



Architecture Department

College of Engineering / University of Sulaimani



Vernacular Architecture and Environment (MSc)

Review Article:

**The Role of
Vernacular Architecture as An Entrance to Understand Traditional Architecture
(Comparative Study Between Vernacular & Traditional Architecture)**

By

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Abstract

History serves as a link between the past and the future, binding them together. Besides that, invention will be difficult without understanding your past, and progress that is not informed by tradition will be conflicting with the today. As a result, each of them (vernacular and traditional arch.) structures make up a significant portion of the world's historic buildings (heritage) . They emphasize or concentrate empirical data and knowledge of (building techniques, materials, building form, typology,etc.). Furthermore, these structures serve as a physical repository for a civilization's traditions, culture, and history, as well as its people. Vernacular arch. include of all the architecture or buildings which utilize or use natural materials resource (locally and available) to address and support the environments (surroundings) and local needs. Clay, timber (row material), marsh, and bamboo are among the natural materials available. supporting and assisting in the development of a responsive or geographical area architecture. Local laborers are responsible for the construction of these buildings using and applying indigenous technologies that have developed over time. The foundations (concepts) of indigenous construction understanding developed into more advanced structures over time, As a result, a variety of traditional building archetypes have emerged and developed. Traditional arch. make better utilization of locally accessible resources (materials) and are a reflection of the social frameworks or system. The vernacular dwellings or architecture, on the other hand, demonstrate a simple construction method with limited social expressions. the traditional arch. display a developed and progressing style of construction and expression. Each of them (vernacular and traditional) architecture typologies reflected the dominant cultural and social systems.

Keywords: vernacular architecture (V.A.), traditional architecture(T.A.) , simple techniqu , local material, Architect's opinion .

1- Introduction

Architecture relates to the designation or definition of location (space). It is the art of building the places needed to make or improve people's lives easier, participating in and sustain activities like as sheltering, relaxing, operating, and enjoying. Functional criteria in relation to economic and technological possibilities must be considered in the creative/aesthetic aspect . To put it another way, it's really the theory (art and science) and practice of organizing , designing, and creating constructions or building and the physical setting or environment (*Mine Ulusoy, 2012*). According to Aknesil, The technique (art) of building design and the physical setting to a suitable scale and with characteristics that render those space and environments livable is known as architecture (*Aknesil, 2011*).

People also build structures without the assisting or helping of architects. Vernacular architecture is architecture produced without the participation of architects. Approximately 90 percent of all structures in the world are assumed to be vernacular, meaning they were founded by ordinary or common people. (*steam, 2014*) Buildings constructed with available materials(locally) by local residents utilizing built-by-hand craft techniques make a lasting architecture that is unique to a particular location and community (culture). Vernacular architecture offers comfort ,dwelling and shelter with the development of craft and skill given back over year and generations Vernacular architecture undoubtedly reflects the culture between the people and the region so it is built from locally available materials by local people. Native housings, when built frequently over years, become test (try-and-error) answers to environmental conditions(locally). From bamboo to igloos dwelling, from marsh houses to terraced shelter, people build house and comfort in specific structures in answer to their geographic location. (*Salman, 2014*)

As per (Oliver, 1991), The expression vernacular comes from the Latin vernaculus, which describes "domestic, local, or indigenous.". defines; The house was not built by a professional (designed). They are "buildings of the people, by the people but not for the people" and "accommodating the values, economies, and ways of life of the cultures that produce them". the sorts of construction created by person in folk, farmer and popular communities without the use of an architect (EZO, 2019). others explained the (V.A.) has evolved over time as a result of continuities, improvements, and adaptations to changing social and economic circumstances in reaction to real needs with the resources available in each location. Any discontinuities can be seen at the similar period. However, intelligence fragments have recently been in danger of disappearing. Continuities in (V.A.) are associated with space, period, and materiality, including typological, functional, physical setting, and social problems that can be seen in a variety of ways. (Maria, 2017)

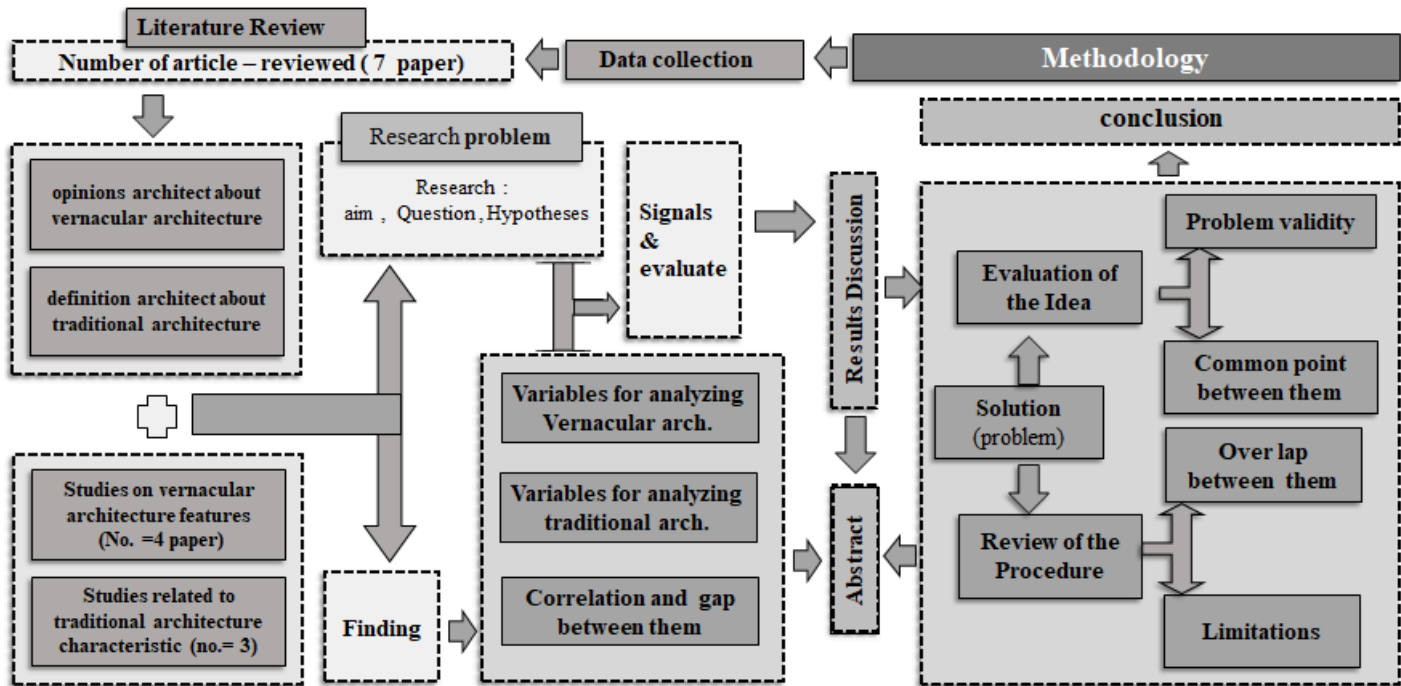
Traditional architecture considers the patterns that were common in a particular region or city. The features of (T.A.) A dedication to keeping a connection to past architectural styles is used by designers and builders. reuse of materials or model of buildings in a way that is consistent with the area's general architectural style. This gives a sense of stability and relation to the past, which aids the community's residents in keeping the area's traditional feel and appear. (Rapoport, 2002)

- ❖ **The problem of the research :** the main problem is : The presence of different opinions, controversies and orientations of architects regarding the definition of vernacular and traditional architecture, other problem they are a different in the real exist case in many aspect (material, technique, culture, environment, economic, ...,etc.) in the world. So, we can not easily to understand each of them in architecture style.
- ❖ **The aim of the research:** The aims of this review to trying to understand both vernacular and traditional architecture, (anything in common and different)
- ❖ **Research question:** What is the link and different things between the both of the architectures ? Is vernacular and traditional architecture one thing?
- ❖ **The hypothesis of the research:** Vernacular and traditional architecture have a common points or things between them (overlapping), but they are not one architecture style.
- ❖ **Research Methodology:** Methodology that is descriptive and is based on many analyses of previous research papers.

