Value as a Criticism Strategy for Contemporary Architecture Products

Basim Hassan Hashim 1, Shaimaa M. Hamza 2

1 Assistant Professor Dr, Department of Architecture Engineering, University of Technology, Baghdad, Iraq. 90004@uotechnology.edu.iq, basim_hhm@yahoo.com
2 Lecturer, Department of Architecture Engineering, University of Mustansiriyah, Baghdad, Iraq. shaimaa.arch@uomustansiriyah.edu.iq, shaimaamh2002@gmail.com

Abstract. Value is one of the most important strategies for criticism and evaluation of architectural projects, by providing the criteria by which to select and evaluate architectural projects. Value concept of the projects varies according to the designer's estimate of the project, and their different types of value, aesthetic, expressive, functional, technological, and sustainable based on which the project is designed. Therefore, the research aims to know the importance of value, its types, and apply them to a set of international and local architectural projects, to demonstrate the type of value used in each project, because of the lack of clarity of knowledge about the concept of value as a strategy of criticism and evaluation of projects in architectural competitions. The hypothesis of the research is the reciprocity of the choice of aesthetic, expressive, functional, technological and sustainable values in the criticism and evaluation of architectural projects. The research found that value is important in the process of selecting and evaluating architectural products and practice, through cognitive components as a criterion for choice, emotional components as a criterion for assessment, and behavioral components as a criterion for practice. The research recommended the preparation of criticism and evaluation criteria that include aesthetic, expressive, functional, technological and sustainable value indicators for evaluating projects in all departments of architecture.

1. Introduction
Architectural criticism is an exercise (theory and practice) of the role of the architect in assessing and evaluating architectural products, the evaluation is carried out according to the scientific and practical architectural background, the experience gained and influenced by the old and modern architectural concepts. According to the concept of value, the architectural critic enables him to define the pre-criteria that enable him to evaluate the architectural products and choose the best product that achieves more value in terms of aesthetic, functional, technological, sustainability and others. Thus, this process develops the architectural output and improves the design level of the student and designer.

2. Concept of Value
Value is the existence of being desired, or the place of desire is possible, it is judged that the duty to achieve. On the subjective side, it is a characteristic of things that are highly valued or small, and to be desired by a person or group. On the objective side, it is the characteristics of things in that they are new valued with little or many [1].
Value engineering is a system that includes well-arranged techniques for identifying, diagnosing and treating problems. That each part of the design has a function, and that any part in the design doesn't function it does not belong to him [2].

There are three main directions for interpreting the concept of value [3]:

- Looking at values as a set of standards that judging things with good and ugly.
- Looking at values as preferences chosen by the individual?
- Looking at values as needs, motivations, interests, attitudes, and beliefs that link to the individual.

The value includes three prosses that are [4]:

- Selection process: the individual chooses a set of beliefs or perceptions about things and attitudes. And the value selection process must achieve both independence of choice, choice of alternatives, and the choice between alternatives after meditation and reflect on the results of each.
- Estimation process: This process involves pride in value, and declaration of value.
- A process that represents values and behavior under it and includes repetition and persistence.

Value fields of detail contain in the complex creation and its perception, they are [5]:

- Theoretical: looking for a suitable solution and concept, in industrial architecture and conversion it means an examination of direct architectonic value in the relationship: a construction – detail, technology – detail, from different views – origin, material, architect.
- Practical: (it represents a view at a solution, at neatness and suitability of detail solution, availability),
- Aesthetical: (it reflects form and harmony, it represents originality, material and shape difficulty), (Figure 1).

![Figure 1. Defining the value field](image)

At work with value fields and searching values, we must necessarily focus on their wide frame and interdisciplinarity. A detail in architecture has got a specific mission in understanding value fields. It is an imaginary “micro world” of architecture with focus on delicateness of presentation of value in view of technique (constructional – technical framework), art (aesthetical - artistic framework – perceptual and emotional side) and technologies (technological framework – technical artefact) [6].

