

# Ancient Egyptian Architecture



Lecture 3

# Mid & New Kingdom Burial-Cham



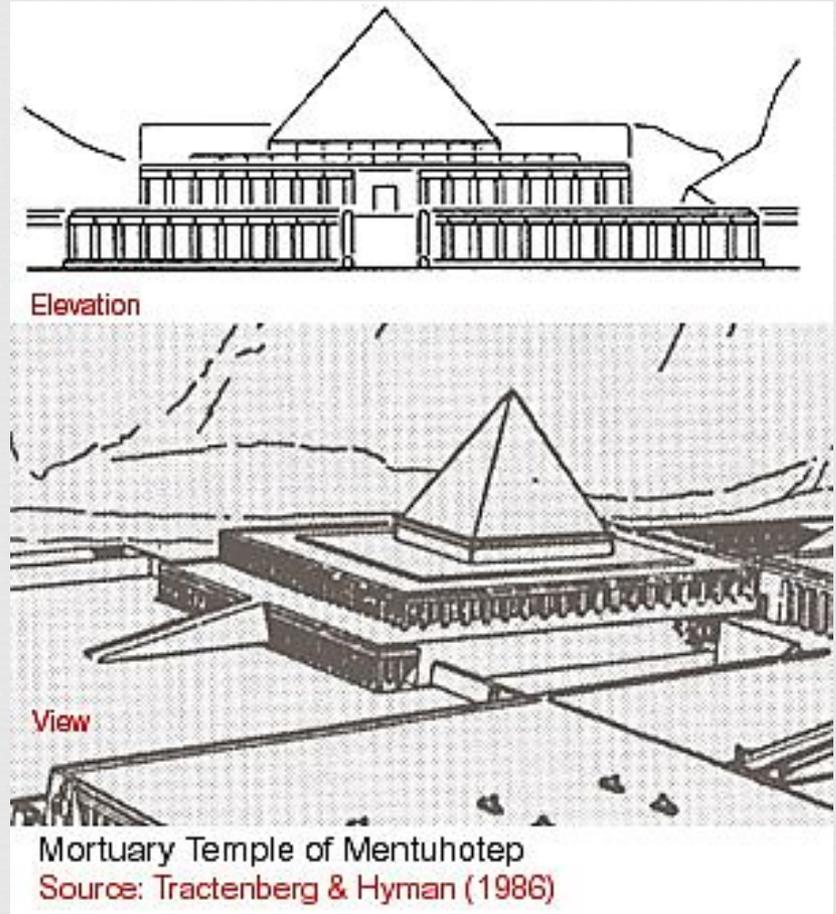
Pharaoh Mentuhotep

Source: <http://egyptphoto.ncf.ca>

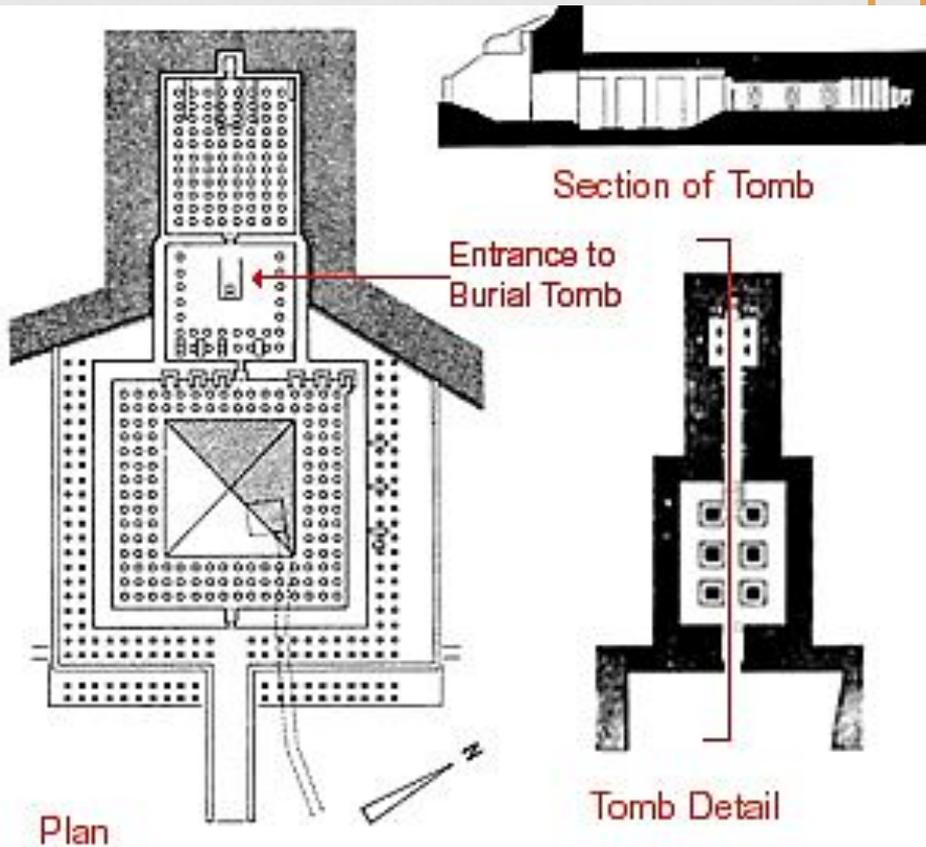
- The Middle Kingdom began when pharaoh Mentuhotep united Egypt again after the first intermediate period
- During the middle kingdom, the practice of pyramid construction disappeared
- Focus in architectural development was however still on tombs and burial chambers
- Two categories of structures came into use- mortuary temples and underground tombs

# Mortuary Temple of Mentuhotep

- Two mortuary temples were built at Der-al-Bahari; mortuary temple of Mentuhotep and Hatshepsut
- Mentuhotep was the first Pharaoh of the middle kingdom
- He built the first mortuary temple at Del-al Bahari



