

Full Length Research Paper**Characterized of Nubian Architecture and Folk Art to Discover Creativity of the Designer****Asmaa Abd-Elgawad Elsebae***Interior Design and Furniture Department, Faculty of Applied Arts, Helwan University, Egypt.***Abstract**

Folk art has a great value stems from the sincerity and originality, it is the formation of people conscience that could not ended by time. Originality flowing into the people consciousness and passed between generations. There are multiple methods of understanding the folk art creative .The study focused on changes in lifestyles in Nubian community, the way of people life, the impact of environmental, social and economic values on the Nubian architecture and folk art, study of color in the external and internal spaces, study of Nubian art elements and the values of decorative geometrical and plant elements.

Keywords: *Built environment. Folk art, Nubian Character.*

Introduction

The first major archaeological surveys and excavations within Nubia were conducted during the early years of the twentieth century. These were instigated by the construction of the Aswan Dam (AD. 1898-1902) and its subsequent expansions in AD. 1907-11 and AD. 1929-34. little archaeological work was done when the dam was initially constructed. However, the following two dam enlargements sparked two archaeological salvage campaigns, the First Archaeological Survey of Nubia and the Second Archaeological Survey. Other pioneering expeditions also entered the Sudan at this time working in areas not directly affected by the rising water levels. At their greatest limits, Nubian kingdoms of Nobatia, Makuria and Alwa included an area that incorporated Lower Nubia, Upper Nubia and the Northern Sudan, extending along the Nile from north of Aswan, Egypt, to south of Khartoum, Sudan .The exact geographic parameters of these kingdoms have not yet been conclusively established and varied through time.

The objective of this paper is to document the development of the house and settlement within the Nubian kingdoms of Nobatia, Makuria and Alwa and to determine the environmental, socio-political and cultural factors that influenced their forms. Vernacular architecture was chosen as the focus of this study because it "show(s) most clearly the link between form and life patterns. Houses also provide the best way of relating the whole system of house, settlement, (and) Landscape .-. To the way of life. In short, this is an examination of the way common people modified and adjusted to their surroundings, at both a community and regional level, throughout this period.

Historical background

Egypt consists of five well-defined regions: the Delta, the Valley, the Eastern desert, the Western desert and Nubia. The region called Nubia today stretches along the Nile from Aswan south to Dabba in Sudan. The name Nubia is said to come from the ancient Egyptian 'nbu', which means gold, in reference to the famous gold mines of the area.

Climatic conditions

Aswan is in a dry, temperate zone which enjoys a very mild climate in winter, making it a favoured winter resort since the beginning of the nineteenth century. It rarely rains, although torrential downpours occur every four or five years. The prevailing winds are from the northeast. Sandstorms come from the west during spring but last only a couple of days. In winter the temperature ranges from a maximum of 26°C to a minimum of 10°C, with a humidity maximum of 56 per cent. In the summer months the temperature can reach 42°C, becoming mild at night at a minimum of 26°C. The humidity in May goes down to 7 per cent.

Life in ancient Nubia

Nubian peoples are an ethnic group; they considered as one of the most ancient people all over the world, their civilization started more than 8.000 years ago. Nubian peoples are an ethnic group; they considered as one of the most ancient people all over the world, their civilization started more than 8.000 years ago. They lived in the southern Egypt and north Sudan. They had their own culture, language and the Egyptian civilization started from Nubian lands. Nubians used to live around the stretch of the Nile about 350 km upstream of the Old Aswan Dam in the reservoir area.

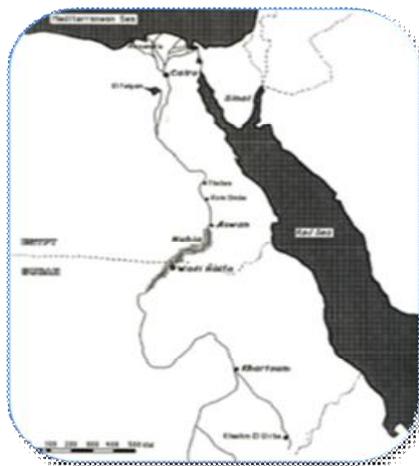


Fig 1: Map of Old Nubia.



Fig 2: Map of Egypt and Sudan

There were 3 main stages of Nubia’s historical developments:

- Neolithic.
- Kingdom of Kerma.
- Kingdom of Kush.