2.1 Type of Value

The most important types of value are:

A. Aesthetic values: Aesthetic values are essentially associated with the recipient and the context, since the characteristics of the building do not reveal a piece of the arch as much as the position of architecture, which depends mainly on the cultural context, by giving it aesthetic value or not. The aesthetic aspects are subjective or subjective decisions, independent of other decisions, because the aesthetic aspect is a relative measure that depends on the extent to which the person wants to reach it to achieve his ambition and satisfy his desires. The value study contributes more objectivity to aesthetics decisions. The judgment is usually based on the sensory or mental assessment or their effect together. The aesthetic values are divided into [7]:

---

2
- Sensory aesthetics: They are created and generated by the pleasure of the senses, and are present in clothing, smells, sounds and different landscape.
- Formal aesthetics: deals with the pleasure generated by the structural building of the artwork.
- Symbolic aesthetics: perceptions and visions are raised and produced by sensory value.

B. Expression values: The expression values are related to criticism and interpretation in terms of the semantic level of the text, so each text involves [8]:
- A set of functions with their physical limits expresses the structural level of the text.
- The text contains the meaning at different levels.
Thus, the concepts of text have two scenarios: one is static constant and the other is dynamic.

C. Functional values: Architecture functions vary to the following [9]:
- Utilitarian function: It meets the needs of the users.
- Construction function: The safety of the structural and its suitability for the use of the building.
- Environmental function: It cares about the environment and sustainability.
- Social function: It enhances social relations and meets the needs of the human being.
- Symbolism: A metaphor for meanings and symbols to reflect the shape of the building and the purpose of its construction.
- Ethical function: Respect architecture for ethics and idealism

D. Technology values: Technology is a tool for the expression and development of architectural values as one of the systems of human action that interfere with knowledge, social and religious systems [10]. Technology has a direct impact on values by virtue of its ability to create new opportunities [11]. Thus, technology is not neutral, but is valuable in itself. Values form technology, and technology has a great influence on the values that accrue in society [12].

2.2 Components of Value
The most important components of value are [13]:
A. Knowledge Component: It is a criterion of an emotional choice, that is, the selection of the value from different alternatives freely, so that the individual considers the consequences of the end of each alternative and takes responsibility for its selection in its entirety. This means that the unemotional choice is not a choice related to values, where the choice is the first level of the ladder grades leading to values. It consists of three consecutive steps: exploring possible alternatives, considering the consequences of each alternative and then choosing freely.
B. Emotional Component: It is a criterion of estimation, which is reflected in the attachment of value and pride and the feeling of happiness for its choice and the desire to make it public. The estimation is the second level in the ladder of grades leading to the values and consists of two consecutive steps: the feeling of happiness to choose value, and then declare to uphold the value in public.
C. Behavioral Component: It is a criterion of practice and work (action). It includes the actual practice of value or practice in a manner consistent with the selected value, and that practice is repeated in different situations whenever possible, the practice consists of two steps:
- Convert the value into practice.
- Building style value.

2.3 The Relationship of Value to Architectural Criticism
The relationship is followed by:
A. The Criticism Value: The search for an ideal criterion of value is like chasing the wind, because the subject of value is one of a controversial topic on which opinions differ from one person to another. The only necessary qualities that make the value a consistent criterion to be measured in that criterion, and there must be a criterion value for that criterion, and this value must be constant.
The critic must be an expert and possess the knowledge experience in the field of arts and aesthetic and philosophical theories. His or her judgment is based on thinking, induction, analysis
and interpretation, to make the recipient aware of the value of the artwork, which means that he/she is sometimes dependent on his/her subjective, and his/her objectivity of the elements of the artistic achievement at other times, to be effective and efficient criticism. Efficient criticism achieves proper communication, control and understanding, as well as focusing on the design process and identifying new creative aspects, so it emphasizes seriousness and quality at work. Effective criticism also points to the dynamic balance between subjectivity and objectivity, and good criticism is a motive for the development and consolidation of thought [14].

B. Criticism Decision: A criticism decision depends on the critic, who may be inexperienced or an expert in the field of criticism. The critic is based on four factors to explain and justify his/her critical position:
- The critic, his situation, his inclinations and his/her tendencies.
- Art work, the subject of criticism.
- The person who took the action.
- Temporal and spatial environment associated with the production of work.

The architectural Critic's function is analytical and evaluative and includes the issuance of judgments, thus it is comprehensive for all aspects of the effectiveness of criticism [15].

In the architectural competitions, the difference of opinion of the arbitrators leads to the fact that the competitions are considered public tenders, which don’t include the element of innovation or renewal. The arbitrators may consider the functional aspects of the projects, some consider the formation aspects, and others look at it from the inhabitant’s view considered the physical environment in which they live, without considering a new thinking.