# Mortuary Temple of Mentuhotep



Plan

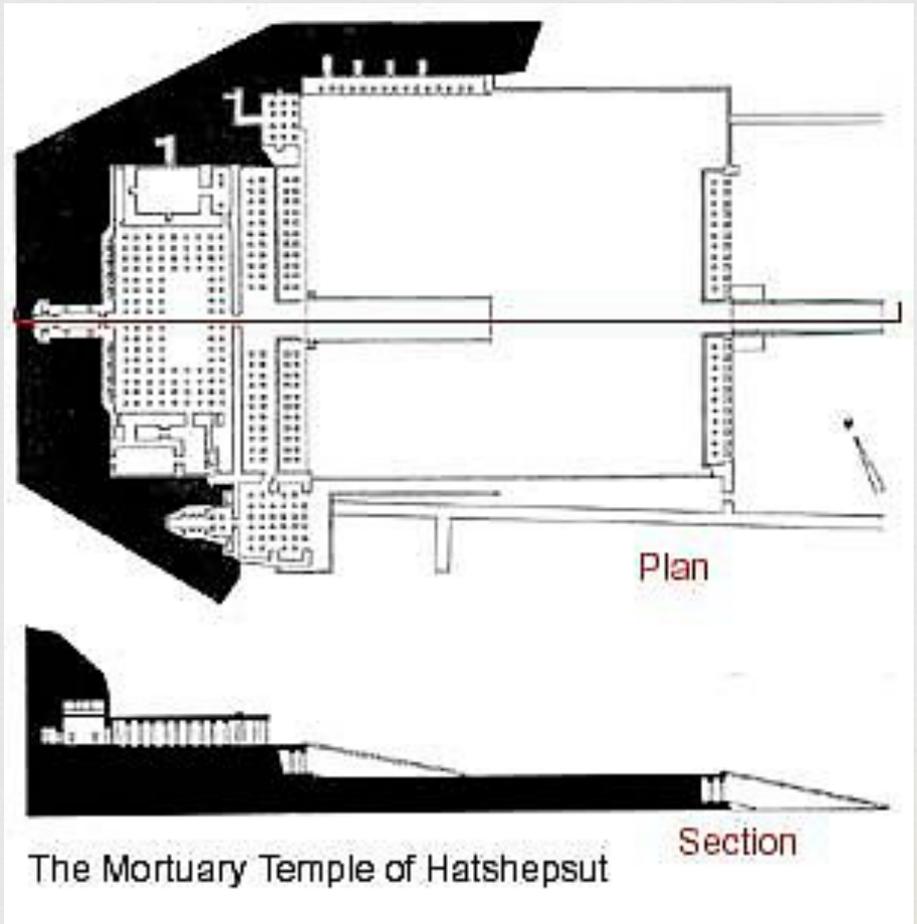
Tomb Detail

The Mortuary Temple of Mentuhotep

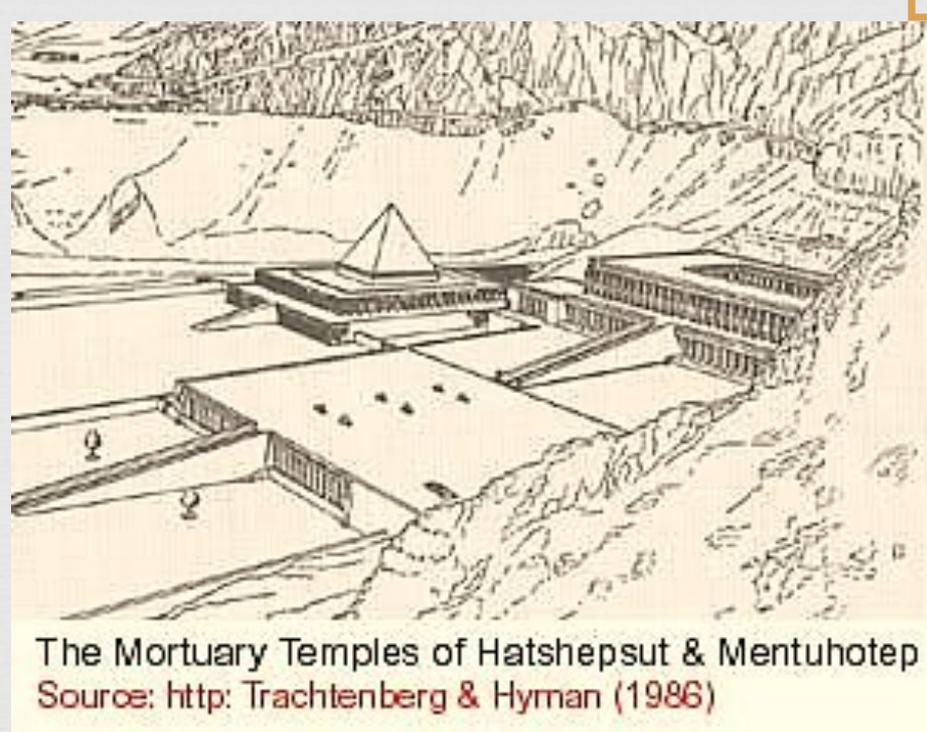
- Entrance to the real tomb is found at the rear from the western courtyard
- The burial tomb is accessible through a ramp leading down at the center of the court yard
- Just like the pyramid funeral complexes, the temple of Mentuhotep also has a causeway leading to a valley temple

# Mortuary Temple of Hatshepsut

- The temple of Mentuhotep served as a model in the design of her temple
- Her extraordinary funeral temple located at Der-Al-Bahari, is set against the background of the cliffs
- The architect of her temple is believed to be Senmut who is also buried in the temple