	Period	Description		
• Neolithic	3,000- 2,000 B.C.	The people of Nubia lived in small villages and produced crops while continuing to hunt.		
• Kingdom of Kerma	2,000- 1700 B.C.	Nubia is earliest kingdom saw Kings living in palaces and claiming divine descent. Nubia’s.		
• Kingdom of Kush	1700-600 B.C	Kerma was destroyed around 1700 B.C. The city was burned and temples and tombs were plundered. The next kingdom was the Kingdom of Kush which lasted about 1,000 years.		It is the period that Nubia affected by the ancient Egyptian architecture

Nubian art character

What is folk art

Folk art is a distinct cultural form of human characteristics reflects deep-rooted. It is circulating from one generation to another, stand over a varying period of time qualitatively distinct environmentally design. It affected by changing in internal cultural but always keeps a continuing basic unit.

The using of folk art in design

The using of folk art as forms and elements in modern design that given suggestive manner in the design aimed to connecting who receives by past, present and future time. Creative experience in design is to simplify the popular folk art of its sources. The designer should has an ability to simplification, selection and dealing with the sources, but as much as the designer had not eliminated and distorted the origin. For this, if overwhelmed heritage design, it seemed to duplicate image of the original heritage. Although, if the design overwhelmed the heritage element, it get out from simplistic design case, and it lacks an essential condition that being a heritage element simplistic.

Characteristic of Nubian Personality

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their civilization started more than 8.000 years ago. They lived in the north Sudan and southern Egypt. They had their own culture, language and the Egyptian civilization started from Nubian lands. Nubians used to live around the stretch of the Nile about 350 km upstream of the Old Aswan Dam in the reservoir area.

Nubians led a very hard life in small communities. The construction of the Old Aswan Dam and its subsequent heightening twice led them to change their location or immigrate to the cities of Lower Egypt.

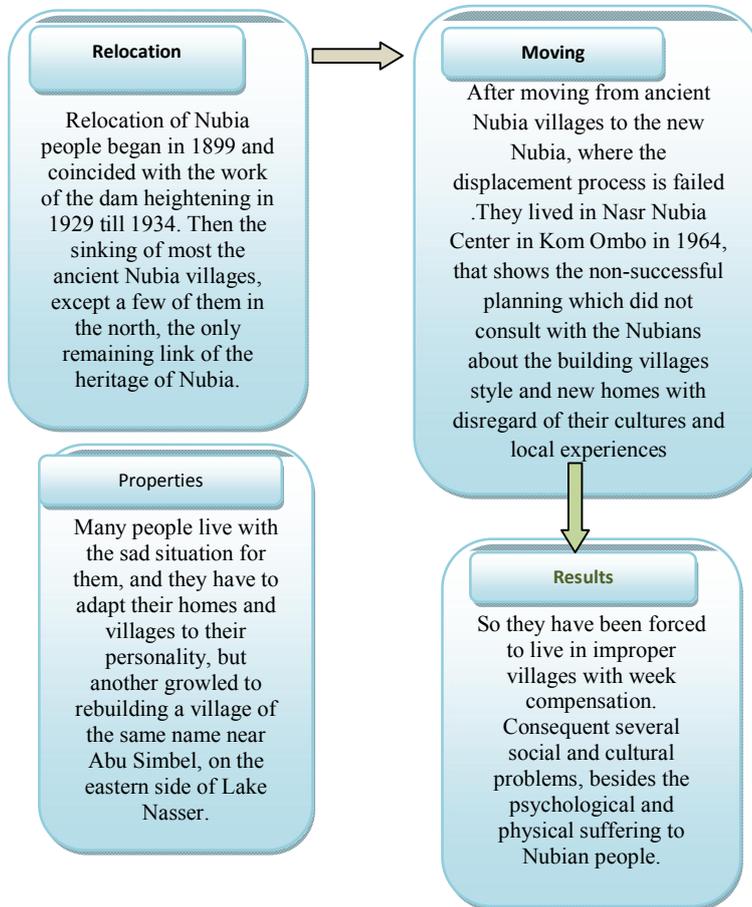


Fig 3: Nubian people celebrations.

The impact of relocation on Nubian human personality.