2.4 The Relationship of Criticism, Value and Architectural Competitions

The criticism is mostly concerned with the credibility and transparency of judgment [16], this depends on the decisions of the jury, who rely on a set of criteria that represent the value, as they are changing in evaluating projects in architectural competitions.

Building design should be ‘aesthetically appealing,’ and should have specific ‘characteristics,’ and ‘artistic values’ that should be carefully considered and revitalized during the reconstruction. Planning should be carried out with respect to ‘aesthetic values.’ Quality in architecture and urban design becomes a matter of judgment that can be best experienced and appreciated in a specific context [17].

We reconsider what is good quality according to how our values and needs change. Good quality in our designed environment requires a constant critique of what we need, what will be prioritized and what solutions are best suited to meet these needs? A building or an object is designed to be used. But it is not just a matter of solving practical problems. In good architecture and design, there is always a basic idea of an aesthetic nature that must clarify the object’s properties. In architecture and design, there is a combination of different requirements and needs. to get a well-functioning wholeness: function, usefulness, housekeeping, with natural resources, good design, appropriate technology, and cost efficiency.

The jury’s evaluation of the architectural projects may be a meeting between rationality and architectural critique. This is a consequence of the jury’s formation of members representing differing interests, knowledge and professional backgrounds. Appointing a winner through a rational decision process, or alternatively, through an architectural critique method, represents two different ways of finding winners. The jury implements both methods [18].

Criticim plays a role in architectural competitions as it works to give the final jury report. The jury completes its quality assessment by issuing a recommendation to the organizer and providing an account of the winning proposal, other prize-winners and overall critique of the competition. The jury’s verdict contains two types of critique about the competition. This is partly a general critique of the competition and partly a critique of the individual prizewinning projects. Sometimes the jury members point out so many shortcomings in the winning proposals that their choice seems surprising. However, this criticism is interpreted as advice prior to an impending detailed design commission. It is
the forward-looking function of the criticism that causes the jury to point out any uncertainties and shortcomings in the winning proposal that need to be reworked in the implementation phases [19].

2.5 The Role of Value in Selecting Projects in Architectural Competitions

There are a set of criteria that represent the value in the selection of projects submitted in architectural competitions, as follows [20]:

A. The concept of value, through a legacy from Vitruvius, seems to be an indivisible unity of form, function, and construction. Good architecture is a combination of form, function, and construction. Quality appears as wholeness in the way this global unity is created.

B. The value in the buildings is perceived in relation to its context and its special preconditions. Consistency and coherence are decisive for value. The public space, infrastructure, buildings, and the surrounding landscape shape the grounds for judgment of value. The value is targeted to fit the context, the plot, and the surroundings.

C. Value is linked to a mystical aesthetic feature in architecture, which is difficult to explain. Value is a positive and surprising experience and expresses a personal feeling of approval that can be found in artistically solved design problems. Architects don’t identify winning entries in competitions by research or reading peer-reviewed articles, but by an experience of value, which is felt like a kind of wholeness. It is the feeling combined with skilled eyes and professional competence that identify value.

D. Value is a matter of expressing timeless values in a way that is typical for its contemporaries. Originality and novelty attain their right values accordingly. There should be an ideal model in architecture that can survive the waves of shifting vogues. Value is seen as the result of selection and acknowledgment. There is a reason why architectural history is perceived as being alive, usable, and important in providing knowledge to architects for professional endeavors. In this regard, a performance of value can put jurors in a difficult situation. The jury must identify the quality of an architectural design proposal at a very early stage; this can be affected and changed later when it is built, when it is in use, and when it is compared to other buildings or environments.

E. Architectural quality has a usability value. Quality is ascribed to buildings or environments that possess appropriate forms and fulfill required technical specifications. Good architecture often appears with multi-aspect purposes and uses. Aesthetics and techniques are combined and coordinated for a practical solution. Quality becomes a practical question of material, construction, sustainability, and usability as well as a test bed for how design corresponds to the spatial needs of activities and the users concerned.

The most important criteria that architectural projects can choose are [21]:

- Wholeness and fundamental idea.
- Coherence and surroundings.
- Entrance position.
- Suitability and functional set up.
- Economical and technical solutions.
- Development possibilities.