# Mortuary Temple of Hatshepsut



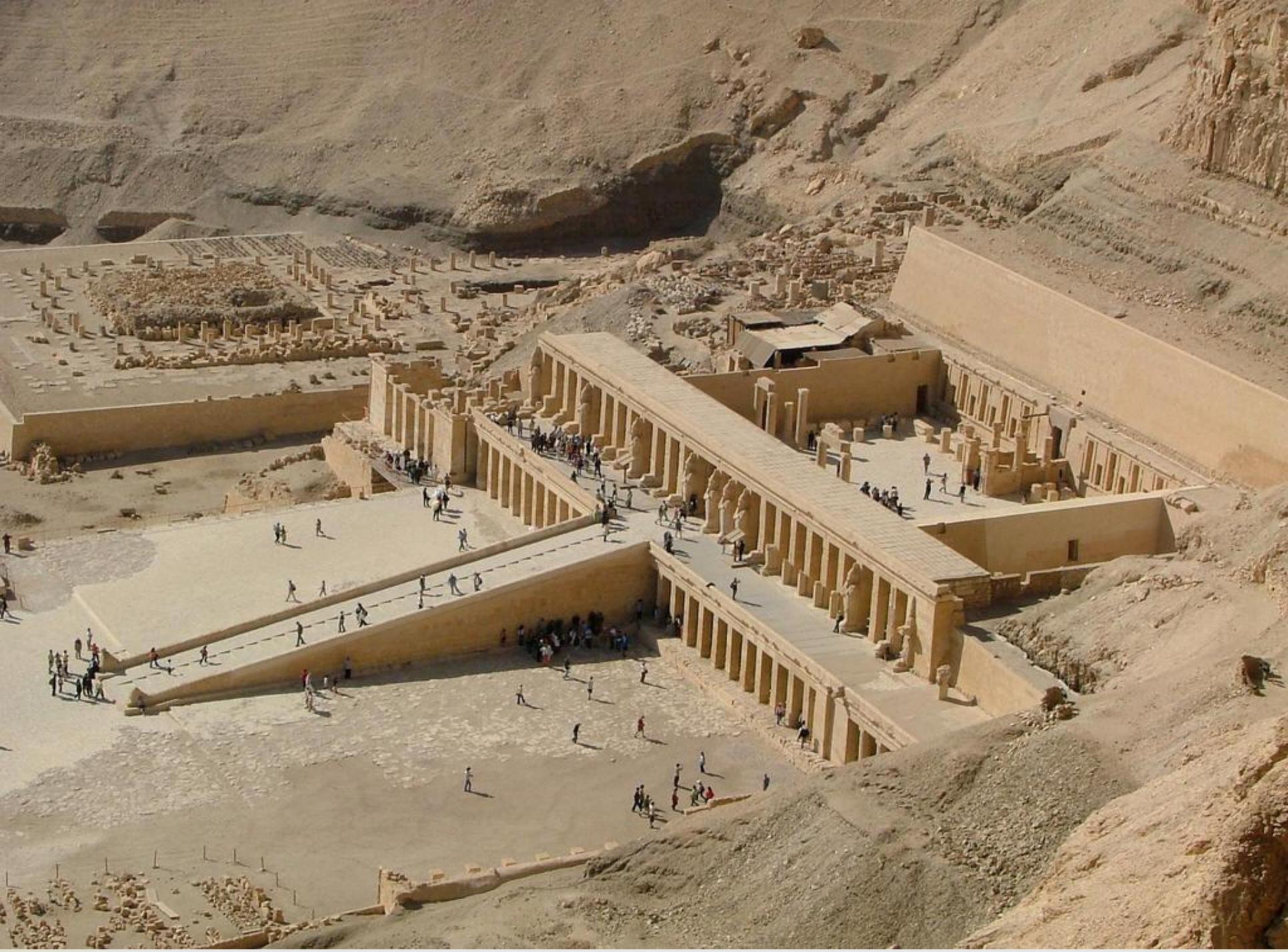
The Mortuary Temples of Hatshepsut & Mentuhotep  
Source: [http: Trachtenberg & Hyman \(1986\)](http://Trachtenberg & Hyman (1986))

- The temple of Hatshepsut is like a giant stage on three levels
- Each of the three levels was connected by a ramp
- Her temple fits very well into the tall rock cliffs behind it
- On the top level is her chapel dedicated to the goddess Hathor
- The chapel was dug out of the rock cliff
- Hatshepsut hid her tomb in the deep rock cliffs to stop robbers

# Mortuary Temple of Hatshepsut

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- Her temple was not a construction of stone masses as in the pyramids
- It was rather a play of the emptiness of terraces, ramps and courtyards against the busy background of the cliffs
- Her temple captures the shift from the compact geometry of the old kingdom pyramids to the linear composition of the New Kingdom temples

