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Compliance of Educational Content of Architecture Engineering in Iran: Iranian-Islamic Architecture Components

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Abstract
Identity crisis in today's architecture has become the concern of the scholars due to its compliance with modernity, inattention to humans' differences and variety in conditions and contexts for creating architecture works as well as its emphasis on the constant preset patterns. In such circumstances, "Iranian-Islamic architecture pattern" has been introduced by several scholars as a solution for reviving the historical and religious identity to architecture and complying it with the related fields. In this regard, the identification of key factors influencing the components of this pattern can affect the definition of this issue. Therefore, this article tries to introduce the components of Islamic-Iranian architecture and determine the consistency of these components with educational content of architecture (particularly, at B.A level). This study has employed a qualitative approach, determined the components of Islamic-Iranian architecture and the consistency of the content of architecture with that components through the simulation research method. The findings show that in the current program of architectural education, the share of training the Islamic principles, personal and social values and contexts is very low compared to the share of training the architecture tools. besides, architectural education has mostly emphasized teaching the architectural tools rather than the fundamentals, which prevents the architecture students to form a holistic insight into the issue.

Key words: *Architectural education, Iranian-Islamic architecture, Knowledge fields, Values and beliefs, Context*

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Introduction

Iran has always been recognized as a country with a rich cultural history in different periods and rich works of art and architecture as the signs of its civilization. It is now expected that due to this considerable cultural background, this trend continues as a strong interlocked chain with prosperous works and manifestations in this country. This is while the identity crisis in the quality of the architecture of Iran-as one of the most objective and accessible art manifestations- has turned to a considerable issue for the scholars. To have a comprehensive overview of the conditions affecting the problem of identity crisis in architecture in the current situation, these conditions must be viewed as an interconnected context-related system. In a general categorization, the factors can be grouped in four categories and each of which is responsible for the emergence of the other. The first category of these factors includes the managers and policy makers in this field that guide the construction and production of the desired architecture and supervise the implementation of programs through editing programs, decisions taken and policies. The second group of factors includes the criteria and guidelines for construction which act as frameworks that shape and structure the works. Since all the architectural works should be designed and implemented in this framework, this factor plays a decisive role. The users and employers form the other group since an architectural work should reflect on their wants, desires, values beliefs. Therefore, identifying them and building a good rapport with them are the indispensable requirements of the production of the architectural monuments while each employer has a set of conditions and economic, cultural, etc. coordinates that affect the formation of an architectural pattern. The last and perhaps the most influential group of these factors includes the designers and architects who give a concrete embodiment to the architectural works in these conditions. The architects who design in a social context use various patterns and present their works at different levels of quality which is a very complex issue subjected to various conditions, including their training system and pattern. The purpose of this paper is to examine the compliance of the educational content of architecture and the effective components in the implementation of Islamic-Iranian architecture. The focus of this article is on the educational content of architecture and analyzes the educational content of architecture at B.A. level while examining the structure and purpose of different levels in architecture.

Methodology and Data Collection

This study is qualitative and applies the simulation approach among the proposed research methods by Chapin to determine the consistency of the educational content of architecture with the components Iranian-Islamic architecture. The present study uses various tools including reviews and documents, interviews with people bearing different views, making notes of the necessary resources, tables and related patterns.

Theoretical Approach

Space Identity and its Reflection in the Creation of Architectural Works and Professional Training Process

Many definitions have been provided for the concept of identity and each of which introduces it from a particular perspective. For example, Rappaport defines identity as the ability to discriminate an element from another element. He considers identity as a characteristic of the environment that does not change in different situations. Walter Boor defines identity as the significant and insignificant differences that help to recognize a place and environment and create a sense of attachment and sensitivity to it. Particularity of each environment is its diversity and charm in the placement of the spaces and availability of them. Wolf believes that the identity of a place is the result of the interaction of three factors including its physical appearance, visible operations and activities and its concepts in the environment (Qotbi,

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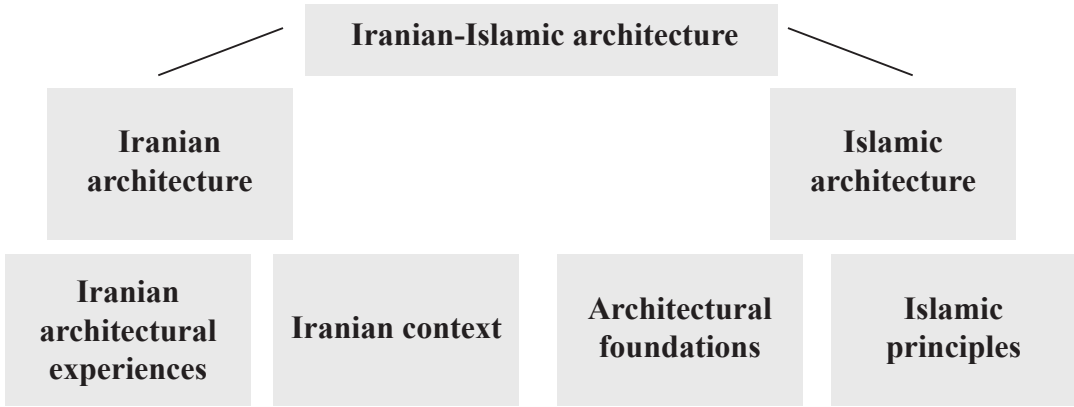


Figure 1. Structural components of Iranian-Islamic architecture- Source: authors

1387; 81).