Summarize: the role of vernacular architecture can be viewed as a sort of doorway into understanding information system of traditional architectural. both of them have many similar characteristic such as (sustainability, representation of social life and culture, ...,etc.), but they are a two different style in architecture. (approve hypothesis)

❖- **Data collection and Methodology :** To earn data for this paper, we Previously managed a main word search and exploration in (Google scholar, Google gate, ..., etc.) of Science database to specify the (papers, books), which has published associate articles. We focused on each of them published in the trails which has been quoted by the found article papers to set a level for the article quality. Then, we are identified (papers, books), specific searches were Implemented on their web-site to save the papers to review. next, we searched about '**Vernacular Architecture**' and '**Traditional architecture**'.

Research Methodology: Descriptive methodology which is based on several reviews of former research paper. At first, the vernacular and traditional architecture definitions discussed and the dominant viewpoints analyzed to take a new look at the notion in comparison to its common meanings. Then, by reviewing relevant studies in the field of vernacular and traditional architecture, the approaches identified and categorized. For each category, examples also are given to illustrate how these concepts are applied. Of course, there are many other tendencies of this issue, but categorizing has been made in a way that it reveals opportunities in the field of vernacular architecture research. As shown in the below (diagram) .



۳- Background

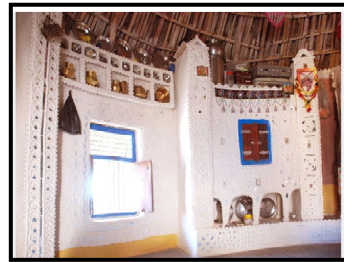
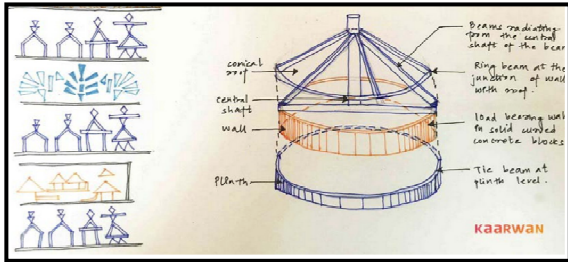
To understand the role of vernacular architecture as an entrance to understand traditional architecture ,both subjects should be descriptive :

۳-۱ Vernacular architecture: is a style of building constructed for residential use by people in the area utilizing natural materials and unskilled labor that lasts only a short time. With the aid of technical communities, this type of architecture could still be practiced.

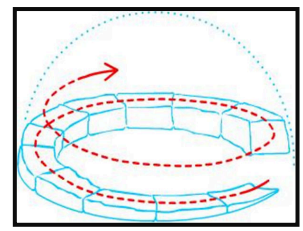
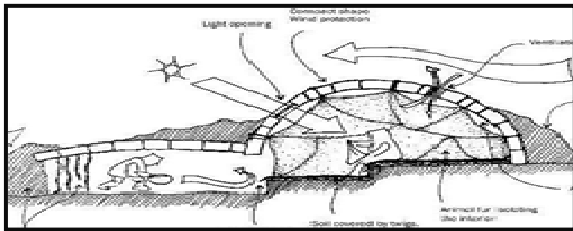
When you're in a state with a large culture and identity, like Africa, South America, or the Mid-East, the Vernacular Architecture approach could relate to building processes that were exclusive to that region prior to the arrival of international education or sciences and innovations (technology).

The features descriptions are based on Oliver's estimation, and there are a total of some elements that define it .These elements react to the questions of "how," "who," and "what" as they relate directly to vernacular manifestations. (Oliver, ۲۰۰۷)

Model construction (simple technique) , local and row resources (naitural material) , Owner-Builder , Not imaginative, but usable (function) or form follows function , Resilience and stability , Changeable and Modifiable , Form-Influential Factors , Social , life style ,religious and culture Expression , basic typology buildings such as houses, teamples, agriculture, etc. (Rudofsky's, ۱۹۶۵). Some model for this building style or pattern are:

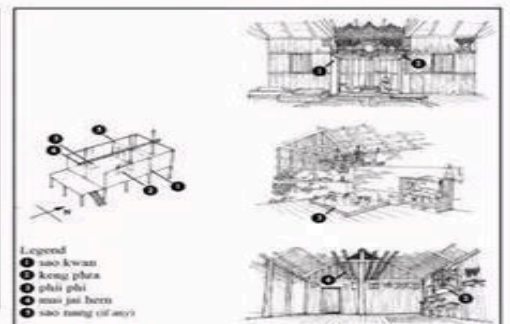
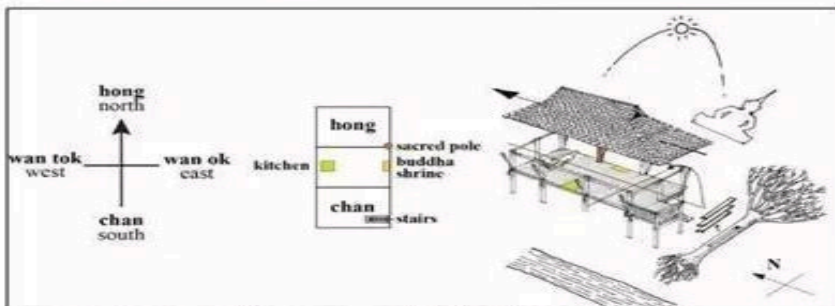


India- Bhunga house, single cylindrical-shaped , walls are made up of mud ,this form save it from environment impact

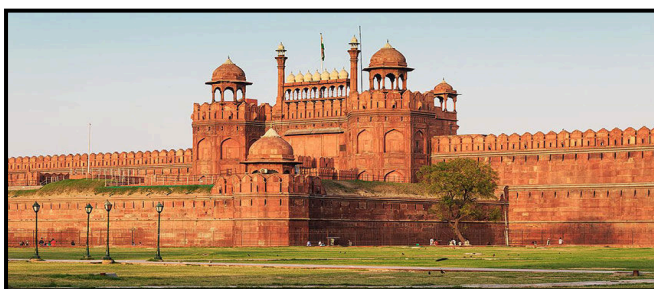


Canada - igloo – is a sort of shelter , made of a snow

Vernacular and earthen architecture towards local development ,concept of progress house in vernacular (the demonstrate development of house type rely on trial and error process pass over time period),for instancet ,in china , zhu liangwen, show follows fig. Below about it .