Nowadays most of Nubian are living in Egypt Delta and other areas, so we can find:

- ✓ Nubian had to move and left their motherland after building the Aswan High Dam beside their lands.
- ✓ That made a new situation in the geographic status, Nubian areas after the High Dam
- ✓ Implementation became less than million tons of metric water in a new lake named “Lake Nasser”.
- ✓ Nasser was the president of Egypt during the High Dam construction period.
- ✓ Nubians always looking to back to their roots at the old mother land near the Nile River.



Local architectural character

Traditional Nubian architecture is either the vernacular architecture of the villages, built in mud brick, or the architecture of the great temples. These were simple buildings of granite or stone consisting of one or more gateways leading to a colonnaded courtyard, which led in turn to a hypostyle hall, followed by a vestibule and then the sanctuary, usually at the highest level.

Nubian villages spread along the Nile in clustered terraces, and throughout Nubia the principal entrances to houses face the river. Nubian Architecture: old Nubian’s residential environment had characteristics that were closely related to the surrounding ancient Egyptian monuments. The Nubian houses were built of stone, clay and sand; the flat roofs were commonly built of palm leaves

(jareed) and grain stalks and the arched domes were of clay bricks. The walls of the house especially the façade were decorated with ornaments and paintings of flags, flowers, birds and animals. Crockery was often used for wall decorations; a plate usually occupied the centre of the façade. The decoration of its exterior doorway, or (bawaba), was a mix of vivid colors and textures of adobe brick filigree, figurative and geometric images in mud, white lime-plaster relief, and wall-mounted objects like ceramic plates, automobile headlights, mirrors, cow horns and dried crocodiles. While the full range of these decorative materials has shrunk in recent years, the impulse to draw attention to one’s home, and to its doorway as a symbol of the family, remains strong. The old Nubian built-environment was a reflection of cultural authenticity: it was successfully responsive to users’ needs (biological-physiological and cultural); its architectural forms fostered socialization among members of the community, achieved self-image and identity, it also realized privacy and thermal comfort. Nubians designed a special models and architectural forms of their own based on the domes rising to help on the exploitation of air currents in the alleviation of high temperatures without the need for air conditioning, thereby reducing loads of electrical surplus and reduce greenhouse gases, as the form, and they also planted many trees high-and medium-length side of the lake to help also in smooth air.

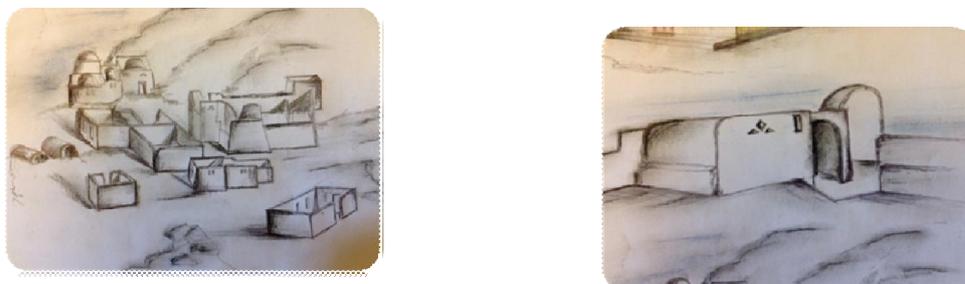


Fig 4: Specific design and developed building technique of ancient Nubian house architecture.

The relationship between the ancient Egyptian Nubian art and architecture.

Old Nubians have long standing traditions; men conversing outdoors, a habit maintained in the new houses by building Mastabas near front doors; also interior furniture is quite similar to the old one and represents continuity even from ancient times . Nonetheless, change is also quite discernible in their current physical and social surroundings; that the age of households’ heads mostly ranges from forty to more than sixty, when age is correlated with education; the younger are the more educated.

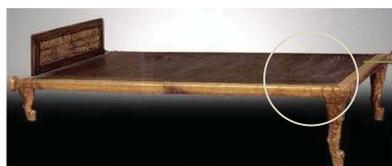


Fig 5: Ancient Egyptian Bed.

Simplified the bed using palm fronds



Fig 6: Nubian Bench.

