

2015



LUXOR INTERNATIONAL AIRPORT

Location	Luxor, Egypt
Date	2005
Century	21st
Project Cost	260.000.000 LE
Building Type	transportation
Building Usage	airport



THE TALE OF AN AIRPORT .

In this project, to show the possibility of the application of the Neo Language of airport design in contemporary practical local airports (Luxor). Both example are upgrading projects of existing old buildings. These were remodeled to suite the new demands of the client (Egyptian Civil Aviation Authority) arising out of new millenium needs of International passengers and IATA-IKAO regulations. Both airports were redesigned, expanded and upgraded to meet such requirements.ⁱ The design concept of our firm comes from our understanding of the human and individual drama of taking to the air. A devised system of interwoven but unlinked routes conveys in-comers separately from outgoing passengers where Emigrants and Immigrants must never be mixed on the airside for all sorts of reasons.



On arrival at the terminal of the Luxor International Airport Expansion and Upgrading scheme. Passengers have one of the best views of the airport from airside and nice

perceptions of space in a causally routed immigration in landside concourse. Followed by baggage handling, customs and arrival halls. This is directly linked to the departures part of the airside, but, of course, the connection between them is carefully filtered through transfer control. This leads to the huge arrival hall under the large dome. At night, light shines up into the crevices of the dome's internal sculptured roof, from the top of the bases of the major eight structural tree supports. The whole space is bathed in a warm glow reflected from the roof. The Mezzanine splices the dome space into two unequal segments, one for arrival and one for departure. Canopies are extruded over the drop-off and pick-up points to provide shade and oversail glass walls under the protruding conical arched Islamic vaults. The set of Post-Modernist eight pillars symbolic to the eight pillars that raise God's chair, are inspired by Palm trees branching off to support the huge domical cap with light weight latticed panels of waffled slabs incisioned into the dome. These are used with reference to aircraft building, as the latticework of rounded fuselages. The intermingled web of High-Tech slender steel branches (with circular cross-section) have pad foundations that sit on top of these columns, and support the service free domed roof (their main structural benefits show in case of vertical seismic activity). The defiant structural system hangs a thin concrete membrane of the 90 meter wide and 20 meter high dome on a concrete structure of huge curved girders stiffened by circular ring beams. The whole is clad in glazed mosaic of ceramic tiles as a final finish. The main structure is visually very effective or expressive as an expressionist representation of organic metamorphosis. The use of conical hyperbolic paraboloidal vaults that melt into a partial dome, gives a sensuous quality to the dramatic scene. The vertical slashes of double-glazing incised along the openings of each paraboloid wash the cavernous main space with an ethereal luminance, reflected by the lustrous floor of highly polished local granite. The roof forms allude to vernacular Nubian Vaults and traditional Pharaonic segmental domes, while the overhangs and the use of insulated concrete provide high protection against the heat and glare of the strong sun. The flight to the 21st Century is done via the fusion of the biological into the mechanical. The space may be considered as a soft machine where airports may achieve the dream. In the design process, the architectural scene has fragmented the ephemera of fashion into the cultural identity in a new marketable image of creativity, imagination and invention.

The design ideal revolves around tackling complex human and administrative problems by applying simple ideas according to Alistair's pre-requirements in such cases "*with grace, style and the intelligent application of modern technology.*"ⁱⁱ The choice of used technology was chosen appropriately to suite the required climate, available materials and possible techniques of building that can be implemented by local, yet large to medium scale contractors. The fragments of historical aspects are merged together in pieces of high-tech yet post-modernist euphorical architecture.