In general, if identity is defined through the features that set the coordinates of time, location and value of someone or something, it is necessary to recognize its contextual features including climatic, physical, social, historical, economic, etc. characteristics as well as the concepts governing the spatial and temporal situations including values, beliefs, experiences, etc. to create spaces with identities. As a result, these concepts and topics should be reflected on the educational content of architecture. In this regard, the following parts introduce different levels affecting the continuity of the spatial identity and investigates the compliance of the issues with the contents in architectural education. In such circumstances, "Iranian-Islamic architecture pattern" has been introduced by several scholars as a solution for reviving the historical and religious identity to architecture and complying it with the related contexts. In this regard, the identification of key factors influencing the components of this pattern can affect the definition of this issue.

Iranian-Islamic Architectural Components

To explain the concept of "Iranian-Islamic architecture", the concepts of "Islamic architecture" and "Persian architecture" should be covered first. By examining the structure of the roots of Islamic architecture, the architectural principles and the Islamic provisions are found. Among the Iranian architecture components, in addition to the architectural principles, the Iranian architectural experiences belonging to the pre- and post-Islamic periods and its temporal, spatial and local situations can be pointed out. In total, the realization of elements of Iranian architecture - Islamic form. It should be noted that in this article the "contexts" means the whole contexts including the architects and architectural works such as cultural, historical, physical, climatic and social contexts. Furthermore, the overall Islamic principles, laws and values, as well as the people's beliefs, memories, etc. in both the individual and collective dimension are generally called "beliefs". Figure 1 outlines the topics discussed.

In the following, the educational content of architecture is analyzed in relation to the concepts mentioned and the authors' recommendations to amend the content of the architectural content are presented with the aim of promoting the identity in architecture and realize Iranian-Islamic architecture.

The Place of Architecture in the Areas of Science, Skills and Arts

Some scholars consider architecture a branch of art due to its innovative nature and classify it as the "architecture art". Another group of scholars consider it a subset of engineering science and classify it as the "architecture engineering" due to its relevance to the construction skills and techniques. The others also consider it a science due to its interdisciplinary and transdisciplinary nature and classify it as

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the "architecture science" and interpret it as the shallow ocean of science. In the meantime, there are some researchers and scholars who consider it as a "consolidated entity". For example, Antoniadis believes that architecture is a multi-disciplinary and comprehensive field and quotes from Alvar Aalto that "Architecture is virtually a combination of phenomena that enfolds all spheres of human activity". In his view, architecture is an art, profession, and state of mind. Therefore, a creative architect has imagination and creativity in many ways, and some of which are quite artistic and thoughtful while the others are practical (skills, structures, materials, equipment) and professional (on-time work delivery, ethics, business). Architecture art itself is at the service of humanity and even in its most spiritual state, it is a profitable art that cannot ignore pragmatism and be one-sided and dogmatic. The prevailing creativity- and imagination-related theories are mostly scientific or artistic and usually focus on one aspect, work at a similar level and finally confirm the "divine inspiration" and "individuality" or "pervasive teamwork" as well as smart verified attitude and work (Antoniadis, 1382: 50).

According to the point of view of authors of this article, architecture has a multidimensional nature. Generally, architecture is a combination of science, skills and art and the architects benefit from all these areas inevitably. Hence, the educational content of this field should have compliance with the materials in this respect. As mentioned earlier, the artistic aspect of architectural education is based on creativity. On the other hand, architectural education requires teaching techniques and skills including construction skills, drawing skills, software and patterning skills, etc. which should be acquired in the process of training. On the other hand, in the process of architectural education, there is a need for general and in some cases careful introduction of the areas related to this field due to its interdisciplinary nature. Therefore, an exclusive emphasis on each of these areas can lead to one-dimensional understanding of this field and the removal of any of these areas can make education flawed. For example, by eliminating or scaling down the scope of the artistic aspect, architectural education would be affected by the process of educating the architects who lack the artistic area. Similarly, by ignoring the role of skills in education and by exclusive emphasis on the scientific and artistic instructions, the education would be affected by the process of educating the architecture specialists and critics who have problems in delivering and implementing their plans. Finally, by neglecting the scientific aspect, the education would be affected by the process of educating designers who lack adequate knowledge of the cognitive infrastructures or who have regularly changed due to a lack of strong defense capability. We will meet our expectations if and only if we make an appropriate stable balance in training all the areas (Figure 2).