2.6 Value and Sustainable

Sustainability of architecture depends on its value. Defining criteria and factors of architecture values and its detail in aesthetical, construction and the practical level is a basic premise for setting regulators of keeping architecture. Value is an interdisciplinary category [22].

Value has a relationship to sustainability through its relationship with social, environmental and economic dimensions, which are important in the evaluation of architectural projects. Modern architecture projects require the adoption of sustainability principles to achieve value associated with social, environmental and economic aspects, enabling architects and designers to critique architectural projects by adopting sustainability values. One of the most important goals of sustainability is the value (Figure 2).
A. Value and Economic Sustainability: The following considerations of economic sustainability should be considered in the evaluation and selection of alternatives [23]:

- Maximize the use of local and available materials;
- Maximize the use of local and available manpower;
- Maximize the use of local and available machines and equipment;
- Maximize the use of affordable materials;
- Maximize the use of resources with lower overall cost; and
- Minimize idle time by maximizing use of resources when needed.

B. Value and Social Sustainability: The social sustainability goal is concerned with the need to enhance the quality of life of people, meet the expectations of people, and satisfy their needs without compromising other aspects of the goal. The best alternatives should fulfill the following socially related functions [24]:

- Ability to develop the capacity and skills of the people;
- Ability to alleviate poverty among people;
- Ability to guarantee health and safety of people during construction and usage;
- Ability to meet local needs; and
- Ability to enhance corporate social responsibilities.

C. Value and Environmental Sustainability: The environmental aspect of sustainable goals is geared towards ensuring that the immediate and distant environments of the project are friendly now and in time to come. The major considerations for environmentally sustainable practice should form the basis for setting goals and evaluating alternatives. The best alternatives should be able to [25]:

- Minimize the use and consumption of resources, especially raw materials such as water and energy, during construction;
- Minimize the use and consumption of resources during the project usage;
- Minimize the use and consumption of resources during the conversion and reuse phase;
- Minimize the use and consumption of resources after the expiration of lifespan, that is, at the demolition stage;
- Maximize the use of recyclable, renewable and reusable resources;
- Minimize environmental pollution and degradation; and
- Comply with environmental regulations.

3. Literature Review
The literature review for architects of modern architecture, postmodern architecture, and those interested in Islamic and local Arab heritage show certain aspects of the value as follows:

A. Ludwig Mies van der Rohe: emphasized the technological values that emerged at the time and made the architecture a technical edifice showing its expressive characteristics.

B. Frank Lloyd Wright: emphasized the political values such as decentralization, democracy, integration and organic (nature).

C. Walter Gropius: interested in aesthetic and ethical values by employing industrial production.
D. Robert Venturi: was interested in functional values and the production of powerful forms inspired by functional expression to illustrate the complexity of the architecture.
E. Peter Eisenman: focused on expressive values through text and its interpretation using signals instead of symbols.
F. Hassan Fathy: confirmed that man is the aim of architecture and the dialogue between man and nature with attention to aesthetic and cognitive values.
G. Mohammed Saleh Makiya: interested in the values of heritage in architecture, which depend on spiritual, ethical, climatic and human dimensions.

The paper focuses on showing the type of value carried by the architectural projects that are chosen in the competitions or that are implemented, which are given the possibility of accreditation when criticism and evaluating projects.

4. Applying the Concept of Value as A Criticism Strategy to A Set of Architectural Projects

4.1 Napoli Afragola Train Station (Italy – Naples City)
The project was designed by Zaha Hadid, it was designed to be the central interchange of the fast train lines serving southern Italy. The multi-mode ventilation strategy allows the gathering area to be fully ventilated when the outer weather is mild, the design of the project is inspired by ideas from Roman, using shaded areas with heavy construction elements (marble walls and columns), and customizing corridors for airflow (as in the Romanian “Hypocaust” method) for cooling and heating the internal spaces. The station was equipped with a reinforced concrete structure with advanced technology designed to withstand the super-forces of the curved elements (Figure 3).

The body of the station is made of metal bars (steel structure), and its roof gives the light of nature through the entry of sunlight, as well as natural ventilation and solar panels on the surface, which contributes to the reduction of energy use, and its walls are covered with solid materials. For optimum performance, a high-liquidity mix of concrete was used for the base of the station, adding a high-quality finishing touch and clarifying the overlap between reinforced steel and flexible organic design (Figure 4).

