

A CASE STUDY

# Research on the concept of role a bridge between the concept of structure and architectural

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## ABSTRACT

Architectural concept once, had concealed in own combination, integration and compilation of various theoretical and practical knowledge, while today we are witnessing demotion in the activities that almost all are focused on structural design and built form branching and taking special flavor of concept such as constructions, installations, interior design etc. in the form of separate academic disciplines that even taught in different colleges and have changed the position and concept of architectural and have followed consequences such as identity loosing , increasing energy consumption, resources and natural wasting , etc. However, due to the conditions of modern times continues the process of branching and being special in the field of construction, in the other hand, in order to counter the effects of the mentioned consequence have been done and are done researches and theoretical studies that some of them trying to explain the concepts and relations of structure and architecture. In this regard, the authors began a research with the aim of investigating role of structure in architecture. Fundamental question was raised in the route of doing this research, what is the exact purpose of the concept of "role" basically ?and whether we can use this concept as a "concept" in order to compilation and convergence concepts of architectural structures? In order to achieve a theoretical framework to answer the mentioned issues, and with enjoying some research techniques by grounded theory method was launched to data reviewing and categorization which have been presented their summary in this article . This study explains the role of the structural elements is "acquisition" with other structural elements and giving "relationship" between these elements has created an "attribution" status and will be caused divergence of these elements.

**Key Words :** Role, Architecture, Structure

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The relationship between structure and architecture : case upto now. Especially in recent centuries that the  
is one of the old issues that have engaged the : progress of science and knowledge in various fields has  
minds of many experts of architecture to itself. : brought the science specialization and Separation of  
And different classifications have been presented in this : different domains of knowledge by own. The most

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important problems in the field of building and architecture can be pointed to different branches deriving with different orientations (Climate, structure, facility, economy and so on). Then most of the contemporary buildings are the combination of elements that each one have been designed based on a specific trend. Thus it may be placed in contradiction with operation of other components in some cases. Meanwhile, if all the factors when supplying their goals can be reached to harmony and significant combination than other factors is yielded convergence and compilations that can be described "architecture" to it.

In the specific concept of the structure this process greatly is returned to the time of development of the industry and materials in the late of 18<sup>th</sup> century that it causes by the progress of Mechanical calculations science and the production of industrial materials. It means, when the transmission components of the forces could calculate and evaluated on the basis of mathematical relations and mechanical parameters, a branch of theoretical knowledge was formed that it was derived from the architecture body and was called structure.

Therefore, structure gradually found new and different nature than before. In this privatization process, it is observed that structures or more precise" the architectural elements that they resist in front of the forces in the building", prior to this, static or in terms of the role that they had in the formation and identity of buildings have considered as a vital element in the architecture, but then turn to the independent element from architecture.

So that some architects such as Gedion have emphasized on the separation between building technology and architecture and states that "building technology found important and impact in the development of architecture in the 19<sup>th</sup> century. New features in "building technology" developed more till architecture (merely architectural works) during the 18<sup>th</sup> century was in the half-dead state and it was in the dead atmosphere and all this time, building played a subconscious role of architecture.

It showed facilities for progress that they were ahead of these times. In the 19<sup>th</sup> century the main factors in technological progress can be seen in the building technology not in architecture, from long time ago, there was a power in "building" that gradually emerged in the 19<sup>th</sup> century in architecture "(Gideon, 2007, p.42).

Following this basic idea, these days serious issue is on how to establish the relationship between these two concepts in the field of theory and practice. In this regard, in order to achieve some of these relations, the authors, began with this title "The Role of structure in architecture". Although at the beginning of that, a scientific approach considered to identify and create some ratios and scientific relations or consistency But in the study process, this hypothesis was formed that what is basically meaning of the concept of "role" And whether this concept can be a "concept itself that can strengthen interaction and concepts of structures compilation and architectural not on the basis of causal relationships and harmony but also by the underlying parameters.

So, in this article has been tried to explain the relationship between structure and architecture by the help of new concept. Discovering into the concept of "role" was as a concept in order to link between structure and architecture and was tried to paying research questions with the help of this concept. In this paper, the authors deduce is based on this, if according a specific interpretation of the concept of role, scientific investigation searches investigate for causal relationships between concepts of structures and architecture or their variables, implicitly will imply on the symmetry and diverging of concepts. As well as giving place to the structure as a acquired status in architecture can be faded the true and worthy relation of these two concepts in the minds of users such as students and even architectural and structural engineers. So the main question that is addressed in this paper is that, what is the concept of role and with regard to specialized knowledge of the structure and its elements, how can change the structural elements to the architectural elements by taking advantage of this concept?