The Relationship between Beliefs, Different Scientific Fields and Design Areas in the Process of Creating Architectural Works

Modern architecture made most of the architects to consider architecture as a single issue regardless of its discriminative aspects. A style of architecture that is mainly based on functional needs regardless of the context of the origination and execution of the building has been trying to prescribe a unified architectural pattern for the world. Ignorance of the spatial and temporal differences and peculiarities in this pattern is so much that decorations are known as a crime there. After the architects faced the vacuum caused by the lack of attention to the cultural and traditional characteristics, as well as different users and contexts for the creation of architectural monuments, several attempts were made to eliminate the existing shortcomings, including either the formal elements and the identity and historical symbols appended to the modern volumes or the other methods that have tried to embody the

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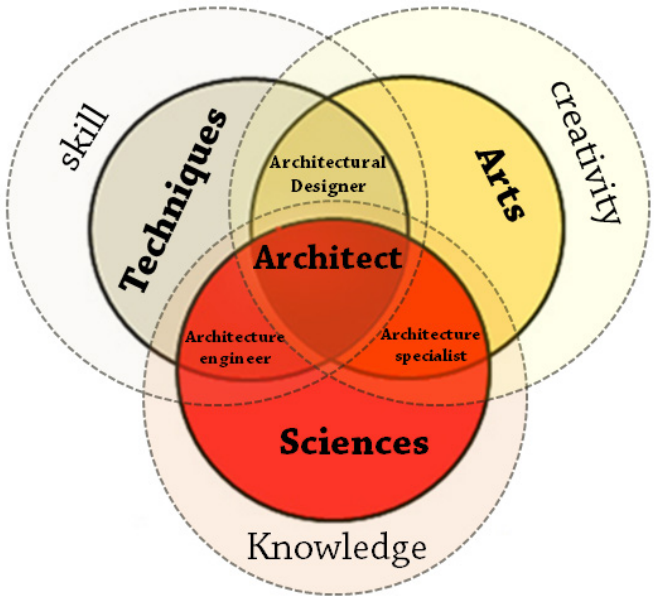


Figure 2. The place of architecture in the areas of science, skills and arts in architecture training process- Source: authors

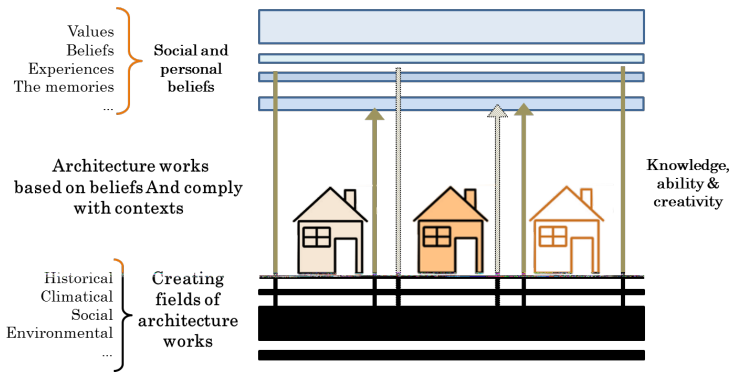


Figure 3. The relationship between beliefs and contexts in the process of creating architectural works- Source: authors

old traditions and concepts in the architecture to reestablish its lost relationship with the tradition. However, these efforts have been successful only in a few cases. Hence, in this article, the authors attemptry to introduce their views which help the process of creating the works of architecture. From this perspective, architecture cannot work without considering the users' personal and social differences and fields of architectural monuments. Differences in the users are in terms of their needs and desires, as well as values, beliefs, memories, etc. in the personal and social dimensions. However, these common principles can also exist in the architect. Furthermore, the cultural, historical, physical, climatic, social and architectural backgrounds of the architectural work must also be recognized fully and accurately and plans in accordance with the contexts should be set, introduced and implemented. In general, it can be said that an architectural work is embodied and realized if the semantic roots of the metaphysical concepts and beliefs pass the filters mentioned in the fields of science, skills and arts (through creativity tools, skills and knowledge required in the architectural profession) and being in the determinant "contexts".

In other words, what is known as "beliefs" should be placed on the enfolding "contexts" and lead to the creation of architectural works.

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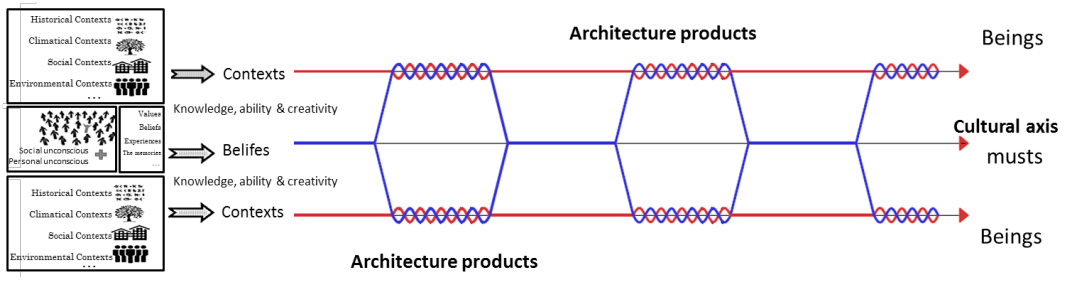


Figure 4. The conceptual model of showing feedback on the areas of knowledge, belives and contexts in creating architectural works- Source: authors

In this pattern, the "beliefs" are located in the center of gravity while the "contexts" are located on the shell; i.e., the "contexts" are the foundations for the existence of the "beliefs" (Figure 3).