The original ideal which sets the scene for putting the traveler directly in visual contact with the means of transport has been fully realized in the Luxor Airport Scheme, even if the arrangement is very different from what we have first envisaged. In an experiential contrast to the traditional, calm luminous spaces with fully glazed external walls behind abstract Pharaonic white Granite panels looking over the packed

planes and runway. Waiting for the flight to board in a final act before boarding, the passenger must descend to the ground floor below to join his plane via shuttle land-transport on the airside. The building is a single three-level terminal building. Domestic departures and both International and Domestic Arrivals are on the middle ground level, sandwiched between international departure halls on the first floor level and terminal facilities at the basement level. On the ground floor, domestic flights take the right portion of the terminal, and international flights use the central portion, with passengers transferring to a gallery on the out-skirt of the concourse (airside). Then descending to the ground floor still within the confines of the main terminal building.

This airport gives the passenger more direct, yet subtle contact with the drama of flight. The existing 4000 passengers/hr building as it stands is intended to serve the needs of the terminal as it now stands. The capacity of the building can be simply increased in phases to 10,000 passengers/hr by simply adding the planned new bays on the southern side, when required in the future. If this master plan is implemented, there will be non-of the piece-meal agglomeration that has made many of our airports confusing.

Pharaonic colors serve their purposes as symbolic signs and attract the eyes for functional reasons making the architectural experience more interesting livery. A palette of colors is integrated through various local materials, through use of warm natural wood that contrasts the cooler grained granite on the floor. The animated colored ceramics on the columns contrasts against the violet glass under billowing vaults. The polished floors give the wash of water wetness on the ground providing stunning reflections of forms, light and mellowing shadows. The dome at the focus was used as a signature work of architecture, to alter the linear image of the upgraded existing building. Visually tracing it, it is geometrically a shaped Islamic dome cap morphing into inverted Pharaonic vaults that melt into it. It simulates Paul Andreau's Hub of Life whose morphology is a series of diverse space designed to unfold to the passenger on various scales and in different functions. It is intended as a fragmentation of sophisticated spaces intricately interwoven together in a stylistic comprehensible design. The semi-spherical space with contrasting sloping line escalators suspended in the air gives a delightful shock to the space visitor with a *"daring use of reinforced concrete, steel and glass, designed to create totally new shapes, patterns and spaces"*

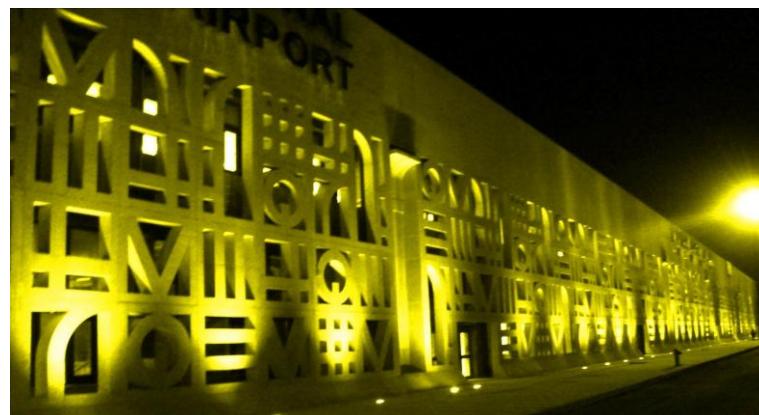
ELEVATIONS:



ELEVATIONS:



ELEVATIONS:

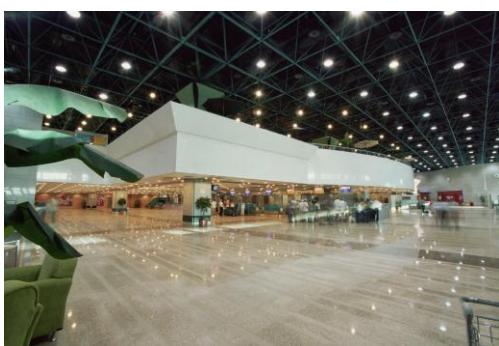
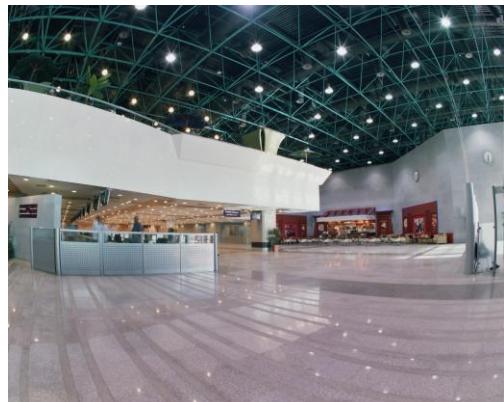
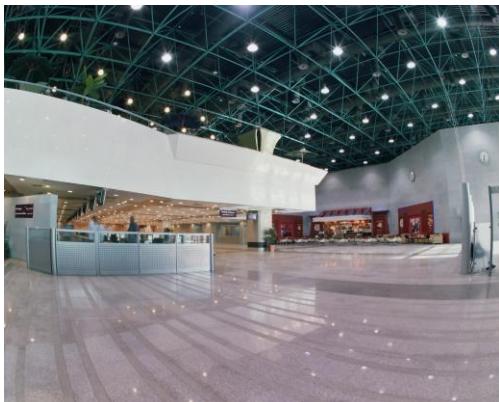


COLUMNS :



DETAILS :

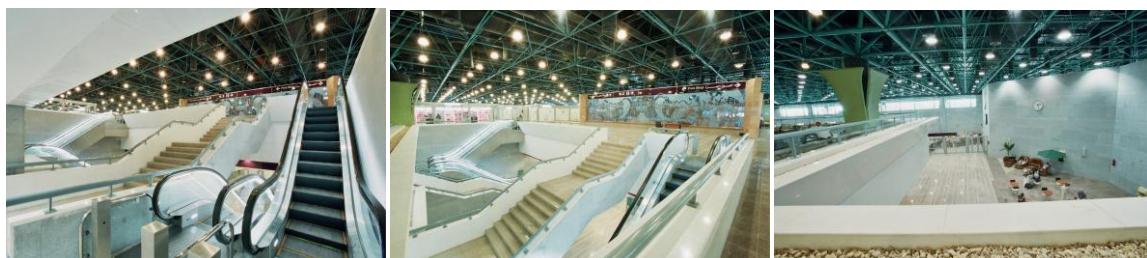
INTERIORS:



INTERIORS:



INTERIORS:



INTERIORS:



A s w a n I n t e r n a t i o n a l A i r p o r t

1. IDENTIFICATION

Location	Aswan, Egypt
Date	1998
Century	21st
Project Cost	260.000.000 LE
Building Type	Transportation
Building Usage	Airport



2. ARCHITECT'S RECORD

2000 NOMITATED TO THE AGHAKHAN AWARDS

3. Project Affiliates/Constructor

Elnasr Building & Construction Co. EGYCO

General Contractor

4. TIMETABLE

(Please specify year and month)

I. Commission 6 - 1994

II. Design 9 - 1998 Commencement 10 - 1998
Completion 12 - 1998

III. Construction 12 - 1998 Commencement Completion 12 - 2000

IV. Occupancy 12 - 2000

5. AREAS AND SURFACES

(Please specify in square metres)

I. Total size area 55 Feddans

II. Ground floor 20,000 m²

III. Total combined floor area 36,000m²

6. ECONOMICS

(Please specify the amounts in local currency and provide the equivalent in US dollars. Specify the date and the rate of exchange in US dollars at the time.)

