, instead of repair and renovation researches, there wasn't any other special studies about Badi Alsanaye's mansion.

### Methodology

Compound method was used for this article. The researches were done by explanation-historical and descriptive-analytic methods. For data collection libraries were used.

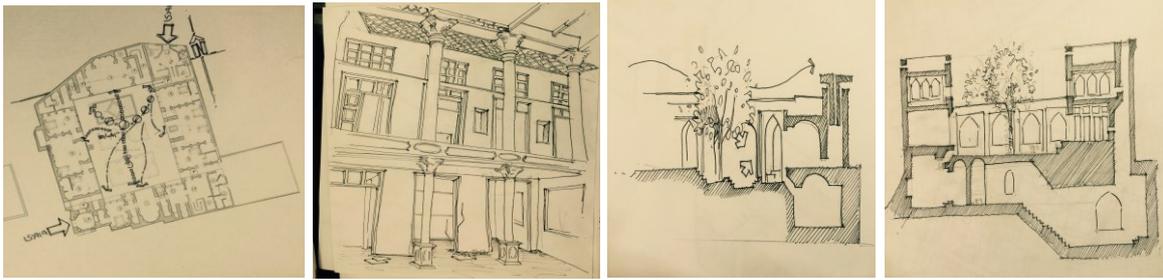
### Discussion

As mentioned in the beginning, the base of sustainable development theory stands on environmental problems and although Brontlnd's definition is a complete definition, but it was presented according to environmental problems. Turning point of sustainable development's definition and definition of sustainable standards in the conference happened and its result was publication of 21<sup>st</sup> perspective. The most important result in this conference was that: the root of environmental problems and sustainable problems are in human behavior (Brandon & Lombardi, 2005, P4). So the established standards by world council of sustainable development are also important social and economic factors. So getting to sustainable development needs to make balance between three regions of social, economic and environment. These three regions are affected on each other and any change in one of them for sustainability, need change and collaboration in the other two regions (Lombardi & Brandon, 2005, P 12). This framework and model presented by Cambel in 1996 in the shape of a triangle of three standards: social justice, ecology and economy. In this model, for getting to a sustainable status, the contrasts between these three standards have to get to balance. By analyzing the frameworks and evaluation models of sustainable development, and among these models: "analysis of profit-expense, CBA", "evaluation of people collaboration, CVM", "evaluation of travelling expences, TCM", "method of several standards, MCA", "scale of ecological effects, EF", "evaluation of society effects, CIE", "environmental evaluation- basis of the building studies, Berim", "designing framework of energy and environment, Lid", " Santafe green building criteria, SGBS", "several standards evaluation framework, MMF", "global Zendevari framework in the balance", we have chosen the last one and the Zendevari standards are analyzed in Badi Alsanaye's mansion. The phenomena in Zendevar development model are made of 25 layers. Between these being layers we can see two logic relations, widthwise and lengthwise relation and according to that we can define interior and exterior pulsation. According to this method, the phenomena can be sustainable that its interior and exterior pulsations are in balance. This study is going to analyze Zendevari factors in Badi Alsanaye's mansion and recognize its sustainability. Analysis of weak and strong points, opportunity and threat in Zendevari layers in Badi Alsanaye's mansion

Layer's name	Interior factors		Exterior factors		solution
	strong points	Weak points	Opportunities	threats	
<b>Statistical</b>	Space vastness	Lack of parking lot	Having enough space for different suggesting usages	bad exploitation	Buy and allocation of next three blocks of mansion for parking lot and kitchen
<b>Spatial</b>	Appearance and form according to the climate Existence of full empty spaces in building volume Existence of awning in sunlit spaces Roofed Existence of drain pipe in different places of ceiling	Destroyed roof and carrier pier in parts of the mansion lack of drain pipe around the window	Use from the building according to the district's needs and building status	Complete destruction of the building and missing the opportunity for best usage Making a good place for civic and constructional rubbish Existence of heterogeneous buildings around the mansion	Revitalization of building
<b>Geometrical</b>	indicator existence in spaces architecture Utilization of geometric plans in designing the lion and plaster works, lambe, traces of the stones of the basin	Destruction of some parts of the decorating plans	Existence of similar designs for decoration in same age mansions with Bado Alsanaye mansion	No access to the used designs in plans	Using from master engineers for revitalization
<b>Frame (physical)</b>	Existence of Frame and historical value in different spaces of the building Reasonability of volume in regard to building measures	Closeness of drain pipe Move of carrier walls and not standing erect of pillars undermine of foundations and side movements especially because of neighbor buildings weakness of covering beams of the roof and being in bad condition and lack of stability between them and piers and carrier pillars and possibility of pulling down of some parts of ceiling	Improvement and making better the frame and city appearance in historical area Safe standing of building frame after hitting the bomb in imposing war	Some walls breaking and possibility of becoming apart and their destruction Forming deep breaks and possibility of its destruction The bulge of some main carrier pillars that may cause ceiling destruction. Being in poor condition of some ceiling pillars that may cause their falling down. Ceiling heaviness because of much dead burden and not paying attention and its penetration with rain and demolishing insulating plaster of clay and straw which causes ceiling destruction.	Opening the drain pipes (in distance from foundations) and making temporal way for water movement. Stanchion for the walls and ceilings that are going to destroy. Stanchion for pillars that are going to fall down. stanchion for bulged carrier pillars, which are going to break. Preventing people from walking on the ceiling.