However, if we look at the designing process as a dynamic system, the role of "feedback" cannot be ignored. Considering the role of feedback and accepting its significant impact on the system, we can find a full-fledged progressive process. According to this model, in the process of creating an architectural work, there should be a repeated movement from the depth to the surface and vice versa to finally have an architectural work with identity-giving genes appropriate to the context and users' needs (Figure 4).

Classifying levels of Knowledges

From another perspective, Classifying levels of Knowledges would be found that all kinds and levels of knowledge do not have the same value. Therefore, many researchers have tried to classify the different levels of knowledge at the data, information, knowledge and wisdom levels and present definitions for each of these levels. For example, Gordon who defined data, information and knowledge from the perspective of cognitive science and philosophy: Based on cognitive science, data includes non-structured signs, numbers and symbols, information is the structured and contextualized data, and finally knowledge is created through the conceptual interpretation of and abstract approach toward the information (Gordon, 2003) .

Some authors believe that the users' perspective towards data, information and knowledge can distinguish them and their conversion and transfer is an irreversible phenomenon. Davarpanah is one of these authors whose knowledge is an inner entity created in the mind of human being's which is based on experience, skills and personal capabilities and is made through the interpretation of information and ideas on it. According to him, the distinguishing characteristics of information from data are its meaningful, value and purposefulness (Davarpanah, 1382: 73-80). To complete the discussion, the diagram presented by Ballinger about data, information, knowledge, and wisdom is presented (Figure 5) which shows the hierarchical relationships of the four elements.

In his perspective, neither a set of data can be called information; nor a set of information can be called knowledge,; not a set of knowledge can be called wisdom since they are not algebraic sets and their co-integration result is more than their sum and that is exactly what has caused each of the information, knowledge and wisdom to have a unique and certain function. Data is by itself meaningless and lack reference to time and place. Lack of context denies the link between data and something else. Data links with other data in a specific context makes it meaningful – ; however, it gives an amalgam of conjecture and presupposition-. Understanding the link between the data or between the data and information creates new data. At the next stage, the patterns emerge as complements; they contain their own context which is both repeatable and

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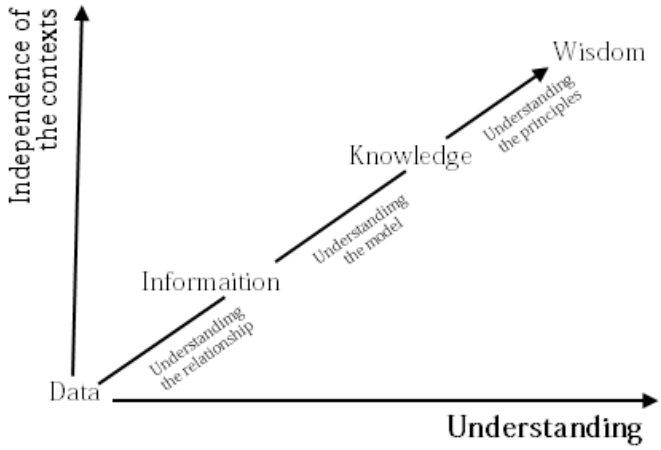
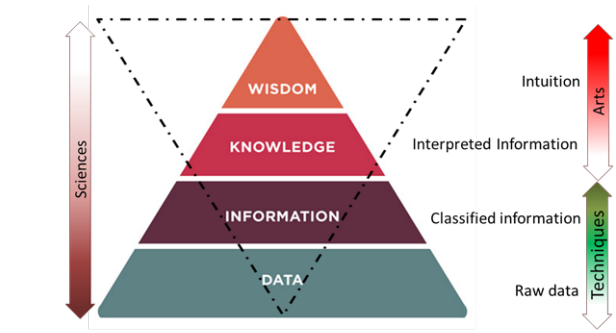


Figure 5. Relations between data, information, knowledge and wisdom in terms of perception and context- Source: Ballinger, 2004



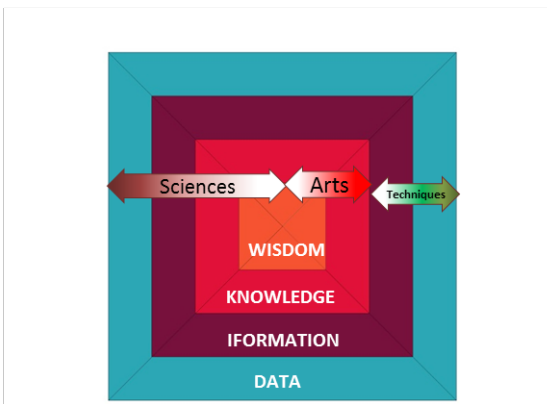
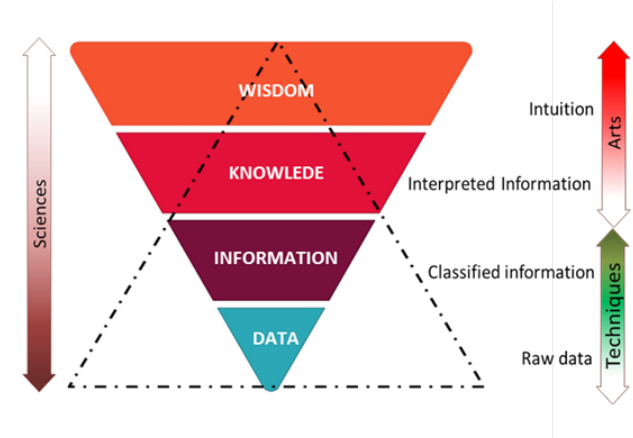