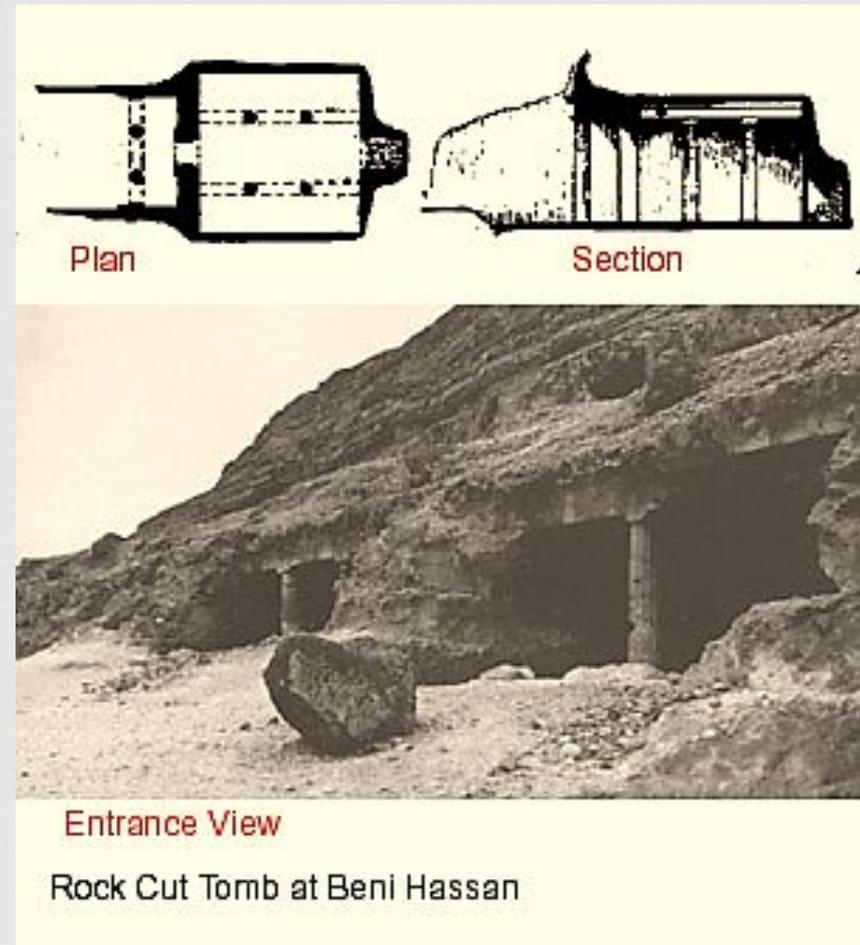




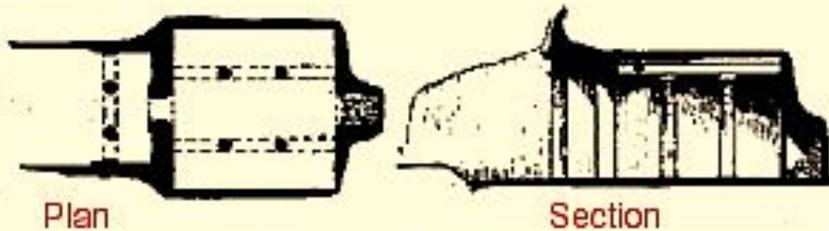


# Underground Tomb- Rock Cut Tomb

- Two types of Underground tombs were built by pharaohs and nobles during the Middle and New Kingdom periods- Rock cut tombs and Shaft tombs
- Rock cut tombs are tombs that are carved out of rocks
- A very good example is the Rock cut tomb at Beni Hassan



