The Role of the Cultural Factor on the Formation of Vernacular Architecture

By

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Abstract

This article will focus on reviewing, evaluating, analyzing, as well as concluding several different existing researches and literature on the role of Cultural factor on the formation of vernacular architecture and especially religion, custom, tradition and socio-cultural factors such as privacy, gender segregation, and hospitality in various regions around the world. Architecture and culture are two important and complicated concepts that reflect a society's identity as well as we can describe any culture and act as an iconic and cultural term for understanding the society's cultural norms. In addition, it is important to note that the system of vernacular architecture has deteriorated and been purposely ignored by designers, investors, and architects in modern times, as a result of the substitution of materialistic culture. Moreover, architecture covers life, implying that it has an effect on every aspect of our lives. Architecture and human behavior have a strong bond and that they are closely linked. When it comes to the cultural impact of architecture, function and form play a part when cultural, social, and even economic factors are taken into consideration.

The problem of this article review is the role of cultural factors is deteriorated and been purposely ignored by designers, investors, and architects in modern times, and has an indefinable and unclear role in making the connection between people and vernacular architecture.

The aim of this article review is the role of cultural dimension contribution on the formation of vernacular architecture, and to make certain that the various cultural factors like custom, traditions, beliefs, socio-culture, art, and religion are the effective factors that influenced vernacular architecture in general.

Hypothesis: It is suitable to determine cultural environment as one of the major factors that affect the formation of vernacular architecture.

Introduction

The importance of this article review is how different cultures in general and religion, socio-culture, custom, and tradition aspects especially help with shaping the vernacular architecture. Bernard Rudofsky an American architect and writer, coined the term "Architecture without Architects", which is now widely used to describe vernacular architecture; widely used to explain its idea of vernacular architecture. In his book, "Architecture Without Architects" attempt to break down our limited perception of the art of building by incorporating the unknown world of non-pedigreed architecture, so we'll call it vernacular, anonymous, spontaneous, indigenous, and rural because we don't have a generic name for it (Rudofsky, 1964, pp. 1-2)**. This means that vernacular architecture described as an indigenous or embryonic type of traditional architecture and the one that considers the built environment around it and is open to a wide range of urban contexts, including socio-cultural norms and needs, regional climate and environmental factors, and economic resources. This paper will only focus on cultural dimension which are religion, art, science, custom and traditions that are constantly affected vernacular architecture formation.** According to Muhammad Zare, Farhad Kazemian, region and beliefs aspects have an impact on the customs and traditions, and

by maintaining the building's essential, cultural, and artistic qualities, a simple construction with no spirit can be transformed into a perfect structure (Zare & Kazemian, 2014). According to Dina Howeidy, At different points in ancient Egyptian history, colors, meanings for colors, and artistic norms relating to color were modified or applied to this system. The Nubian villages' native architecture was influenced by the Nile River; they used mud as bricks in building construction and as finishing materials, with barrel vaulted roofs and domes for air circulation, and as the family grows, the main building is extended and new spaces are added for more rooms (Howeidy, 2017, pp. 174,172).

 Historical Background

During primitive times, vernacular architecture was described by Paul Oliver as the ability to build a shelter that was controlled by the availability of resources and materials (Oliver, 2007, p. 1). According to Krisanne Gonsalves, Prehistoric men-built homes out of locally available materials, presenting handcrafted proficiency and craftmanship that reflected the region's distinct cultures. Consequently, the need for adaptable and convenient shelters quickly became a necessity. These native structures and vernacular dwellings were able to respond to climate conditions exclusive to different biomes. As a result, a safe and friendly environment was developed (KRISANNE & GONSALVES , 2020, pp. 1,2). **This means that they constructed dwellings out of locally available materials, demonstrating handcrafted proficiency and craftmanship that represented the region's diverse cultures.** Moreover, according to Lindsay Asquith, Marcel Vellinga, before to the extol from well-known 20th- century architects such as Frank Lloyd Wright, Le Corbusier, and Adolf Loos, the word "vernacular" was often used with a pejorative implication (Asquith & Vellinga, 2005), according to Paul Oliver, implying that a building was not properly undertaken by a certified architect (Oliver, 2007, p. 2). **This is mean that a structure built by an amateur with no formal design training,** according to Paul Oliver "vernacular architecture, given the insights it gives into issue of environmental adaptation, will be necessary in the future to ensure sustainability in both cultural and economic terms beyond the short term" Oliver also offers the following simple definition of vernacular architecture: "the architecture of the people, and by the people, but not for the people (Oliver, 2007)**. According to Muhammad Zare, Farhad Kazemian, people should be given opportunities in built environment to achieve a remarkable sense of understanding connected to other people and to renew their relationship with the past and future. Vernacular architecture proven to be a suitable option for achieving this aim. Additionally, it can assist designers in enhancing their sense of place and understanding anyone living in that environment with his needs (Zare & Kazemian, 2014). **This is mean that a strong relationship between man and nature can help people in understanding the capacity of nature and using the hidden potentials in nature in such a way that their renovation and creativity remains important after centuries**