Figure 3. Napoli Afragola Train Station [26]
Designed as a sustainable building, utilizing all available natural resources in addition to keeping up with the latest construction technology and using the minimum energy at the building to be a model for low-energy design. And the use of the latest computer simulation tools in the design of the building, which includes the creation of a virtual environment with a highly dynamic simulation design, daylight and a 3D sound design. The building, as well as its function as a transportation station, has become a source of renewal in southern Italy, attracting jobs and growth.

Technological values represent the most important values that the project has focused on as a tool to express the concept of the project by:

- Using elements of Romanian architecture and the use of advanced technology to combine the form of the flexible organic building huge building structure designed to carry the forces to achieve concept of design.
- Simulation lighting Natural ventilation, such as ventilation corridors in Roman architecture.
- Use modern building technologies such as facade panels, renewable energies, computer simulations and virtualization in project design.

The project also focused on aesthetic values, highlighting the natural aspects and landscape views of the project to increase sensory enjoyment and enhance the sense of the project, as well as the pleasure resulting from the structure of the building and the statement of the formality, the formal aspect statement, which gives multiple and complex interpretations by the recipient. Elements of Roman architecture (walls, marble columns, ventilation corridors) were associated with the expressive values of the project but in an insufficient manner. The environmental function is the most important functional value of the building as well as the function of the building (train station).

4.2 Imam Raza Complex (Iran – Tehran City)

The building is unique architectural and coherent objectively and practically and is one of the models of mix use buildings, the project was designed by the “Kalout Architect Studio” by Combining form and functional performance, in line with the main theme of the building is (communication).

The project is located in the cultural zone of Tehran city, the basic concept of creating an urban space for social interaction and the participation of different generations and social and demographic groups in this interaction. The concept of this interaction and interdependence between different social groups and encouraging the existence of the new generation, its role in society is reflected in the design of the main hall, called “Shabestan” in the meaning of the prayer hall, formed by the idea of interlocking hands as a symbol of unity and social cohesion which is the principle Basic in Islamic doctrine (Figure 5). The mosque is located on the side of the building with additional functions rising from the ground and extending again to create a visually innovative form.
The project was inspired by social identity; to evoke memories of Islamic and Persian architectural history, based on ideas of shared memories by taking advantage of traditional art and ancient Persian architectural features such as “sunken gardens” and “underground rooms (basement)” (Figure 6). The main shape of the sanctuary provides the opportunity for a unique experience to achieve the magical goal of communicating with the “Creator (God)” and the sense of the symbolic shape of the dome. This immediate communication is also evident from the courtyard of the sunken garden as one of the characteristics of the Persian architecture, which isolates users from the outside audience to make the building a secluded and quiet place. In terms of exterior design, the presence of water allows for greater transparency, and gives water a sense of calm on the complex, which is ideal because of the philosophical, contemplative and spiritual importance inherent in space, and thus participates in the transfer of meaning.

The bricks used with glass in the walls of the corridors and prayer hall and distributed in a way that expresses a symbolic upward movement from the earth to light (Figure 7). The handmade glass, which covers the main dome, is engraved with the names of God and begins to connect the worshipers to the sky through the glass dome. Islamic art and scriptures adorn decorate almost every surface in the Imam Reza Complex, to reflect the importance of the religious building, and to represent the Islamic
ideals in achieving the magical ambition of communicating with the Creator. Another symbol linked to the design of the building is the “Cedar Trees”, which in Persian culture represents the concept of stability, life, freedom and use in the project as a point of attraction.

The project focused on the metaphor of meanings, symbols and elements of Islamic culture (the concept of interlocking hands to express unity and social cohesion) and Persian culture (sunken gardens, basements and cedar tree) and created an architectural form linked to the meaning and function of the building, so the project focuses on the symbolic function, which is linked to the presentation of the expressive and functional values of the building.

4.3 Louvre Abu Dhabi (United Arab Emirates, Abu Dhabi City)
Jean Nouvel designed the project, making climatic exceptions the greatest impact on the design concept of the project, creating a world of welcome combining the glitter of light and shade, and between thinking and tranquillity, and aspiring to belong to the country of the project, its history and geography without resorting to copying superficial experience of the museum in France. The project is reached by sea by boat, walk through the beach, or by air using helicopters (Figure 8). The project was designed based on the main element belonging to the Arab and Islamic architecture, “the dome”. It was differed from the traditional dome, and transformed into a modern dome.