<b>Movement</b>	Existence of water course under the building Existence of air tube canals in different parts of the building Existence of special road for cattle toward the stable	Destruction of some parts of the routes because of the new buildings Growing weeds on the route	Possibility of making connection with sewage from vestibule No interference of riding and of foot route	Destruction of some routes because of widen the alley	The index riding
<b>Chemistry (construction material)</b>	Using standard construction materials in building Staying same of some materials like Ghom breaks, cerulean tiles, shingles, basin stones and plinth	Materials fatigue Foundation undermine because of rain water gathering under it and breaking walls and piers Incorrect supplements in the past that have caused non sustainability of some parts of the building and may collapse	Possibility of using new materials if needed and using thermal wall in southern wall by scientific and specialty justification	Plaster flakes because of humidity Destruction of some parts of the wall materials because of materials heaviness and renewed cover with plaster of clay and straw and soil Not reusing the materials	Changing the woods and replacing metal Destruction and repairing the two floors, decorative ruling of design milk and sugar, making air tube and carpeting, covering the walls with plaster and soil, buying and planting the entrance door
<b>Simple mechanics</b>	Existence of many windows in different sizes and special applications Existence of well wheel and bucket for getting water	Destruction of many wooden windows because of white ant Destruction of colored glasses of the windows	Variety of Chinese knot art and its usage in wood and stone during the Ghajar	Repair and renovation of these windows is very expensive.	Make the windows according to exist ghajari model
<b>Automatic mechanic</b>					
<b>Biological</b>	Existence of biological variety in the house, like human, plant and animal Existence of a place in the house for keeping the cattle	Die and damage of some of the trees Existence of pest and white ant all around the house Poor hygiene, because of no residents	enhancing protective and hygienic quality of district and improving social conditions repairing the green of the mansion no existence of serious illness among the last residents of the mansion	Factors such as snow and rain has damaged the mansion in large areas	Acceleration that revitalization of the building
<b>Environmental</b>	Existence of proper access and wide alleys around the mansion Placing in the precious and historical district of the city (Dardasht district) Being away from polluted industries Existence of air conditioning in different places of the mansion Light absorption into the interior spaces	Existence of deleterious factors like temperature and humidity (water) fluctuation Existence of noise pollution on the routes	Making a dynamic district and increasing its tourism potential Existence of many absorption wells	The destructions are because of the special ways of mechanical life: constructing sewage, non essential wiring, power, alley's asphalt, ... Destructions made by people and authorities: like illegal destructions for finding treasure, widening the alley Destruction of the buildings by widening the routes for car usages	Cooperation managers Have sutableurbendesing for valuable texture
<b>Regional</b>	Maximum absorption of light Non existence of slope High ceiling and natural air conditioning	Soil erosion	Coordination of shape and space with area's region Existence of thermal wall on the southern of mansion Caring about casting a shadow	A little destruction of green space vegetation No cooperation of authorities	Acceleration that revitalization of the building