Methodology

In order to write this paper, a variety of different papers, literature, and books were closely studied and evaluated. Cultural factor that contributes to the formation of the vernacular architecture is explained in details. In addition, only secondary research was conducted because there was no case study. As a result, no interviews and surveys were carried out for this particular research paper. Instead, only reliable and vital sources were used for this research.

Also, searching tools like "AND" and "OR" were also used to receive precise results. Further, several different searching engines and tools were also used, such as google scholar in order to detect the most valid and reliable sources and information. Lastly, analytical explanations, detailed descriptions, and useful examples were included to better illustrate the aim of the research paper as well as to draw equitable conclusions.

Literature review

The relationship between vernacular architecture practices and the built cultural environment will be reviewed in this literature review. According to Muhammad Zare, Farhad Kazemian, each society, and culture begins at a point where the previous civilization was unable to cope with or was in a chaotic situation but with one specific and noticeable difference (Zare & Kazemian, 2014). **This is explained that in terms of culture's direct impact on vernacular architecture, it's only reasonable that shifts in culture can cause a fundamental change in the foundations of influential concepts and help in the formation of new ideas that decide the mutual understanding between theory and culture in vernacular architecture.** According to Hubert Guillaud, vernacular architecture is deeply affected by the lifestyle of its users, which includes the number of inhabitants and their concurrent spatial use and relations, food preparations, and religious beliefs (Guillaud, 2014). **This is means that vernacular architecture has the ability to link culture and community, and it is known as a part of people's cultural identities. Not only does vernacular architecture respond to users' most essential need for shelter, but it is also closely tied to culture.** According to Feyyaz Erpi, while similar building materials and technologies are accessible to people of different cultural backgrounds who live close to each other and share the same climatic conditions in some cases, their houses display surprising differences (Erpi, 1991). **This is means that different culture produces different vernacular dwellings under the same climate conditions and recourses availability**. According to Muhammad Zare, Farhad Kazemian, there are science, religion, art, ethnicity, customs, and every other kind of capability are all part of the culture as well as social life means living together in a cultural environment. Although that cultural element is different in nature, living in the most primitive tribe or the most technological society has the same conditions as living in a society that is affected by human conditions (Zare & Kazemian, 2014, p. 547). **Meanwhile, reviving the social sense, connectivity, and interaction with the natural environment are all necessary components of developing a sustainable culture.**

1- The first example to review and analyze the effect of the custom and traditions, Feyyaz Erpi in his research paper (Community Culture and its Reflection on Vernacular Architecture) in 1991 discussed three cases which are Turkish, Greek, and Levantine Housing in Anatolia. To illustrate the strong ties between religious factors and vernacular architecture, Customs imposed by the religious effect emphasized in this literature. The first case is the study of the Turkish House, which grew during the Ottoman Empire under the strong influence of Moslem religious customs. The current examples have a history of around a century and a half. This vernacular architecture was created by ethnic groups of people (other than Turks) who shared the same religious culture and "style." One of these houses' distinguishing features is their "introvert" planning organization. They've been shut off from the street where they've been aligned. When viewed from the street, houses have an uninviting appearance. Moreover, Doorways on the ground floors' blank walls lead to a courtyard in which one can enter the house beyond. The visitor leads a set of stairs to the upper floor, which includes living and sleeping areas (Erpi, 1991). Meanwhile, almost all Moslem houses in the area have this kind of indirect access.

