



## **Investigation the Contents and Components of Islamic Architecture in Contemporary Housing in Amman \_ Jordan**

**(Case study of Al-Zuayter's House of Architect Ayman Zuayter)**

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### **Abstract:**

the research turn towards the local architecture to investigate and study the Islamic components and contents of Islamic architecture. Therefor, the research based on the presentation and analysis of one of the projects of Jordanian architect ( Ayman Zuayter ), who is considered one of the most prominent pioneer who dealt with Islamic architecture in Jordan from the design side on the one hand and from the intellectual and moral side on the other. The study will be based on analysis the study status in many sides, the most important is examination the hidden moral aspect behind the using of design components and link it with the contents of Islamic architecture. In addition to the above, the study seeks to understand the actions of architect and investigate his achievements in the Islamic architecture and its relevance to and respect for heritage and the environment in order to find ways and methods to help the application of Islamic architecture and contribute to the consolidation the boundaries of Islamic architecture identity, and will be based on the method of criticism and analysis in the processing of quantitative and qualitative information according to descriptive and analytical approach.

**Keywords:** Islamic character, Housing, Al-Zuayter House, Human, Social side, Islamic contents, Privacy.



## 1. Introduction:

Architectural production is the mirror of the cultural changes of society throughout history, where the sudden western difference of architectural and urban orientation was observed in the last century as a result of many Western philosophical ideas in the impact of cosmic changes on architecture, (Abu Al-Haijaa, 2011) . As for the urban fabric in contemporary Arab cities, it taken on an architectural character that does not suit the traditions of its societies and the values that its religion calls for, the buildings have become disjointed and poor for many Islamic values such as privacy, freedom of speech and so on, pehaps due to the transfer and imitation of Western architecture, which in not line with Arab traditions and ideas and the desire to keep abstract of the times in various ways without sufficient awareness of the causes of this crisis, in addition to the other factors such as the media, and the exchange of cultures, and technological progress in the building materials. This effect reflected on the urban fabric in Jordan at the end of the twentieth century and the beginnings of the Horn of Twenty-first, where the architectural styles mixed between intellectual multiple currents and schools. So of them what was influenced by modern style and it was his traditional style, the majority of architectural styles are not belonging to any architectural style (Abu Ghneima, 2005). It was for this difference random effect in blurry of architectural Islamic identity features not to mention to the architectural Jordanian identity.

The result of what foregoing appeared the urgent need to attempts to draw the features of architectural, Islamic identity by linking to local architecture, and of the pioneers of this attemot the engineer ( Hassan Fathi ), who turned towards the simple formations to create a social architecture which help people for the co-existence and communication for being within the



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framework of their heritage and their habits, so he try to integrate the environmental, urban and architectural characteristics in the harmoious form with each other. As for other architects such as ( Rasem Badran, Abdel Baki Ibrahim, Ayman Zuayter, Qahtan Awad and other, who their focus was on reconstructing the architecural and urban vocabulary to suit the requirements of the modern environment. In general, architects participated together in same the approach based on the Islamic rule with its intellecual, social and formal contents in the combination among contemorary and history to preduce a contemporary, modern and unique building, away from coping the forms and vocabulary of previous generation (Abu Al-Haijaa, 2011). In this research we will focus on the analysis and documentation one of the architectural actions of the architec ( Ayman Zuayter ) as a successful example of Islamic contemporary dwelling. Whereas will be study of the extent of its link to Islamic architecture in term of different moral and design aspects through the destribution the blanks and used materials and others. In addition will be study the effect of the environmental and cultural content on design for highlight on successful attempt of attempts of revive the Islamic architecture of architec ( Ayman Zuayter ) to guide the future policies which enhance the revival of Islamic values in order to participate in determining the features of architectural Islamic identity.

## 2. Research Importance:

The importance of the study lies in the attempt to derivation the style of architect ( Ayman Zuayter ) in reviving Islamic values through his standard designs specially Dar Al-Zuayter, in terms of how to use standard Islamic elements and vocabulary within the traditional normative environment, as well as to examine his success in adapting with cultural and environmental content through using these standard elements and vocabulary, thus paving the way for



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the attainment of specific elements and criteria for a standard method that applies Islamic architecture through appearance and substance.

