

EGYPTIAN CIVILIZATION

RENEWABLE SOUL THAT REVOKES AN ETERNAL BODY



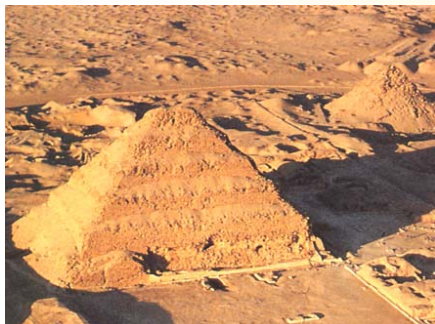
The Ancient Egyptians believed in eternity of humans, both by soul and body, Unlike the major religions that believe in eternity of the soul while does not give any importance to eternality of the body.

This is reflected in the Egyptian Culture, and even Egyptian life itself, the long living land of Egypt, survived several changes of rulers and invaders, which al merged some how into the versatile and renewable Egyptian Culture, the soul of Civilization.

The same concept applies to Egyptian buildings and art crafts, eternity was the goal, the building (the container of the body), should be eternal to keep the eternity of the body itself, this container to take the most stable architecture from the pyramid.

Eternity and the mountains

Egyptians, had a very dynamic relationship with their land, for ages they have alternated and refined their land and its major life artery: the Nile. But the mountains that surrounded their valley was very static, and it was not a place to change, it was the place of eternity!



Old Kingdom used the top of high lands as a safe place for burial, gradually building man made Mountains: the Pyramids, which resembled the stability, and robustness of the mountain, starting by Djoser's stepped pyramid, to the climax of their innovation, Keops pyramid Which was a Geometrical Abstraction of a mountain.

in the new kingdom, they used of the mountain itself as a burial place, the valleys of the kings and queens in el-Gourna mountain west of Luxor is the Place selected by the greatest Pharos to keep their bodies for eternity.

temple of Hatshepsout, (el daier el abhary) is one of the worlds lessons of relation between nature and architecture, its unique ramp approach is a direct analogy to a natural ramp in the site that is barely noticed by modern architects. the Egyptian eternal architecture was related to the mountain in one of three forms:

- Inside the mountain (Abou simble, tombs in the valley of the kings).
- Building a mountain (the Pyramids) actually completing a high land platen into a mountain.
- Embraced by a mountain (Hatshepsout) temple.



al Gourna Mountain, the summit as viewed from valli of the Kings the open armes of the mountain welcomes the visitors, the same welcome message from the structure is Used in GEM

This deep relationship between Egyptian eternal Architecture and the mountains was a major aspect of the concept of GEM, in conjunction with the inspiring site, which indirectly integrates with pyramids plateau.

A building that Resembles a mountain.

A mountain that acts as a building.

The Ancient Egyptian Architecture context

The Egyptian Artifacts were used , displayed and stored in an Ancient egyptian Architecture context, which inphasized their beauty, it is hard to display them today in a totally different architectural context, while it is not logical to rebuild the Past.

The Roots of the Egyptian Architecture

The Team Tried to walk through the same Passage that the ancient Egyptian Architect Used, his mind dominated by the super human king, and the rigid Hiorarchy of the society that translated into the conventional levels of acess to the temple.



view from Up el Gourna Mountain, shows how the Arcitect of MentohotebIII temple (mid Kingdom) was Inspired by the Natural Ramp in th Mountain, the Architect of Hatshepsout temple was inspired by both, the Architectural Concept and the multi stage Natural Ramp.

Natural Analogy:

Being one of the first architectural experiments of the world, Egyptian architecture has no predecessor to learn from or inspired by, its direct source, to learn was Nature, the Creation of God.

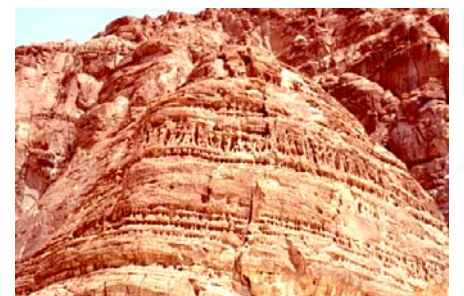
Egyptian Architects stimulated their creativity by Natural Analogy, column crowns that resembled palm trees or Lotus beads and flowers, or even human heads, of Hat-hour is a clear evidence of the natural analogy.

Moreover the analogy of the forms of buildings itself is clear, the pyramids are analogues to mountains in form, stability, and eternity!