# Underground Tomb- Rock Cut Tomb



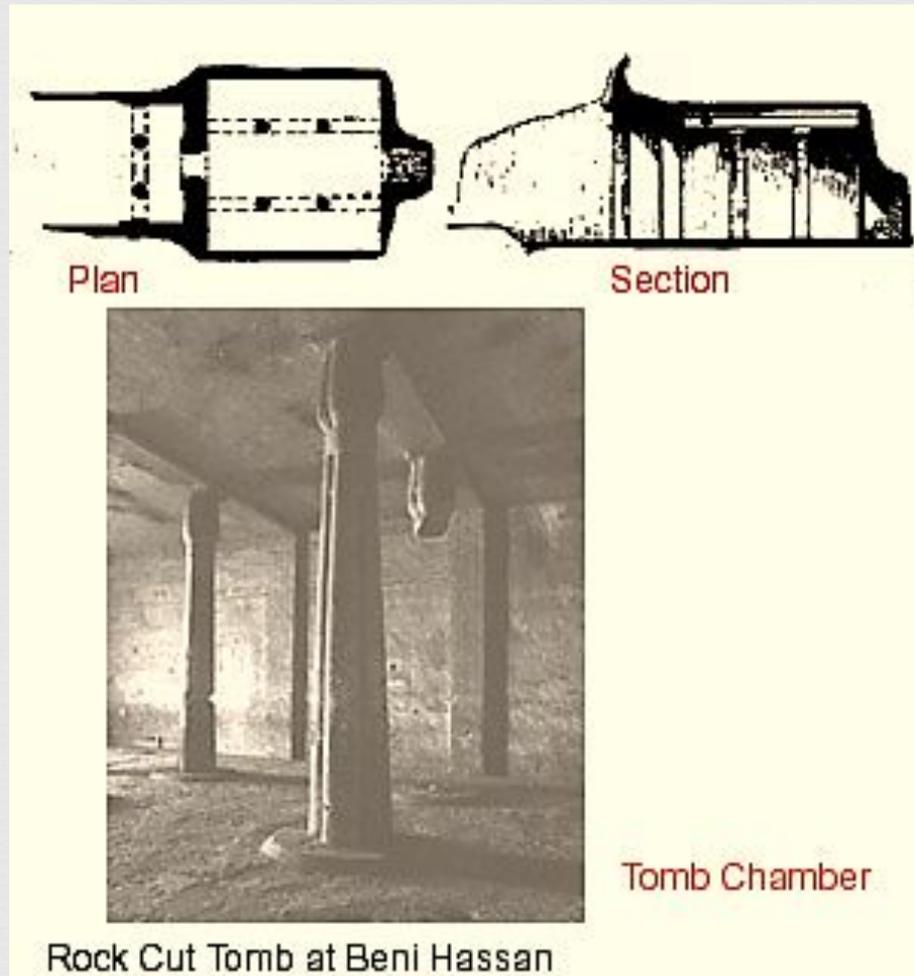
Entrance Detail

Rock Cut Tomb at Beni Hassan

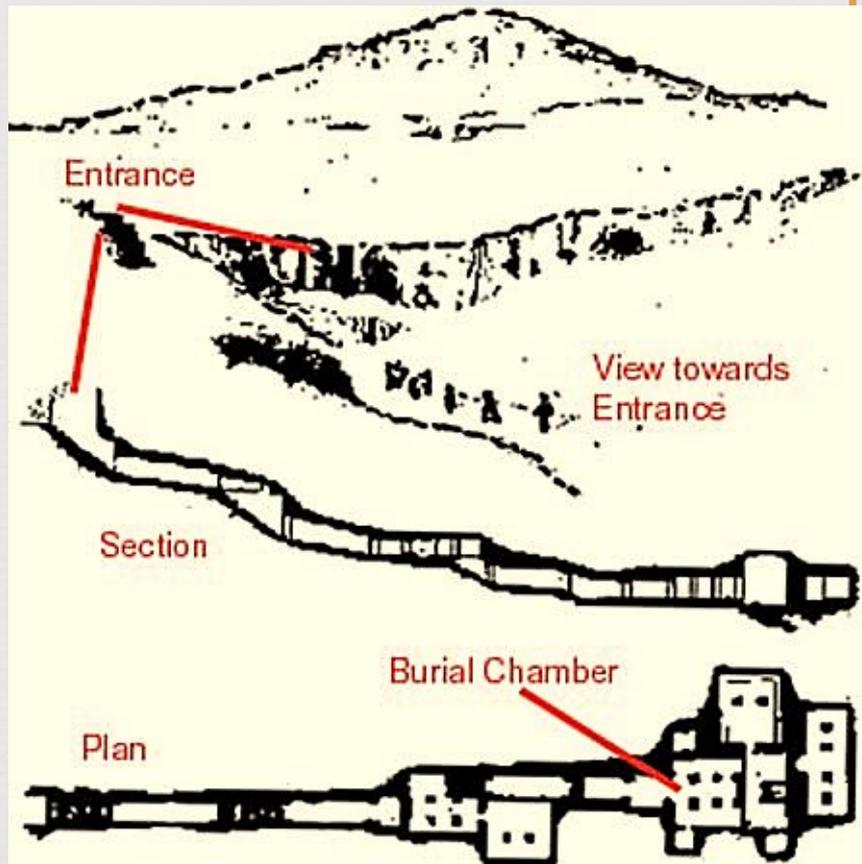
- Beni Hassan consist of 3 elements:
- A colonnade entrance portico for public worship
- Behind the portico, a chamber or hall with columns supporting the roof serving as a chapel
- A small recess towards the back of the chapel where the person is buried

# Underground Tomb- Rock Cut Tomb

- The columns on the exterior were shaped like a prism with 8 or 16 sides
- The columns in the interior were designed as a bundle of reed tied together by rope



# Underground Tomb- Shaft Tombs



Underground Shaft Tombs,  
Source: adapted from Sir Barnister Fletcher (1996)

- Shaft tombs were a complex series of underground corridors and rooms cut out of the mountains in the valley of the King at Der-Al-Bahari
- The large number of rooms and their complicated arrangement is deliberately done to create a maze or puzzle

# New Kingdom Cult Temples

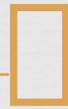
- The Middle Kingdom lasted for 275 years
- The New Kingdom lasted for 500 years
- During the New Kingdom, the capital of ancient Egypt moved from Memphis to Thebes



Map of Egypt Showing  
New Kingdom Capital

Source:  
<http://www.ancient-egypt.org>

# New Kingdom Cult Temples



- The most important and common architectural elements of the New Kingdom were **temples**
- Several temples were built dedicated to Egyptian Gods
- The New Kingdom Temples borrowed a lot of elements from the funeral complexes at Giza
- They also borrowed elements from the Mortuary temples at Der-Al-Bahari

# The borrowed elements include:

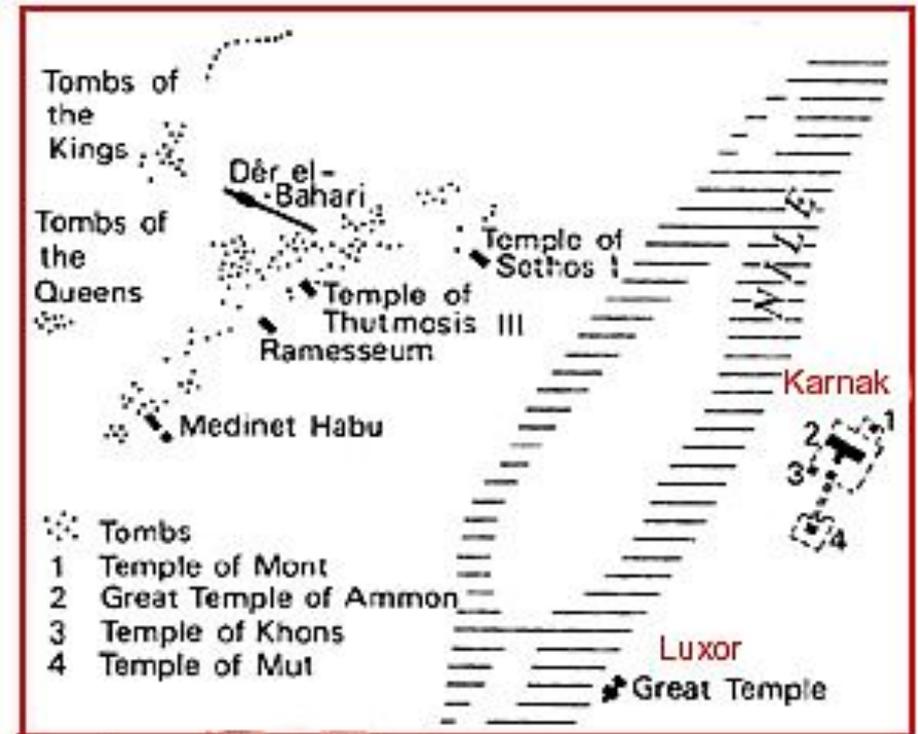
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- - Long approaches
  - - Guardian sphinxes
  - - Colonnaded vestibules and inner courts
  - - Darkening shrines
  - - Intricate linear progression of constructed space

The New Kingdom temples allow a series of experiences passing in stages from **openness and light** in the exterior to interior **closure and darkness**

This feeling was deliberate as only the Pharaoh and priest were allowed into the inner part of temples

# New Kingdom Cult Temples

- Many examples of the New Kingdom temples are found at **Karnak** and **Luxor**, all in **Thebes**
- An avenue of sphinxes connects the two sites