### 3. Research Methodology:

The research methodology depends on providing a depth understanding of the architect Ayman Zuayter' actions and analysis of the content of the special study case for Al-Zuayter' House. Will rely on style of criticism and analysis in processing the quantity information according to descriptive and analytical method as a study one for highlight the various aspects which be studied in terms the architectural formation and enhanced values and use the architectural traditional elements and how they relate to Islamic architecture concept. The research methodology depends on the use of multiple methods to achieve its objectives, including: scientific ethics which related to the architect Ayman Zuayter and his architectural action, and method of study the case, in addition to the use of other means such as field visits and direct observation and personal interview in order to understand his ideas and the ability to apply them on reality to produce results about the positivities and negativities of this use and its relevance to the concepts of Islamic architecture.

### 4. The concept of Islamic architecture:

The Islamic architecture is the architecture derived from Islamic values and teachings that is not subject to spatial or temporal determinants and is not that subject to the formal and plastic construct which determined by geographical determinants and temporal periods as orientalist see. Whereas the Islamic architecture back to the architectural heritage in purpose of the measurement not the extraction and is committed to content with the central curriculum socially and economically and in accordance with the environment



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with its dimensions of natural and cultural. Although Islamic architecture is a unitive factor for different Islamic cultures, we find that every building of Muslims is not necessarily Islamic in its content as a result of the influenced by the superficial and formality concept of orientalist as mentioned above. Muslims architecture is the architecture of the Islamic society, which reflected the cultural values and living requirements in any place and time. Hence, the Islamic perspective of the architectural theory is a social perspective (Ibrahim, 1986), and the fact that social prespective links with human and with everything related him of psychological or physical needs, so the research focused on housing because it is the human environment which forms the society and when this environment be healthy that leads to healthy social environment.

#### 5. Islamic architecture in Jordan:

" Muslim architecture is a local architecture based on Islamic contents " (Ibrahim, 1986), thus, through research into the Islamic architecture of Jordan, it is necessary to touch on the circumstances which surrounded and influenced the local architecture, In the stage of the spread of the concepts of modern architecture in the world, the majority of architects in Jodan specially in Amman turn to apply the modern architecture whether by good way or bad, which led to the production contaminated urban environment, so the building were not take into account the physical or mental needs of society. This environment led to a gap between the architec and the problems of society and thus production housing away from the humanitarian and emotional needs of comfort, tranquility and stability, in addation proximity to surface aspects as interest in the plastic side. The adoption of the modern concepts and desire to keep up with rapid the fashionable change, led to widening the architectural humanity gap, so rising initiatives featured in seventies and eighties by architecs of different architectural schools, so they contributed to provide the



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different designed solutions to solve the problems of architectural buildings in general and residential building in particular. And thus formed variety architectural experiments which affected in the Amman city with urban fabric which proportionate with local community and with available local materials of stones which hired in architectural, traditional and contemporary way (Abu Ghneima, 2005). Among of successful architectural experiments like of Jafar Toukan, Rasem Badran, Ammar Khammash, and others, who are participated in attempt for back form the architectural and cultural vocabulary in way which harmonized with modern environment requirements with based on Islamic contents for mix between modernity and imitation for production special contemporary and architectural buildings. We saw that the majority of those architects have go towards the dealing with Islamic architecture in general through hiring them in design the general buildings on opposite of the architect Ayman Zuayter who adopted the social side of Islamic architecture and employment it in design housing specially like Al-Tabbaa Villa, Deghani Villa and Al-Zuayter House and others (Abu Al-Hajja, 2011).

The search turned towards the Housing as a architectural model which most closely from human, it is the variable part historically for compatibility with environmental and social variables. The Housing is the place which the family residence in and is the place of their growth mentally and physically, therefore the relationship between dweller and Dwelling it is firm relationship and we are worth mentioned that this relationship has weakened age variables, and with stay away from the architectural heritages, so the affiliation of individuals to their homes became little, and became it easy to sell and buy the housing every now and then. All this has had a profound impact on the architectural production of the Housing in particular and in the city's façade in general. Nevertheless, some attempts are still alive to restore the close relationship between Housing and the dweller by taking advantage of the traditional



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architecture based on Islamic deep-roots in contemporaneous to produce a product compatible with current human and the most prominent example was the building of Al-Zuayter House is the work of the architect Ayman Zuayter in 1984. (Abu Ghneima, 2005), because Al-Zuayter House is the family home of the architect, we see his personal and design experience more freely, which produced a successful home that achieved Islamic content in modern and successful manner.