Figure 6. The conceptual pattern of the shares of various levels of knowledge in the modern pattern of architectural education in Iran- Source: authors

predictable. These diagrams have the potential capacity to represent knowledge: knowledge is created when an individual can understand the related patterns and concepts. These patterns are less dependent to context rather than the information and have integrity and relative autonomy. Understanding the principles governing the marker patterns of knowledge eventually leads to wisdom. Lack of wisdom dependence on the context and its absolute independence is clear; the principles which are eternal and indubitable. Wisdom answers why, knowledge answers how and information answers when, where and what. According to Figure 1, the four elements form a continuum which will have a rising trend affected by increasing the individual's perception. It seems that moving from data to wisdom, the ability

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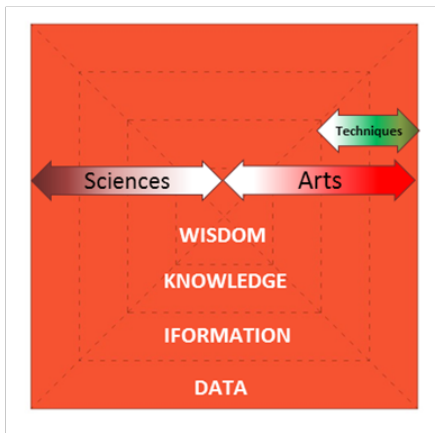


Figure 7. The conceptual pattern of the shares of various levels of knowledge in the traditional pattern of architectural education in Iran- Source: author

to combine the concepts equivalent to perception and the ability to distinguish them even in the lack of dependence to the context and yet in the complexity and multiplicity of the concepts would take an upward trend (Ballinger, 2004; 1-5). Yamin Firuz also defined wisdom as the deployment of knowledge together with developments, experiences and expertise and teamwork to achieve the objectives (Yamin Firuz, 1382: 99). In the following, the modern and traditional architectural education patterns in Iran are introduced to rethink how the various levels of knowledge are ranked in the process of architectural education, and the compliance of the patterns with the value system governing the different levels of knowledge are examined.

Compliance of Traditional and Modern Educational model in Architecture in Iran

According to the documents and studies conducted by the researchers in the field of traditional architecture in Iran and based on the pattern of architectural education in this period and through comparative analysis of the results with the modern pattern of architectural education in Iran, major differences in the traditional and modern models of architectural education have been found. These model are going to be briefly overviewed in this paper for conclusions.

Traditional Patterns of Architectural Education in Iran

The traditional architectural education methods in Iran were mainly based on teacher-student practical training called in-work training technique. In this way, the student was step by step acquainted with the fundamentals of architecture which was often impliment under

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the supervision of the guild system and generally had a hereditary aspect. However, the training was not restricted only to the practical training but the students in the class who tended to gain architectural skills and knowledge and achieved higher social status benefited from other trainings in addition to the professional learning in the workplace. In fact, the position of architects in the West and East will help us to notify that during the history, the architects and craftsmen benefited from complementary theoretical training besides practical training, which helped them to enjoy a higher social status and be distinguished from those who merely benefited the practical training and those who formed the masons and craftsmen guilds (Qodusifar et al., 1391; 40). As noted earlier, in the traditional occupational classification system, those who have not enjoyed the special protagonist and theoretical education, in this field, were not known as architects. Now, we will explain more about the theoretical content of the traditional pattern of architectural education.

The results of studies conducted in this area show that the impact of traditional and mystical worldview and the importance of intuitive understanding and the association of the trade system with Sufi sects and generosity caused the architects to involve in the above-mentioned trainings as well as trainings aimed at fostering "a mystical ideology", "ethics" and "intellectual foundation of the constituent artwork" in the artists' mind (ibid.). Gradually and with practice, these concepts were so abundant in the institutional architecture students' minds that the manifestation of thought in architecture was transformed to an unconscious, natural and virtual matter; the student obtained skills and techniques as well as philosophical and ideological visions –generally from the society and specifically from the professor- in the process of training, and manifested it in his works, that is, the student gained both wisdom and skill at the same time by observing the professor (Hojat, 1393).

Furthermore, architectural education was done under the rules of the professional guild system in this field. In the architectural education guild system, professional education and workshop training was mostly done besides ideological and intellectual foundations training in the form of "generosity". "Generosity" should be considered an "ethic", "religious" and "mystical" profession, since it was based on the edification and education of moral traits and virtues (Qodusifar et al., 1391; 42) so that in the traditional device not only the professional ability of the students of architecture was tested but also their competence and commitment to ethical beliefs and social norms – alongside the technical and professional capacity- were examined (Hojat, 1393; 219).

In general, in the traditional pattern, nature is considered as the source of traditional architecture and the source of tradition. Plato considers nature as the result of the human soul's presence in another world (world); Kant considers it as a combination of innate and adaptive elements and Islamic scholars consider it as the human's hidden talent that manifests after birth (Hojat, 1393). Theoretical training content includes ideological, moral, religious and mystical trainings as well as the available resources, and contents of the book treatise on architecture which show the practical importance of training topics such as geometry, science, navigation, science, drawing, science, water engineering, travel, education, music instruments and science as the applied science besides the practical trainings in the process of architectural education .