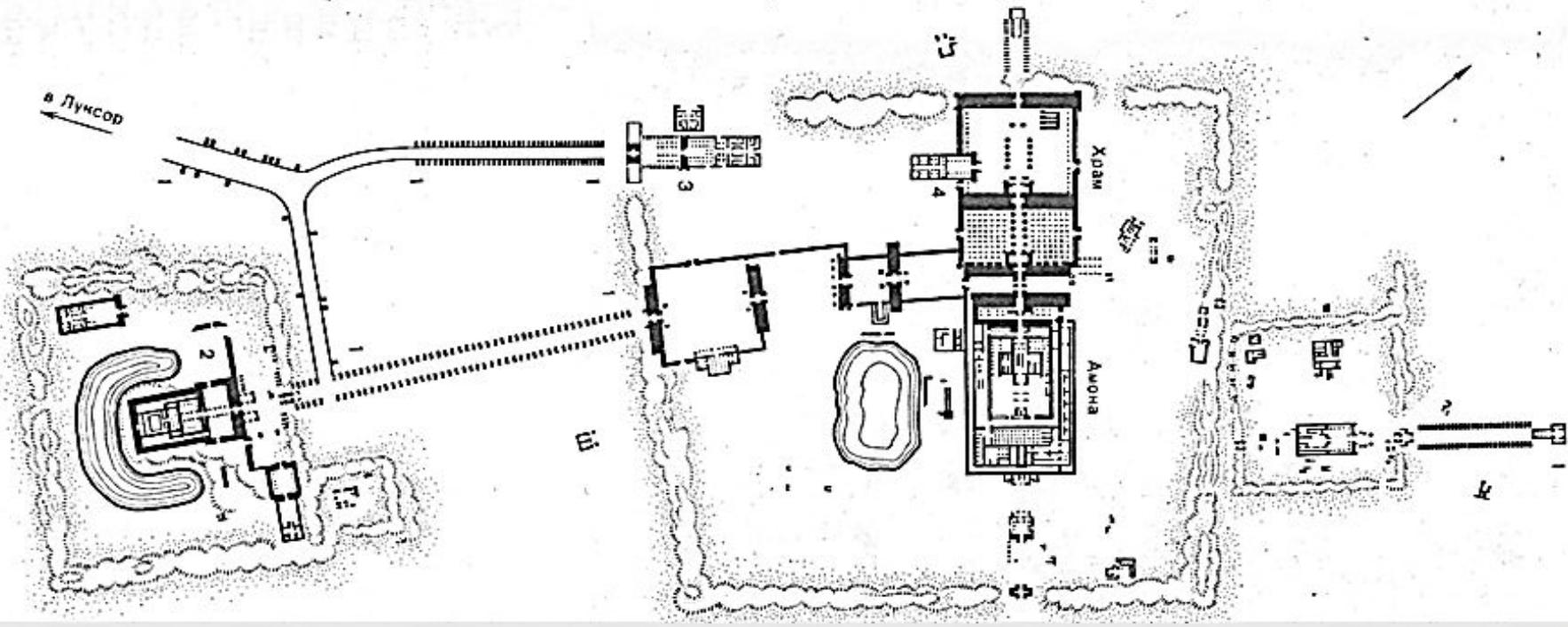


Karnak and Luxor in Thebes

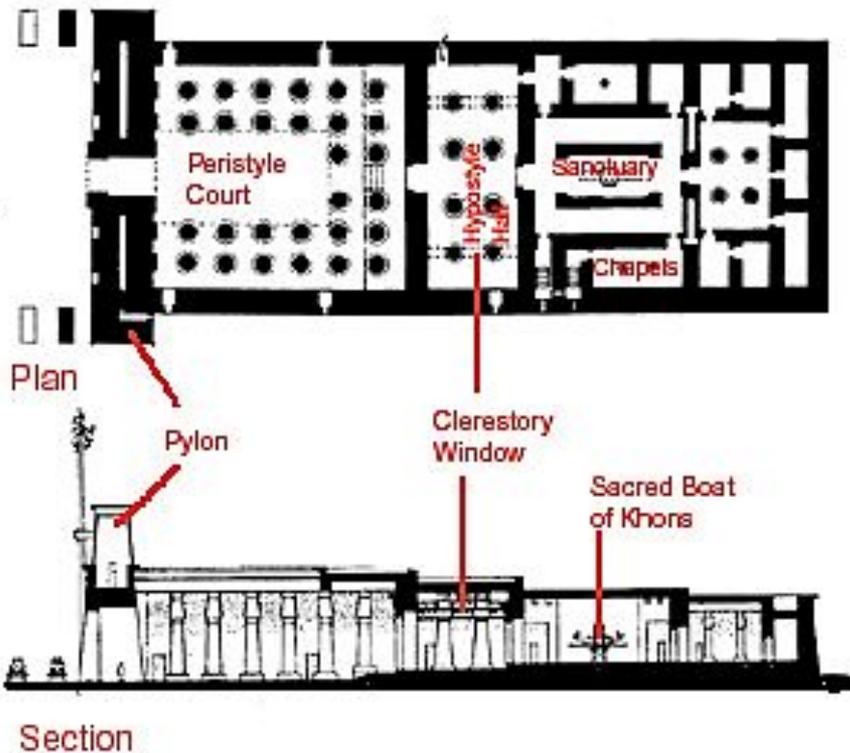
Source: adapted from Sir Barnister Fletcher (1996)