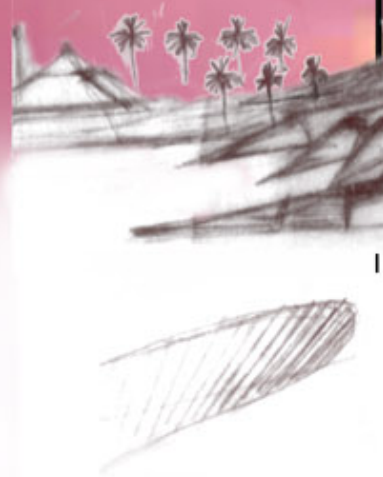
The stepped pyramid of Jossier replicates the layers of a sedimentary mountain with its horizontal layers, while keeps pyramid represents a more abstract interpretation of mountain form, into a pure geometrical form, that still kept the visual and symbolic values of a mountain.



The ribbed surface of a mountain ridge may be analized into a hyper Geometrical Form, or a FRACTAL form, that is used in GEM in the welcoming wings (more refinements will be Made to the technique in Phase)



The porus layers f sedemetary rock can be used as solar screens to Protect windows, Fenestration in Harmony with a mountain building, and it looks similar to HeroGlyphic writing too! (not Upplied Clearly in the conceptual Design Phase)



INFORMATION SYSTEM ... THE SOUL!

Information System is the Soul of GEM's Body, the non physical Part that gives a meaning. designing an IT system for GEM is a Challenge, Information evolves very rapidly and the designer should respond to a contentious stream of change, so the system will be designed not only to handle the technology of today, but also the technology of tomorrow, moreover GEM can be an active force pushing the IT ahead of its age.

GEMIPOS (GEM Information, Positioning, and Orienting System)
The visitors uses a hand held computer (palm PC, or preferably a costume device)
A visitor Identify himself to the computer when receiving it at the ticket booth or Info desk, a sensor network on ceilings of GEM detects the position of the device, that enables GEM computers to give instructions to the visitor about his next move. This is specially important when following complicated routs (a hyper textual rout for example); the orientation system may be essential.

GEM IPPOS gives instructions and information through several ways:

- **Sound:** An earphone is used to hear the instructions of the information System; this is essential for visually impaired visitors. And useful for all others.

- **Writing** and displaying images on the device screen.

- **Display on any empty screen** (monitor or projector) near to the current location of the visitor.

—
In addition, The visitor May order More Information and Pay the Cost

Printed Information:
Visitor may ask for more Information about an artifact or a theme, he may get a hard copy or a CD with the required Information waiting for him at exit Information desk, he will pay for this service by his credit card, or a pre-paid smart card that he purchases from any Information desk inside GEM.

E-commerce:

Just like any body surfing the web, a visitor may point to a statue and order a reduced replicate of it or a poster of a Painting, or even send it as a gift to a friend anywhere, as long as his prepaid card or credit card can cover.

A lady may order a jewelery set similar to one she saw on Nerfertity, all this can be achieved if the e-store of GEM have its database accessible in a hand held computer, the same e-store can be used through the GEM web site.

Having the chance to buy CDs and prints of Information about displayed themes, and providing an electronic payment tool, any thing can be sold to the visitors while navigating GEM. .

Virtual Museum

At every break location a room with many computers is available for use to access virtual museum, or search for more information about the GEM art-crafts, or order a GEM product.
These stations are distributed in several points around GEM.

The database of GEM will be very dynamic, cross platform, multy lingual, uses vocal description of art crafts as well as text, D models, VR models, and hyper links to external and internal books.
This database will be ever growing adding more value to GEM everyday.

The emerging technology of small monitors mounted directly ahead of eyes, like a glasses is evolving fast, if we today will plan the virtual museum using monitors, soon this will disappear and visitors will use googles to view virtual museum models as they walk.



Just like any body searching the web, a visitor may point to a statue and order a reduced replicate of it, a poster or even send it as a gift to a friend anywhere, as long as his prepaid card or credit card can cover.

A lady may order a jeweler set similar to one she saw on Nerfertity, all this can be achieved if the e-store of GEM have its database accessible in a hand held computer, the same e-store can be used through the GEM web site.

Games and Adventures
The hard held computers can open more opportunities of pleasure, a visitor may be go through an Information game wishing more points gives him more money to buy e-goods from GEM, or gives him free access to sections that require more fees, ... etc.
Sometimes the game is more intensity than the visit itself especially for children..