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Housing design in Nubia

The typical Nubian house is very spacious, with several large rooms that are able to accommodate the extended family members and guests. In the center of each home is an open courtyard. The front of the house is colorfully painted with geometric patterns. Most of the paintings and decorations on the homes have religious connotations. The colorful designs are a distinctive and admired feature of Nubia. The main entrance opens onto a courtyard with mastabas – raised seating areas. The rooms of the house are arranged along the courtyard’s far wall, the most important being the mandara, or guest room, which has a separate entrance and a centenary vault roof. Some living rooms – called tents or khayma – are simply open with a flat roof of palm branches. The houses are of mud, mud brick or stone, plastered inside and out by the women and children, who decorate the walls, especially the entrances, with bright and colorful designs. The roofs of the houses are of palm trunks or timber beams covered with palm thatch. Small openings at high level help to circulate the air brought into the house via the courtyard, which acts as a ventilating space and a ‘private piece of sky’ for the benefit of the household.



Fig 7: Nubian house.

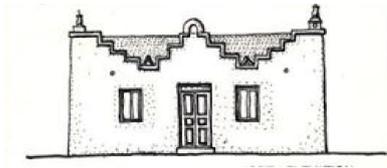


Fig 8: Main elevation.

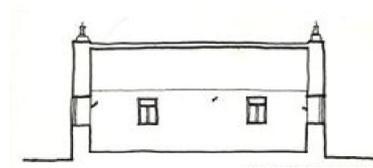


Fig 9: Section.

The homes in Nubia which made up the Nugu (village) extended 320 Km along the Nile at irregular intervals in a staggered line more or less parallel to the river. Throughout Nubia, the principal entrance to the houses faced the river, whether they were on the east or west banks of the Nile". The threshold was highly decorated. It symbolized the heritage of the household and was the chief feature..

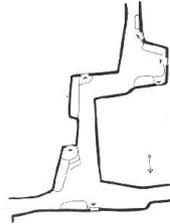


Fig 10: House entrances open on to small spaces.

Nubians designed a special models and architectural forms of their own based on the domes rising to help on the exploitation of air currents in the alleviation of high temperatures without the need for air conditioning, thereby reducing loads of electrical surplus and reduce greenhouse gases, as the form, and they also planted many trees high-and medium-length side of the lake to help also in smooth air.

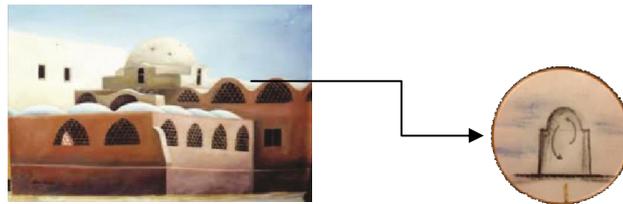


Fig 11: Dom in Nubian "s style house..

Nubians keep construction craft through the Egyptian Nubian vault over the centuries that has become a feature of their culture. them Some architects like Hassan Fathy and Ramses Wissa Wassef inspired this technique at the beginning of the twentieth century . Nubians has been different buildings than what the architects presented in the twentieth century.

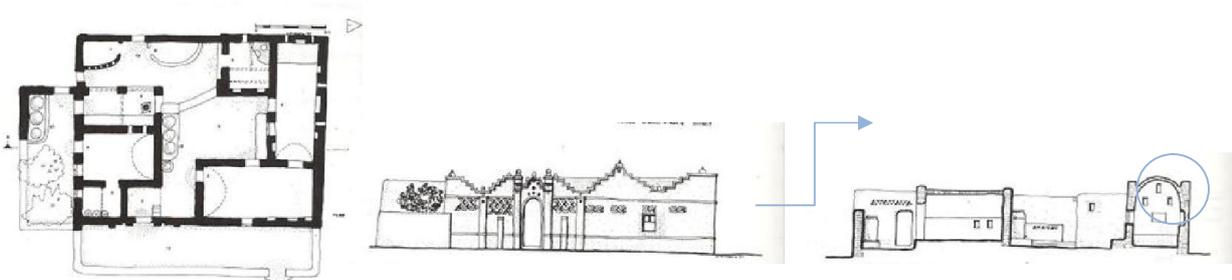


Fig 12: Keep the same old way in construction building of Nubian "s house.