Traditional architecture: refers to building that has existed in an area for many centuries and is focused on well-honed architectural experience that has been created over time (Osasona, 1997). Due to a split in the lineage, this style could no longer be performed in its purest form. For instance ;



India's Temples and Palaces. Traditional style

❖- literature review

Numerous papers show vernacular and traditional architecture in a variety of ways, including the 'concept and technique' of a specific group's method of building shelter in the face of resource scarcity and operational construction methods technique. thus , in this review article, we try To show understand the role of vernacular architecture as an entrance to understand traditional architecture . so both subjects should be analyzed in to phases or aspects which are :

1-Opinion architects about vernacular and traditional architecture. (definition and explanation)

2-Reviewed study paper about (vernacular and traditional)Architecture. (analysis , finding)

❖-1 Opinion architects about vernacular and traditional architecture

(definition , explanation and terminology) : This section focuses on The architect researchers' comparative perspectives and opinion on the subject, as well as their meanings and use of the terms, appear to refer to the following explanatory synthesis:

- ❖ **Vernacular Architecture Definition:** Idea and definition the expression vernacular comes from the Latin vernaculus, that represents "**Domestic, Naitve, Indigenous.**" As per to (Oliver, ٢٠٠٢).
- ❖ **Giuseppe Pagano** was the first to use the term "**spontaneous architecture**" to describe vernacular architecture, not in a haphazard but normal sense (Novello, ٢٠٠٩). However, P. Oliver one of the first researchers to dedicate significant time to vernacular architecture studies, categorization, and relevant meanings , and in English phrase vernacular has also come to architecture thru his fieldwork in the field of language studies (Damyar, ٢٠١٢)
- ❖ **As per to P. Oliver:** in(**Dwellings**) book: The building was not built by a professional person (designer) . but it is display as a "**buildings by the people, by the people, but not for the people,**" and "**accommodate the traditions, economies, and ways of life of the communities that produce them.**" V.A. is a "**native science of building**", the sorts of architecture build by Citizens in rural, folk, farmer, and common communities or popular societies ,build architecture without the help of an architect or a professional builder. It entails using available material (locally) to build and make structures based on cultural, environmental , historical context or backgrounds of the people . he describe this meaning of the vernacular very Obviously in his Encyclopaedia of V.A. of the World , is a "**V.A. consist of the housing and other structures of the people. linked and associated to their social environment , contexts and locally resources(available material) . , they are customarily owner- or family -built, using traditional and conventional method (technologies). All types of vernacular architecture are made to fulfill unique needs, taking into account the cultures (background) , beliefs (value) , economies(cheap), and ways of life.**" (oliver, ١٩٩١)
- ❖ **Hassan Fathi**, In his book "**Building the Poor,**" he emphasizes depth about this, V.A. implies the common utilization local materials and construction techniques, and usually refers to very simple kinds of constructions. Fathi said; "**Look under your feet and build up**" building , if this is for people , we can argue and analyze, but if it is for other purpose like as commerce or politics, it is not a building. and Someone who unable to make his own home , but can have ten people create ten dwelling for them. (EI-shorbagy, ٢٠٠١)

- ❖ **Frank L. Wright** explained vernacular architecture as **"Folk architecture rising in response to real requirements and need , placed into environment through human who understood no better than to suit them with indigenous emotion and sensation"**. implying that it is a simplistic type of design that is devoid of rational thinking (intelligent thought).
- ❖ **As per to Maria**, The vernacular architecture has evolved and grown over period with continuities, modifications, transitions, and adapting to the various conditions (economic and social) of each era in answer to real needs with the resources that are available in each location (place). (Maria, ۲۰۱۷)
- ❖ **Bernard Rudofsky** , **"an architecture built by an amateur with no formal design way or teaching; the person would have been led by a set of local traditions, paying no attention to what is stylish."** The building's purpose will take precedence, with aesthetic appeal, although present to some extent, playing a minor role. Local materials will be used mostly, with other materials selected and imported on a case-by-case premise."
- ❖ **Simon Bonner** , vernacular architecture refers to structures that **"belong to a location (place) " and "reflect the regional and local language or dialect."** In the sense of vernacular, buildings are viewed as social images that **"connect them to cohesive and linked cultural structures of views and morals(beliefs)."** (Bonner, ۲۰۰۷,)
- ❖ **According to Jon Sojkowski**, is a recorded designer with a vision for African architecture style of vernacular typology. He was given the chance to record all of (document) the country's vernacular architecture and identifies vernacular architecture in Africa as **"Vernacular related to an building or structure that incorporates or includes native designs and materials . While building features(vernacular style) on the African continent vary widely, they all share a common ethos (similar aesthetic) and use of key local materials including mud, marsh , stone, reeds, bamboo, palm leaves,...,etc. Persons utilize building methods or techniques which have been passed down through generations, and the construction is long-lasting (sustainable) and seasonal(temporary)."** (Sojkowski, ۲۰۱۷)

Traditional architecture

- Traditional architecture is a living concept (dynamic idea) that has evolved and changed over time to solve the several current building. It's a method of constructing a dwelling that utilizes recognizable symbols from a specific community (culture) of special people in a distinctive manner or special way.or, Traditional architecture is a type of construction that makes extensive use of the popular symbolic representations of a specific culture of a specific customers in a specific location.
- **Simon Bonner** : meaning tradition as **"A correlation to the teaching (learning) that produces cultural identity and the authority (legitimacy) that tradition keeps"** (Bronner, ۲۰۰۷)
- Tradition would not be viewed as a limitation ,When using vernacular concepts, but rather as a source of social approval. It should permit us to reply not mere why buildings respond the way they do and why they would be placed where they are, but also why houses were built and also how it changed over time . When it is passed down and renewed from generation to the next

generation , Tradition encourages innovation and ability to adapt, which, once approved by society, will eventually remain part of tradition.

- **Traditional architectural** (heritage buildings) : A international study of architectural features and cultural roles, " **when it comes to traditional architecture We see or recognize consistency of methods and principles , and at the same time, the changes representing shifts in society, climate, economy, and behaviors(lifestyles).**" The word "traditional" can be used to describe academic and historical structures, that have a particular connection to the region, but may also be descendant infrastructure I believe that when it comes to building, native is a synonym for vernacular. (Tauris, ٢٠٠٧)
- It is the widest phrase; it refers to the real implementation of constructive tradition and scientific experience, which is passed down through centuries through oral transmission. It investigates the territory's characteristics primarily via the use of local resources, like environmental reaction and cultural activities. demonstrating the manufacturing essence's technological sophistication and the materials linked with it. In contrast to other meanings, it can enable for larger investments to be made by higher social classes, as well as the incorporation of scientific knowledge, giving it a Significant interpretation.

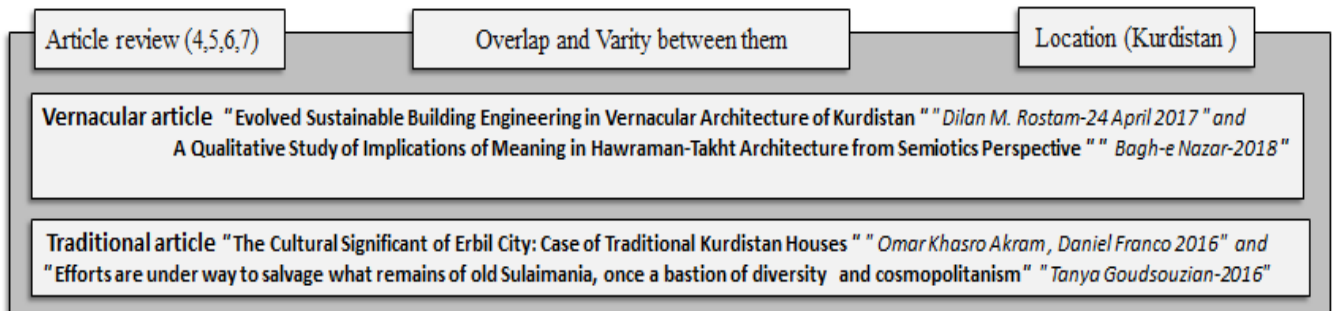
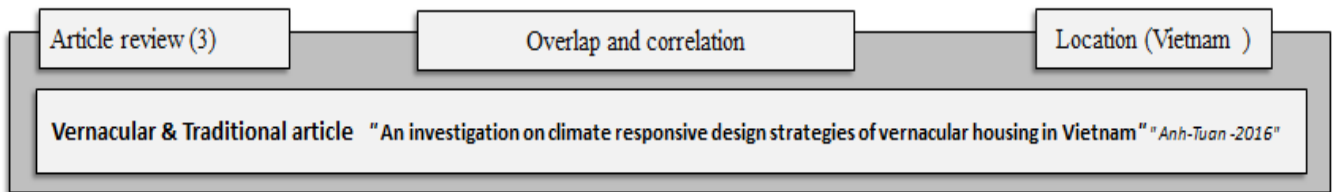
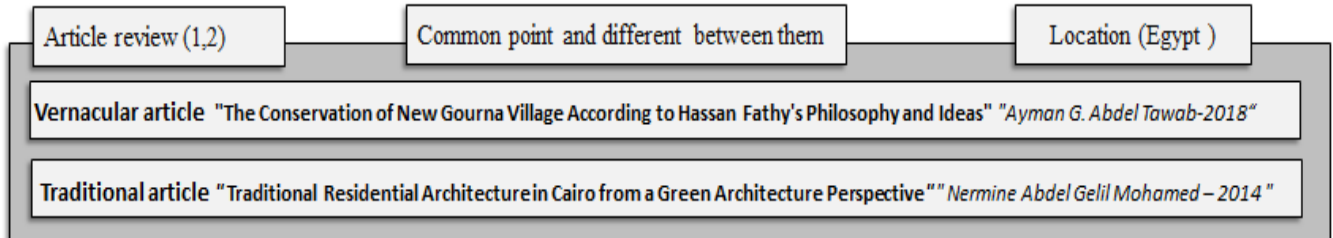
As a result, the structured method is more complex, involving more complex construction structures with less realistic implementation and involving professional actors who are influenced by academics ,even without scientific background (training). A large portion of traditional building can be taken into account Vernacular.