Adventure and Games

Information Based Games are a very good stimulus of knowledge, and a pleasant entertainment as well, Having the Hand Held Interactive computers, the visitor receives questions about artifact beside him, and answers the question to win extra services from GEM free of Charge, or get special prizes, or even writing his name or Purring a smal statue of him in the Hall of Fame in the museum.

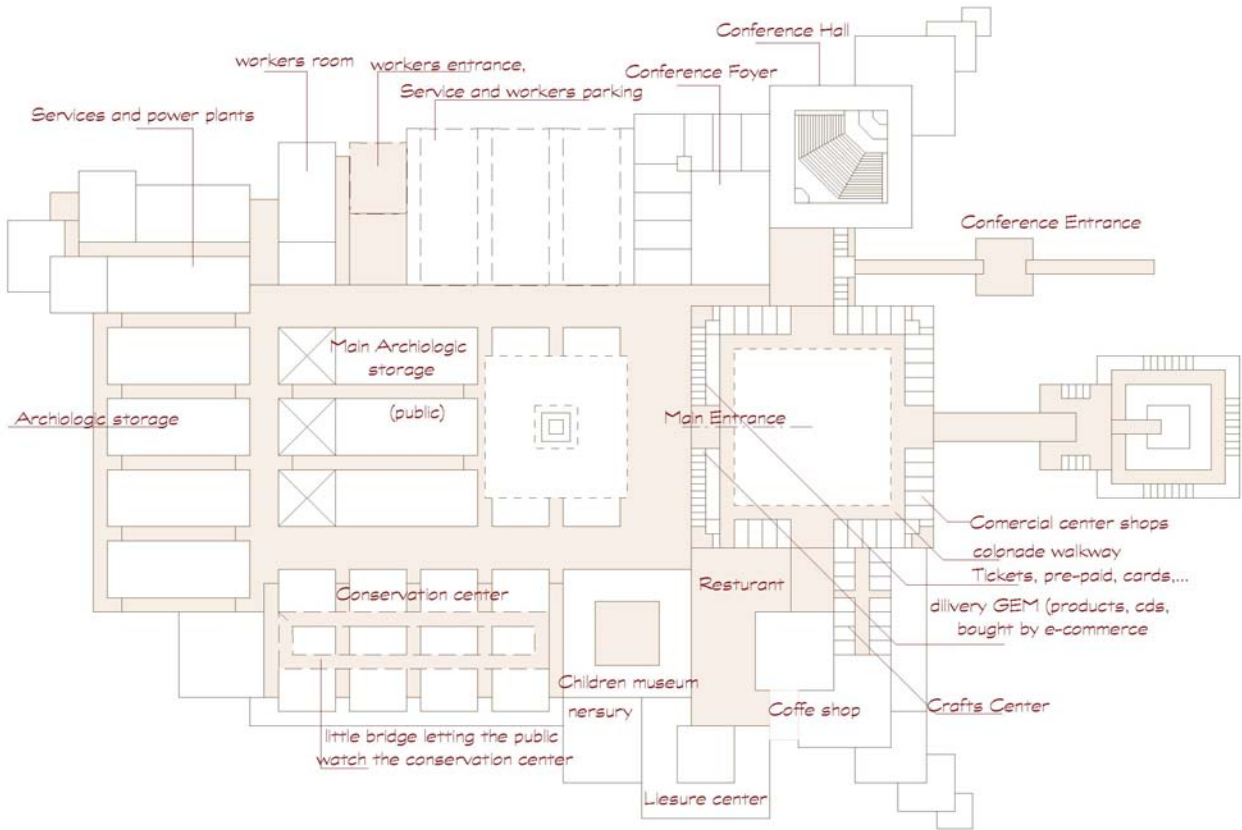
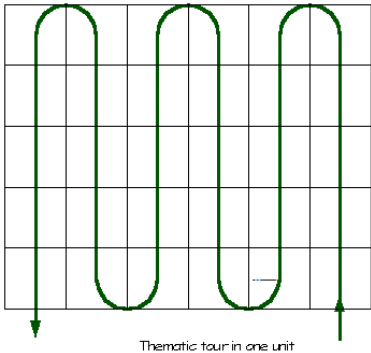


CIRCULATION .. RESOLVING THE COMPLEXITY

1- Thematic Route

The area allocated to a theme is divided into sub themes,
A rout that passes through all the sub themes covers a theme totally.
A Route that passes through each theme covering all the themes is an exhaustive route that covers the whole museum, this rout id devided into five thematic Routes.