	Amount in Local Currency	Amount in US dollars
Total initial budget in 1998	220,000,000 LE	38,600,000 US\$
Total actual costs	260,000,000	45,614,000 US\$
Actual cost (Per square metre)	6300 / m ²	1100 US\$

7. PROJECT DESCRIPTION

It is a two levelled building with the ground level dedicated for arrival halls and the first level is dedicated for departure halls. The new airport terminal at Aswan International Airport is considered as the second largest airport in Egypt at the moment, with a capacity of 3200 passengers/hr. It is also considered as the first two-level airport in Egypt that is to separate various functions such as arrival, departure, international and domestic passengers on different levels and halls. Also the different directions, where flights to Abu Simbel are segregated from other flight directions. Restaurants, cafés, shops and administrative offices were separated on a separate mezzanine level. The total built-up area of the terminal is 36,000 square meters, with the landscape and utilities extending in a total area of 55 feddans. The length is 265 meters and the depth is 45 meters. The ground floor embodies both international and domestic arrival halls with an area of 6,000 meters, and is provided by 4 baggage conveyor belts with a length of 68 meters each. This lower ground floor is reached through a tunnel of 300 meters long and a variable width between 17-28 meters wide. The higher first floor is reached via a suspended bridge of 559 meters long. This separation of levels is also provided to separate cars and pedestrian movement. Nevertheless the difference in level is a natural levelling difference between landside and airside, so the first floor is the airside level, where the bridge raises the entrance to the level of departure halls, giving a single level direct circulation departure. The arrival being at the lower level gives also a single level arrival circulation.

8. MATERIALS, STRUCTURE AND CONSTRUCTION

The project is a matrix of multiple materials interwoven in the form of the building and landscape. The materials used are thermally-insulated heavy concrete construction, double walls, with ceramic reflective glazing cladding for climatic control and low maintenance. The multiple use of concrete and internal light steel construction in double height floors provides a nice contrast. The finishes varied between white reflective marble that reflects the lightness of space, glazed ceramics and porcelain tiles, with local granite, glazed ceramics and beige travertine marble on the exterior. The colours are used to distinguish various halls in the interior both in floors and walls.

9. PROJECT SIGNIFICANCE AND IMPACT

The main concept of design takes into consideration local context, historical background of city, site's natural levelling and local climate. On the central focus of the terminal, (apron-side) lies the visual portrait of Princess Nefret (wife of Prince Raa Hoteb -fourth dynasty- which is a visual illusion of the princess coming from the past to haunt the present in motional abstraction executed in coloured ceramics cut by hand. The airside entrance façade is a modern abstract depiction of the high dam. The two facades are linked through the visual Post-modern abstraction analogous of Pharaonic Lotus columns, pylons and caps. The design concept comes from our understanding of the human and individual drama of taking to the air. A devised system of interwoven but unlinked routes conveys in-comers separately from outgoing passengers where Emigrants and Immigrants must never be mixed on the airside for all sorts of reasons. The whole is clad in glazed mosaic of ceramic tiles as a final finish. The main structure is visually very effective or expressive as an expressionist representation of organic metamorphosis. The use of conical hyperbolic paraboloidal vaults that melt into windows, gives a sensuous quality to the dramatic scene. The vertical slashes of double-glazing incised along the openings of each paraboloid wash the cavernous main space with an ethereal luminance, reflected by the lustrous floor of highly polished local granite against rough slices of the same material. The roof forms allude to vernacular Nubian Vaults and traditional Pharaonic segmental domes abstracted, while the overhangs and the use of insulated concrete roof overhangs provide high protection against the heat and glare of the strong sun. The deep slot windows slicing the façade, provides the fusion of the biological curvilinear columns into the mechanical glazing. The space may be considered as a soft machine where the airport may achieve the dream. In the design process, the architectural scene has fragmented the ephemera of fashion into the cultural identity in a new marketable image of creativity, imagination and invention.

The design ideal revolves around tackling complex human and administrative problems by applying simple with grace, style and the intelligent application of modern technology. The choice of used technology was chosen appropriately to suite the required climate, available materials and possible techniques of building that can be implemented by local, yet large to medium scale contractors. The fragments of historical aspects are merged together in pieces of high-tech yet post-modernist euphorical architecture. The original ideal which sets the scene for putting the traveller directly in visual contact with the means of transport has been fully realised in the airport Scheme, even if the arrangement is very different from what we have first envisaged. In an experiential contrast to the traditional, calm luminous spaces with fully glazed external walls behind abstract Pharaonic panels looking over the packed planes and runway.