That's because, in Moslem cultures, women are segregated from daily life, and the house where women live closed itself off from the outside world to create an introverted environment. This illustrates that the formation of the dwellings depended on the customs imposed by the religion.
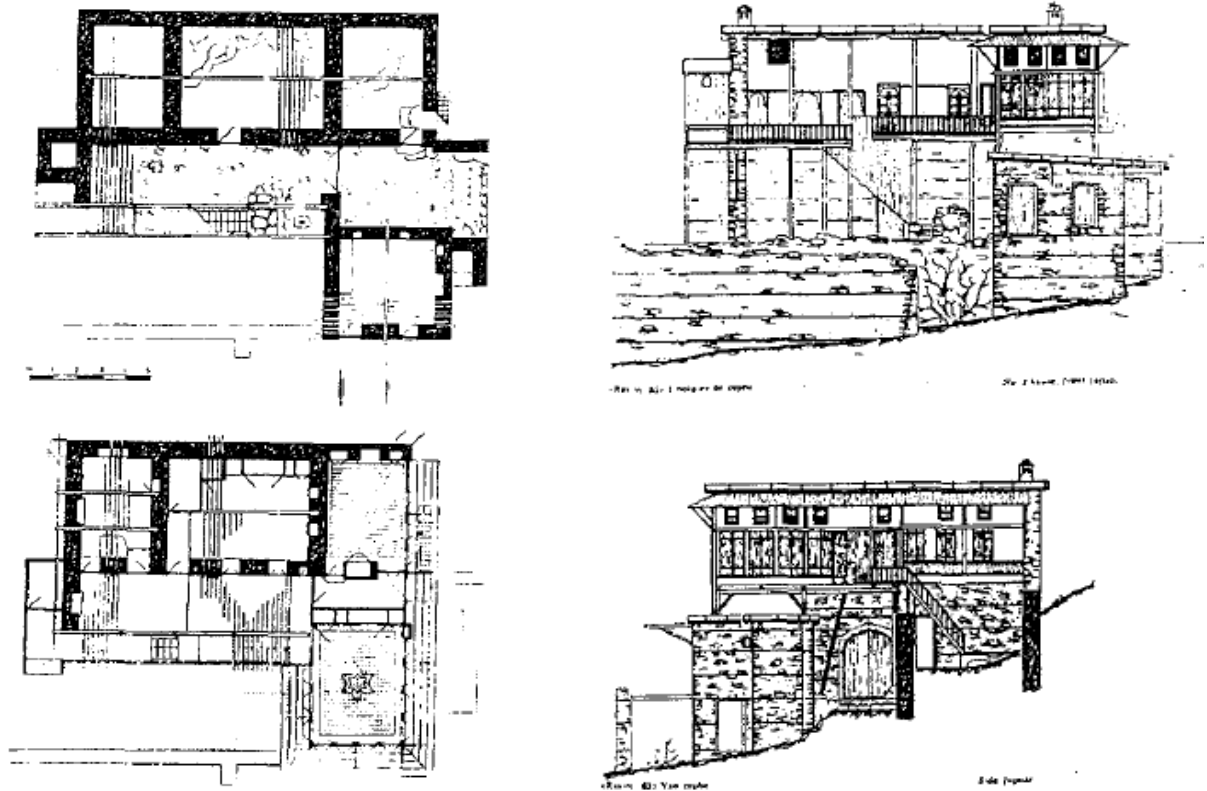
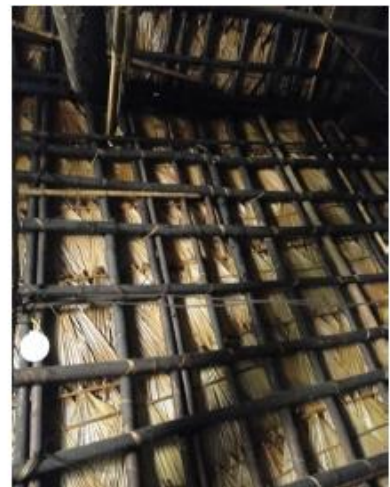*The Turkish House, Alanya, Southern Anatolia* (Erpi, 1991, p. 245)

However, the second case of Feyyaz Erpi's study explained the Greek Houses. There are some features which differ from the Turkish house due to various religion effect on vernacular architecture in these areas. For instance, "front facades" are either straight with the street line or set back a few meters with a front garden. The rectangular prisms that make up the house are so similar in character that it's difficult to distinguish them off from each other. Moreover, Climate factors influencing the house's orientation are neglected. The openings are small and distributed equally over all facades. On the other hand, the Greek vernacular houses' dominant characteristic is its extrovert nature, which contrasts strongly with that of the Turkish vernacular. It is organically and directly connected to the street. Furthermore, the Greek community's gender segregation can hardly be compared to the Moslem community. The street itself serves as a gathering place for the community, and it continues into the house on the ground floor. The previous article review illustrated and concluded that there is a strong bond between customs imposed by religious factors and vernacular architecture. Further, the Formation of different