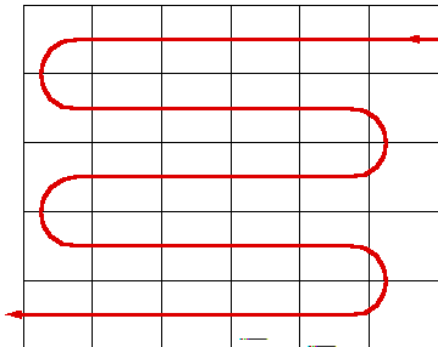
Arranging all the themes into a circle makes a full tour end where it started.



Conceptual Plan of Level O (+ 54)

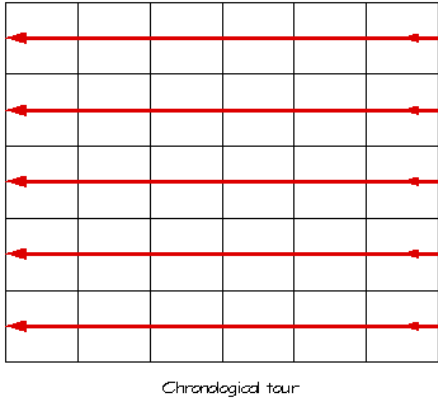
- Chronological Route

Combined into thematic artifacts in each sub theme can be organized chronologically dividing it into cells.
Hence, allowing adjasent cells from neighboring sub-themes, to represent the same period, the visitors may prefer to pass through cells of each period in a Row. This will give a path perpendicular to the Thematic Path



Note: No. of periods reduced only to a simplify diagram
This path is chronological within each theme.

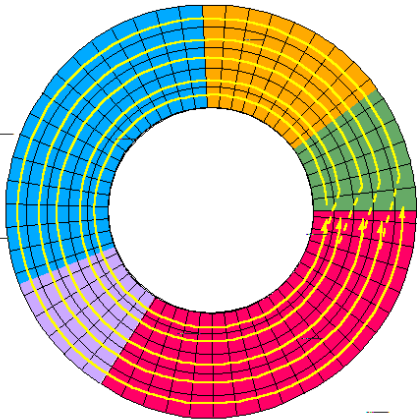
A visitor may prefer the pass through a certain period through all the themes and then passes through the next period, following a pure chronological path.



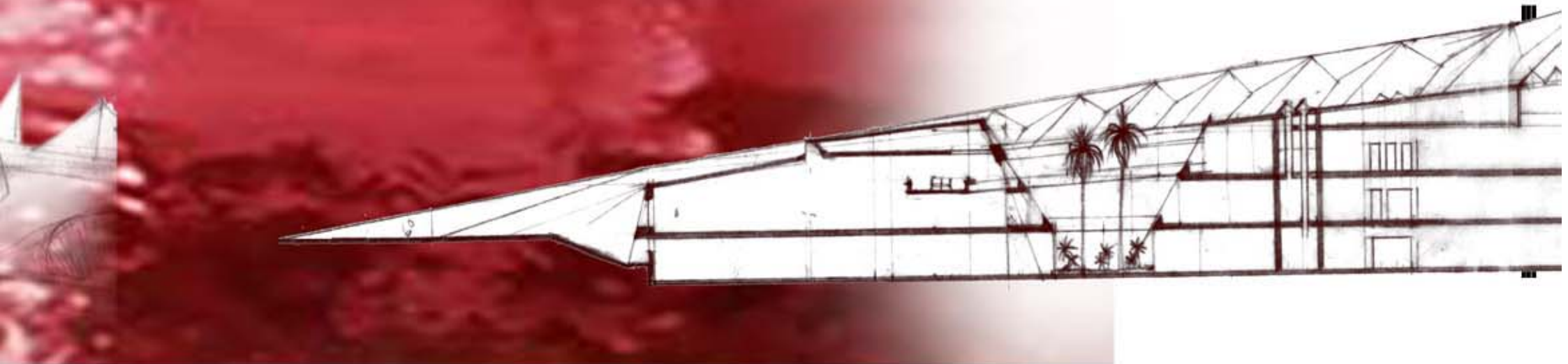
the Intersection between the types of routs makes a grid of cells, which is the Basic Unit fore buiding the spacial structure of GEM

knowing that some subthemes does not cover all the Periods, while some periods will be oversized, these cells offer a degree of flexibility of design or changing Later, the Basic design Unit is x m, the structural Unit is x m, usually rows of sells (one going and one returning) use the same structural Bay

Closed Loop Arrangement
arranging the themes in a circle allows a continues chronological route covering all the periods and the themes.