## RESEARCH METHODOLOGY

However, experts in the field of architecture in the context of the relationship between structure and architecture have offered different theories and categories and several meetings have been held in this regard, but the approaches taken in this regard is not enough and prior knowledge alone is not enough and cannot be rely to them. Thus, addressing the new theory in this area is necessary. As the research is about the relation between structure and architecture and qualitative research, and the underlying research methodology

allows the researcher that considers the issues and concepts deeply and with more comprehensive and contemplation and defines it. In this article, based on underlying research method - Grounded Theory- With cultivation in the concept of "role" created new insight into the relationship between architecture and constructions and has been discussed to the creation of the theory of "structural role in Architecture." In this regard, in the first step have been done detailed studies about the meaning and the concept of the role in various fields of knowledge and all concepts related to the role without prejudice, are gathered and encoded with the coding method.

Then concepts that have placed in a code have been classified according to key words. Which at this stage, contents have extended very large. Then, with referencing to the obtained data and codes, aspects and limitations of the concept of "role" has been extracted and finally, data have been arranged by the axial coding method and according to causality parameters that include motivation, phenomenon, background, confounding, interactive factors and the result. In this study, the concept of "role" has been presented as an interaction parameter and with helps of examples of architecture and architectural statements the role of different structures have been investigated in architecture and sometimes to clear the content has been tried to bring images and charts to express the results of discussions clearly and summarized.

### **Structure and its role in architecture :**

McDonald in the introduction of his book as. The structural design for the architecture" reminds architect as an artist That with intellectual and philosophical background of his age creates the forms and faces under the name of building and enters himself in to a big battle with a big deal to determine a viable and durable structural form to determining building form and in describing the role of structures in architectural, calls the building as a physical body that for stability form and its entirety needs to structure and keeps the structural role merely to mention the building. (McDonald, 1998).

McDonald listed one of the structure roles as load-bearing in the building. While that structure may play a more fundamental role in architectural, or even itself, be architecture. When the structures are used as radiation dam or aesthetic element in the building, it has the more roles in the bearing and power transmission. For example,

the role that structure plays at the Stansted airport with building of Mylvagy museum is very different. The involvement and influence rates in various building create different roles. With its various functions such as a spouse who may plays the role of a mother, teacher, nurse, etc for other family members. If there is a possibility to increase the performance of structures, or define new roles for it, this theory can be stated that the relationship between architecture and structures will be closer and more unifying.

So to create an unbreakable bond between structure and architecture must be able to reasonably define the role of structure in architecture and raise them as much as possible. To achieve this purpose, first the concept and meaning of the role must be determined and by using warrants obtained the concept of role and linking it to the structure discussion in architecture, is present the increasing aspects of structure role in the architecture.

### **Definition of role :**

The role term is used in a range of meanings and concepts. It can be observed this expansion in the slang speaking and proverbs or even by referring to dictionaries.

The role term is one of such terms that widely uses in daily talks and "we mostly use it as a metaphor to describe the works or part of works that we do and so on. And it is a kind of concepts that at first people in their daily life have passed it and have used and then human and social sciences researchers employ that concept in different applications (Fazli, 3, 2007).

The literal meaning of the role word in Dehkhoda's dictionary is as of the following: Writing, recording, depicting, bring something in two or more colors, picture, drawing, form "the original meaning of the word is: Effect and demarcate on the ground "and" finally reveal something, the investigation of discovering something " synonymous of this word in the English language is visible also. Such designation, figure, role, express, stamp, role of culture in the sense of its Latin etymology of Bloch, Wartburg has been driven from the Medieval Latin word "Rutulus" (itself derived from the Latin word Rota, meaning wheel). Rutulus on the other hand, means "rolled up writing" and the other hand "what should be expressed by an actor in the theater "has been presented. (Aspanleh, 1993, 129).

### Role in the graphic arts :

"Role" in the factitive sense has come as image, design, drawing and ... Each line and image that has crossed the mind and sit on paper can be placed in the field of role meaning. But roles regarding the characteristics are placed in different categories such as vegetable, animal, geometric roles and...

