

# Analysis of Iranian Traditional Architecture Through the Lens of Kenneth Frampton's "Critical Regionalism"

Tohid Fardpour

School of Architecture and Environmental Design,  
Iran University of Science and Technology, 16844, Tehran, Iran

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## ABSTRACT

The fundamental strategy of Critical Regionalism is to mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular place. This study presents some significant patterns and aspects of Iranian Traditional Architecture and examine them through the lens of Kenneth Frampton's Critical Regionalism, to find that whether these attitudes-KF's six points-have been completely considered in Iranian traditional architecture, even though hundreds of years before the presentation of KF's critical essay. It seeks an integration between Frampton's critical points and Iranian ancient built form which including physical features such as climate, topography, light and Iranian cultural characteristics such as traditional urban pattern and architectural prototype. This study also endeavours to demonstrate that Regionalism and sustainability could be inspiration behind this architecture. To put this into practice, first, Frampton's Critical Regionalism is presented in depth. The six points of critical regionalism as he defined it are reviewed and distilled into five categories that are used to guide the analysis of the specifications of Iranian traditional architecture. These specification and patterns are then used as the foundation for specific recommendations for Iranian contemporary architectural.

**Keywords:** Critical Regionalism, Iranian Traditional Architecture, Sustainability, Green Architecture, Kenneth Frampton's Six Points

## 1. INTRODUCTION

The pursuit of a contemporary architecture that addresses the precarious balance between local place-identity and a global architectural culture, between aspects of vernacular traditions and modern, technologically advanced building practices, formed the basis of Kenneth Frampton's 1983 essay "Towards a Critical Regionalism: Six Points for an Architecture for Resistance".

Critical Regionalism is an approach in architecture that strives to counter the placelessness and lack of meaning in Modern Architecture by using contextual forces to give a sense of place and meaning. Sometimes Regionalism goes back to just Conservatism and resorts to blind use of vernacular, such as growing tendency in our era for copying forms without any clear meaning

and respect to local culture. But Critical Regionalism seeks architectural traditions that are deeply rooted in the local conditions. Critical regionalism is different from regionalism which tries to achieve a one-to-one correspondence with vernacular architecture in a conscious way without consciously partaking in the universal. Critical regionalism is considered a particular form of postmodern (not to be confused with postmodernism as architectural style) response in developing countries.

### 1.1. Timeless Movement Versus a New Style

Tzonis and Lefaivre in their discussion on 'The Never-Ending Challenge of Regionalism' write "In trying to present the special spirit of ... we recruited the term regionalism. Regionalism was not the term used by

these architects, nor was it a new concept. We chose it to ... respect the efforts of a long succession of architects who tried an alternative way of making buildings that treasured the particularity of a region (Tzonis and Lefaivre, 2012). On the other hand, Kenneth Frampton calls Critical Regionalism, is for one thing virtually by definition not a movement, he himself calls it a critical category oriented towards certain common features (Jameson, 1994). These statements, lead to consider Critical Regionalism as critical attitudes toward common features of architecture regardless of its time. So, this study aims to demonstrate that Iranian traditional architecture, with extremely noticeable cultural and sustainable specifications during hundreds of years, could fit in well with Critical Regionalism which will be discussed comprehensively in the next sections. This study also endeavours to challenge Tzonis and Lefaivre's statement on 'The First Regionalist Building-Manifesto' as they wrote "It was in this Rome that the first politically conscious regionalist building was erected using regional elements. The building, known today as the Casa dei Crescenzi" (Tzonis and Lefaivre, 2012).

### 1.2. Critical Regionalism, Sustainability and Iranian Traditional Architecture

In the context of the current need to articulate a cultural and not merely a technological or pragmatic understanding of sustainability, Frampton's seminal essay provides an interesting starting point for the articulation of a broader argument for sustainable architecture. A critical re-reading of Frampton's essay - in particular, section 5 of his critical essay: "Culture Versus Nature: Topography, Context, Climate, Light and Tectonic Form"- raises the possibility of a discourse on sustainable design that reaches beyond its traditional energy-efficient confines.