Modern Pattern of Architectural Education in Iran

In today's postmodern world, significant progress has been seen in technology, including in the information exchange area where man is faced with a host of information and data. In these circumstances, it is enough to search on a topic to see a world of information supplied to us. This additional information prevents human's thinking and reflection on the concepts

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and phenomena and bans the way of making a deep understanding of the issues. This is because the great volume of information blocks the man's thinking (with the exception of thinkers) from the first and causes him to accept the accuracy of entries and do not mind struggling and thinking regarding that issue. This is while in the past, due to resource constraints, the humans had to reflect on the content available and think and reason to obtain an understanding of the issue, internalize the knowledge and could use their natural reserves to create works in their professional fields. The modern system of architectural education in Iran is facing with this problem -Engaging teachers and students with the issue of increasing data-. Despite the efforts made and the targets set in this area, they are less likely to achieve the proper place of an architect. If the above-mentioned cases are compared to the classified levels of knowledge, in the modern pattern of architectural education, due to the abundance of information and data in the current situation, the architecture professors are inevitable to transfer the subjects generally to provide the students with a wide range of data and information available in a restricted time. Thus, in this educational pattern, inevitably, the major emphasis in the modern education pattern is on data and information transfer which is less taken in by the students due to the high volume of the contents and lack of a rigorous links between the students' new doctrine and prior learnings, and therefore occur less frequently in their architectural manifestations. Therefore, the works of the architects who are trained in this way are in many cases going toward emptiness and mimicking the new patterns and the outcome of which will have identity problems in the modern pattern of architectural education in Iran. The causes of this lack of identity can be the large volumes of data and information available as well as the lack of a common ideological foundation on the one hand, and the restrictions on the structure and training time on the other hand (Figure 6). This is while in the traditional pattern of architectural education, the emphasis is on internalizing the higher levels of knowledge in the students to stabilize the higher concepts of ideological and legal issues in the architecture student (Figure 7). Rousseau is one of the scholars considering the ethical and social norms in the field of architectural educator who says:

"Education should be a joyful flow of normal and natural growth; learning from the nature and experience and developing a personal talent to live freely and delightfully. Education should include <the art of teaching people>, a conscious guidance of the growing body towards health, leading the moral characteristics to morality, directing the thought towards wisdom and pushing the feelings towards self-control, and social norms and happiness."

Reviewing of Architectural Education Curriculum in Iran

Architectural education curriculum in Iran is mainly defined in the form of academic periods at the B.A., M.A. and PhD levels; however, in some Universities, this field has B.A. and A.S. levels. Since the foundation of architectural education is formed in B.A. level and additional trainings are only presented based on the course passed and only for people who want to complete their education with specific purposes. Moreover, as approved by the Council of Ministers of the Islamic Republic of Iran , in Iran, those with a B.A. degree in architectural engineering would be qualified after getting approval and acceptance in tests determined in the licensing process of professional jobs to design, monitor and enact them and work as a professional in the employment environment. Thus, in this study, considering the impact of this level on the quality of the graduated architects' work and in line with the issue raised at the beginning of the article trying to resolve the identity crisis in man-made physical environment in contemporary cities, it is attempted to study and analyze the content of the B.A. courses in architecture.

B.A. Level in Architectural Engineering

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According to the definitions provided by the Ministry of Culture and Higher Education Council, Architectural Engineering B.A. is a professional level that fosters creative talent, knowledge transfers, and basic skills of architectural profession and makes general efficiency in this field. In line with this aim, it is tried to give the maximum value to the architectural design projects and the related theoretical and technical courses in planning this course (the Supreme Council for Planning, 1377).

Graduates of this course can work in the following areas based on the abilities they have obtained in the educational process:

- Designing (single building or a small complex); from the initial designs to the implementation phases of work and the design of components and elements constituting the building. This will actually form the designers' central task.
- Cooperating with the architectural engineering consultancies in the development of architectural designs and mapping stages one and two.
- Monitoring the health of construction operations.
- Participating in managing architectural projects.
- Participating in the technical staff of municipalities and similar organizations.
- Teaching in S.A. courses as well as technical high schools (ibid.).

An Introduction to Architectural Engineering B.A. Curriculum

The Ministry of Culture and Higher Education Planning Council Act of 24/8 / 1377 -as the current program for architectural engineering B.A.- categorized the courses presented on this level into four categories of general, basic, main, special and elective courses (ibid) . Among the courses presented, general courses are common to all disciplines, while the rest of the courses are specific to architecture or related fields which are defined in this article under the general title of "special courses". As the content of the program indicates, the centrality of this program is on designing lessons and based on the studies on the approved program, the authors of this study divided the pattern presented for special courses on this level to four prerequisite, preparation, designing as well as comprehensive project courses and each of which is described separately in terms of courses, lessons in each course, and their goals and programs (see Table 1).