#### 6. Vocabulary and elements of traditional Islamic architecture:

Elements of Islamic architecture are the development which produced by the using elements from previous civilizations in new ways in order to develop new vocabulary and distinctive concepts associated with the spirit of Islamic architecture and give them the privacy of their own splendor such as: entrances and gates, windows, suns and luminesces, contracts, domes, balconies, muqarnas, courtyards, and minarets (Abd Aljawad, 2010). Taking advantage of the Islamic elements mentioned with the attempt to address all aspects of the building will be analyzed the study case ( Dar Al-Zuayter ).

#### 7. ( Dar ) Al-Zuayter ( House ):

Al-Zuayter House is the home of the architect Ayman Zuayter 1984 , (Abu Ghneima, 2005) it is a family house of architect, and it consists of four floors and a vantilation floor, which divided into four integrated residential houses. The house designed in a manner consistent with the slope of the land in a way that enables the architect to create a varity open spaces from the courtyard and balconies overlooking for each floor, which indicated and emphasizes the interest of the architect to create places for social intraction between the families of the four houses in spite of the high privacy of the four houses.



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### 7.1. Analysis building of Al-Zuayter House for the extraction the contents and elements associated with Islamic architecture:

#### A. Architectural Formation:

The site's privacy and desiner's desire to create open spaces had an effect on the architectural formation. The slope of the site affected the shape of

the buildind ( Fig. 1 ). In addition to the effect of the designer's to create open spaces through design the projection like ( U ) ( Fig. 2 ).



Fig.1: Snapshot of Al-Zuayter House clarify

Fig.2: Snapshot clarify the

The blocked formation of house.

Design the projection like ( U ).

Source: Aga Khan Foundation.

Source: Taiba office of Arc. Ayman.





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## B. Entrances:

The entrances of House are characterized by privacy, the architect allocated an entrance to each residential house in a matter that achieves the complete privacy of each dwelling and in a matter consistent with the formation the building and the slope of the earth. As a result of what mentioned before, we can observe using of architectural concepts such as respect the site and adapt to the slope, and using the architectural conglomeration for achieve privacy and environmental affiliation( Fig.3)

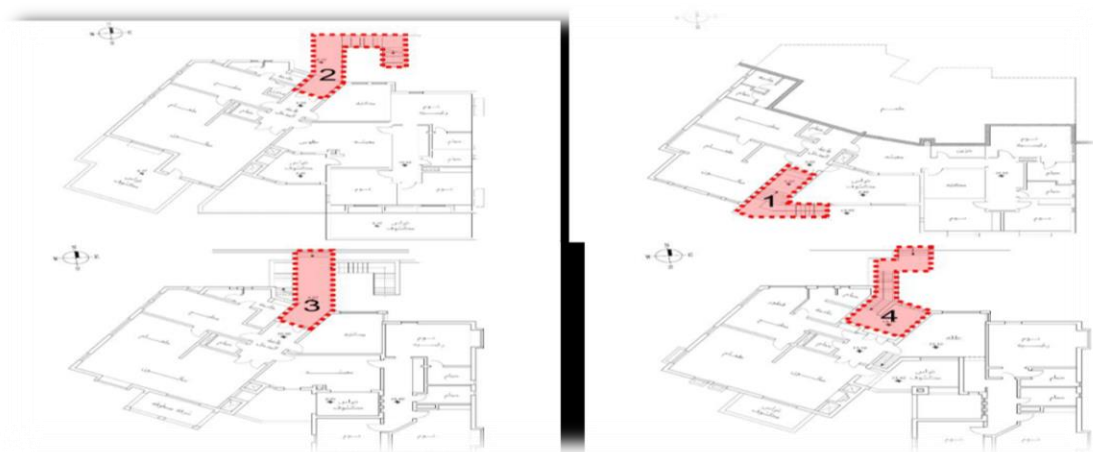


Fig. 3. A picture combine the conjections of four residential houses and the separate entrances for each house.

Source: Taiba office of architect Ayman Zuayter.