On the other hand, traditional architecture of Iran is called Organic architecture and is formed with extreme respect to site and geophysical specifications of earth. In this architecture emphasis are on topography, climate, light, tectonic form and human experience rather than the visual. It is perceived sustainable for having sustainable features. So the relationship between Iranian traditional architecture and Frampton's Critical Regionalism could be extremely noticeable, especially in section 5 of his critical essay, due to the importance and inspiration behind both of them for sustainability.

### 1.3. Kenneth Frampton's Critical Regionalism (Six Points for Critical Regionalism)

The term According to Frampton, critical regionalism should adopt modern architecture critically for its universal progressive qualities but at the same time should value responses particular to the context. Frampton defines six main points that guide critical regionalism (Frampton, 2002):

- A critical but open approach to Modernist attitudes and technologies where technical and technological aims like normative optimization
- A consciously bounded architecture concerned with the territory to be established by the building
- An interest in creating an integrated whole which Frampton calls a 'tectonic fact' rather than a series of scenographic episodes
- A stress on local conditions and responsiveness to local climate
- An emphasis on the tactile as well as the visual architecture that is not only for the sight but for a complete human experience
- An opposition to sentimental simulation of the local vernacular combined with a willingness to re-interpret and use these local formal motifs and a willingness to also introduce foreign sources as well

Frampton's first point is concerned with the technologies used; the second point, with interaction with the site; the fourth with environmental issues; the fifth with the perceptions of the inhabitants and occupants, but the third and sixth points are both primarily concerned with formal aesthetics.

Because of the overlap between points 3 and 6, the two points that are concerned with visual aesthetics and formal issues, they will be combined into one point that is concerned with the formal aesthetic issues (the third in the list below). Having combined two of Frampton's six remaining points, there are going to be five points that guide the examples from vernacular architecture in Iran and the future recommendations for Iranian critical regionalism. The five points used in this study are:

- A preference for regional intentions over normative optimization,
- A consciously bounded architecture
- More than scenographic episodes or sentimental historicism

- A responsiveness to local conditions and climate (Sustainability)
- An emphasis on the tactile and human experience (The Visual versus the Tactile)

Each of those five points and examples will now be discussed in greater detail.

#### **1.4. A Preference for Regional Intentions over Normative Optimization**

Frampton views critical regionalism as a marginal practice with respect to the dominant trend of modernization, which he views as dominated by “naive utopianism” and a focus on normative optimization. Normative optimization seeks to maximize building performance with respect to some standard or norm. Nonetheless he does not wish that critical regionalism “abandoned the emancipatory and progressive aspects of the modern architectural legacy” (Frampton, 2007). Critical regionalism, rather than being dominated by the needs of optimization, is free to use desirable tools to serve its specific ends. What Frampton has in mind here is that critical regionalism is less a response to normative optimization and more concerned with the associative attributes of a specific region such as local architectural fabric and cultural values.

Examples of resistance to the globalization and normative optimization can be observed generally in the different stages of Persian architecture design. There are five stages (design standard) in traditional design process to improve building performance with respect to some local norms like Gaz-Kardan (To Measure), Goft-o-goo (Dialogue), Barzeh (Sketching), Arayesh (Approved Plan) and Kast-Afzood (Finalising the drawings based on probable changes approval). Structural Rigidity (Niaresh) is the other specification of this architecture embraces the necessities required in building statistics and dynamics and includes all endeavours carried out in construction in accordance with the existing level of local knowledge with respect to new technologies (Pirnia, 2009).

In addition, the use of “Hypocaust” in bathhouses is another example of these Iranian architectural methods to emphasize on regional intentions. Hypocausts were used for heating bathes. The floor was raised by pillars and spaces were left empty inside the walls so that the hot air and smoke from the furnace would pass through these enclosed areas, heat them and then it is let out.