This arranging route is similar to make of data clusters on the computer disk.



۳- HyperTextual Route

The complete analogy to hyper links

clicking a link actually orders the computer to move the reading head of the disk to read data from a different location.

Understanding the process can help developing a physical interpretation.

The head actually moves (from or to the center of the disk) to pick a ring while the disk revolves and brings the sector to the head.

If we make an analogy for hyper textual jumps in GEM, it is not practical to have the visitor hang and let the museum revolve under him!!!

It is more logical to make him move fast in a circle.

The visitors Highway/ the Data High way!

the Hyper textual rout can be phisically interpreted into a High level pedestrian Higway

A moving walkway can be used (a moving belt similar to escalators but moves horizontally or on a mild slope) is recommended.

This moving walk way moves over the main display Areas, giving a third dimation to circulation, access to it is possible from the walkways between the display rooms

For safety of riding and departing most known moving walk way (mmw) are slow (- km/hr), too slow to achieve fast tour.

Accelerated (mmw) reaches km/hr (m/min), which can cover the whole length of GEM route in minutes.

It is still slower than shutters or monorails, but simpler and does not give an over high tech atmosphere that visually contradicts with the historical context.

Vertical Circulation

(MMW) can be also used for moving up the slope of the site to reach the high point without fatigue, it is suitable for wheel chairs more than escalators.

GEM vertical circulation will depend on ramps instead of stairs (either moving or static) to enable wheel chairs to move freely, that includes the main approach.

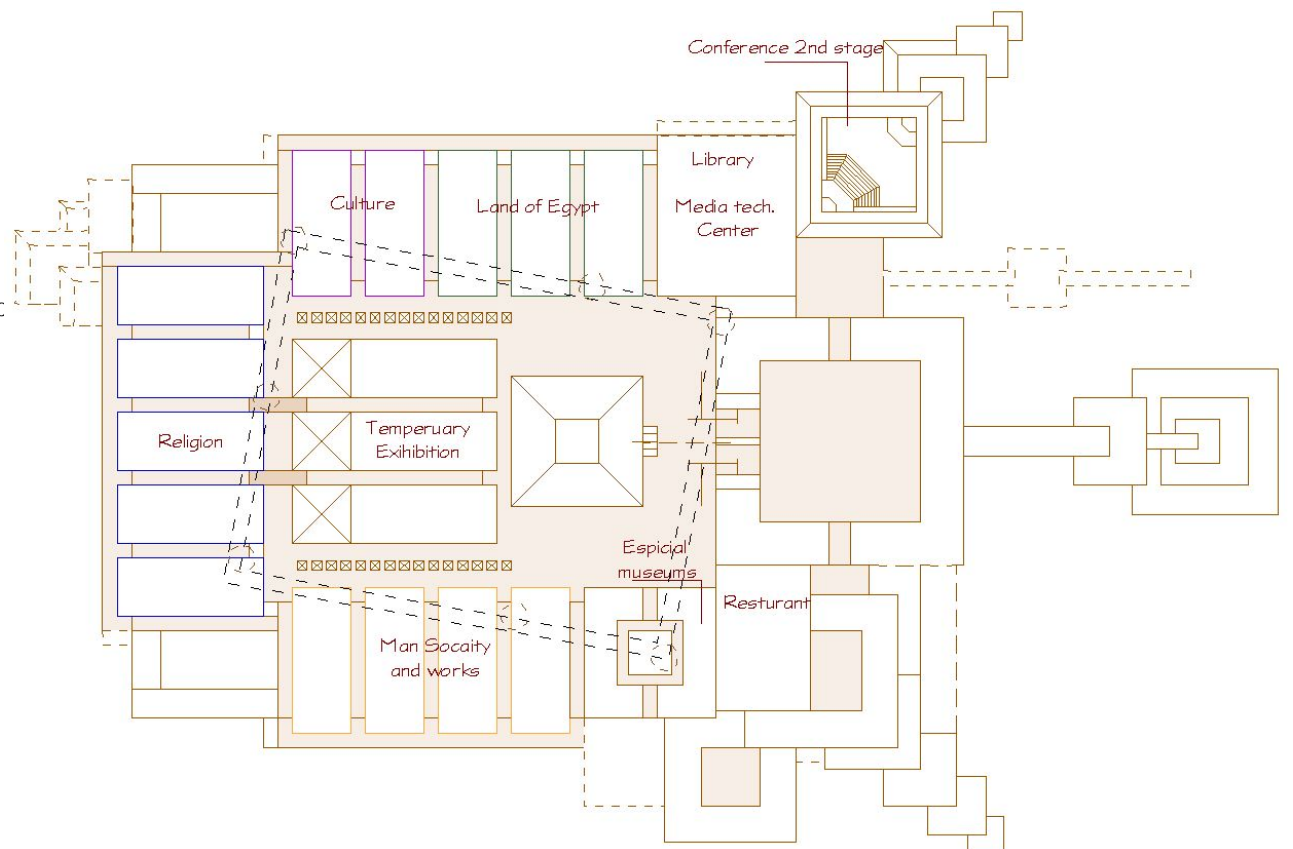
Part of GEM services may include rental of motorized wheel chairs for people who need them.