regions' vernacular architecture depends on various dimensions which is one of the main factors is custom and tradition aspects (Erpi, 1991).
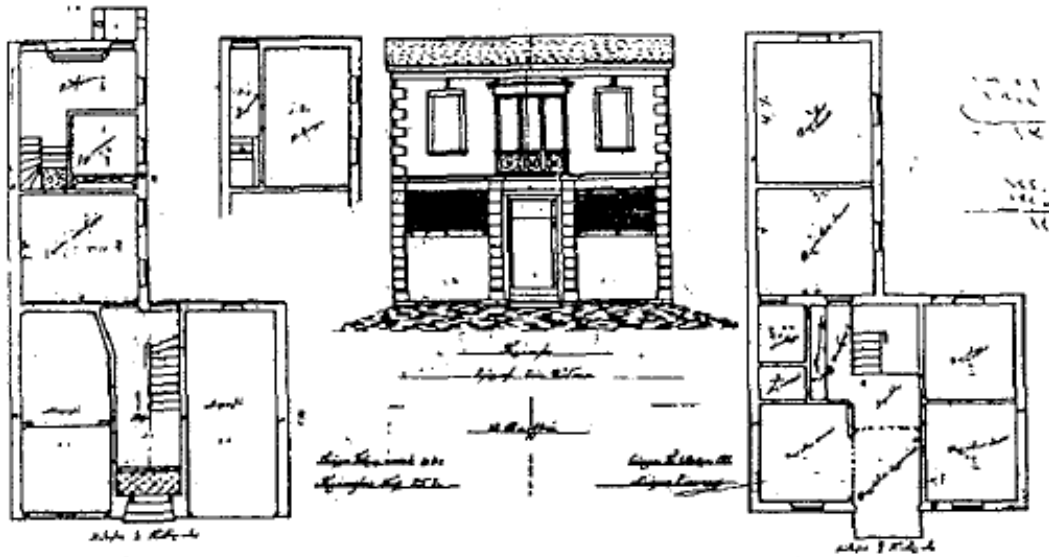
Original working drawing of a Buca house, dated 1911 (Erpi, 1991)*.*

2- The second example is reviewing and analyzing belief and religion factor effect on vernacular architecture as a part of cultural dimension by a study done by Sanjeev Singh and Saurabh Poplin,2020, In the research paper titled as (phenomenology of vernacular environment: Wancho settlement in Arunachal Pradesh, in north east of India). Researched and discussed the Wancho communities in Arunachal Pradesh's Long Ding District, in the north-east of India, by studying their architecture in relation to its common cultural and geographical context and a phenomenological investigation of the Wancho environment and architecture. They find that both of social structures and cultural patterns are reflected in the built environment. In the Wancho village, the location and size of a dwelling unit reflect the position of its occupant within the hierarchy.

Moreover, the Wangham (chiefs) live at the highest point in the topography, followed by the Wangsa and then the Wangsu, with the Wangpan (common people) which live at the bottom of the slopes. The settlement pattern's spatial hierarchy creates a spatial logic that represents the community's social order (Singh & Popli, 2020, p. 545). This is mean that in Wancho community difference social stratification reflected on architectural urban form of dwellings and ways of life.

Pattern of bamboo matting on the walls and skulls of hunted animals display in and outside the house (Singh & Popli, 2020)

According to the same research paper, Wanchos believe that lightning-struck areas are visited by evil spirits. A sacred place to propitiate Sholom Shom, the river god, could be described by a stone on the riverbank. Paan-kha, or sacred structures, are built at the village's entrance to keep evil powers out. At the same time, the houses are sacred to a Wancho, and some ceremonies are performed there. The size of the house is based on the number of people in the family. Construction of the dwellings support is available by family friends and relatives. As previously mentioned, the location of the house inside the settlement is also decided by the family's social class, on the other hand, represents its owner's position in Wancho society not only through its location inside the village, but also through the materials used in its construction and their patterns (Singh & Popli, 2020, pp. 545-547).