## C. The slots:

The interest of the architect in the principle of privacy was clear in the above and therefore reflected this interest in the treatment the opening where he turned towards using the oriel in a more modern way, which is illustrated by the following:

- **Slots of the external blanks:**

Based on the awareness of the role of oriel, whether its social role in providing privacy or its environmental role by controlling in natural lighting and



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ventilation (Abd Aljawad, 2010), so we can call the wood cover of the external balconies called the oriel, where it succeeded in achieving its function. We are worth mentioning how the architect used this element in a modern style, whereas we notice that the architect stayed away from using the oriels in old form which filled with decoration but on the contrary he used the form of simple grid. ( Fig. 4 ).

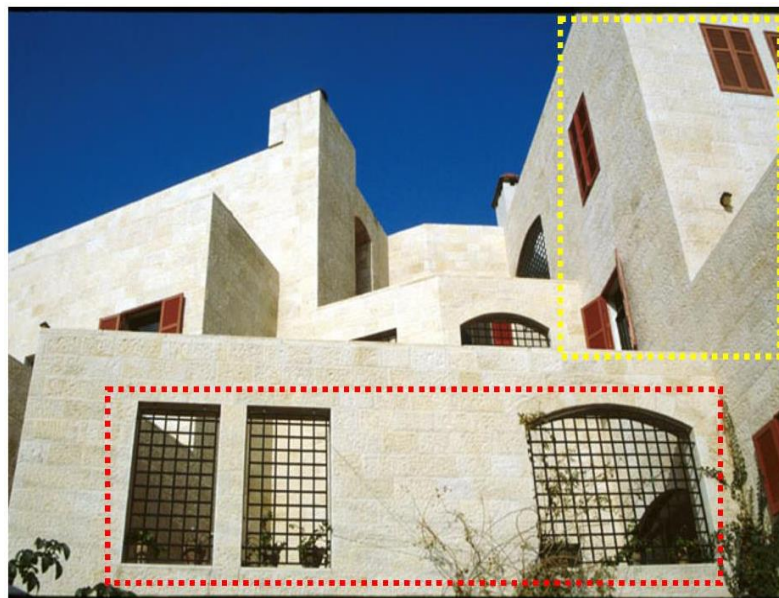
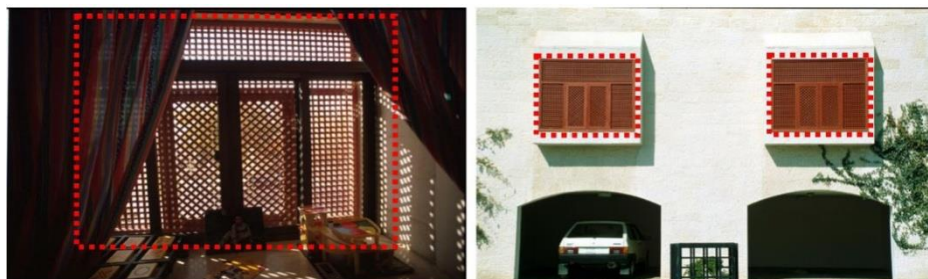


Fig. 4. A picture showing the simple form of oriel and the distinction between the oriel of external blank and oriel of internal blank.

Source: Aga Khan Foundation.

- **Slots of internal blanks:**

The architect used the Islamic element " oriel " in a simplified form in covering the internal blanks as well, and this using was successful, the oriel achieved its social and environmental roles. ( Fig. 5 )





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Fig. 5 A picture showing the oriels of internal blank from inside and outside the blank.

Source: Aga Khan Foundation.

It is worth noting that the architect turned towards to distinguish between the oriels of internal blanks and the oriels of open blanks, so it is possible to distinguish between both blanks of external shape of the building. This brings us back to the Islamic and traditional architecture whose blanks could be distinguish by the shape of the slopts and ceilings.

#### D. Internal Function:

We note that the division of functions in housing dominated by the Islamic character which interested in privacy, the architect separated the private blanks in bed rooms from others ( Fig. 6 ), in addation to using the blanks of distributor and corridor ( Fig. 7 ). Despite the interests of the privacy concepts, however, the architect did not allocate blanks specially for women and othrs for men and perhaps the reason is the fact that the culuture of Jordanian community is mix of shyness and open-minded, therefore, the families are still mixed in their meetings (Abu Al-Haijaa, 2011).