The factitive roles are called "modify" in expressions. Role in simple language means Abstract and unadorned designing, ink landlord and single, shaping of existence. Role means to reach the detail from whole. The component has all the attributes of the whole (Tazhibi and Shahbazi, 2009,p.1). Roles mean simplify and clearing till reaches to completely and clear single role border.

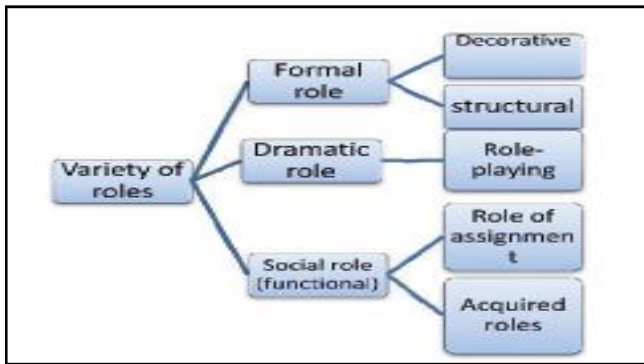


Fig. 1 : Types of role and its scope

### Role in the sense of having performance :

"Role" within the performance meaning include several areas of knowledge. Also in folk speech we use different words instead of role and we use the word role instead of other words. For example, the word role can be placed instead of all the words duty, roll, etc. And each of them express part of the role concept. In social discussions the role and influencing term is use instead of each other like the time we say that someone has important role in my life, it can be understood that someone put many effect in my life.

### Consideration on the concept of role in society :

Views about role and its concept are of basic theories in Sociology. The importance of the role's concept clarifies in cases of a group. When several members are placed together for common goal and they have responsible for duties. In fact, the concept of role is way what is placed between the individual and society... Most of role theorists know the role position in the border of sociological and psychological (Aspenleh, p. 134).

Most of words and concepts that role is used instead them, are such as: the role rather than position. For example my father has important role-position-in my life. Role Instead of the task and responsibility: the role-task-of teacher in students' education. Each of these words expresses the part of role meaning. But it is possible that the role's concept has the meaning beyond the words and even it encompasses other meanings, such as role-playing. Koto of role theorists in the field of human science believes that the time of using the word role leastwise we should distinguish between two meaning of "role-playing" and "involvement". Because these two concepts while living being near each other have deep difference (Tavassoly and Fazeli, 2008,p. 305).

Role-playing" is a psychological affair. It is related to mental activity and recognition of certain symbol as one person. "Role playing" is observer of the behavior which has external appearance, means the act of a man which is adapted with his physical activities. Like Teacher teaching in a class. "Having roll" is a sociological term and is up to a person who is a member of the group.having role" includes real and serious act and emphasizes on activity symbol, spiritual and mental aspect. For example, the internal action by that we can temporarily alive another idea in self existence, place the self in mental and social field of him and accept his point of view. The third meaning that kotto attributes to the "role" is meaning that is placed between the two meanings and reduces the differences.

The meaning can be included "fulfill a role" also in "play a role" and "having role" in primary extent. Like a child who does imitate the behaviour of parents practically. In the field of sociology, more points of view focused to "having role ". (Ibid. p. 306 (place is an important parameter defines the concept of role in the field of sociology.

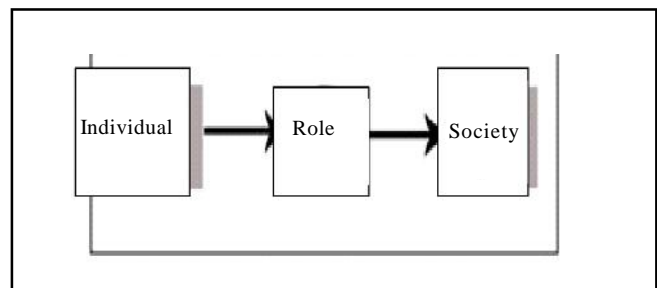


Fig. 2 : Relationship between role and society

### Hierarchy of role acceptance and role playing :

Regarding to role's concept introduction in society and group, there is Hierarchy and conditions to create roles that are mentioned briefly here.