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в Луксор



# Temple of Khons, Karnak



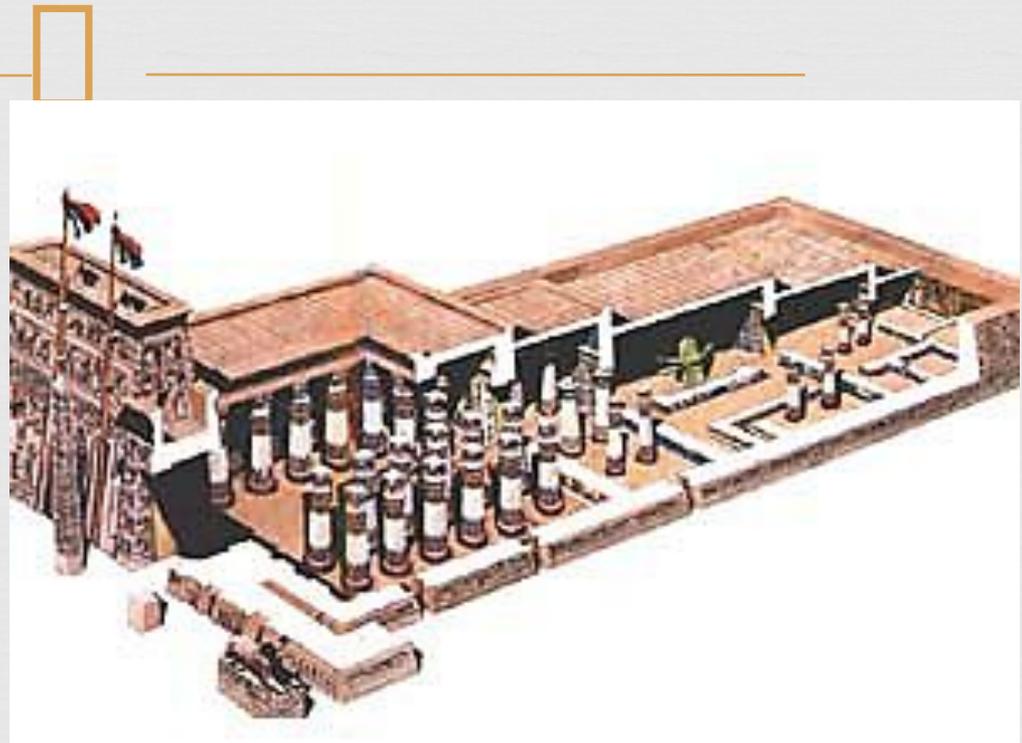
Temple of Khons, Karnak

Source: adapted from Sir Barnister Fletcher (1996)

- This is dedicated to the God Amun
- A person approaching first meets the entrance wall called pylon
- The pylon is higher and wider than the temple behind it
- The pylons were treated with molding and decorated relief carvings
- Mast with royal and religious flags fly in front of the pylon

# Temple of Khons, Karnak

- Behind the pylon is the peristyle courtyard
- Made up of a row of twin colonnades on two or more sides and was open to the sun
- It is the only place where common people were allowed to enter
- Beyond the Peristyle courtyard is the hypostyle hall
- Hypostyle means room with many columns.
- Peristyle hall and columns painted in bright colors



Temple of Khons, Karnak  
Source: Adapted from Norwich (ed) (1975)





- The ceiling was usually painted blue to resemble the sky with stars twinkling
- The columns in the center of the **hypostyle hall** were usually higher than on the two other sides, giving the room two roof levels
- In between the two roofs, windows were placed to allow light to enter
- These are called **clerestory windows**

# Temple of Khons, Karnak



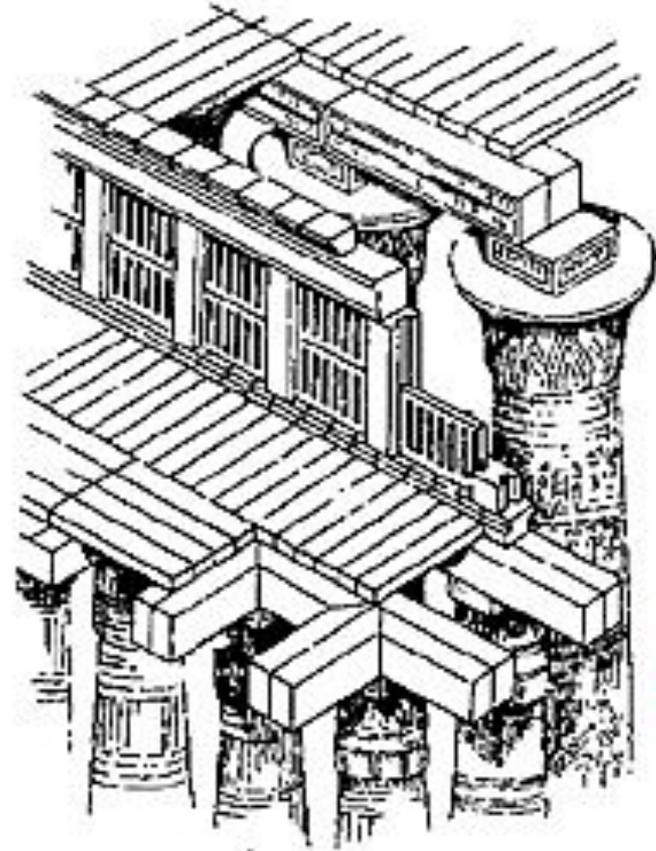
- As you move from the pylon into the temple, the roof becomes lower and the floor rises up
- The inside is also slowly darkened
- The sanctuary is completely dark except for small holes over the chapel of the Gods
- Every morning, the rays of the sun awakened the Gods
- The whole temple is surrounded by a wall

# Temple of Amon, Karnak



- It is the largest of the New Kingdom temples and it grew in a haphazard way
- Built by at least 16 pharaohs over a period 1700 years
- Each pharaoh added either a pylon, courtyard, hypostyle hall or decorated on parts built by an earlier pharaoh
- Queen Hatshepsut, Tutmosis II and Rameses II all added to the temple
- The front pylon had two obelisk in front
- Apart from the front pylon, the temple had two additional pylons

- Arrangement of the hypostyle hall consist of 134 columns arranged in 16 rows; 7 rows of smaller columns on each side framing 2 rows of larger columns
- The larger columns are higher and have a higher roof
- Smaller columns were of closed papyrus bud, while the larger ones were of open buds
- The open buds of the higher column combined with lighting from the clerestory window creates an effect of lifting towards light



Detail of  
Clerestory  
Window

Temple of Amon, Karnak

Source: adapted from Sir Barnister Fletcher (1996)