<b>Sensory</b>	Feeling proud because of the background with historical value Peaceful sense because of likelihood of wood and break color to human nature Flight sense because of high ceilings Star, lambe of ceiling Nostalgic sense because of old things existence Divinity sense during the pray Aesthetic sense because of watching records of Ghajar's artists	Feeling unsafe because of the danger of ceiling destruction and presence of addicted people in the mansion Feeling sorry because of building and precious art records destruction	Making coordination between new application and identity of ancient district and important buildings Defining, introducing and presenting architectural concepts Coordination of new application with architecture and architectural spaces of the building Emphasis on architectural concepts and intangible values and not only form and style specialties	Changing mansion identity because of not specifying interference limitations	Acceleration that revitalization of the building Keep the left over model
<b>Imaginary</b>	Similarity of the pictures of mansion spaces and imaginary spaces	Deserted house and destruction of many art beauties in the mansion	Emphasizing on that many people can use the building and get familiar with its art concepts. Coordination of new application with the culture of residents Directing the individual interests of cultural heritage toward the public interests Quality and quantity improvement of civil and social existence	Building destruction because of being without residents and maybe burning with fire	Acceleration that revitalization of the building Keep the left over model
<b>Graphitti</b>	Having enough light during the day in all parts Water sound and existence of birds and beautiful sights Combination of light and shadow and light reflection from colored glasses	Deserted house and destruction of many artistic beauties	Keep and making cultural and collectively memories in a historical condition Existence of proper and useful applications in the neighbor of mansion Not overlooking the neighborhood places	Building destruction because of being without residents and maybe burning with fire	Acceleration that revitalization of the building
<b>Illusive</b>					
<b>Analytical</b>	Manual skis Avoiding the uselessness Autarky Introspection	Not reusing the materials Force to change application	Presenting a complete sketch from family life in Ghajar antiquity Presenting plaster molding, arched works, lambe, sculpturing, carpentries arts	being without residents no guard fire place for gathering of offenders the heterogeneous additional application	
<b>Educational</b>	Existence of needed potentials for educational usages from the used arts in materials, pathology and renovating the building	Not proper informing about the building	Informing and improving the educational, educative, cultural affairs for protecting the historical building and heritage	Not collaborating of the authorities Uncertainty of the repair condition and building design	Using from reliable investor, Cooperation managers
<b>Media</b>	Placing in the precious historical context of Isfahan Existence of precious buildings like Ghadirian, Habibabadi, Heritash mansions and Aghanur and Shahshahan mosques in the neighborhood	Not proper informing about the building	Activating the district and increasing the tourism capacity Improving the economic condition of district Improving the social and hygienic condition of district	Not collaborating of the authorities Uncertainty of the repair condition and building design	Use from abbasi mosque dome with purpose of promoting tourism
<b>Historical</b>	Registration in national heritage in 1386.02.20 by the no. 19043 Existence of symbolic plan Improving the handicrafts Restoration of historical identity and local customs	No private and governmental investment No cooperation of new buildings with historical buildings Using the modern materials for building renovation No existence of building standards	Keep and renovation of identity of Dardasht historical district Making the background and motivation in recognizing and restoration of historical buildings in Dardasht district and Isfahan Familiarizing the people with the history of Dardasht district and Isfahan Familiarizing people with life style of	Destruction and mechanical erosion because of passing the tourists and sometimes hurting the building Making air pollution because of the passing of tourists In some cases historical invade Nonexistence of proper designing pattern in historical axis	acceleration that revitalization of the building