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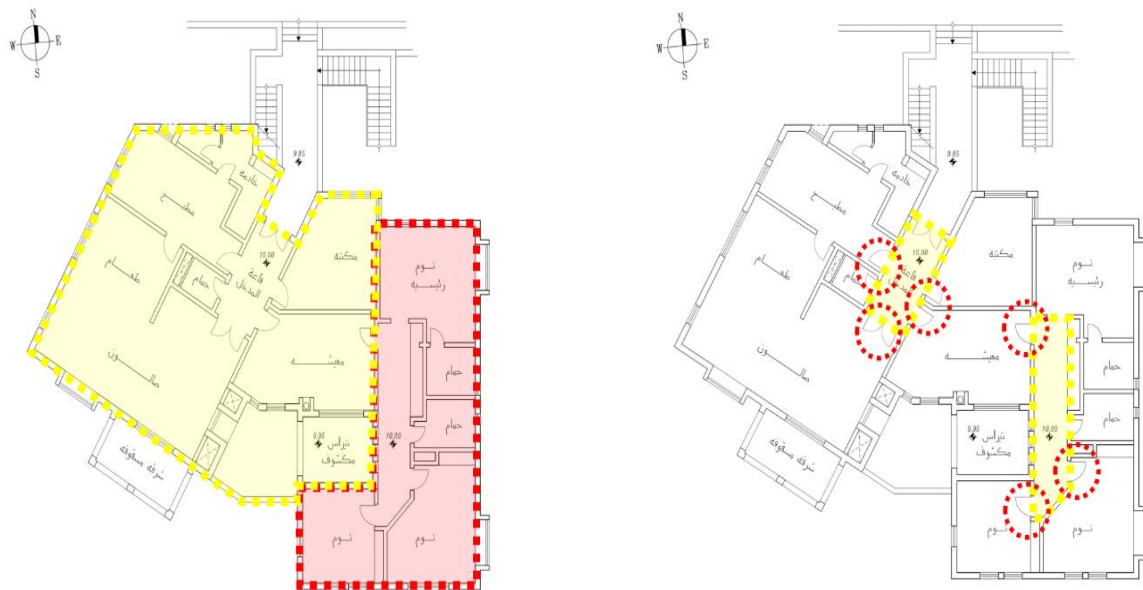


Fig. 6. Grounded projection as an example shows

Fig.7. Grounded projection as an example using the

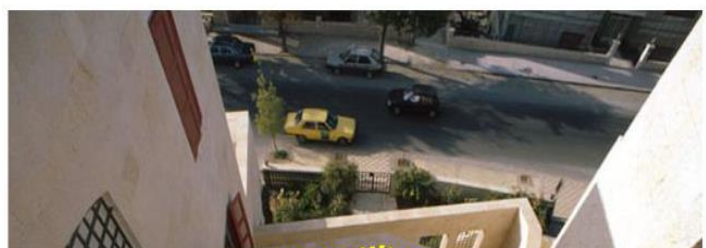
the separation the blanks in bedrooms from others blanks.

Blank of distributor and closed corridor and clarify

Source: Taiba office of Arc. Ayman.

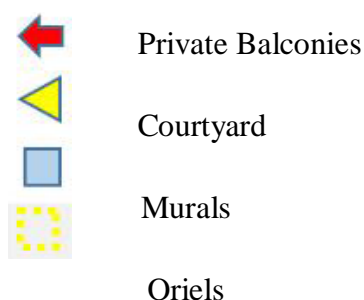
Plots of blanks which overlooking on them.

\_ The use of contrast method is a modern method in achieving the Islamic contents and user's comfort, which was reflected by combining between the common blank which appeared in courtyard of the house and separate blanks that provide the full privacy for dwellers which appeared in overlooking balconies, in addition to these uncovered blanks combined between concept of open blank and concept of closed blank through using the murals and oriels in open blank ( Fig. 8 ).





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Shots clarify the combination among contractions of open and close – common and private blanks.

Source: Taiba office of Arc. Ayman.

#### E. Suitability with the site:

Suitability Al-Zuayter House with the site and its slope is one of the most important characteristics that characterize it. (Abu Ghneima, 2005), where the architect took advantage from the slope in the formation four houses with separate entrances and balconies overlooking each other in a hierarchy to create beautiful, contemporary and traditional building at the same time ( Fig. 9 ). In addition, the building simulates the environment and adjacent urban fabric through its using of white stone and wood ( Fig. 10 ). In addition to the above, the suitability with the site has an impact on the economic aspect and simplicity concept.