Furthermore, the importance of the chosen plan strategies in design process were extremely important in

Iranian architecture and new patterns were used to organise the interior spaces which were completely local. The southern part of residential building usually contains the living rooms and bedrooms with the main windows maximizing the benefit of sun for the cold winter. In the northern face of the residential buildings usually, the summer spaces and wind catcher has been located. It is important to insulate buildings to the highest standards; to reduce the amount of external wall surface; to orientate the building towards the sun; to organize the interior of the buildings compatible to the sun’s movement and wind direction.

These examples show the importance of the local knowledge in Iranian traditional architecture, which Frampton discusses in his first approach. It also demonstrates that it is free to use new contemporary technologies which are completely sustainable. However, Iranian vernacular architecture has much yet to teach in the art of maximizing building performance with respect and using regional intentions.

#### **1.5. A Consciously Bounded Architecture**

Frampton writes that “Critical Regionalism manifests itself as a consciously bounded architecture, one which rather than emphasizing the building as a free-standing object, places the stress on the territory to be established by the structure” (Frampton, 2007). He cites Heidegger’s critical point of boundedness in Heidegger’s essay, “Building, Dwelling, Thinking” (Heidegger, 2001), which says “A boundary is not that at which something stops, but, as the Greeks recognized, the boundary is that from which something begins its presencing” (Frampton, 2002). First, a bounded architecture should have a capability to create a spatial boundary, a territory defined by the structure. Second, more than the physical boundary, a bounded architecture seeks the integration between built form and cultural values.

This boundedness is measured in Iranian traditional architecture in the matrix of time and place and a reference to a desire to creating “a place rather than an object in a place” as Frampton discussed in his essay. Iranian traditional architecture goes beyond the objective of just minimizing the disruption of the landscape or hiding or blending the new structure, but engaging the new structure in a critical ‘dialogue’ with the site, foregrounding its particularity. Persian vernacular architecture is solely in harmony with its environment, involving colour, scale and mood, whereby each building is part of a process, not a world in itself.

A bounded Iranian architecture has physical and cultural meanings. Physically, the boundary helps to create an intimate relationship between architecture and the built site. The physical boundary is not only an organic part of the building but also a transition between architecture and the site. Culturally, a bounded architecture in Iran emphasizes the continuity and authenticity of living tradition.

The design of interior spaces in Iranian architecture fit well with this awareness about bounded architecture. The buildings and the courtyards are totally integrated, forming an intimate and particular territory between architecture and nature. The architect's intention is to create a proper built form bounded to the place and vernacular culture rather than offer a freestanding building.

On the one hand, learning from traditional planning and architecture, one can get inspirations of how to integrate the building into the built environment. The courtyard typology is a good example of physical boundary to create a semi-private space with outdoor.

Iranian traditional architecture necessarily involves more directly and dialectical relation with nature than the more abstract, formal traditions of modern avant-garde architecture. The bulldozing of an irregular topography into a flat site is clearly a technocratic gesture which aspires to a condition of absolute placelessness, whereas the terracing of the same site to receive the stepped form of a building is an engagement in the act of "cultivating" the site (Frampton, 2007). As an example related to this, use of vernacular materials (Boom-Avard in Persian) is always one of the concerns in Persian architecture and excavated foundation soil has been used in order to make bricks. There are many other examples like this, which one can find in Iranian vernacular buildings (Vakili-Ardebili and Boussabaine, 2006).

Iranian traditional architecture always shows extreme respect for the place-form, local culture and identity, as a main part of a design system, to create a spatial boundary. The better perception of regional capacities and their specifications in this architecture is considerable and shows the importance of integration between built form and cultural values in Iranian traditional architecture.