In GEM, this conceptual arrangement is phisically Interprinted to a sqaure instead of a circle, with Creates corners that does not match the double circulation type, these corners are used as assembly Hals containg Important activities and services.

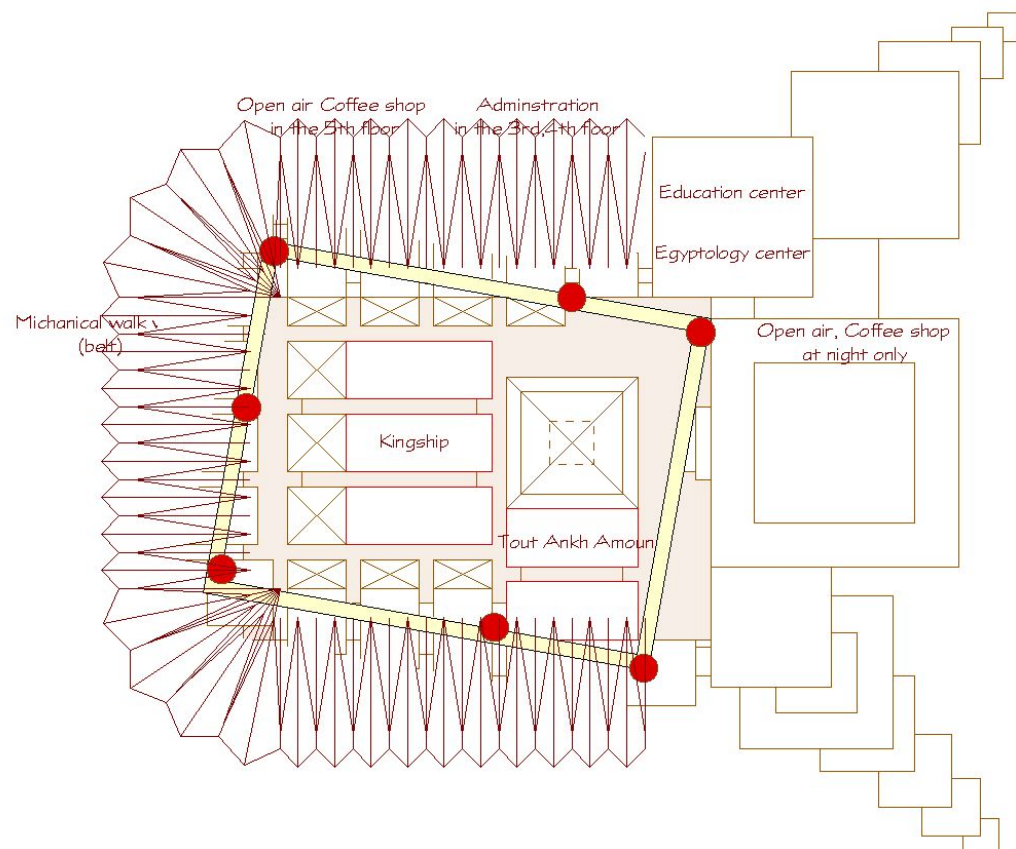
Assembly Halls

At each Corner of the Building, the visitor finds a chance to have an optional break, sitting and relaxing for a while, taking soft drinks from vending Machiens, using a computer from one of the several Computer rooms, and accessing the virtual Musium.