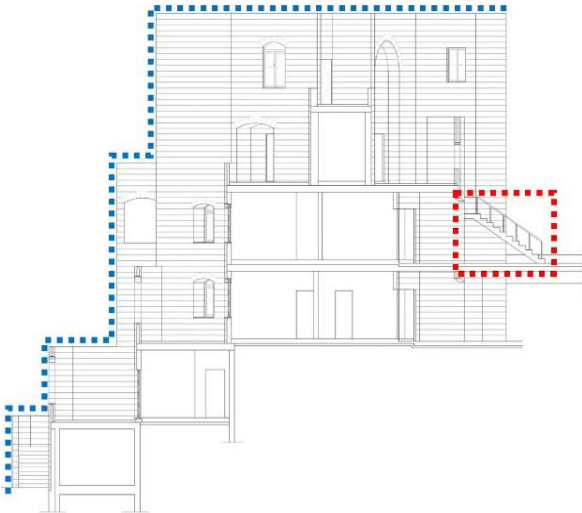


Fig.9. A cross section showing the advantage of the the building simulation

Fig. 10. Snapshot clarify

slope the site in the architectural block and in chapter building materials.

the architectural fabric in

of the entrances to residential houses.  
Foundation.

Source: Aga Khan

Source: Taiba office of Arc. Ayman.

#### F. Lighting:

The architect gave a lot of attention to this aspect at night and daytime:

\_ **Daytime:** Conglomeration formation has an effect on the sun so that the sun shines the most of the day in a way that shades the open balconies and with the presence of the orials of external blanks the balconie serve to renew and cool the air.( Fig. 11 )

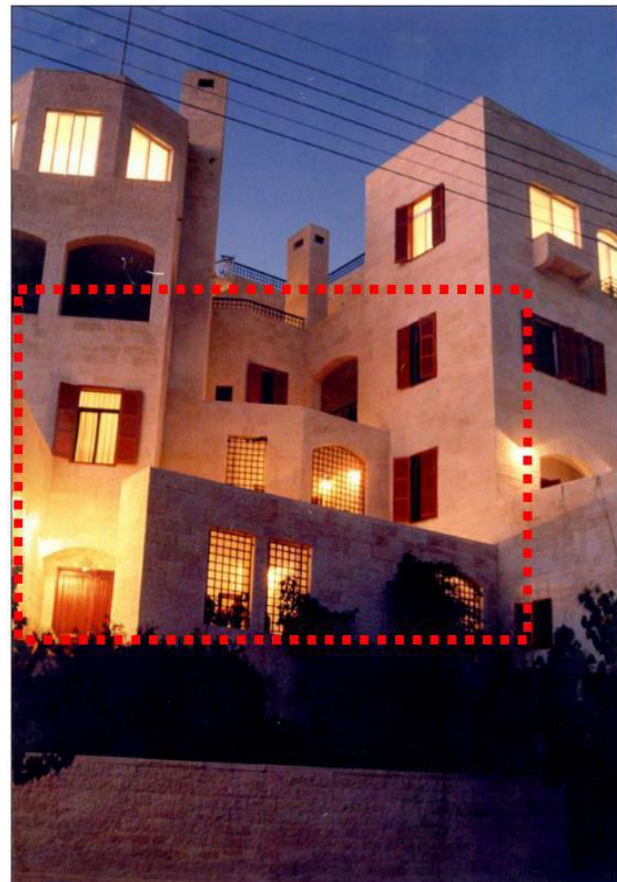
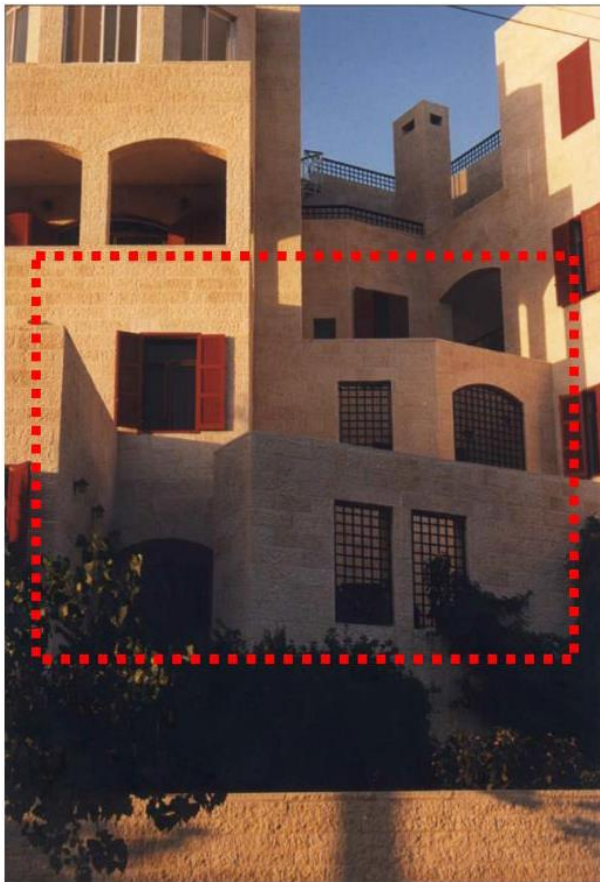
\_ **night:** The role of oriel in control with lighting has a significant impact on the night lighting of the house, this control is reflected outward so that the wooden oriel holes