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2900.EGY

PROJECT CONCEPT

LAYOUT



GROUND FLOOR PLAN



VIP LOUNGE					
1 - Departure Entrance	7 - VIP Lounge	13- Air Line Counter	1 - Entrance	2 - Entrance Lobby	
2 - Check-In Area	8 - International Departure Lounge	14- Air Line Offices	2 - Entrance	3 - Presidential Lounge	
3 - Immigration Sector	9 - Departure Gallery	15- Baggage Make-up Area	4 - Minister Lounge		
4 - Immigration Booth	10- Concession Shops	16- Security	5 - Secretary		
5 - Entrance To Domestic Depart	11- Free Shop	17- Scanner	6 - Security		
6 - Domestic Departure Lounge	12- Self Service Count.	18- Office	7 - Pantry		
		19- Departure Gate			

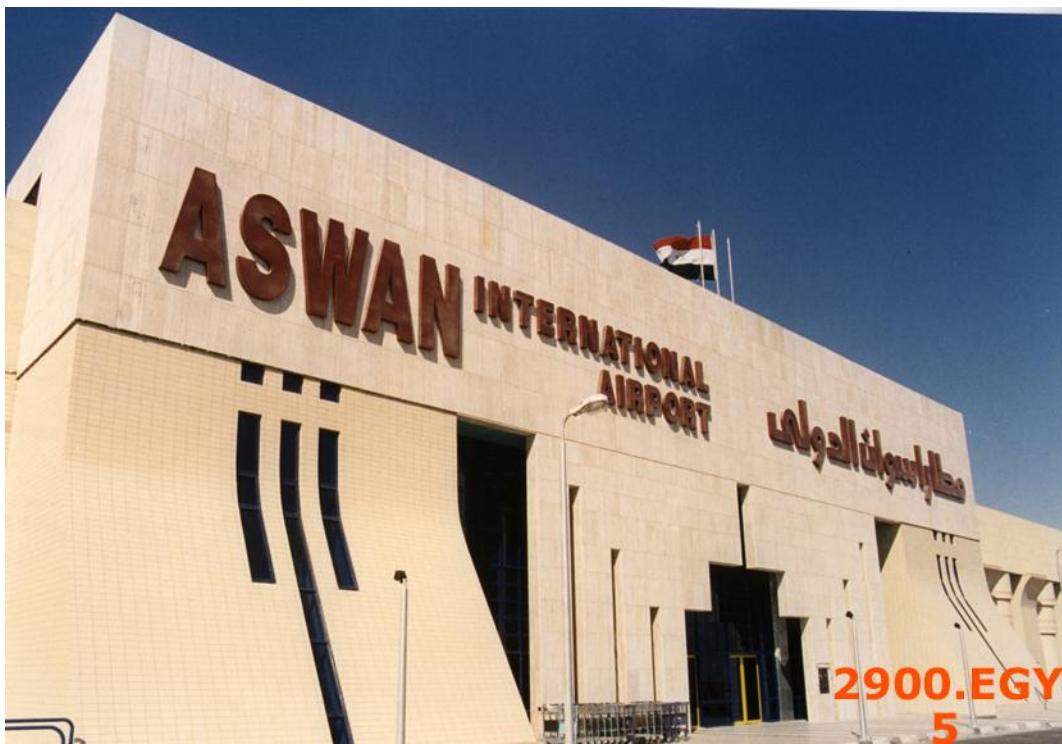
BASEMENT FLOOR PLAN



INTERNATIONAL/DOMESTIC ARRIVAL HALL

صالات الوصول
الدولية والمحليّة

MAIN ELEVATIONS





SIDE ELEVATIONS

Details of Columns :