### Role and position :

General definition of social position is like this: position is predicated to social and base position that individual meets in the group or in a social rank of a group compared to other groups. Social and base position of an individual determines the rights and privileges of person. Role refers to behaviour that others expect from an individual who has met certain base. Appropriate roles are thought to person as part of the socialization process, and then he accepts them (Ibid. P. 80).

Social bases can be attributed or acquired. Attributed base is devolved to person from birth and mainly is based on family backgrounds. While the acquired bases are according to individual competencies and efforts in order to obtain the bases. At the same time a person can have several roles with respect to various bases, And to play them. (Ibid., P. 80) When an individual or group position is specified in every culture, can be defined social roles regarding to society patterns and expectations. "Social status" is a position that the individual gives to himself in the society that may be acquired or attributed..... Social status is set of behaviour patterns, expectations, obligations and duties that we call them "role" (Aspenleh, 2006, p. 5).

In fact by having a fixed social position can have several social roles people create different roles in terms of their place in society, the factors that affect people's access to different positions: age, gender and class ... For example for the role of university professor can have four roles of teacher, researcher, management and being a peacemaker. The concept of role is related to culture in anthropology issue. In fact, it is the culture that determines its special, role for each position and base.

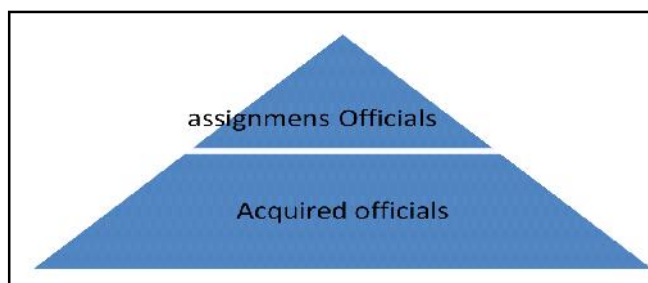


Fig. 3 : Attributed or acquired role

### The role and authority :

As the "role and base" is introduced in sociology, in social psychology "role and authority" is important. In its definition and scope of its parts, there are many similarities between the both of them. We can see its Conceptual Differences below. Role In his expanded finding is related to the concept of the social status. The word status in Latin is taken from the word status means settling. For psychologists this term has changed to position and rank instead of official. According to Linton "The role is General Assembly of the cultural patterns compatible with a particular situation". (1945, p. 50) there is for the relationship between the role and status including of "authority in solving action" for each official and each member is manifested by rolling that play.

Role is the dynamic aspect of status that appears in people behaviours. "(Ibid., P. 146) this means that the status exhibits structural and functional aspect of a single reality. However, the relationship between role and status is exited from this simplicity when we understand that status ever has integrity but the roles which are placed against it may be several roles. In fact, the status has three constituent elements; the rights, duties, roles or expected performance, "ibid. 148). So, any position involves multiple roles that belong to other roles and different situations. Like the boy who has various roles son, father, brother, son of his mother. The connection and link between the role and status is close to the extent that Nadel of theorist's stats: status in relation to role is the rule is in connection with its performance and he believes that distinguish of these two is futile "(ibid., p. 206).

Thus, each of society members have attributed and acquired roles. Attributed statuses are treated as mandatory tasks or roles. Such as the duty of a house that gives shelter to people and protects them from the cold and heat, or a postman whose duty is to deliver the letter to the audiences. Attributed roles Always are pre-specified and have clear framework and performance and almost to expand the role and contribution is made and is the acquired statuses and their expansion. Acquired statuses are those positions which are created after birth and in relation to other members and roles. Depends on a status what extent has been imprinting competence, can acquire new positions.

Finally, to describe roles in society must be considered a set of competencies that determine the structure of roles. Roles' competence is divided into two

categories. “Allocated Traits” and “acquired Traits” have established based on allocated and unavoidable statuses such as age, gender and ....acquired roles indicate what the person "does" not what exist based on her/his explicit behaviours. It can be mentioned that status necessarily follows role. While about acquired roles, played roles determine the status. To obtain the acquired roles an individual must obtain some competences. Imprinting competences directly depends on the amount of roles interaction with each other. When a role interacts is expanded with other roles, the halo effect of role become more and officials play more roles.