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are manipulated by lighting the external balconies and then breaking the light brightness to light of building. In addition to using of the architect of the yellowish light, which gives feeling of tranquility and warmth, which are the feelings needed in the dwelling of human.( Fig. 12 )

In addition to the above mentioned, it is worth mentioning to the effect of light in the creation of architectural body of the family dwelling, where daylight lighting parts and shading others and industrial lightning shade the lighted parts in daytime and light the shaded parts, this change and harmony added a formal aesthetic to the building and gave it a countinuous dynamic throughout the day. ( Fig.11 , Fig. 12 ).





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Fig.11: Day snapshot showing refraction of daylight and shaded balconies. showing the role of oriels in optical manipulation and light the source: Taiba office Arc. Ayman. the day.

Fig.12: A night shot shaded blanks during

## 9. Summary:

In the previous analysis, the style of the architect Ayman Zuayter appears in his application of Islamic architecture, his using of the ancient Islamic elements appears in a contemporary and modern style, such as:

- Oriels.
- Courtyards
- Balconies

In addition to the Islamic style effected in arhitects in the internal division of the separation of special blanks and common blanks by using closed corridors and destributed blanks, as for the Islamic contents which described in the studies (Ibrahim, 1986), the house succeeded in providing several of them:

- Functional
- Privacy
- Social intraction
- Suitability with the site
- Simulation of adjacent urban fabric
- Simplicity
- Economy and keep away from extravagance
- Dynamic of building
- Highlight blanks from the outside
- Take advantage from natural lighting and ventilation





- Provide comfort, tranquility and warmth for dweller

#### 10. Results:

- 1) Islamic architecture is a local architecture based on Islamic contents, therefore, the variables which affecting in local architecture it will necessarily affect in the Islamic architecture and its concepts.
- 2) The idea of Al-Zuayter House was based on provision residential houses with high-privacy within the same space.
- 3) The projection ( U ) is a support in the formation the uncovered blanks that are characterized with privacy for each floor.
- 4) Respecting the site help Al-Zuayter House in the internal division and external formation, in addition to help in achieve some of Islamic contents, for example, the suitability with environment through block gradation and privacy, and through of separation the entrances of residential houses.
- 5) The success which is achieved by architect in using the oriel element in internal and external blanks, and which enriched the use of this element in Jordan and gave it a new elegance.
- 6) The architect's focus on the achievement of privacy has been reflected in several ways such as the separation the entrances, using the oriels for internal blanks, using the murals and oriels in the external balconies for each floor, the internal division by separating the general blanks and private ones, also through using the closed corridors and blank of distributer.
- 7) The architect used the concept of modern contradiction in providing the comfort and the necessary privacy for the dwellers.
- 8) Manipulation with sun refraction and using the yellowish light in external balconies have created dynamics of building.
- 9) Modulating the dynamic light of building from mere family house architectural body decorate the site.



## 11. Recommendations:

- a) Architects take advantage from modern architectural experiences such as the Al-Zuayter House in order to continue the contemporary development of Islamic architecture.
- b) Continuous in analysis the buildings with Islamic character in order to establish the contents and objectives which associated with Islamic architecture to become good standards for all time and place.
- c) The need to write down the hidden design goals by designer architect to enable cumulative development on these goals.

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