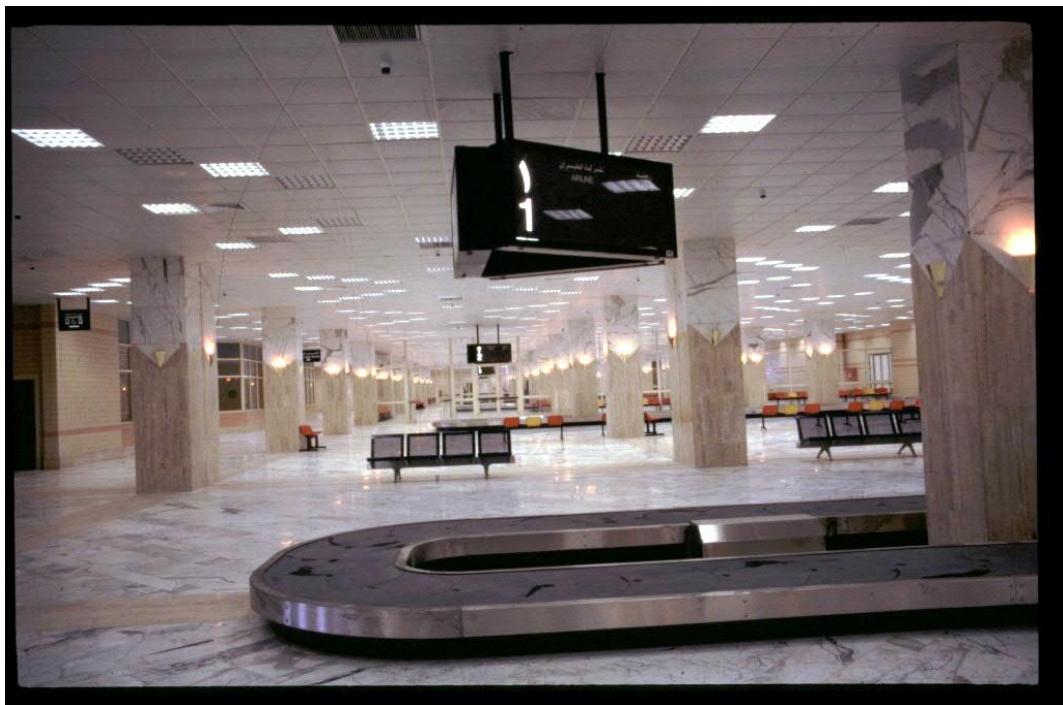
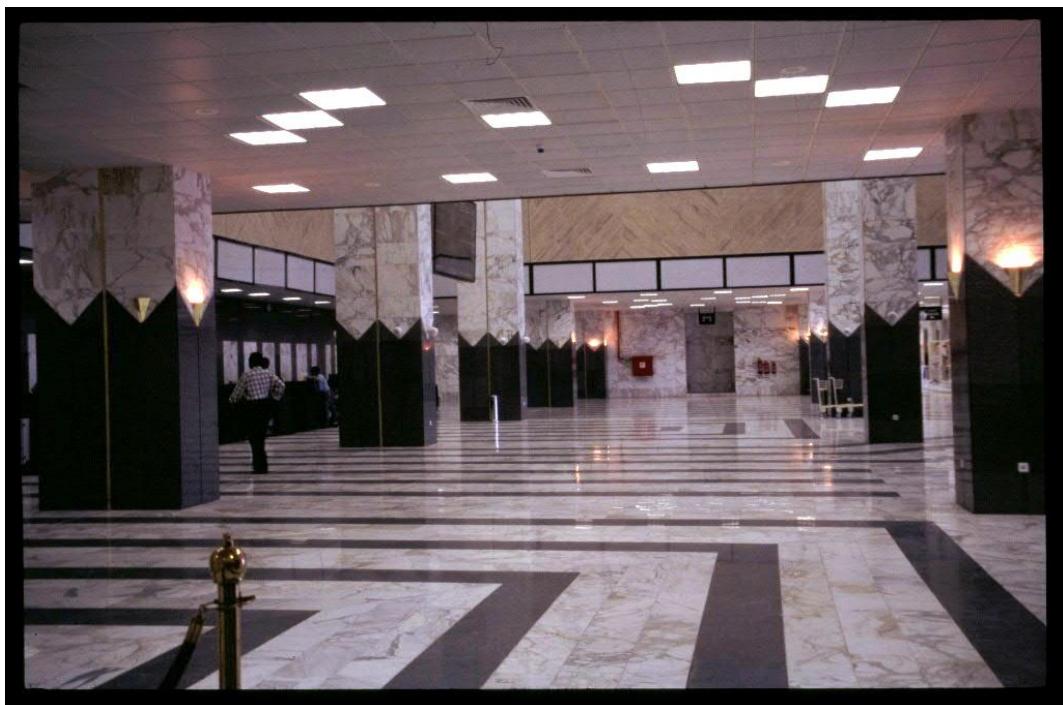