Table include or shows some definition or opinion architects about this issue

	Researcher	Date	Definition
١	Hassan fathi	١٩٦٤	vernacular architecture means the use of local materials and local construction methods in a traditional way, and usually refers to very simple types of buildings
٢	Eric Mercer	١٩٧٥	V. A. are those that belong to a group of constructions that were common in a particular region and time... In other words, no building is considered to be vernacular because of its qualities, but rather by virtue that is shared by many.
٣	R.W. Brunskill	١٩٨١	Vernacular buildings are kinds of constructions that are consciously sustained instead of temporary, have traditional inspirations instead of being academic, and designed to feed the simple, day-to-day activities of the people, their farm and their modest industrial business. They are gradually dependent on location and the use of local building materials but reflect the design and construction of an emotionally and thoughtful building rather than being designed and constructed on a practical Application basis.
٤	Camille Wells	١٩٨٢	Vernacular architecture encompasses a variety of buildings, including factories, farms and homes - schools and separate homes with all its sights, mills, agricultural areas, fields around towns and business strips.
٥	Dell Upton	١٩٨٥	Vernacular buildings are ordinary buildings.
٦	Kingston W.m. Heath	١٩٨٨	Vernacular architecture is a craft whose value is not in style but its capacity as cultural Messaging.

٧	Judith Roberts	١٩٩٦	Vernacular architecture means building with local materials based on local traditions through shapes and forms of construction of shelters and buildings that have become a document of economic and social processes. It is through the layout of form, materials, patterns, and details that we are now able to 'read' these buildings and understand Them in our place.
٨	Paul Oliver	٢٠٠٠	Vernacular architecture means a building of people, making them by the people. Vernacular architecture does not refer to buildings designed and built by professional architects and builders.
٩	Maria Philokyprou	٢٠١١	Vernacular architecture generally refers to a local and unknown architecture that responds to local needs through a form that is flow function. While aesthetics and decorations are prominent in official buildings, vernacular settlements are devoid of these. Their importance is due to their continued use and reuse, as living and using them are essential for keeping the vernacular traditions alive .
١٠	Juan A. García-Esparza	٢٠١٢	In vernacular architecture, the subject attempts to identify historical objects through his/her imagery and perception of the enduring region, memory, and effects. All of this is affected by the feelings and emotions of each viewer.

٤-٢ Reviewed research paper about (vernacular & traditional) architecture.(analysis and finding) in this part in article review , we take(٧) paper talked about (vernacular and traditional)architecture in some state or location (Kurdistan-Iraq , Vietnam , Egypt) to explain this issue :



Article -\ - "The Conservation of New Gournia Village According to Hassan Fathy's Philosophy and Ideas" "Ayman G. Abdel Tawab-٢٠١٨"

Vernacular architecture in Egypt:

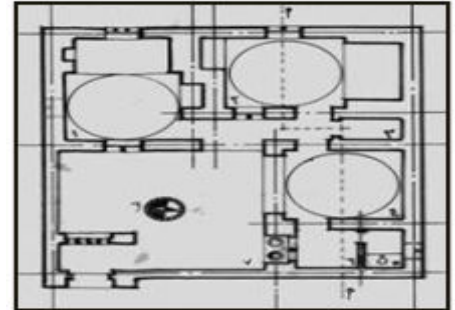
In Western Luxor, Historic Gournia was a flourishing village of ٥٠٠ farmsteads established across the hills. Because of the international success of Fathy's author, "Architecture for the Poor," the settlement of New Gournia, which was partly built during (١٩٤٥ , ١٩٤٨), is likely the most well-known of all of Fathy's works.

Philosophy:

acknowledged that architecture is for people. Wind, sunlight, environment, and the personality and lifestyle of the community engaged, he thought, would all influence building.. Which, in his opinion(mind) , discovered its realest meaning in a society's vernacular architecture.

Feature :

- position in rural area out of the city (Gournia Village)
 - Easy constructions (simple technique) are made with low-cost materials such as local materials-clay (mud bricks) and timber. (Building the Poor)and (sustainable).
 - People(village resident) should be encouraged to take part in the building of their housing units. (both social and financial)
 - To make life in the region more convenient, solid walls, open fields (finna), shade, and natural animal fur are employ or utilize . (natural ventilation), It's natural and motivating or inspiring ; it's a magic (wonder)
 - Line, Pattern, Composition, and Harmony are the features and concepts of layout in his project. (simple form and construction simplicity)
 - mosques have spherical (dome) forms. In his building, he also employs geometric shapes, and arches.
 - The smallest blocks of dwellings were constructed in random plots.
 - His practice is characterized by the use of mud bricks. Since the structures have a rough surface (dome roof).
 - Eventually, there is a sense of harmony since his structures seem to be complete and integrated.
- mosques have spherical (dome) forms. In his building, he also employs geometric shapes, and arches.



small unit(house) -ground floor plan



court-yard (sustainable) & local decoration



local material - mud brik

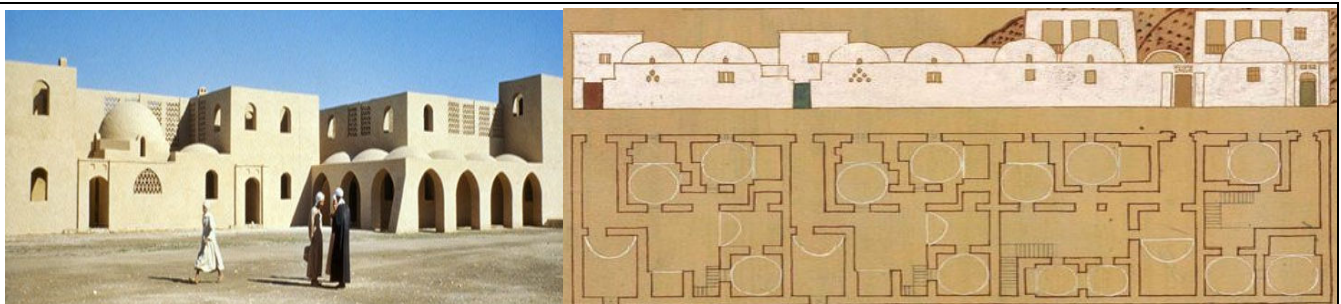
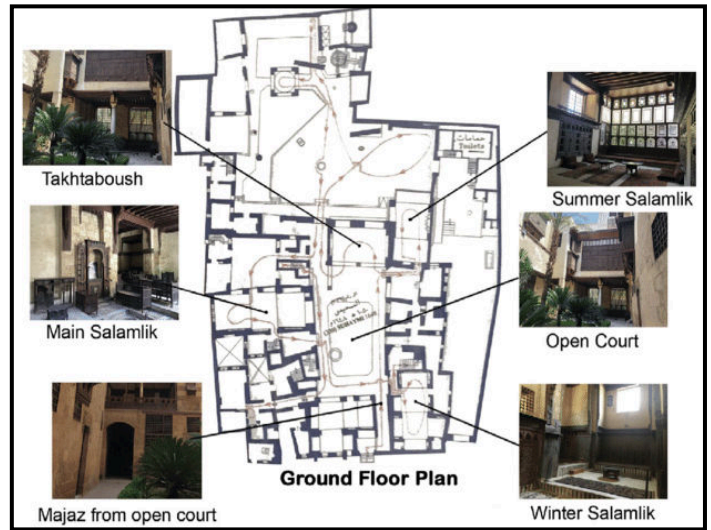
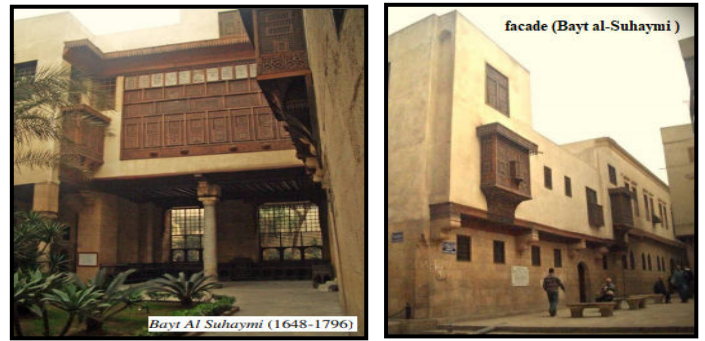