Fig 13: Houses built with the arch as the roof construction

Furniture

Nubian accommodated few pieces of furniture that consisted of one or more beds Angarib used for sitting and sleeping purposes, wooden chests for storage and straw dishes used as trays for food during meals. The guest room walls were decorated with hand maid straw dishes, decreasing in size patterns from top to bottom and with storage containers ornamented with shells hung from the ceiling.

Color and motives in Nubian folk art

The Nubian house, a mud-walled, stand-alone family compound centered on a courtyard and surrounded by an extensive layout of men’s and women’s quarters. Even more distinctive than the floor plan of a Nubian house is the decoration of its exterior doorway, or bawaba, which mixes vivid color, adobe brick filigree, figurative and geometric images in mud and white lime-plaster relief, and wall-mounted objects like ceramic plates, automobile headlights, mirrors.

WHAT ONCE HAD BEEN AN ANONYMOUS PROFESSION OF MASONS AND PLASTERERS BECAME AN ARTISTIC SPECIALIATION IN ITS OWN RIGHT.

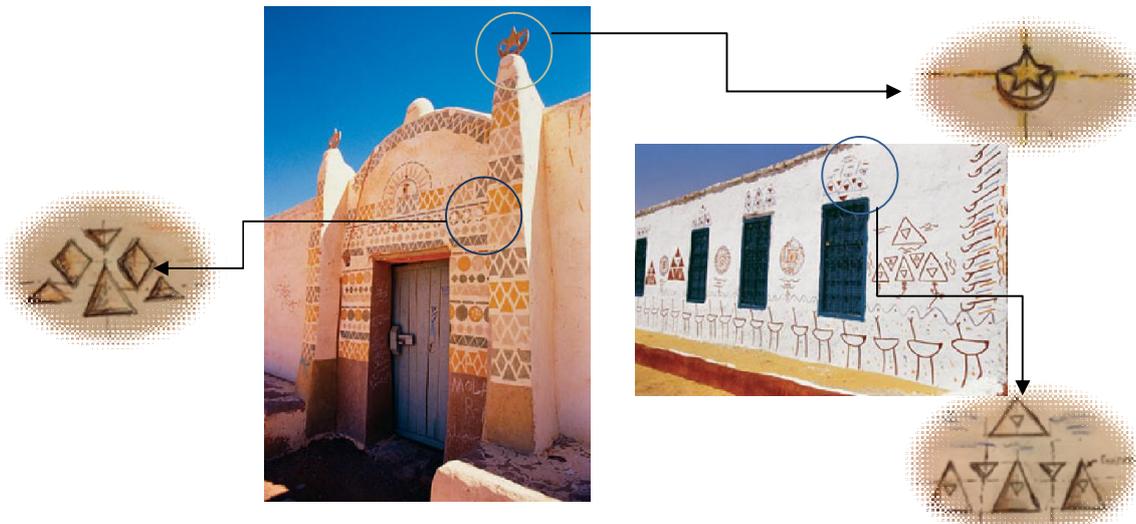


Fig 14: Nubian "s house.. While many motifs recur frequently, the differences in decoration from one house to another are often lively. The home at right has an all-geometric decoration.



Fig 15: The “chicken-and-shrub” design becomes a frieze that defines the bottom of a band of decoration that goes all around this house; the top is marked by a repeated “tree-and-grass” pattern. Color marks the door and windows on the front.

The same exterior architectural finishes were used till 20th century which is walls and gateways—blind arches over doors, openwork in the shape of tented bricks as a running wall cornice, and square cross reliefs.

The impact of the environment on the folk art and architecture in the Nubia.

In old Nubia, social structure, people’s economic condition, topography and climate were basic considerations in house designs. Winter months in that area are quite cold with a steadily blowing north wind; hence, the living areas were placed to face south and west in order to receive as much sun as possible. On the other hand, because of the summer heat, this pours in from the south and west. The walls of the living areas were high, which created a shady patch close to the wall itself. For similar reasons, the roofed open areas in the courtyard located on the south or east end were open to the north and west to allow access to late evening breeze; they offered an enduring living-and-sleeping area during the heat of the summer. “Houses varied in sizes, but were usually composed of a big walled

courtyard with rooms built at the further ends of the yard. Near the main gate, a room was usually used for men guests locally known as Madyafa or Sabeel that opens on the outside by a terrace. The courtyard was the hub of all women activity where there were several big pottery or metal pots for storing flour and other cereals. Furthermore, within the courtyard, a sheltered area from the sun and wind functioned as the main living open area.