Figure 7. Use Islamic Art and Scriptures Adorn, Bricks and Glass, and Cedar Tree in the Building [27]

The project focused on the metaphor of meanings, symbols and elements of Islamic culture (the concept of interlocking hands to express unity and social cohesion) and Persian culture (sunken gardens, basements and cedar tree) and created an architectural form linked to the meaning and function of the building, so the project focuses on the symbolic function, which is linked to the presentation of the expressive and functional values of the building.

4.3 Louvre Abu Dhabi (United Arab Emirates, Abu Dhabi City)
Jean Nouvel designed the project, making climatic exceptions the greatest impact on the design concept of the project, creating a world of welcome combining the glitter of light and shade, and between thinking and tranquillity, and aspiring to belong to the country of the project, its history and geography without resorting to copying superficial experience of the museum in France. The project is reached by sea by boat, walk through the beach, or by air using helicopters (Figure 8). The project was designed based on the main element belonging to the Arab and Islamic architecture, “the dome”. It was differed from the traditional dome, and transformed into a modern dome.

Figure 8. Louvre Abu Dhabi Project [28]
The dome’s materials are woven in a form that generates random holes, providing the shade that is punctuated by sunlight, the splendour and beauty of the dome is under the influence of sunlight in the city of Abu Dhabi. At night there is a different character so that this place is covered with a picture of starlight. The Louvre Abu Dhabi has become the ideal and ultimate destination as an urban park, a coastal garden, a cold haven and a place of light during the day and evening, in addition to all its aesthetic, it is also in keeping with its role as a place to accommodate the most important works of art. The complex decoration of the dome is the result of a deep engineering study, and this decoration in different sizes and angles in eight layers (Figure 9).

![Decoration of Dome](image1.jpg)

**Figure 9.** Decoration of Dome [28]

The designer sought inspiration for the concept of the project from traditional Arabic architecture, adopting this context as a method applied to the site. The project was designed as a museum city in the sea in the form of a diverse series of white buildings inspired by cities and Arab settlements built on low ground, which consists of 55 buildings, including 23 exhibition hall that make up the whole project (Figure 10). The elevations of building were made of 9300 high-performance concrete fiber panels.

![Louvre Abu Dhabi Site Plan](image2.jpg)

**Figure 10.** Louvre Abu Dhabi Site Plan [28]

The design of this museum is the result of a combination of traditional design and modern construction techniques. The tranquil environment encourages visitors to enjoy the ever-changing relationship between the sun, the dome and the sea, as well as the relationship between buildings and land. The complex architecture makes Louvre Abu Dhabi one of the most recently a challenge and resurgence.
The complex architecture concept makes Louvre Abu Dhabi one of the most recently constructed museum projects is challenging and renewing. The project focuses on highlighting aesthetic and expressive values primarily by linking the project to symbolism, highlighting the perceptions and visions produced through the sensory aspects of the project, and showing the meaning of the project inspiration from the design concept by using the shape of dome and shape of Arab settlement that build in low ground, which are related to the context, belonging to the place, and the sense of the external form of intimacy, comfort and adaptability between the building, the context and the community. The project also highlighted the technological values by integrating traditional design and modern technologies in the construction of the dome and giving it modern technological value.

4.4 Yves Saint Laurent Museum (Morocco)
The museum is designed by Studio Ko and occupies a position that doesn’t allow the height of the building to be more than two floors, which is designed to infill with its outer borders and organize spaces around courtyards (Figure 11).

![Figure 11. Yves Saint Laurent Museum [29]](image)

The building expresses its place and time more than an architectural icon or an architectural symbol. The designer wanted to imitate the traditional house in North Africa by using two types of building materials that covering the elevation of the museum, which are engraved bricks and tiles engraved, they produced locally by Moroccan craftsmen. The designer also focused on the idea of a contrast between the poor material at exterior design, and the richness of fashion at interior design. The elevations of museum are free from any details and any opening. The locally made bricks of different sizes to allow for complex angle to be assembled are arranged in three-dimensional geometric shapes (Figure 12).