Table 1. Architectural engineering B.A. curriculum- Source: authors, based on Ministry of Culture and Higher Education Planning Council Act of 24/08/1377

In addition to the classification provided in Table 1, in this paper we intend to examine the content of other theoretical courses offered in this program. These courses include sets of principles, fundamentals, rules, criteria and views regarding technical and cultural fields related to architecture, and effective on the quality of student' decision making (ibid). These categories along with the "general courses" constitute the educational topics on this level. The general courses include foreign language, analytical history of Islam, physical education 1 and 2, subjective interpretation of Nahj al-Balagha, the Holy Quran, Islamic thought 1 and 2, Imam Khomeini's testimonies, and Islamic revolution of Iran.

Quantitative Analysis of Architectural Engineering B.A. Curriculum in Proportion to the Beliefs, Areas of Knowledge, Skills and Arts and Influencing Areas in the Creation of Architectural Monuments

In the present study, the content of the B.A. curriculum of architectural engineering is analyzed based on the Council's 1377 program. In this regard, the headlines of all the special courses related to architecture have been studied accurately according to the levels provided in this article for lessons influence the creation of architectural monuments. These levels include the "beliefs" constituted of the principles of Islamic laws, values, beliefs, experiences, memories, etc. at individual and social

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scale, "science, skills and arts" considered as the tools and methods for creating architectural monuments and "contexts" or information explaining the cultural, social, economic, physical and climatic conditions of the program. At the end, each of the levels of beliefs, knowledge and competence and contexts in the headlines of all the special courses are weighted according to the Ministry of Culture and Higher Education Planning Council Act of 24.8.1377 and the quantitative aspect was estimated separately for the headings and programs of each in the 39 special courses. The resultant of the analysis made by the mentioned method shows that a total of 7 percent of the content of special courses presented at B.A. level of architecture engineering is allocated to "beliefs"; about 77 percent is allocated to "different fields of science" including science, skills and arts and about 16 percent deals with involving fields. The results of these studies are summarized in Table 2.

To study the different levels of knowledge in the process of architectural education, the results derived from the table above are presented in Chart 1. In this chart, the balance between the different levels of values, knowledge and context can be observed and the gaps and deficiencies in this regard can be identified and compensated for.

However, this question remains unanswered whether the need to balance the contents to the level of beliefs is addressed despite the general courses presented. In response to this question, it can be said that the content of these courses do not have a clear relationship with architectural education curriculum and the students are not able to find a relationship between them and their field. Additionally, although there is a lack of a clear reason for taking these lessons in the learning process , there is a requirement to deal with these courses at B.A. level.

Discussion and Conclusion

Iranian-Islamic architecture pattern has been introduced by several scholars as a solution for reviving the historical and religious identity to architecture and complying it with the related contexts. In this regard, the identification of key factors influencing the components of this pattern can affect the definition of this issue. Therefore, this article has tried to introduce the components of Islamic-Iranian architecture and determines the consistency of these components with educational content of architecture (particularly, at B.A level). In this regard, after providing a definition for identity and its dimensions, the concept of identity was explored from the authors' perspective, that is, the set of features determining the coordinates of time, place and value of a person or a thing. Then, the Iranian-Islamic architectural components were introduced and the relationship and status of these concepts with each other as well as with personal and social values were explained to help the creation of architectural works with identity. Following that, the role of architecture among the different fields of science, skills and arts was specified and the tools to achieve them were defined and categorized into different levels of value. A conceptual pattern was presented then to comply the modern and traditional architectural patterns with different levels of knowledge of the contexts and beliefs. Thereafter, the emphasis of the traditional pattern of architectural education in Iran on training higher levels of knowledge or the sustainable principles and the emphasis of the modern pattern on the lower levels or the data and information were introduced.

In the following, the educational content of architecture engineering B.A. curriculum was analyzed based on the Ministry of Culture and Higher Education Planning Council Act of 24.8.1377 and the introduced analyses and categories. The educational process at this level was explained after that, the lesson contents were weighted based on their relation to the levels of "beliefs", "science, skills and arts," and "contexts" after a thorough study

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Educational steps	Course title	Lessons	Goals	Curriculum program
First step	Prerequisite course	Workshop lessons of environment comprehension and expression, applied geometry, materials and construction	Compensating for the lack of preparation of the accepted volunteers due to the failure of the artistic and technical trainings before university and the mechanisms of national selection Providing an overview of the field to the newcomers	Boosting imagination, creativity, spatial visualization and expressive skills and self-confidence through the provision of appropriate training and exercises.
Second step	Preparation course	Architectural expression (1) and (2), perspective geometry and preliminary design workshops (1) and (2)	Guiding the students towards architectural design	Providing training to familiarize the students with physical and conceptual architectural factors and helping them to understand and experience the effects of these factors on the design process.
Third step	Designing course	Architectural design (1)	Achieving the correct combination in designing with brief attention to the factors affecting the project	Designing a system with simple functions
		Architectural design (2)	Making the students attentive to the performance and proximity factors, details of interior spaces, compliance with the local conditions of construction economy, environment economy as well as cultural and social issues in designing process	Designing a residential complex for a nuclear family with particular conditions more complex than a typical family in terms of family size or internal relations
		Architectural design (3)	The introduction of socio-cultural factors that influence the design of social and cultural factors in head and focuses on interior details	Designing social and cultural spaces by considering the artistic and expressive aspects of architecture as well as socio-cultural aspects
		Architectural design (4)	The students' attention to the functional conditions and limitations, accuracy and quality of the architectural combination, simultaneous and correct accountability to the functions, structures, and facilities and finally practicing comprehensiveness in a special architectural design	Designing public spaces with complex and diverse functions
		Architectural design (5)	Considering the complexity of neighborhood relations, facilities and equipment, urban planning principles governing the construction, construction techniques, and social aspects of architecture in a comprehensible meaning	Designing a residential complex with about 40 families