Fig.Shows the simple and identity (culture) ,one linefrom a small unit (dwelling) in neighborhood (architecture for poor)

Article -٢- " Traditional Residential Architecture in Cairo from a Green rchitecture Perspective" " Nermin Abdel Gelil Mohamed – ٢٠١٤"

Bayt al-Suhaymi :In Cairo, Egypt's Bayt al-Suhaymi is traditional architecture from the Ottoman period. It was first constructed in ١٦٤٨. It was built through (Tablawy), a skilled individual (like an engineer). The building was designed around a sahn, which has a nice garden with trees in the middle. Many of the house's excellent façade openings(mashrabiya windows) could be seen from this viewpoint. The floor tiles(marble), timber furniture, and ceiling accessories(ornamented or decoration) are all in good condition (permanent building). (professional builder with industrial material)

On the top floors, the building was split into open spaces for males (salamlik) and exclusive protected areas for the wife (haramlik)(privacy). Both of which have qa'a rooms, which have high ceilings and tiled floors and are richly (decoration) presented. The colored porcelain tiles in the 'blue hall' are particularly striking. The sauna, a hammam with restroom, is located on the ٢nd floor. (complex building).



Quality mashrabiya frames, that protrude and are encased in wooden latticework. The lattice allowed a cold wind into the building while removing dust (natural ventilation). It also provided women with a sense of privacy. A common feature of this type of architecture is the central yard, or sahn, which is filled with trees. The roof structure's colored glass gives the illusion of a beautiful sky at night. (more detail) ,Under its dome, the pavilion in the greenhouse has a stunning design.

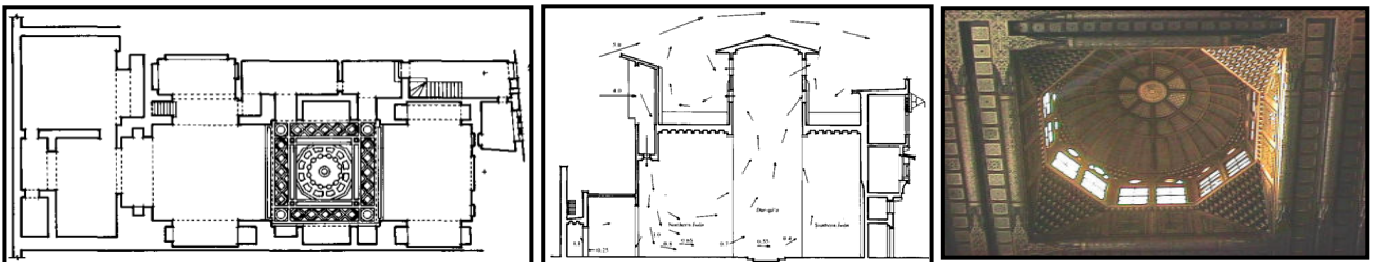
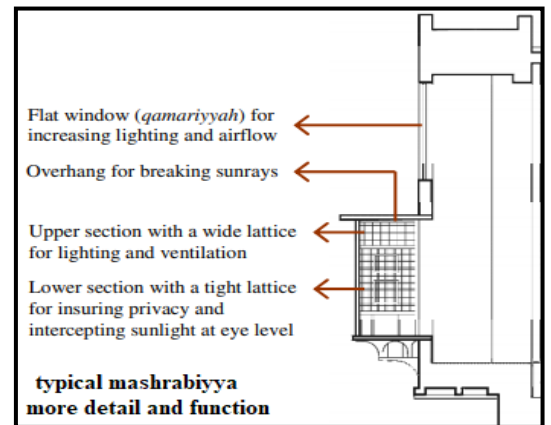


Fig. Demonstrated (Shokhshekha / malqaf ventilation system)

Article - 3 - " An investigation on climate responsive design strategies of vernacular housing in Vietnam" " Anh-Tuan Nguyen, Quoc-Bao Tran , Duc-Quang Tran , Sigrid Reiter - 2017"

Vernacular Vietnamese architecture

it is distinguished in that, unlike the middle east And asia, it is built with a large wooden structure instead of the simpler 'stilt' type utilized elsewhere Greater public structures, such as 'collective houses,' were mostly constructed of timber. To survive storms, almost all structures were single-story with thick flat-tiled ceilings.



There were no floors or vents in all of them.

Traditional Vietnamese Architecture:-It is divided into five major parts (vernacular, Chinese, ethnic, colonial and modern).By this definition, vernacular archit. is a branch of traditional Vietnamese architecture (vernacular = traditional), and the two are therefore one and the same.



Features of Vietnamese vernacular Architectural :

Roof : It appears to be bent on both ends. The higher the ceiling, the larger the building. The roof's margins are decorated. The roof of the house extends beyond the curtain and verandah.

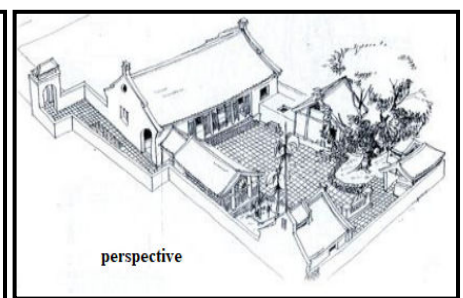
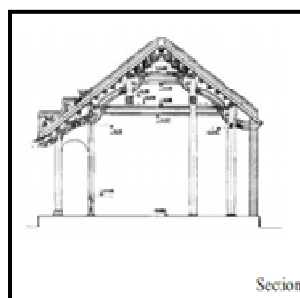
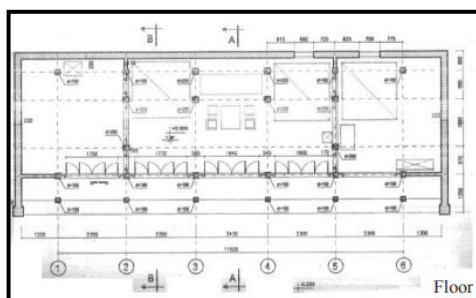
Wall : It has a number of pillars that are equally spaced, with gates in between them (ordinary doors, aesthetically formed and decorated door).