### **1.6. More than Scenographic Episodes or Sentimental Historicism**

In his third point, Frampton sees the need for architecture that is understood as a "tectonic fact" rather than simply a series of scenographic episodes. He argues that the tectonic "is more than the simple revelation of

stereotomy or the expression of skeletal framework". He recalls Stanford Anderson's definition of the tectonic which "referred not just to the activity of making the materially requisite construction...but rather to the activity that rises this construction to an art form". Frampton views the tectonic as "the presentation of a structural poetic". He criticises the scenographic episodes which is "the re-presentation of a façade" (Frampton, 2002). In his sixth point, Frampton argues the use of sentimental imitations of local vernacular and seeking instead reinterprets those forms and blends them with outside influences. His position does not simply speak for a nostalgic historicism but rather architecture that is treated as a whole.

These two points are the aspects of critical regionalism concerned with forms and aesthetics. Because the avoidance of sentimental simulation and the avoidance of creating scenographic episodes are poorly associated with the architecture as a whole are closely related.

Misuse of forms comes from trying to apply them only because of the form, not because of other reasons. The other type of misusing comes when forms are the product of imitation rather than derived from all the relevant important concerns, concerns like structure, function, as well as tradition or other social or cultural issues. Regarding these aspects, Persian architecture does not copy vernacular forms only for their appearance and one of its specifications is use of geometry in design process to avoid imitations. Based on geometrical aspects, use of proportions and measurements helped architect to develop a modular design style. The precise understanding of geometry and its relevant terms enabled Persian architecture to present more various, durable and stable forms. This specification could help architects to provide multiple spaces and forms with changing building's basic unit (which is called Peymoon in Persian) in modular design which is called one Gaz where needed in accordance with inhabitants' needs. Also it supports them in structure regarding forces dealt in a building construction. The precise understanding of geometry and its relevant terms enabled Persian architecture to present more durable and stable forms without any similarity to previous ones.

Avoiding un-necessities (Parhiz Az Bihoudegy) is another pattern of Iranian traditional architecture that attempts to address all practical efforts made to achieve the tectonic fact. This pattern of Iranian traditional architecture is strong advocate for the simplicity in

construction progress and presents the avoidance of sentimental simulation as opposed to imitation of previous works without any changing (Pirnia, 2009).

There are many other examples in Iranian architecture to demonstrate the proficiency of using construction methods without any imitation of past forms. These methods in Persian architecture notice the tectonics, as discussed by Frampton and also help to consider the poetic side of structures as well as the materiality aspects and aesthetics of construction. All parts and details are conceived to make a whole which works together for one reason, improving the building's performance.

### **1.7. A Responsiveness to Local Conditions and Climate (Sustainability)**

Critical regionalist architecture "tends to treat all building's openings as delicate transitional zones with a capacity to respond to the specific conditions imposed by the site, the climate and the light". It reckons that architecture should make dialogue with the place and respond to the physical features of a region, the "site-specific factors, ranging from the topography . . . to the varying play of local light" (Frampton, 2007). The architect should enter "a dialectical relation with nature", taking clues from the topography and avoiding bulldozing and flattening site.

Iranian traditional architecture shows such an attempt to make engage with climatic issues. There is a respect for all elements of nature in Persian traditional building culture. Existence of wind catcher, water pond in the courtyard could be good examples of Persian architecture scopes. Inspiration of nature can be seen in many features of constructions. Benefiting natural vegetation, natural lighting, earth geothermal and other potencies of nature are all included in this architecture. Also in the scale of urban planning and programming and application of nature potencies are observed. Building orientation (Rown in Persian) is a compass reading direction which is the most effective direction in benefiting natural potencies and resources within reach. Due to Persian principles any effect causing harm to the environment and its component is forbidden. This is what is considered as the first step or base in sustainability. As it is perceived, respect to the nature and its elements have an effective influence on conceptualism and initial innovation in early design stage (Kasmaei, 2010).

Moreover, related to hot climatic feature in summer, the colour of building should be carefully considered. Light colours, such as white, are easy discoloured and are difficult to maintain for years. Traditionally, grey roof tiles were often used for residential buildings in

Iran. The grey colour is major tone for courtyard housing (Saremi, 1998).