Table 2. An estimation of the shares of various levels of beliefs, knowledge, and context in architectural engineering B.A. curriculum-
Source: authors, based on Ministry of Culture and Higher Education Planning Council Act of 24/08/1377

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Fourth step	Comprehensive project course	Final design	The students encounter with the required design cues which are the content of the other course lessons An increased need to learn the lessons and present them with a view of practical exercises and case projects to use the lesson topics in designing	Summarizing the previous projects findings and the theoretical lessons A comprehensive project in which the plans of actions are prepared through solving the architectural problems, structural and environmental settings, and coordination of these factors together.

Table 2. An estimation of the shares of various levels of beliefs, knowledge, and context in architectural engineering B.A. curriculum- Source: authors, based on Ministry of Culture and Higher Education Planning Council Act of 24/08/1377

of the headings of the courses in this field. The quantitative aspect of each of these levels was estimated separately for the headings and programs of each are 39 special courses. The resultant of the analysis made by the mentioned method shows that a total of 7% of the content of special courses presented at B.A. level of architecture engineering is allocated to "beliefs"; about 77 percent is allocated to "different fields of science" including science, skills and arts and about 16 percent deals with involving "fields". The content of these courses do not have a clear relationship with architectural education curriculum and the students are not able to find a relationship between them and their field. According to the results, the current content architecture further adds to the students' knowledge and skills and target their minds while giving them less opportunities to identify the values, beliefs, memories and other ideological manifestations. In a nutshell, the students are deprived from the opportunity of self-identification which will be far more stable than the former.

Therefore, there is a need to review and revise the content of the approved pattern of architectural education which further adds to the students' knowledge and skills and targets their minds while giving them less opportunities to identify the values, beliefs, memories and other ideological manifestations of self-identification which will be far more stable than the former. Furthermore, the importance of the involving fields which play a determinant role in many cases in the process of creating architectural monuments requires for a greater share of time and content in the curriculum to stabilize the learned material, and to familiarize the students to deal with the future situations as a professional architect. Thereby, most of the produced designs will be affected by their identity and the coordinates of the existing contexts. In the method proposed in this article to solve the identity crisis, the "beliefs" are located in the center of gravity while the "contexts" are located on the shell. In this educational pattern, the norms and beliefs are internalized and the architectural products are created based on these concepts and existing contexts. According to this pattern, in the process of creating an architectural work, there should be a repeated movement from the depth to the surface and vice versa for each practice. Finally educational heading should have an architectural work sourcing from values and beliefs with involving fields appropriate to the context.

Resources

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Raw	Title	The contribution of beliefs	The contribution of science, technology and arts	The contribution of Contexts
40	The relative percentage afford all courses	7	77	16
39	Scope	0	80	20
38	Technical design	0	90	10
37	Introduction to old buildings conservation	0	80	20
36	Architectural design (5)	10	50	40
35	Architectural design (4)	0	70	30
34	analysis of urban spaces	0	100	0
33	Understanding the basics of physical planning	0	75	25
32	Architectural design (3)	40	40	20
31	Architectural design (2)	20	60	20
30	Architectural design (1)	10	60	30
29	Rural (2)	20	40	40
28	Rural (1)	20	20	60
27	Building (2)	0	100	0
26	Building (1)	0	100	0
25	Building materials	0	80	20
24	Management and organization of the workshop	0	70	30
23	Cost Estimation	0	80	20
22	Concretes Structural	0	100	0
21	Strength of Materials and Steel Structural	0	100	0
20	Stagnation	0	100	0
19	Mechanical installations	0	100	0
18	Electronic installations (light and sound)	0	100	0
17	Setting environmental conditions	0	80	20
16	Mapping	0	100	0
15	Familiar with Contemporary Architecture	0	80	20
14	Familiar with Islamic Architecture	30	50	20
13	Familiar with historical monuments	20	50	30
12	Familiar with architecture in the world	0	95	5
11	Theoretical basic of Architecture	20	60	20
10	Preliminary architectural design (2)	50	40	10
9	Preliminary architectural design (1)	0	90	10
8	Man, nature and architecture	40	50	10
7	Mathematics and Statistics	0	100	0
6	Landscapes Geometry and Benefits	0	100	0
5	Architectural expression (2)	0	100	0
4	Architectural expression (1)	0	70	30
3	Understanding and Expression	0	50	50
2	Materials and construction workshops	0	90	10
1	Applied Geometry	0	100	0

Chart 1. The shares of various levels of beliefs, knowledge, and context in architectural engineering B.A. curriculum- Source: authors, based on Ministry of Culture and Higher Education Planning Council Act of 24/08/1377

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