Floor : (including external stairways) on which house sits; it could be low or high, relying on the sort of building and topography (landscape), and the patio can be paved with rock (limestone) or flower-patterned baked bricks.(local material)(hand craft).



Doors: Any gates are plain; others are ornamented crafted, with proportionately split timber faces, the bottom ones clear and the higher ones airy and opaque.(natural vent.)

Columns, beams, and rafters:The round pillars are lozenge-shaped at the upper and center, then cylindrical at the bottom., Each pillar is typically built from a single bark (timber) and is proportioned well (more detail and decorative). They can be simple and colored, or they can be coloured red and adorned with dragon design elements.(culture and believe)



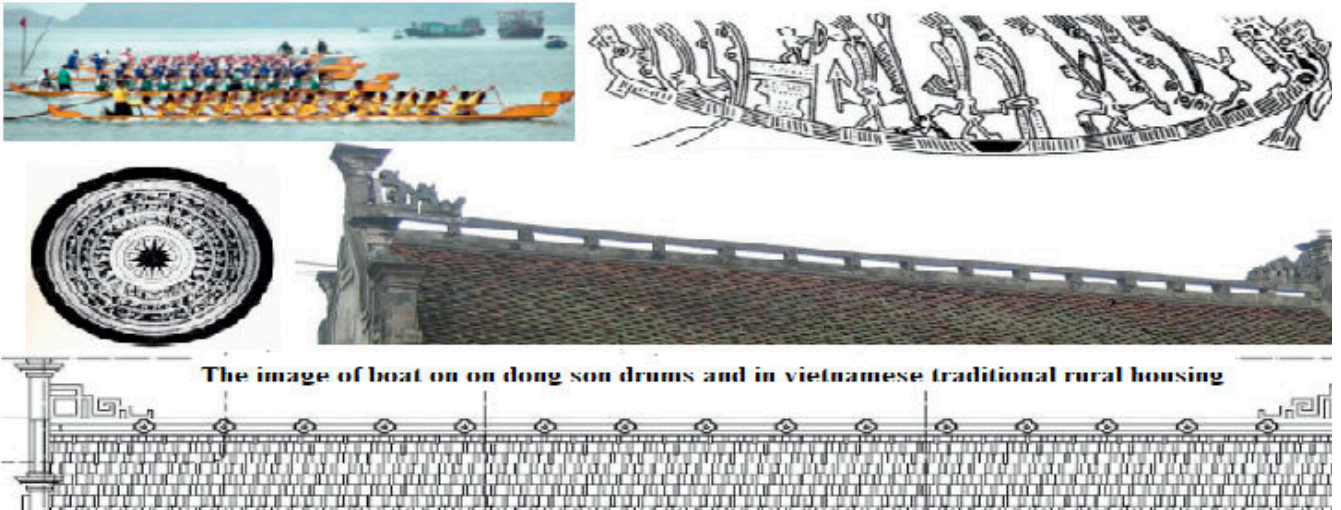
Drawings of a typical traditional rural house in a northern lowland – vietnam

The colour of the structure is determined by the colour of the building materials; timber panels have a natural brown color. The walls are lime-washed white, and the normal tile are red, yellow, or blue.

The Curved Roof: The ceiling is bent on 4 sides and appears straight in horizontal cross-sections.

Decorative Motifs: Decorative symbols in vernacular architecture involve stylized flower petal, lions, dragon and phoenixes, and so on (Traditional Vietnam Style's Imaginative Features and Decorations)

Natural Surrounding Settings : The natural setting of hills, streams, and plants is well incorporated into vernacular Vietnamese architecture. As a consequence, the architectural form enhances the natural aesthetics of the environment.



The image of boat on on dong son drums and in vietnamese traditional rural housing

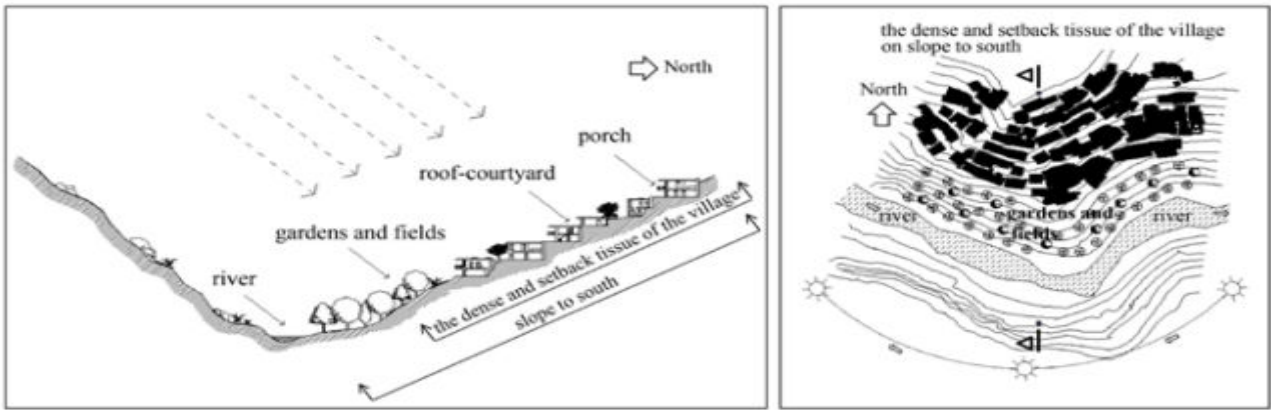
Article(ξ, ρ) " Evolved Sustainable Building Engineering in Vernacular architecture of Kurdistan " " Dilan M. Rostam-۲۴ April ۲۰۱۷" and

" A Qualitative Study of Implications of Meaning in Hawraman-Takht architecture from Semiotics Perspective " " Bagh-e Nazar-۲۰۱۸ "

Vernacular architecture in Kurdistan –Iraq (Hawraman)

*Hawraman's weather is really appealing. Most of the periods are cold; they are mild and moist. In the green Forests, and gardens, abundant Springhead and existing rivers have created unique scenery in this area.

Prior to ۱۹۸۰, the majority of Kurdish people live in villages in isolated mountainous areas. Mud brick buildings with a wooden roof are characteristic of Kurdistan architecture. Solar mud bricks, usually quadratic in shape, were popular construction material in Kurdistan's warmer, relatively dry lowlands. Huge mud bricks reinforced with animal hair and straw have been used for centuries. They were buried in mud mortar. It is the construction of residential units by local citizens without the aid of engineers, utilizing locally available materials.



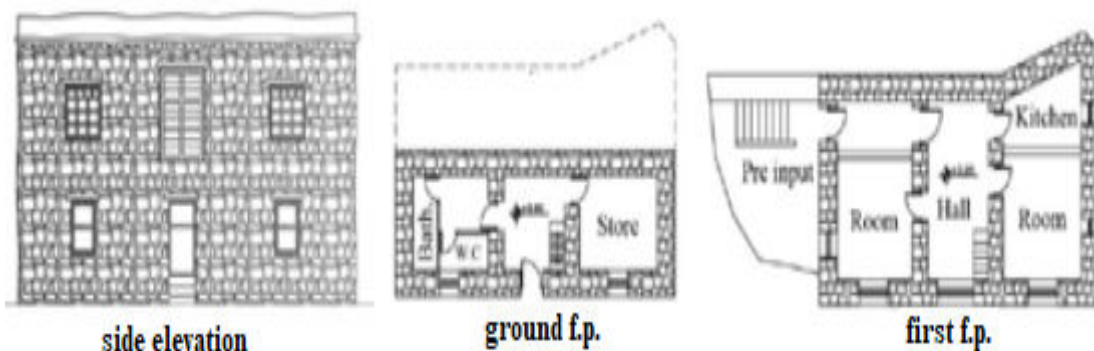
The pattern of village tissue on the site and section from village interaction with natural factors

This building does not rely on technology; instead, it relies on their previous experiences in organizing stones for walls (wishka kalak) and mud and timber (dimak) (balance among stone and safety from cracking and earthquake) for roofs (flat), as well as using massive (thick wall) and very carefully arranged stones and timber in a horizontal manner to disperse loads to the base, and constructing units one or two stories (each floor, low height, 2.0m max.) to match with that remarkable form.



stone, wood and soil are the main materials of construction -Hawraman

Primary colours (blue or green), textures, and sunlight play an essential part in Kurdish vernacular architecture. Materials, window position, spatial layout, and appropriate terrain are all utilized to receive the required energy from the sun. The form and colour of the windows are uniform in the community. The open space and focal point for conversations in the Area, which has significant cultural value, is given by the flat top of buildings facing the sun rising.