		Asphalting the streets in neighborhood instead of road making Making the traffic jam in the neighborhood of building	Ghajar Making the application coordinated with historical identity of district and building Showing the former history and historical eras in the building Presenting the events happened in the mansion and Dardasht district by hanging pictures and explanations for keeping the historical identity		
<b>Creativity</b>	Existence of the needed capacity for Efflorescence of architecture art and creation of other arts in it	Bad condition of building from exploitation point of view	Renovation, solidity, protection and exploitation from a historical building in an old district by following the scientific and correct principles and protection	Not collaborating of the authorities Uncertainty of the repair condition and building design	Using from master engineers in revitalization
<b>Economical</b>	Activity of the bazaars around the building Existence of several factors for absorbing the tourists Existence of many trade axis in the middle of district Attractions of the trade axis for tourists	destruction of many precious elements in the application and not replacing Deserting some of the elements of the precious districts Association of trade markets in the centre of historical texture and filling the streets and relation networks with motorcycle vehicles	Opportunity for making money from building Encouraging the other owners of historical mansions for keeping, protecting and cultural-economic exploitation from their mansions Affecting the trade of shop keepers and making the dynamic economics Increasing the economic value of the ground and house of the district and in conclusion, increasing the life level Making motivation and plan for protecting and renovation of other historical buildings because of making money	Losing the opportunity for economic advantages from the mansion	Cooperation managers Introduction reliable investors by cultural heritage and municipal
<b>Social</b>	Active schools and mosques of district Existence of recreative, natural and humanity artery and economics in the district Existence of social capacity for buildings renovation	Presence of poor people and social groups in the district Presence of offenders social groups in the district Emigration of primary residents of precious mansions and leaving them alone No participation of people in renovation of historical places Assault of real estates on historical mansions No social security for tourists High expenses of renovating and optimizing Reducing the practices in renovation of historical buildings and rapid erosion Bad encountering with tourists	Demolishing the offending conditions in district Try to participating the people of district and increasing their knowledge toward the cultural heritage High tendency of authorities for restoration of textures and demolishing their problems Concentration and attention of municipality to handling the historical textures problems and doing flourish activities Presence of expert people in architecture for renovating the textures with the materials of the texture	Similar opinion between managers and urban development organizations for renovating the historical texture No sense of belonged location in residents Unknown approach from programming societies and city design for renovating the historical texture	Cooperation managers Have suitable bending for valuable texture
<b>Legality</b>	Existence of special rules about encountering with historical buildings Specified limitations in renovation	Non- moral compliance to rules The employer opinion is preferred in most cases	Existence of specified rules in case of violation Supervision on the borders of interference and renovation of historical building by municipality and cultural heritage organization	Serious lack of rules and standards and cultural heritage regulations	moral compliance to rules
<b>Moral</b>	Specified limitations in renovation Existence of moral regulations in forming the spaces	Not obeying the professional manner in confronting with historical buildings Not using the standard materials Not considering the status of the building Not obeying the social fairs	Increasing the cultural level in the district and giving knowledge to people about buildings which have historical and architectural value and increasing their participation and motivation in protecting from buildings Restoration of building identity	Weakening the identity of buildings in public culture of people	obeying the professional manner obeying the social fairs
<b>Beliefs</b>	Existence of special place for cattle Existence of belief rules in forming the spaces Existence of divinity spirit in the space Undertaking to care about discipline and hygiene	Not obeying the role of beliefs in creating the spaces	introducing the intellectual values of these buildings to people Trying to keep the nobility and intellectual values of building and not distorted of that in renovating affairs and keep and transmission of its message of art	Distorted of intellectual beliefs of people in confronting with historical building	Recovery of intellectual beliefs of people in confronting with historical building
<b>Aesthetic</b>	Existence of artists records in using the building materials Existence of cultural artistic records in plaster molding, painting, sculpturing, assigned, arched works, carpentry, ... Following the spatial proportion in building Following the humanity proportion in Ghajer architecture Creating aesthetic sense in space	Destruction of some parts of artistic records which are existed in building because of erosion and not paying attention	Showing the artistic values and visual occasions (texture, form, color, design, plan,...) Showing and emphasis on two elements of water and plant Emphasis, recognizing and showing the aesthetic aspect of building Continuation of transforming the artistic message of art Showing, rating Showing the witnesses and artistic values in new application Presenting and showing the combination of water and light in pool room Emphasis on presenting and showing the aesthetics, artistic records and all aspects of building in new application Not distorted concepts and artistic message of building in new application Increasing the understanding and artistic knowledge of people	No cooperation of related authorities Uncertainty condition of building renovation and design	Record works of art Careation the museum in historical gardens and houses



## Results

In this article, Badi Alsanaye's mansion was analyzed from the standards point of view of Zendevari and "global Zendevari model, Iranian-Islamic pattern" framework (Iravani, 2005). In this point of view, all creatures are created from 25 kind layers. These layers are active and non-active according to evolution of each creature. For example, architecture has all these active 25 layers and in plant only 12 layers are active. Each of these layers is presenting aspects of qualities and dimensions of being in creatures. In order of stability of being phenomena's, some of the being layers of those phenomena must place in interior balance. On the other side, development is the result of balance with environment which means that all the information and forces to each phenomena that cause development in each layer, has made a non-balance condition in each phenomena. This non balance has to get into balance to put all the phenomena in the new condition of development. These two phenomena are called interior and exterior pulsation that in the condition of cooperation causes Zendevari. As you see in the tables, at the present time, the Badi Alsanaye's mansion is not in balance from the point of view of interior and exterior pulsation. In order to put it in balance and guarantee its Zendevari, we should start its renovation, restoration and repair as soon as possible. By this, in addition to one of the other historical and precious buildings, we can see dynamism and survival of one of the historical buildings in the corner of our city.

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