![Figure 12. Use of Local Materials in Museum Elevations [29]](image)
The project is related to the context and to highlighting the aesthetic and expressive values of the local architecture, by simulating the style of the traditional Moroccan House and the use of local materials, thus increasing the communication of the building to the recipient and its sense of intimacy and adaptability between building and recipient. The building expresses the values and traditions related to the self and the importance of heritage.

4.5 Bayt Al-Hikma Academy (Iraq, Baghdad City)

The project was designed by Dr. Basim Al-Majedi, the design of the building was a new challenge through the site of the building within the heritage buildings, multi-functional and different architectural styles, as well as its distinctive location on the Tigris River (Figure 13).

The architectural reading of concept was based on a range of mechanisms:

- Adopting the concept of contextual as an intellectual and formalistic basis for the design of the building by studying and analyzing all the surrounding buildings that gave rise to the need to conform to the neighboring buildings in terms of height and recoil from the street and river.
- Adopting the concept of the hierarchy of layers instilled by Mesopotamia architecture and its investment by adopting the principle of sequential hierarchy of functional movement (horizontally and vertically).
- Metaphor the rectangular shape of the middle courtyard of the Mustansiriya academy building and its gate as a basic form in the formal construction as a result of the matching of the jobs between the two projects (Mustansiriya and Bayt Al-Hikma academy) with a number of formal offsets.
- Put a contemporary touch on the riverfront by breaking the rhythm with a circular cylinder, as well as using small minor details.
- Abstraction of the shape of the Balcony (Shenshol), separation of its arcs, and using the brick material (local material called “Chafqeem”), with a contemporary use of the concrete forms of the arches based on formal proportions that helped to develop a formal language commensurate with the nature of the space used.

The project focused on the expressive and aesthetic values of the building primarily through:

- Its connection to context and achieving intimacy, comfort and adaptability with the place.
- To achieve a system or general pattern using concept inspired by the architectural of the Mesopotamia (hierarchy of layers), and the traditional architecture of Baghdad (The rectangular shape of the courtyard, Shenshol, the arches, Chafqeem), to reflect the values and concept inherited from the successive societies of the Mesopotamia and reflect them in a contemporary way to achieve the functional values of the building by linking it and sharing with the rest of the buildings in the place.
• Giving it the symbolic metaphor of meanings and symbols to reflect the exterior shape of the building.

5. Conclusions and Recommendations
A. Value is important in the process of selecting and evaluating architectural products and practice, through cognitive components as a criterion for choice, emotional components as a criterion for assessment, and behavioral components as a criterion for practice.

B. The selected projects to test the hypothesis of research showed the following:
- Napoli Afragola Train Station project: The technological value was the basis for achieving the aesthetic value of the building. The background of the designer Zaha Hadid reflected the possibility of employing the technological value in achieving aesthetic value due to the availability of material, knowledge and technological capabilities in demonstrating the technological value in the architectural products.
- Imam Raza Complex and Louvre Abu Dhabi project: The two projects highlighted the expressive, aesthetic and functional value, and the inspiration of the design concept of the local heritage expressing the community and religious culture and suitability with the place within a contemporary architecture.
- Yves Saint Laurent Museum project: The project highlighted the aesthetic and expressive value of traditional local architecture and its connection to the place and context to show a suitable architecture with local traditions.
- Bayt Al-Hikma Academy project: The designer focused on expressive, aesthetic and functional values by inspiration from the concept of the Iraqi architectural heritage to reflect the form of the building to harmonize with the context and to give the building a high symbolism, in harmony with the educational and cultural function of the project and inspiration of architectural concept from the intellectual and morphological references to the local heritage.

The research recommends:
A. Focus on the importance of value in architecture and make it in conjunction with the early stages of design for the possibility of increasing the results of the study and reduce future changes.
B. Preparation of criteria for criticism and evaluation, including the indicators of aesthetic, expressive, functional and technological value to be distributed to the departments of architecture in Iraqi universities, used when evaluating projects for different stages to reach a more objective evaluation.