3- The third example is reviewing and analyzing Socio-cultural norms and art factor effect on vernacular architecture as a part of cultural dimension by a study done by Dina Howeidy,2017, in her research paper (Implementation of Art on Vernacular Architecture in Ancient Nubia -Egypt), this study focused on the use of art in the interior and exterior of residential units, as well as the reasons for choosing colors and symbols. Furthermore, they were evaluated in relation to their beliefs and customs, as well as the materials, techniques, and background, all of which were borrowed from Ancient Egypt, as the Nubians were the first tribes to be created at that time. According to Dina Howeidy, the Nubian people are an ethnic group who are regarded one of the world's oldest peoples, with a culture that dates back over 8.000 years. They lived in Egypt's south and Sudan's north. They had their own culture and language, and Nubian regions were the birthplace of Egyptian civilization. Between the first and third

cataracts of the Nile, the Nubians experienced a slow and quiet life in their homeland for hundreds of years. They were forced to leave their villages in 1964 and relocated to new ones that the government designed and built. This sudden shift in their environment had an impact on how they had lived for hundreds of years. Social life is very important to the Nubians, and they have unique traditions, some of which before the movement and are related to the Nile River. The Nile River also inspired the Nubians' art, as some of their wedding traditions are.

The decorative elements and the use of symbols and colors in ancient Nubia-Egypt (Howeidy, 2017, p. 174)

Furthermore, the females' role in the community is significant, and the house is regarded as a palace for them, where they receive visitors and guests. According to tradition, the house must be clean and attractive, and visitors will notice that the buildings present a sense of harmony and practicality.

The difficult issue of meeting the growing demand for housing in cities while also dealing with the environmental issues of the twenty-first century appears to be more important than ever. investigate how vernacular knowledge can be applied to the creation of the type of architecture and urban setting that exist culture-appropriate and sustainable. The Nubians' worldview and way of life were mirrored in their homes in ancient Nubia. Professional architects developed and created displacement villages that expressed a different world view based on their ideas and social class. The Nubians' way of life and worldview were not respected in the design of the displacement villages. This necessitated various modifications in the Nubians' way of life and daily routines experience (Howeidy, 2017). Color symbolism in Ancient Egypt was mainly consistent, though not fully so, throughout all locations and time periods. At various stages in Ancient Egyptian history, colors, meanings for colors, and artistic norms relating to color were altered or added to this system. Using art as a part of Nubians culture reflected in their house facades, drawings, paintings, texts on the facades, and lots of other aspects by using different colors and adding animals /birds/ fish to the drawing and paintings on the facades. Further, using blue color of the Nile because the river means the life for them due to the strong relation between Nubian and Nile River, as well as they used the concept of the writing texts which related to their beliefs and religion such as using some text for welcoming and the drawings expressed on social life like weddings. The use of in framings the windows and doors and according to the culture of

each tribe has its own style and color in designing its façade, the geometric shapes around

Reviewed research	Type	Year	Title of research	Case study	Finding related to the research
(Rudofsky 1964)	book	1964	Architecture without architects	introduction to non-pedigreed architecture	Definitions and understanding vernacular arch.
(Oliver, 2007)	book	2007	Built to Meet Needs	Vernacular architecture and cultural effect	historical background about vernacular architecture
(KRISANNE & GONSALVES)	article review	2020	Relationship Between Vernacular Architecture and Cultural Environments	association between vernacular architecture and the relationship within its built cultural environment	representing the region's diverse cultures effect on vernacular arch.
(Asquith & Vellinga, 2005)	book	2005	Vernacular Arch.in the Twenty-First Century	Vernacular arch. From past to now and future	Understanding vernacular arch& its connection with cultural environment
(Zare & Kazemian, 2014)	article review	2014	Reviewing the Role of Culture on Formation of Vernacular Architecture	the cultural features of Iran's architecture and combine it with vernacular architecture	Cultural feature effects on vernacular arch.
(Howeidy, 2017)	Article Review	2017	Implementation of Art on Vernacular Architecture in Ancient Nubia -Egypt	Nubian Vernacular Architecture	Discussing art and socio-cultural factor &Reviewing in the 3rd example using its case study
(Erpi, 1991)	Research paper	1991	Community Culture and its Reflection on Vernacular Architecture	presents types of housing marked by three different cultural settings within the same area of Turkey.	Reviewing in the 1st example using its case study
(Guillaud, 2014)	book	2014	Socio-cultural sustainability in vernacular architecture	The impact of socio-cultural sustainability in vernacular in general	illustrating effect of different aspects of culture on vernacular architecture

windows and doors referred to their dynamic life (Howeidy, 2017).

(Singh & Popli, 2020)	Research paper	2020	Phenomenology of vernacular environments: Wancho settlements	analyzing traditional cultural and geographical context. Through a phenomenological study of the landscape and architecture of the Wancho	Discussing Beliefs and religion factor effect on vernacular architecture, the 2nd example of literature review

Result and Discussion

1-in terms of culture's direct impact on vernacular architecture, it's only reasonable that shifts in culture can cause a fundamental change in the foundations of influential concepts and help in the formation of new ideas that decide the mutual understanding between theory and culture in vernacular architecture.