As mentioned above role in the context of its performance depends on factors such as position and status. Even when the person's role is being considered, by default we know it depends on the group in which the person is member. So role is appeared when there is community and positions have significant relationship with each other. Any role has characteristic that it can be associated a component with the other components with it .So as a pivot relations in whole relations. The motifs are tasks that cause connection and link between components and finally are supplying the whole. Motif in a group is such a structure which forms connection between components. “Rolle” is an express of a combination of task, importance and position of each member in the system. Following the analysis of the role that had in sociology and social psychology, the role concept appears as a model that behaviours of individuals depend on it in convenience. Therefore, it is recommended that the role be defined as a pattern of behaviors that places in relation to individual's position in convenience.

**Definition of structure role in architecture :**

By concluding of previous discussions can be expressed that by increasing the expertise knowledge, architecture is decomposed to multiple factors as a whole and each of them is developed as a knowledge area. By separating this area from the overall architecture, this possibility created that to be created relationship between these factors with building. Structure is one of the most important factors that amongst has had sometimes excess, wastage relationship and sometimes unity. In other words, architecture had been like a family that each individual had his/her own special position before this and in officials’ manner and patterns and roles in a family being identity and has found meaning. At the same time the whole family, which is a collection of individuals and their roles has found form.

Factors and elements in present time buildings remain like population of people near each other which have no relationship and interaction with each other and have no motif in one another presence and essence. Its motif and parameters can be the missing factor among factors such as the structure and whole like architecture.

So to creating an irrefragible joint between structures and architecture should define the roles of structure in architecture normally and increase them. As much as possible. To reach this goal by obtained sentences from motif concept and its relationship to structure discussion in architecture, in first step the structure position in architecture will be determined and regarding to hierarchy of imprinting, will be presented aspects of increasing structure motif in architecture.

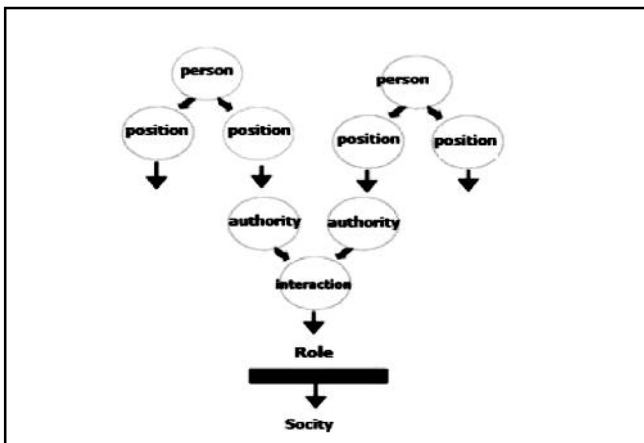


Fig. 4 : Hierarchy of accept the role within a group of society

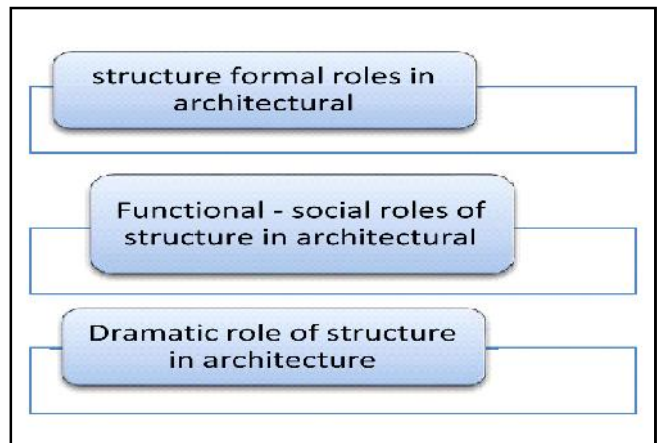


Fig. 5 : Stuctural roles in architecture

**Ostensible role of structure in the architecture :**

Ostensible roles can be discussed as independent motifs but because geometry and form of building are placed in interaction to structural component; it has been stated with performance motif. Facilities roles can be divided into two groups in architecture. These two groups were named to "decorative motifs" and "structural motifs". Decorative motifs in the architecture are the motifs which are used for pure beauty without specific performance. Decorative motifs may be different regarding to every culture and style symbols and signs. Such motifs are often abstract. The role of geometric and abstract of Iranian architecture is examples of this sample.