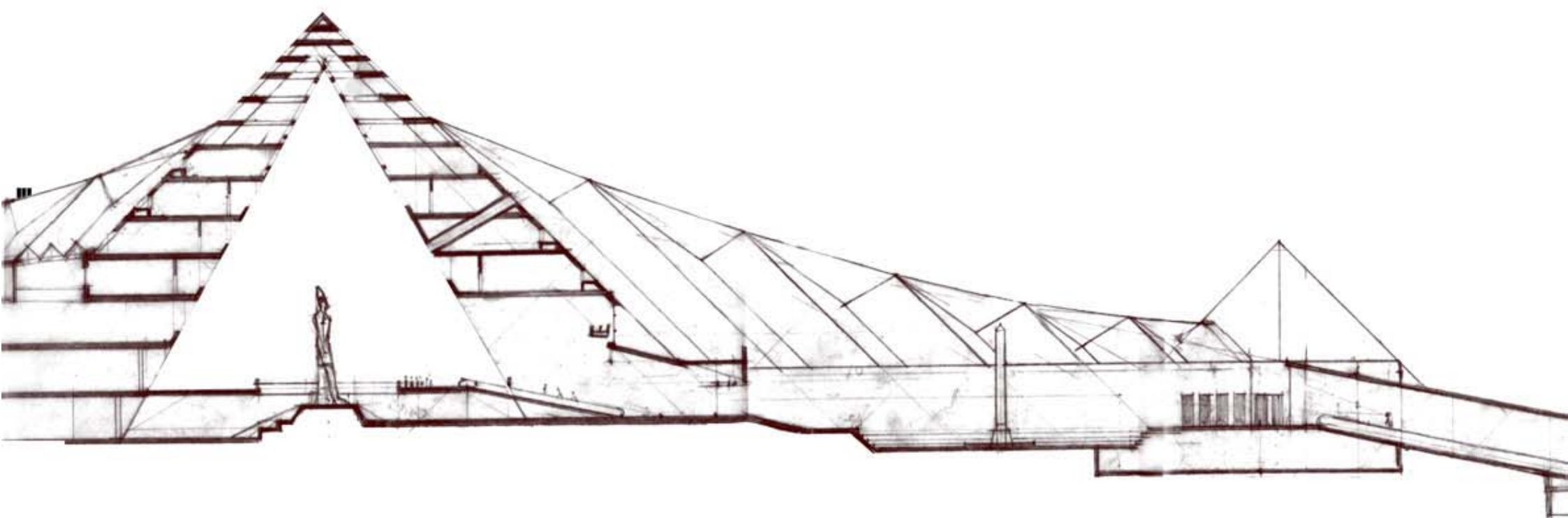
And finds refill Cards for his paid services, asks for help if he needs.