2-vernacular architecture can connect culture and community, and it is recognized as a part of people's cultural identity. Not only does vernacular architecture provide individuals' most basic need for shelter, but it also has a strong cultural connection.

3- Under the same climate conditions and resource availability, different cultures construct diverse vernacular dwellings.

4- From the first example studied by (Erpi, 1991) we can conclude that there are the strong ties between customs as a part of cultural factor and vernacular architecture, in the study of the Turkish House compared to Greek house we can deduce that the customs imposed by the religion reflected in the Turkish house by distinguishing features such as "introvert" planning organization as well as they've been separated from the street where they were aligned. Meanwhile houses have an uninviting aspect when viewed from the street. This is because women are segregated from daily life in Moslem societies, and the house where women live is closed off from the outside world, creating an introverted setting. This demonstrates how the religious rituals influenced the construction of the dwellings. However, compared to the Greek House which is studied in the same research paper we can conclude that the gender segregation in the Greek community pales in comparison to that of the Moslem community. The street itself functions as a neighborhood gathering spot, and it continues inside the ground-floor dwelling. this study demonstrated and concluded that religious considerations and vernacular architecture are closely linked.

5- From the second example studied by (Singh & Popli, 2020), we can emphasize that there is the strong bone between belief or religion as a part of cultural factor and vernacular architecture in Wancho (the area of study) which is the location and size of a dwelling unit reflects the position of its occupant within the hierarchy as well as in Wancho community difference social stratification reflected on architectural urban form of dwellings and ways of life. The house's placement inside the settlement is likewise determined by the family's social class; however, the house's owner's position in Wancho society is represented not only by its location inside the village, but also by the materials used in its construction and their patterns.

6- From the third example studied by (Howeidy, 2017), we can conclude that the art was reflected in vernacular architecture and encompassed several parts of the community; it focuses

Sources	Various aspects of culture	Indicator

on religious, climate, social, and cultural issues in order to promote long-term sustainability. Aspects of art as a part of cultural factor have a great effect on the formation of dwellings, interior decoration of these Nubian ancient dwellings, and dwellings facades by representing simple techniques of implementation, using colors, shapes, animal pattern, and text. Way of life mirrored in their home in ancient Nubia. However, in the displacement-designed village by Hassan Fathy, the way of life and world view of the Nubian were not respected very well. So, life in the new dwellings changed some aspects of their life. From this, we can say vernacular architecture can also have an effect on the way of life and socio-cultural factor.

(Erpi, 1991)	Customs and Traditions	Introvert feature imposed by religion (shut off from the street) & women segregation, the house where women live closed itself off from the outside, indirect access to the house	Extrovert feature, using outside as a gathering place for the community, and privacy, gender segregation, and hospitality	"Front facades" are either flush with the street. line or set back a few meters with a front garden. size and shape of doors and windows which is directly located on the streets
(Singh & Popli, 2020)	Religion and Belief	The location and size of a dwelling unit reflect the position of its occupant within the hierarchy.	Materials used in its construction and their patterns reflect the position of its occupant within the hierarchy	Community difference social stratification reflected on architectural urban form of dwellings and ways of life.
(Howeidy, 2017)	Art as a part of culture	Animals/birds/fish drawing and shapes added to the facades.	Writing texts were related to belief and religion (such as using some text for welcoming)	Using blue color of the Nile (the river means the life for them), artistic norms relating to color were altered

Conclusion

Architecture and human behavior have a strong bond and that they are closely linked. When it comes to the cultural impact of vernacular architecture, function and form play a part when cultural, social, and even economic factors are taken into consideration. In terms of culture's direct influence on vernacular architecture, it's only logical that cultural changes will lead to fundamental shifts in the foundations of influential principles and help in the formation of new ideas that determine the mutual understanding between theory and culture in vernacular architecture. Moreover, cultural factor in general and customs imposed by religion, beliefs, religion, art, and socio-cultural norm aspects in specific have an extremely impact on formation of vernacular dwellings, as a result of this article review, we can conclude that out of the most commonly cultural factors, influences of community religions aspects and beliefs factor on vernacular architecture are the most character impacted in the various region of the world. That's

because of beliefs or religions strong effect on people day life and people activities and it effect on community customs and traditions and there are lots of traditions imposed by religion factor.

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