The interaction between architecture and nature (employ stone and timber, local resource and simple process building) , which is at the heart of architecture. Dense and balanced units make up the models in the area. It is one of the consequences of the configuration's topography. The layout aligns overlapping housing units with the land's form. The forms made within the physical configuration in the mountainous area, which were less than the specification in low land, were defined by slope and overlap .The topography is reflected in the pathways inside the spatial arrangement (save social culture and life style)and (Form follows function).

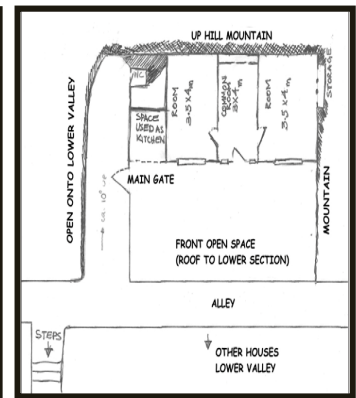
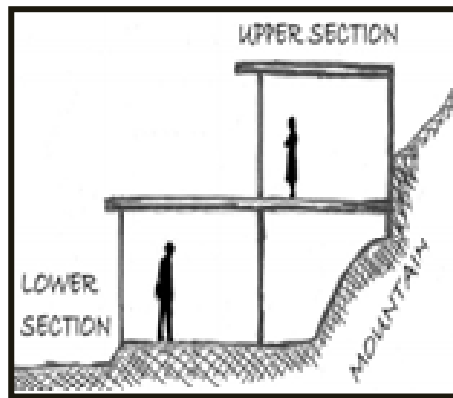
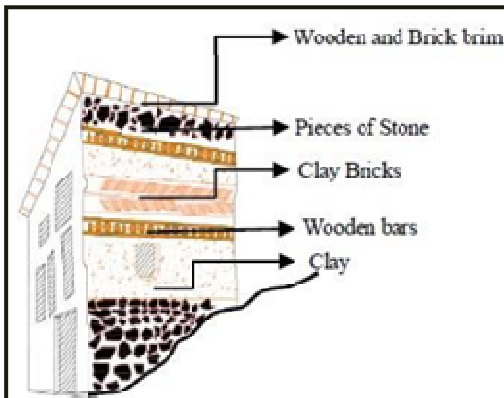


Fig. Shows a available material use section of house unit (respect nature) outline (plan) house

Article -٦,٧- " The Cultural Significant of Erbil City: Case of Traditional Kurdistan Houses " " Omar Khasro Akram , Daniel Franco ٢٠١٦" and

" Efforts are under way to salvage what remains of old Sulaimania, once a bastion of diversity and cosmopolitanism" " Tanya Goudsouzian-٢٠١٦"

Traditional architceture in kurdistan :

In This section addresses traditional Kurdish dwellings in Sulaimani, Iraq, which necessitates a thorough understanding of the fundamental features of traditional Kurdish buildings. The historical context is important because it adds to the importance of the city's heritage.

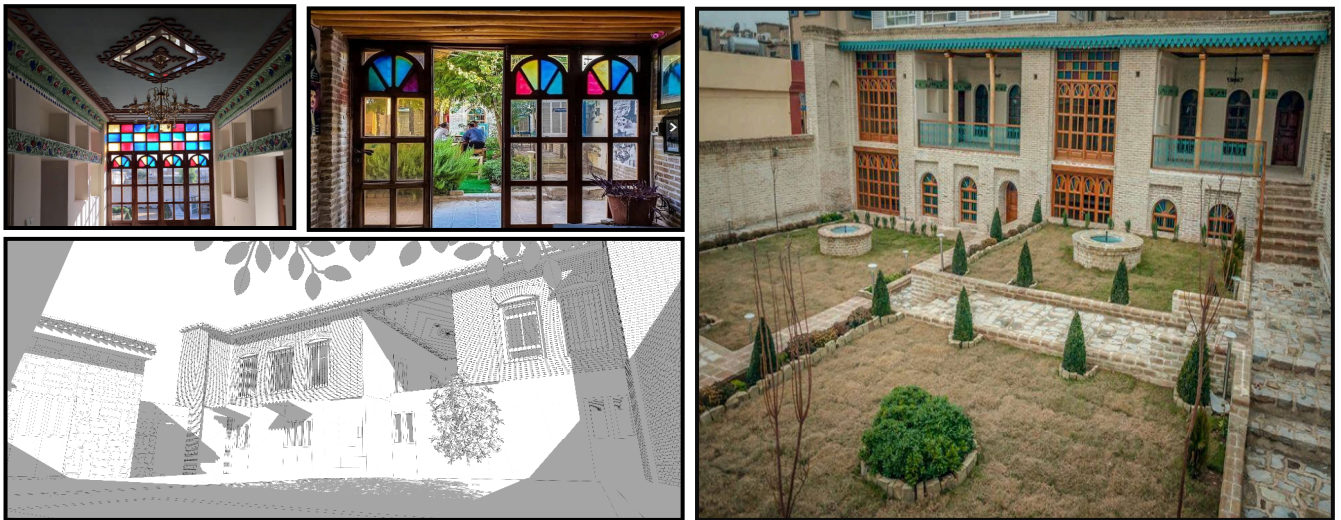
Traditional Housing's Evolution Over Time:

Despite the fact that Kurdistan is a historically significant area and home to one of the world 's oldest societies, Archaeological expeditions in Kurdistan have been limited, and many places remain unclear. However, In the late ١٩٤٠s, invaluable historical studies in Kurdistan discovered a series of questions not just about Kurdistan's past but also about the dawn of human civilization. They have shown without a shadow of a doubt that Kurdistan was one of the world's earliest cradles of civilization, experiencing the Cretaceous uprising around ٩٠٠٠٠ years ago.

To understand the traditional architecture , should be show a exist case (sofi karim house in sulaimani city) :

SOFI KARIM SARAJ HOUSE :

It is one of Sulaymaniyah's oldest buildings, with a construction history dating back to ١٨٩٨. The house is now available to cafes and teenagers who want to have a nice time while attending a gallery that conducts historic products. created on a (٥٠٠ m^٢), it was renovated in (٢٠١٣).it has the following features:

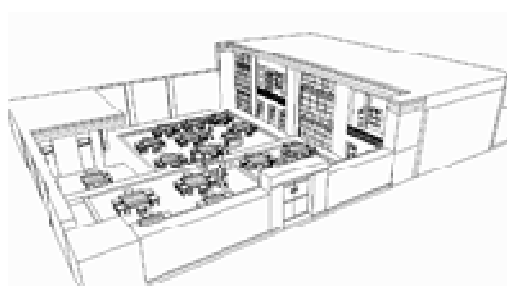


١- It utilizes local available material, the positives of using locally materials in terms of sustainability are as follows, The society treats the products it uses in a manner that is environmentally friendly. prevents the loss of natural capital , it is renewable resources, and the extraction method has no negative impact on the local environment., and , minimize waste and emissions generated by large machinery used in shipping and building, in addition to saving transportation and costs.