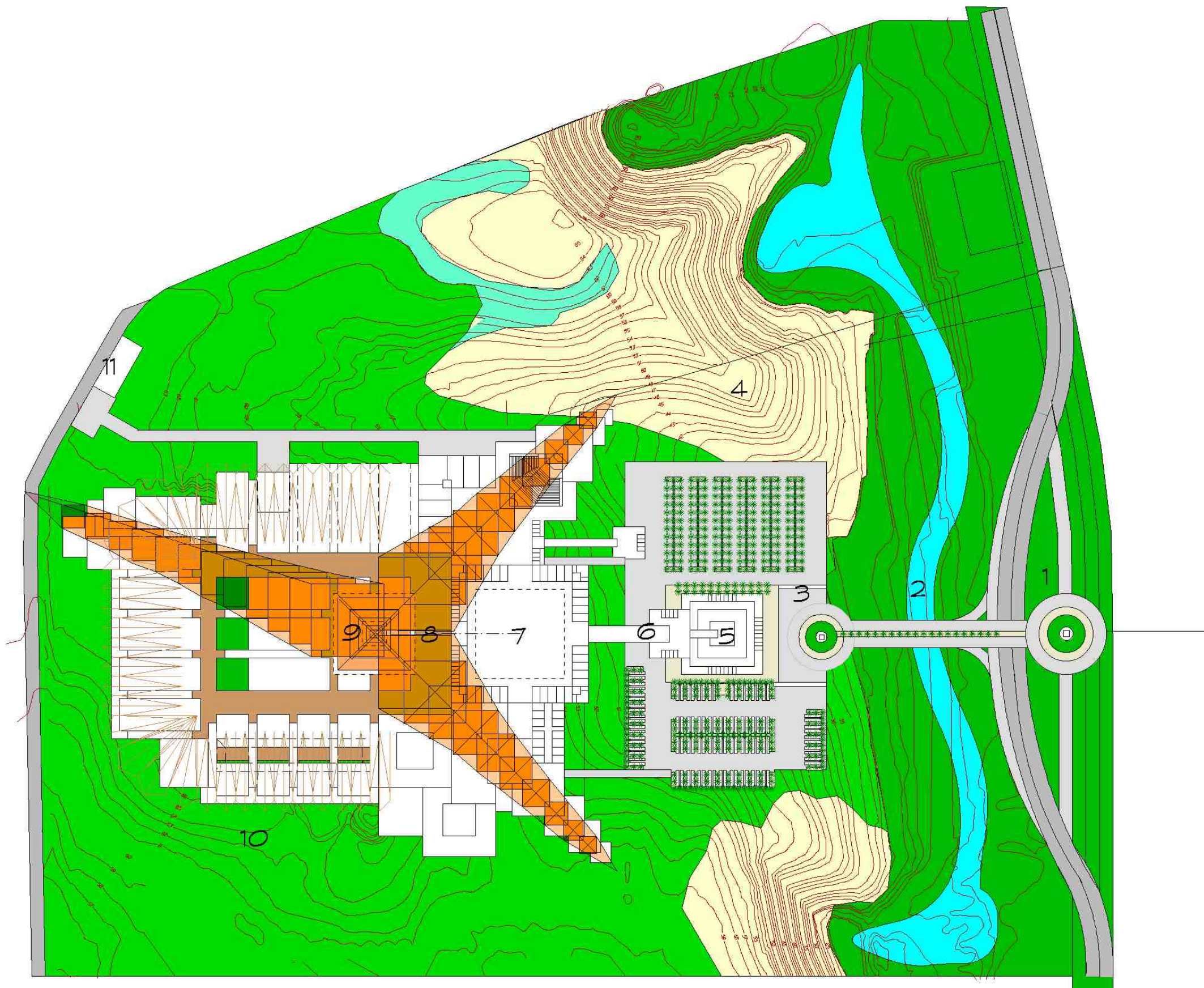


Conceptual Plan of Level 1 (+60m)



Conceptual Plan of Level 2 (+ 66)





- The Main approach

a very accentuated axis that starts with a Land Mark (Obelisk) in the center of a round about which only visitors of GEM uses (while Alex Highway passes Under the entrance fly over (half fly over half tunnel)

- The Nile Park

A 10m wide water stream that resembles the Nile, Miniature of Egyptian Monuments are located along a boat tour in MicroNile.

- The Parking Park!

using properly spaced Palm trees, the whole Shaded Parking area becomes a Palm Tree Park, that Accentuates the Egyptian Flavour of the scene.

- The Dunal Park

the impressive steep sand dunes on the north corner will be conserved in their natural Form

- Interance and security

there are 3 levels of security

- the Parking lots (Checkpoints to enter) to secure visitors
- the Gardens, Commercial center and all museum activity except for display
- the display zone (highest level to protect both visitors and artifacts)

- The Mechanical Ramp

the site has 10m level difference, visitors can avoid fatigue by using Mechanical Ramps, which is inclosed in a tunnel, its roof can be used as an open air ramp, the 10m shaded interior way includes fast mechanical Highway, conventional Ramp and stair case. The ramp accentuates Hierarchy of spaces and the axial approach. the Ramps generally are suitable for wheel chairs more than stairs or escalators or stairs, the whole

- Commercial Piazza

the approach leads to the Commercial piazza surrounded by shops Under, a shaded colonade walkway, this Piazza is the main circulation zone for GEM, leading to conference complex and research center (north) and recreation, Catering, and lesiure areas located south giving visitors full Pyramid view.

this piazza, leads to the building itself, with the Main display areas which needs tickets, or GEM hand held computers (review information) the ticket boothes are Information disks for how to enjoy GEM.

- Main building entrance

Intrance Hall have the activities that need more security such as banks, and leads to the Pyramidical Space of Main Hall This huge Pyramid gives the spacial experience of being in a pyramidical space rather than watching the pyramidical Mass, the space looks unified, steep and huge, contrasting with the exterior that have lowers slopes and partially covered by the wings resembling mountain ridges

-The Focal Statue

at the centroid of that Pyramid, stands a huge statue (designers suggests to add the statue of Ramses II to the meuseum display) a well calculated and designed solar Path will make sun reach his face in the same dates it does in Abou simble.

- Solar Facade

the forth wing which is expected to be in the south was removed, to give a full orientation to the sun, this Facad BLUE will be mostly covered with Photo voltaic modules to generate electricity used for interior Lighting (active Solar Architecture)

this Solar Park includes the theme Park and eqipped Park, enjoying the winter sun and view of the Pyramids that can be seen from tens of loctions within Gem, the North dunal Park enjoys north breeze in summer.

- Service entrance

service and workers entrance, fire Bregade and Ambulance.