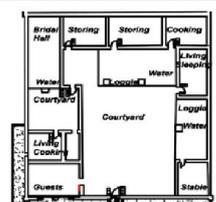
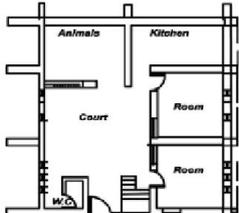
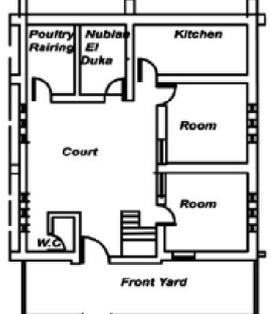
How Nubian art changed after Relocation.

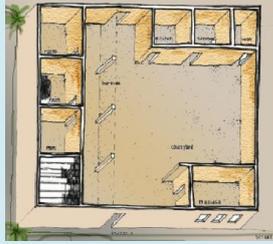
Before

- ✓ Nubians live and distributed between Egypt and Sudan, the majority of those in Egypt were resettled 3-10 km from the Nile near Kom-Ombo 45 km downstream from Aswan.
- ✓ There planners reclaimed to establish New Nubian; Housing and facilities were built for 47 village units whose relationship to each other approximated that in Old Nubian.
- ✓ 50,000 to 70,000 Sudanese Nubians were moved approximately 700 km south to the semi-arid Butana plain near the town of Khashm el-Girba, several hundred km up the Atbara River from its junction with the Nile.

After

- ✓ Spaces in the Nubian house after relocation in the 1960s are smaller. They are repartitioned around one small courtyard and consist of two rooms only, a kitchen and a space for animals. The bridal hall and the guest room which are typical of a Nubian house have been moved out. The row houses provided by the government are not responsive to climatic considerations, there is no good positioning of openings in accordance to orientation; the construction is in reinforced concrete which resulted into thermal uncomfortable and to acoustical infringement on privacy. The post occupancy evaluation done in the 1980s and 90s by several researchers on the relocation houses in Kom Ombo reveals that they restructured their new housing units and the adjacent exterior spaces to provide more privacy, more space for social hospitality and to host the different rituals that express their strong cultural allegiance; they also redecorated and colored the empty new façades in their old style.

Period	Before Relocation	After Relocation 1960s	After Occupancy 1980s
Plan	 <p>- Constructing a built-in level outside the façade or (mastaba) for men gatherings.(5) -The photographs that have been taken by the immigration Nubian houses that there are a barrier surrounding the home.</p>	 <p>-Building area has become less than it was. -The barrier surrounding the building, is disappeared which led to cancel the privacy. -Reduce the internal spaces of the building. -Cancel stores spaces, where there was became a kitchen not preparing and baking food. -Convergence of some of the windows and minimize the area.</p>	 <p>A front yard designed for having privacy and men always meet together at it.</p>



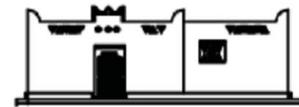
- The inner house courtyard is directly connected with the entrance.
- internal spaces is branched of the inner courtyard of the house.
- Interior spaces are divided according to human needs of the Nubian, there is room for guests to sit next to her food preparation room, storage space, with room for the animals to save the feed store.

Elevation

Nubian artist decorated the elevation of his house with distinctive elements and motifs.

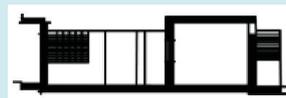
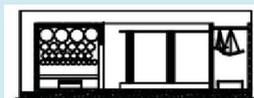


Current Nubian houses in the displaced village of Ballana



Nubian houses in the displaced village of Ballana

Section



The impact of the Nubian style on architects in Egypt

The impact of Nubian Design on modern architecture in Nubia

Nubian Museum

The Nubian Museum is part of a wider policy of the Supreme Council of Antiquities to showcase Egypt’s many civilizations over the centuries. The museum is representing the history of the area from the prehistoric, Pharaonic, Roman, Coptic and Islamic ages, but also a diorama of the daily life of the Nubian people, who sacrificed their homes for the continued progress of the Egyptian nation. The museum is now also a centre for the preservation and conservation of archaeological remains from Africa and the Middle East. The total area of the museum is 10,110 square meters, with a ground-floor area of 7,000 square meters on a 50,000-square-metre site. The project is in two sections: the museum building, which is in one volume, and the landscaped outdoor exhibition. The building comprises three storeys.