Structural motifs in the architecture are motifs or in more accurate phrase maps which have been created fully or emptily cause to overall shape organization of the building. These motifs have great importance in the building, in fact the structural motif is building structural map which has been formed by design goal and can be formed shape relationships in plans and segments and building view. Structural motif can be depending on geometry and complex combination of geometric shapes. Or even be coordinated with structural geometry and building structure. In Structure nature, there is order and structure along with transporting forces to secure points. This temporal system is towards spaces organizing and be created according to architectural needs, will have ostensible role of structure in architecture. Ostensible role of Structure in plan form relation, view proportions, segment, and overall volume of building is observable. As well as it appears declare in the form of components and connection details of the components to each other. Structural Ostensible role in architecture is dividable into two categories of decorative motif and structural motif according to facilities motif.

**Decorative roles of structure :**

These roles from the beginning of the use of metal have been seen as a structural skeleton. Form and function of structural components and connections have more important in fulfillment this role. The early examples of this is San Genev Library built by Labrust Henry's. In the beams of roof, in areas that are accounted neutral in the term of power transmission, have accepted the roles as decorating. With the passing the time and technological progress said about helpself implementation that used forms in my works don't arisen from structure

completely – but sometimes emphasizes to being artful the works (Golabchi, 2012).

The first San Zhenyo library, Hanry Labrust, the decorative role of structure.



Fig. 6 : T 1, Sainte-Genevieve Library, Henri Labrouste, 1838-1850, decorative roles of structure in architecture

**The structural role of structure in architecture :**

The role of structure is hidden in the relationship between the components of the structure. One of the structural stability requirements is following of components of the geometry of forces in building. Structural geometry with having constraints and opportunities is presented in the building. With coordinating that geometry with geometry of architectural spaces and their symmetries and architectural spaces with requirements formal structures with each other will be integrated. The meaning of the roles of structure in the building is that role is created by ordering of simple components. Sometimes a combination of simple elements in a building, at the end, brings the perfect facial roles for the buildings. Examples of this are abundant in Iranian architecture. Kar\_bandi is one of structures that with having structural role, perfect geometry and stylish, have



Fig. 7 : D2, Kar-bandi, bazar khan, Yazd, Iran, becoming one of decorative and structural roles

created beautiful roles.

Kar\_bandi is one of the masterpieces of Iranian architecture. Shamse that is obtained is solely based on structural member. The second, the assigning of Khan Market, Yazd, being one of the decorative and structural roles.

**Functional-social role of structures in architecture:**  
*Structure and its place in architecture :*

The alleged position of structure in architecture, "Structure, had always been an essential component for architecture." (Salvadori, 1) the importance of structure in architecture is not secret to anyone. Structure considered as one of the external factors for architecture. It is important as much that structure can be instead of architecture. The most important alleged base of structure in the building is the field of structures static that is the first and most important of structural role in architecture and is accounted also a function of structure.

Acquired place of structure in architecture: Acquired positions with respect to member's interacting with each other are extendable; also various members of structures can obtain various bases in terms of the type and purpose in architecture. Acquired roles and bases come back to the capability of the structure to interact with other architectural elements. Whatever structure makes more interaction with other agents and can gain more acquired bases has established more communication with architecture and will established unbroken bridge with architecture. In general, the aspects that structure can be have acquired roles in them, such as forms, facilities, proportions, beauty, light, etc, in the designs and themes, 3, 4, Astnd std airport, Norman Fasner, structure in the various different roles is various. For example, the minaret in the mosques, in addition to

the structural role have accounted as a sign of the city, place of muezzin, etc. and have a great impact on the identity of the entrance. Or structural elements in Astnd std airport by Norman Foster has the outstanding feature of form and in the role of light modulators, associated with the site, ordering to mechanical installations, have been acquired important position and role in the building.

Whatever each member of the community has more important position, will have more bases and subsequent roles in society. Structure is considered one of the important factors for architecture and with regard to this will have major and wide roles in architecture's. Acquiring place and status depend to qualifications of structural components to accept supporting roles. These roles will be examined in relation to interact with other components of the structure.