References
[1] Rezvir, Jean Paul 2001 “Philosophy of Values” Translating Adel Al-Awa, Oueidat publishing, first edition, Beirut, Lebanon, p. 6.
[2] Miles, D. Lawrence 2013 "Techniques of Value Analysis and Engineering", 3ed edition, Eleanor Miles Walker, USA, p 64.
[3] Al-Jallad, Majed 2013 “Learning and Teaching Values - A Theoretical and Practical Vision of Methods and Strategies of Teaching Values” Dar Almassira Publishing, third edition, Amman, Jordan, p. 21.
[4] Al-Jallad, ibid, pp. 33-35.
[5] Ilkoviča, Ján & Ilkovičová, ďubica 2016 “Value Fields of Detail in Industrial Architecture” ScienceDirect, World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2016, Published by Elsevier Ltd, p. 2135.
[6] Ilkoviča, 2016, ibid, p. 2136.
[7] Alrouf, Ali A. 2014 “Architectural Criticism and Its Role in The Development of Modern Architecture - The Egyptian and Arab Case Study” p. 56.
[8] Fadal, Salah, 2002 “Contemporary Criticism Methods and Terminology” Dar Merit Publishing, Cairo, Egypt, p. 168.
[9] Hatmal, Rana 2015 “Aesthetics Standards and the Method of Measuring Them in Contemporary Architecture” Ph.D. thesis, Architecture Design Department, Architectural College, University of Damascus, Syria, p. 124.

[10] Agha, Rand Hazem 2011 “Architecture and Interior Design Technology: The Impact of Technology on the Relationship of Form to Building in the Language of Contemporary Internal Spaces” Dar Majdalawi Publishing, Amman, Jordan, p. 44.

[11] Mesthene, Emmanuel G. 1997 “The Role of Technology in Society in Technology and Values” edited by Kristin Shrader – Frechette and Laura Westra, Roman & Littlefield publishers, USA, p. 78.

[12] Johnson, Deborah G. & Wetmore, Johnson M. 2008 “Technology and Society, Building our Sociotechnical Future” the MIT press, Cambridge, Massachusetts, London, UK, p. xiii.

[13] Al Ajeezah, Fouad Ali 1999 “Values and Methods of Learning and Teaching” studies in values and education, Yarmouk University, Jordan, pp. 6-7.

[14] Al. Dahwi, Suha Hassan Abdullah 2007 “Text Authority in Architectural Academic Criticism” Ph.D. thesis, Architectural Department, University of Technology, Iraq, p. 42.

[15] Mustafa, Faik & Ali, Abd al-Ridha 2000 “In Modern Literary Criticism” Dar Al Kutb for Printing and Publishing, Second Edition, Mosul, Iraq, p. 91.

[16] Chupin, J. P. 2011 “Judgement by Design: Towards A Model for Studying and Improving the Competition Process in Architecture and Urban Design” Scandinavian Journal of Management, 27, p. 173-184.

[17] Rönnm Magnus 2011 “Architectural Quality in Competitions” Journal of design and design education, Form academic, Vol.4, No.1, p. 105.

[18] Al-Qaysi, Nagham 2016 “Judgment in Architectural Competitions as Communicative Deliberative Practice” The Competition Mesh: The Sixth International Conference on Competitions-Experimenting with and Within Architecture Competitions, p. 6.

[19] Rönnm Magnus 2011, op cit, p. 111.

[20] Rönnm Magnus 2011, ibid, pp. 106-107.

[21] Rönnm Magnus 2001, ibid, p. 108.

[22] Ilkoviţa, Ján & Ilkoviţová, ďubica 2016, op cit, p. 2133.

[23] Okem Ayodeji E. •& Aigbavboa, Clinton O. 2017 “Sustainable Value Management for Construction Projects” Springer International Publishing, p. 134.

[24] Okem Ayodeji E. •& Aigbavboa, Clinton O. 2017, ibid, p. 134.

[25] Okem Ayodeji E. •& Aigbavboa, Clinton O. 2017, ibid, pp. 134-135.

[26] https://www.railengineer.uk/2017/06/28/napoli-afragola-italys-remarkable-new-station/ accessed time 21/08/2018.

[27] https://www.archdaily.com/782352/imam-reza-complex-kalout-architect-studio accessed time 30/08/2018.

[28] https://www.archdaily.com/883157/louvre-abu-dhabi-atelier-jean-nouvel accessed time 05/09/2018.

[29] https://www.architecturalrecord.com/articles/13170-mus%C3%A9e-yves-saint-laurent-by-studio-ko accessed time 14/09/2018.

[30] Al-Quaraghli, Anwar Subhi Ramdan 2011 “Concepts in Architecture Between Theory and Practice” The Iraqi Journal for Architectural, Department of Architecture, University of Technology, Iraq, no. 22.