The positioning of the building was planned jointly by the architect, Dr El-Hakim, and Dr Werkmeister, the first landscape architect to work on the project. The museum was placed on the ridge of the site to preserve rock formations and provide an open view of the Fatimid Cemetery and the Unfinished Obelisk to the east.

Materials

Local material is used to clad both the inside and outside of the museum. The project employs the modern technology of building in reinforced concrete with block infill.

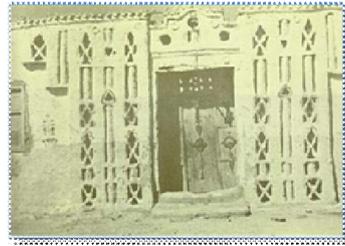
Design concept

The main feature of the interior display is the statue of Rameses II (1304–1237 BC), the builder of the great temple at Abu Simbel. This statue is unique because it retains some of its color.

Design concept	Design basics	The project
<p>How the environment affected design</p>	<p>-Climatic performance The main orientation of the museum responds to the topography of the site and not the climate. The building is totally air-conditioned and artificially lit, even in the education section, cafeteria, offices and so on. The only concession to climate is the double-wall construction and the western portico, which shades the entrance from the sun. The ticket office, however, has no shading to protect waiting visitors. There are no treatment systems for either water or rainfall due to the dry climate and the function of the building. -The project is well integrated into the site. The massing of the exterior works very well with the topography. The use of natural stone also helps in blending the building with the landscape.</p>	 <p>Site plan</p>
<p>How does the Nubian style affect the architecture</p>	<p>Museums are a product of historical and social circumstances, and the construction or reconstruction of history . Although they can support heritage connection through cultural resources and imagination. Museums could show different versions of the past with its painful events. Interpretation does not need necessarily to be a faithful representation of historical facts and events.</p>	  <p>The entrance to the museum is located on the west side of the building, oriented towards the Nile in the same way as traditional Nubian houses.</p>

Some examples of student projects through design subject. (Design Inspired of Nubian art)

Kind of Simplistic	Source	Designed project
<p>Nubian folk art</p>		
<p>Decorative wall elements</p>	<p>The New Nubian Settlement in Egypt</p>	



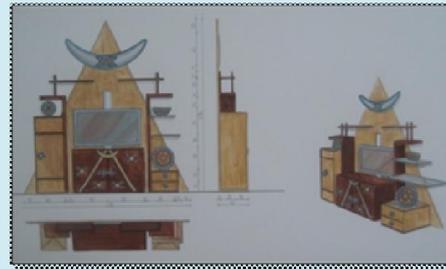
Simplify the elements and painted outside wall murals of the Nubian house.

Cultural heritages



Nubian families celebration

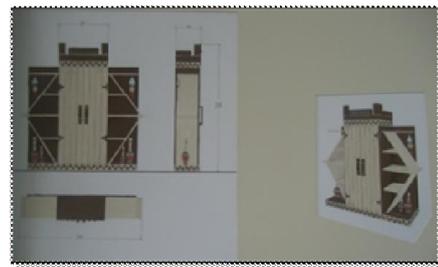
Inspired the design of the cultural heritages in the Nubia, such as Al Hilal.



Nubia Architecture



The design form the Nubian house architectural.



Conclusion

Nubia had a distinctive ancient civilization. Nubians in Egypt represent the ancient civilization in these areas, they're suffering from relocation. Nubia's manifestations of civilization were: monumental architecture, written language, social classes, metallurgy, cities, and complex religious beliefs. Nubia's. Nubians designed a special model and architectural forms of their own based on the domes rising to help on the exploitation of air currents in the alleviation of high temperatures without the need for air conditioning, to reduce loads of electrical surplus. The interpretation of Nubian history for designers purposes shows that the past can be partially glorified, partially shown or even partially omitted in order to highlight specific events in a more constructive way, with the intent of making the subject more pleasant and less controversial to people. The beauty of the objects created by Nubians opens a window for the designers to heritage revival.

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