*Interaction of structure in architecture :*

If the structural components play only static duties, they have quasi-role. They can be considered as formal roles when are qualified to take the role of acquisition. In fact complementary roles are measured in interaction with other factors. Interaction means to transact with others (Dekhoda). Given the mentioned contents, to have a role for a member in the group, it is necessary that each member fulfills his acquisitive and assigned duties, as well as interacting with other members. When different elements and factors in the building interact with each other as statuses, the roles are created. For example, if a structural element as a status interacts with the other statuses such as light, climate, facilities, and so on means that they are qualified to accept acquisitive roles. Consequently they gain statuses that will promote a structural component to an architectural component. This causes the unity between structure and architecture. Areas where the structure can play a role and interact have been summarized in the following parameters:

**Structure and function of spaces :**

Relations between the structural components is seted based on the geometry of the forces .The geometry of space with matching by geometry of forces, dimensions and proportions of the rooms will interaction with space. Charleson Categories these relationships as:Dividing the space into smaller sections-Articulated the passing routes (Charleson, 2009, p. 110)

Structure and form of the space- structures is one of the strongest factors in the creation of architectural

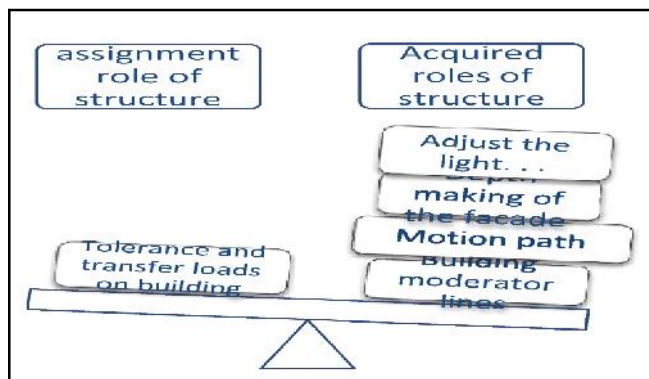


Fig. 8 : Assignment and acquired roles of structure



forms. Type of structural system, user-space and its requirements, scale of space are the affecting factors in the form of space.

### Structure and appearance of the building :

Most of the internal and external appearance characters of a building is defined and explained by how structures associated with body building. ((Ibid, P. 64) structure in the exterior face of building can have roles in the following parameters.

Pymun\_bandi of structure: structures Pymun for facing can creates a new pattern. This pattern itself includes the potential possibility for rhythm, hierarchy and so on. Depth and texture: variation in depth of structural components reduces its simplicity and in conjunction with natural light with artificial light, raises opportunities that can visually give sprite to structure. As long as the necessity of modern architecture in the early twentieth century with its thin shells flat did not required, the building had a reasonable facade. (ibid, P. 70).



Fig. 9 : T,2 and 3: Standsted airport, foster, structural elements and interaction with other components of building

Curtains and visual barriers, outer structures of facade can be built depending on the depth and density in the plan and facade and its spatial relationship with body building, can be interpreted as flatness or curtains that can add to the aesthetic aspects of façade quality.

### Structural scale:

Dimensions of structural members have considerable influence on the character and beauty of the building. Structural dimensions can be change of subtle light level from one side to massive memorial monuments on the other hand. For example, steel elements where that tolerate only sustained tension,

members are absolutely in the small category.

### Integration within and outside the building:

Integration of external and internal structural elements, help to the unity and coherence of building and the character of building will be more impressive for an audience.

### Behaviour of forces :

The subordination of forces behavior cause to create and establish the attractive and elegant forms. Nervi also emphasizes that structural accuractance 2-3.: the structural component and interaction with other parts of the structure necessarily leads to beauty.

### Structure and light :

About structural role in relation to light the speech of Mies van is sufficient “it is structure that defines where light should enter the building. Pymun is a structure that provides the rhythm of light in the building. Where the structure is present, light is absent. Light can be between structural members (Ibid. 183). Structure Depending on its girth can both prevents entering light and facilitates it. In a building with which does not permit natural light enter to inside the structure connect with the light in one of four following items:

- As a light source: such as the time light passes through the roof truss to enter the space.
- To maximize light through minimizing the structure shodow – structure size “
- Modify and distribute light quality due to light reflection and scattering some cases, being influenced by our perception and observation of structure by light (ibid., P. 184).

### Structure and building character :

Any building is formed for certain purpose and function. In dealing with its audience has a particular character and spirit. This personality mostly depends on the events which occurred in it and the prestige that wants to demonstrate in front of the audience. Structure as a key factor in creating architecture plays a role in the character implementation. By selecting structure system and appropriate materials and accordance fit with the spirit and the desired performance, structure could play a role of building character during its statically role. Dramatic Performing role of structure in the architectural which are linked with the overall building character is a

combination of other structural roles in building. Third International token by Vladimir Tatlyn. Structure comment: development process of history repeats itself, but each repetition is in above and beyond the before step (Source: Qobadian, 2009, p.).