Observation Tower



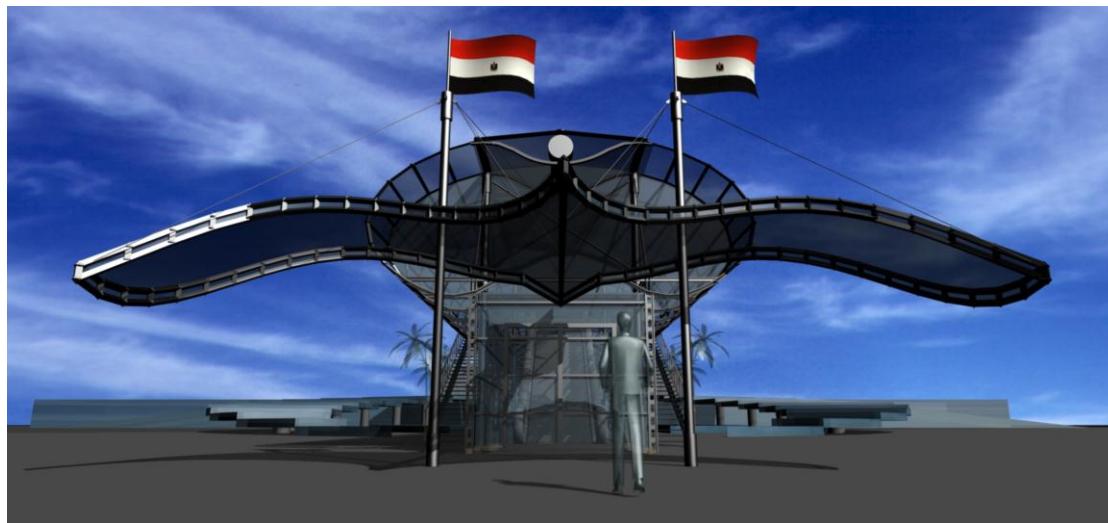
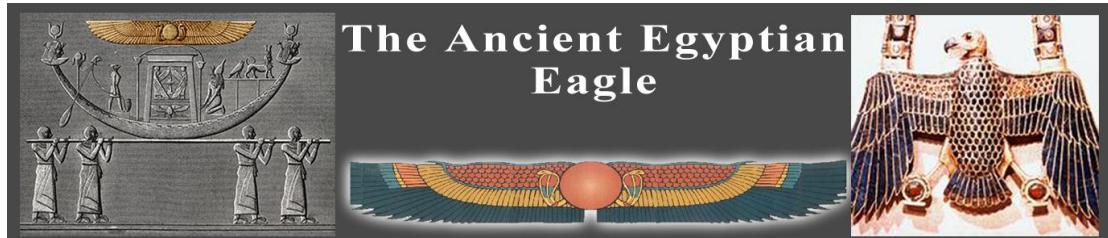
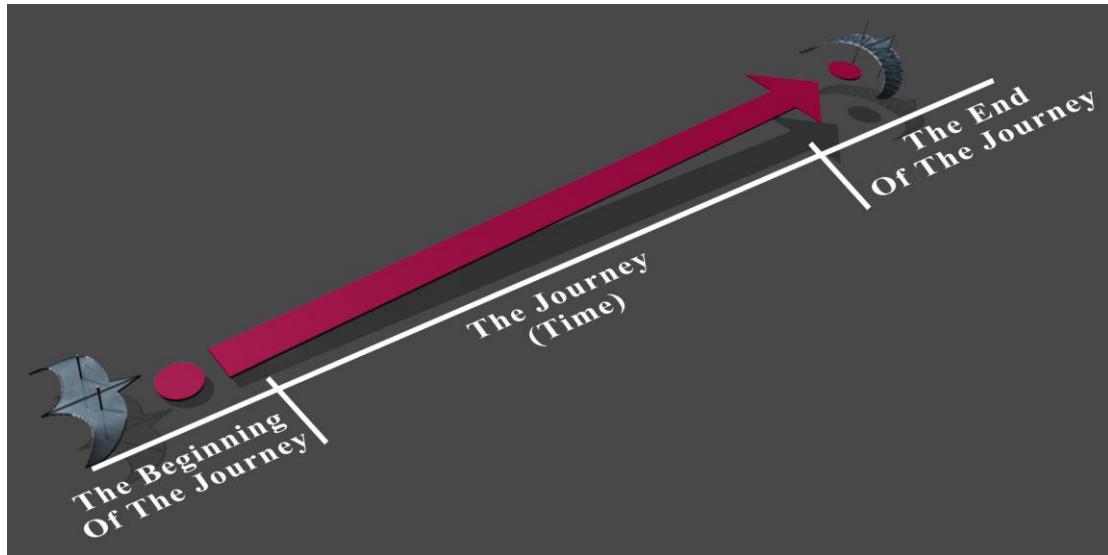
Interiors :