In sustainable architecture of Iran, the locations of the rooms and buildings were totally dependent on and in harmony with the solar energy. Colours, piers' thickness, the positions of outlets, colours of the windows and sheds were all compatible with climatic solutions.

Major construction materials used in Iranian vernacular buildings were recyclable, regional and very durable. Providing climatic comfort in consuming energy was practiced through reducing surfaces exposed to the sun in the buildings and urban structures and also creating density. Urban dense structure is mostly surrounded by a green belt of fruit gardens and farming lands acting as an ecological policy. The green area around a city plays an important role in preserving central constructions against desert winds, dust and dry weather (Rapoport, 1977). It is also considered one of the key factors in the cities' natural air-conditioning system.

### **1.8. An Emphasis on the Tactile and Human Experience (The Visual versus the Tactile)**

In the previous point, Frampton focused on light and on light's role as "the primary agent by which the volume and the tectonic value of the work are revealed," he also claims that it is important to be "aware that the environment can be experienced in terms other than sight alone" (Frampton, 2007). Other experiences, like heat and cold, humidity, air movement, aromas and sounds are important aspects of the environment. Frampton argues that "the tactile is an important dimension in the perception of built form". Critical regionalism recognizes that these other sense perceptions need to be recognized alongside the visual.

In Iranian traditional architecture, for instance, the wide use of local materials and the assimilation of traditional architectural elements demonstrate a close attention to the tactile perceptions. Different kinds of local pavements and variations in kinds of pavements in spaces such as courtyards create a varying experience of the architecture. Another aspect is the traditional use of outdoor spaces associated with buildings. Traditional gardens are closely integrated with the architecture and the plants of gardens contribute to olfactory experience. Another aspect is the traditional design of interior spaces: Ceiling heights are varied to create different spatial feelings. For example, sometimes at the entrance, the ceiling was lowered and the main space such as lobby was much higher than the entry space; when you

walk through the entry to the lobby, you will experience this change in the space (Tavassoli, 2002).

Another example of this awareness of Iranian architecture to tactile might be found in "Being in Accordance with people needs (Mardomvary)" in the building design. This Architecture shows specific concern over user needs and functionality issues. Moreover, Privacy is another specification of this architecture with emphasis on tactile rather than the visual, in contrast with common notion of privacy. Therefore the functional zoning was arranged in a way to separate family spaces from public activities.

Iranian traditional architecture was completely based on human needs. Expectation and requirements were respected well in this architecture. Design stage procedures shows how customer-oriented Persian architecture was on the subject of functionality and basic needs of society members. Therefore response to functionality issue in a building based on social, economic and environmental aspects is one of the basic missions in vernacular architecture to fulfil.

## 2. CONCLUSION

Specifications of Iranian traditional architecture, which some of them were discussed in this study, demonstrate that widely available local techniques and craftwork, if being properly employed, are a superior technique for the creation regionalist architecture in contrast to the use of universalized industrial technology to create culturally sensitive form. Accepting the need to synthesize our past with present technology, we need to examine our own roots and understand them before achieving a creative life in literature, music, painting and architecture. Investigation of this architecture's patterns, as discussed, demonstrates that Iranian traditional architecture was extremely conscious of Regionalist attitudes as Frampton listed. However, this architecture was developed before Frampton's six points but Frampton has not defined any period or limitation on time for his Critical Regionalism. Iranian traditional architecture-as Frampton highlights that these points are "attitudes" as opposed to "features" - is not suggesting that designers should not look for normative optimization or visual aspects but is suggesting that there are other things of importance like human experience or what the Frampton noticed as "Tactile".

We need desperately to relearn from traditional architectures the art of disposing of buildings to create different kinds of space; the quiet, enclosed, isolated and shaded space. This study suggests paying close attention

to what we regard as untutored people and how they approach their problems in Persian vernacular architecture. It is also essential for us to absorb what we absolutely need from the modern architecture and to learn to keep the best of our own traditional forms. We have to think understandably in order to develop an indigenous contemporary architecture and not to lose the best of the old that has meaning and value.

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