Since regarding to discussions in second part of second chapter, Character includes formal and social roles that have combined with each other. The role of

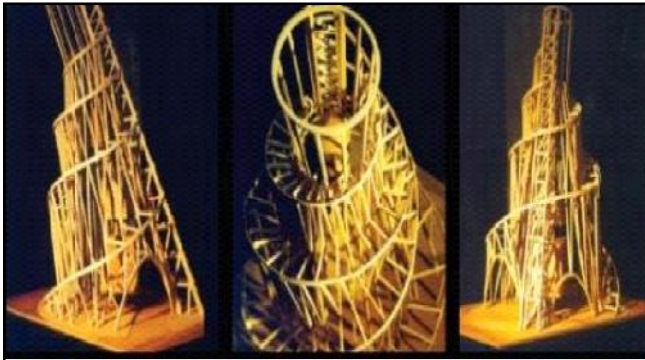


Fig. 10 : T 5, Monument of the Third International, Vladimir Tatlyn effect. Structure message : The process of historical development, he repeats his history, but each iteration in step is above and beyond the stage before

facilities and social structures and structural components interact with other components should be in order to fulfill dramatic role to create a coherent and integrated character to itself. Fulfillment of Structural dramatic role raises the structure message. Playing structure Dramatic role also presents structure message. Because any character by characteristics seeks to transfer messages and concepts that demanding to demonstrate them. Monument building of Third International, which was designed by Russian structuralisms, fully ideological and its message, has been seen in the building structure clearly.

### Conclusion :

Structure specialization and its independence from architecture after industrial revolution in modern duration is a fact that has been expressed by architecture theorists repeatedly. Structure independence from architecture has created possibility to structure that creates a relationship of “the excesses, wastage or even harmony and unity with architecture. In this article has been tried to define the role of relationship in terms of concept.

The concept of role has clear definitions in the fields of sociology, social psychology, graphic, visual and

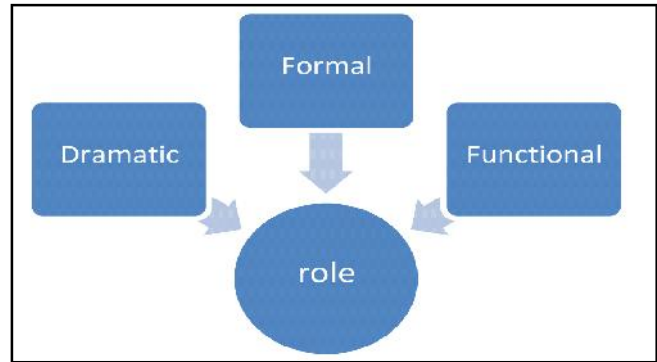


Fig. 11 : Types of roles

dramatic arts . Factitious role driven from the role in the field of graphic arts in architecture have been divided two parts: factitious -decoration and structural roles. Factitious -structural roles depend on the powers geometry and structure basic forces and derived from structural components form and relations between them. Structural factitious role actually are maps that structure creates in the building.

The concept of role in the field of sociology and social psychology is arisen according to the imprinting hierarchy. By employing the concept of role and taking literature in this area, it can be said that various elements in architecture are as members of a social group and officials who derived from the base.

Any authority has duties and receives salary to it. structure as an official in building has obligations and receives salary.by considering acquired official that have ability to spread, structural elements can be spread their acquired official with gaining imprinting competence and also taking more responsibilities plays higher salaries and more prominent roles in building.

Imprinting competence occurs when different officials have been interacting and traded with each other. Structural components and other elements of building also interact with each other when they have more and widespread roles and are converted to the architectural elements in the building. It can be seen that the "role" as a word and as a concept at a higher level, has ability to analyze how received more acquired positions for different elements of the building, including structural elements.Terms such as position, interaction, competence and so are clear and practical terms for students to try more creatively in order to increase acquired roles of structural elements in building. The author’s conclusion is that instead of the “structure

relationship" term that may be emphasized on similarities and separation between structure and architecture always should speak about various roles of structure in architecture, and this important should be minded to students in training duration. Whether, architects or structural engineers didn't neglect theirs unbroken and existential relation at the design, calculating and building duration.

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