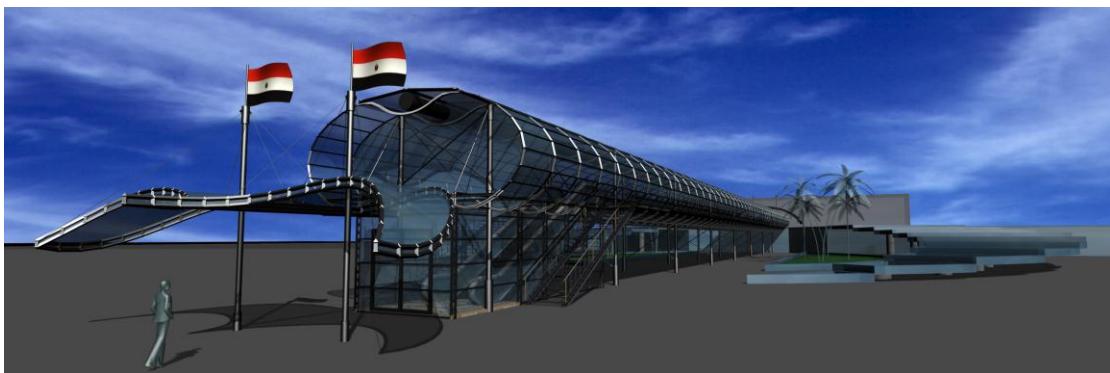




SHARM ELSHIEKH AIRPORT

concept





**KARBALAA SEASONAL TERMINAL AMENDED
UPGRADING PROJECT
BAGHDAD INTERNATIONAL AIRPORT**

Location	BAGHDAD/ IRAQ
Date	2013
Building Type	transportation
Building Usage	airport