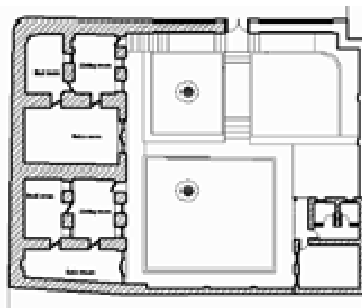
٢- The building's ability to adapt to the social life style.

٣- Making use of the nation's physical heritage.

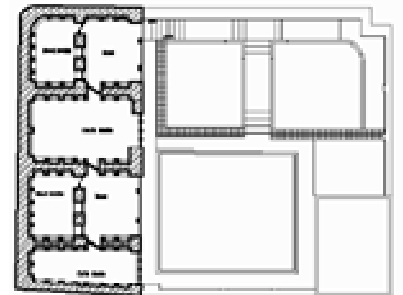
٤- Utilizing decorations and components from numerous ancient periods.



Sofi Karim Saraj House (bird view)



ground floor plan



first floor plan

•- Discussion

Comparative between Traditional and vernacular Architecture:-

Traditional and vernacular architecture can certainly coexist, but to what degree do you accept with this? Take a look at the commonalities and contrasts mentioned below.

Undoubtedly, vernacular architecture is located outside of the city (placed in a rural area), while other (traditional arch.) mostly built or putted in the large community (city, town).

One feature or different characterizes are vernacular must be constructed by locally hand craft like owner or locally people (non profession- without architect), on contrast, traditional building most time constructed by a professional person or a foreign builder (designed).

In the traditional architecture, it has a more detail with complex building (building type like, palace and religious building) in some place and some time used advance method in building process (technology) that the builder can use to make it, contrasted it, the primary sign of vernacular architectures are (simple technique, low decoration and detail) in the construction.

Generally, vernacular architecture is clear and simple, and has minimal accessories. It defined as a pure function to supply a human need such as, social life style, culture and sustainability (form follows function) (non or low decoration). Meanwhile, mostly a degree of decoration in front of function or equal in traditional building. (Angular doors, upholstery, and wide outlines, as well as fractal designs in tile and fabrics).

In traditional architecture, the colours (paint) utilize are neutral shades with a mix of other colours. The open (doors and windows) are typically painted in dark green hues, but the floor is either tile or wood.

Traditional are mainly classified as houses that features many character and culture embedded to them to give them a unique appearance (the majority of the time used by a special person). When vernacular architecture is a common use in from all people in society.

One of the huge benefits of vernacular architecture over traditional architecture is the low cost, accessibility, and selection of suitable materials, which necessitates little labor. Traditional structures, on the other hand, are more expensive to construct than vernacular houses, making them the most reliable structures.

In finally, both of architecture have a one aim is a It is a culture and identity of society while preserving the environment for the present and future generations using natural sources of ventilation and lighting (natural ventilation and sustainable), if compared with a other style or a new school of architecture.

We can show it, vernacular architecture can be viewed as a sort of doorway into understanding information system of traditional architectural. Both of them have many similar characteristic such as (sustainability, representation of social life and culture,etc.), In reality, especially in recent age, traditional architecture departs from the basic principles of vernacular architecture in these features available. so we can showed a tow different types of architecture.

Table explains and demonstrates the content of study

Variable	Vernacular architecture	Traditional architecture
Opinion (architect)	In general, architects agreed on the principles of (V.A.): - providing the main needs of the human being (physical and moral) by way of Local and natural materials and resources in the construction process through the simplest technical , adapted and developed throughout time(based on trial and error), After all, the architects agreed that (V.A.) is equaled or synonymous with rural architecture.	Most of opinion believed that (T.A.) is a dynamic idea that has developed and adapted throughout period to address a variety of existing building issues. It's a form of structure that makes extensive utilization popular visual forms(symbolic) a specific culture among a specific group of customers in a given region. Often believed a (T.A.) is a local architecture , but this expression vary and changed as per the society (terminology and languages .)
Placem ent	It is located or built in the out of the urban (city or town) , mostly it is placed in the rural place (in specific community and limited demography)	Mostly it is putted in the density area of the population like(big town) , while some time it has in the rural when it is changed no. population (demography changed)
Technique & created	Without a doubt, the main condition , it is created or constructed by a local builder or owner to really provide a community need (hand craft and simple technique)	Some time for constructed, it a foreign builders are contributed for made it. especially, when the community don't have a required knowledge about some procedure of construction(advance technique)
Designed	non profession person (without architect) in creating a building	on the other hand, they are almost always erected by an expert or a professional builder (designer or architect)
Form	Simple form or Function is a major reason for creating a form of human needs frequency(daily), that satisfies a social demand like communal way of life, culture, and ecology (form follows function) ,low detail	In this style of architecture , mostly it has a more detail and decoration .so they try to create balance between form and function (form and function have a one importance value) or in some situation, forms or shapes has a great value
sustainability	Resulting from achieving sustainability requirements.(environment , economic ,humanity)	Usually , there are attempt to achieve a principle of sustainability
Building type	It has specific types of buildings (e.g. housing, simple artificial ,agriculture and temples),in some place it has a small shop (tiny and locally) and these buildings recognize the simple technique and clear construction	It has vary typology and more than the previous sort (palace and building commercial, and cultural) and these buildings recognize by the advance method in building process(patterns in tile and textile , as well as angular door and windows, furniture, and wide outlines (building form and complex) if compared to the other .
Materials use	The primary sign of vernacular architectures are (simple local - row material - available) in the construction. (without changed a main feature) like (mud, stone , timber, natural color ,...,etc.) so it has more advantage (economical feature , provide a job chance to local community and respect and answer to culture, environment and surrounding)	In this feature have a some principle , but there are allowed to use or import a material in the outer of the location (in necessary situation) or employ a complex or industrial material (paint ,steel)
Coexists of society	vernacular architecture is widely used by everyone in society(Class community)	When ,Traditional residences are those that have a lot of character and culture incorporated in them to give them a distinctive look (and are usually utilized by a rich or famous people

Each of them has the same goal in mind: to make a stunning environment. When compared to another type or a new school of architecture, it is a culture and identity of community that protects the environment for present and future ages by employing natural sources of ventilation, illumination, and manufacturing.

٦- Conclusions

Traditional and vernacular structures are constructed in reply to the climate conditions. These structures are in sync with their surroundings and mix in with the natural and physical setting. The buildings make extensive use of existing resources, giving them a natural color and texture and allowing them to integrate in with the surrounding and topography. Both structure also refer to the neighboring houses, both visually and spatially. Craftsmen have an essential role in the development of these buildings. Over time, the laborers have evolved indigenous construction methods and creative material usage in reply to the specific needs of the dwellings. Buildings are highly resilient to natural disasters and climatic conditions due to empirical information systems built by thrifty developments. These structures are also a reflection of the culture that builds them. They draw attention to the residents' attitudes and values, which are expressed by spatial planning and expressions. Apart from these, the built environment also reflects the community's religious and socio-cultural beliefs.

My opinion of these expressions appears more overlap than differentiation and distinguishes . native(indigenous) and vernacular both relate to the building of specific place, which is affected by nature, local materials, and cultural issues, and which is mostly built by ordinary people rather than professionally trained architects. (*Rudofsky's 'non-pedigreed' term does not express this very well; it's just a local pedigree rather than a 'high culture' one*). the trends that emerge become traditions. in those locations. Traditions may be used for more "significant" architecture (religious, government, public structure, ...,etc.). the Greek the Roman and others of architecture, as well as more modern style. The 'simple' sayings evolved into forms of vernacular which could be used in a variety of situations. As a result, any terminology that is passed down through future generations becomes 'tradition,' and numerous customs will coexist in the same place. Traditional Malay (mainly rural) dwellings, for instance, were markedly Varity from traditional China building , both dwellings and temples, the latter most commonly shown in urban areas. The 'traditional' Uk buildings of the colonial era, as well as the more recent foreign styles that have become the norm in the larger cities, were then layered on top of this.

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