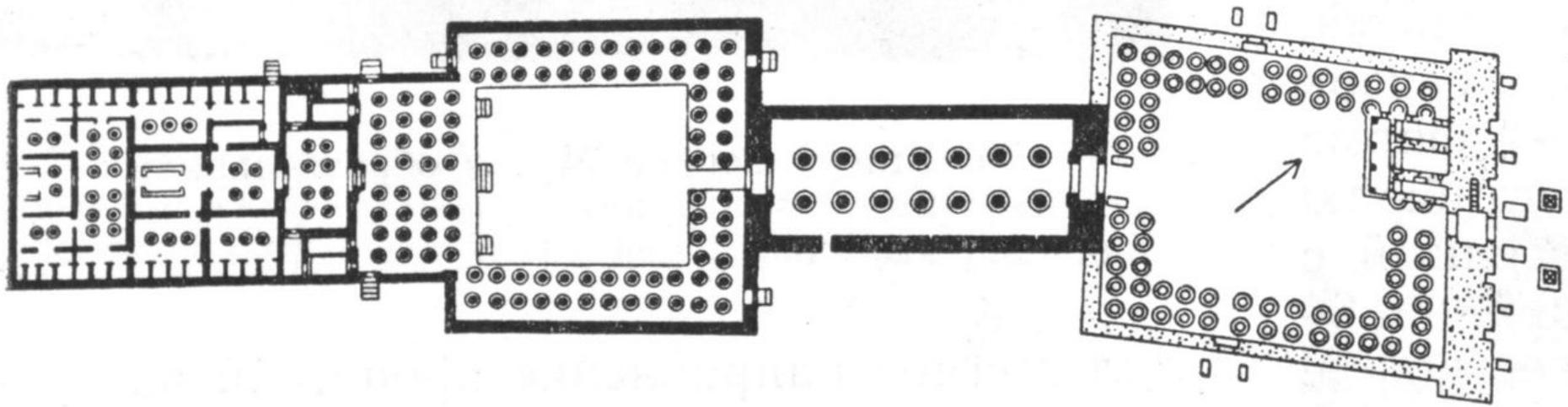


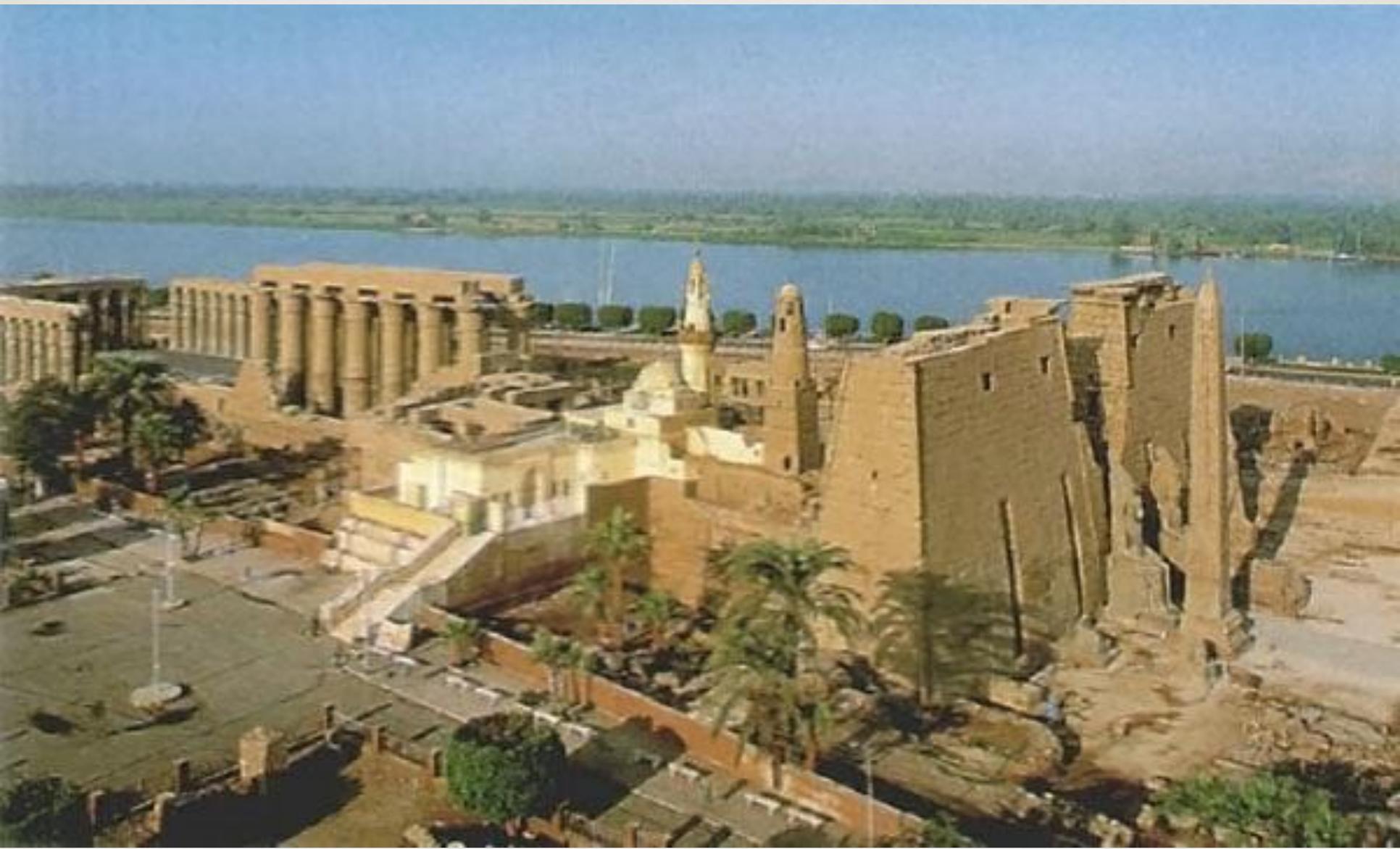




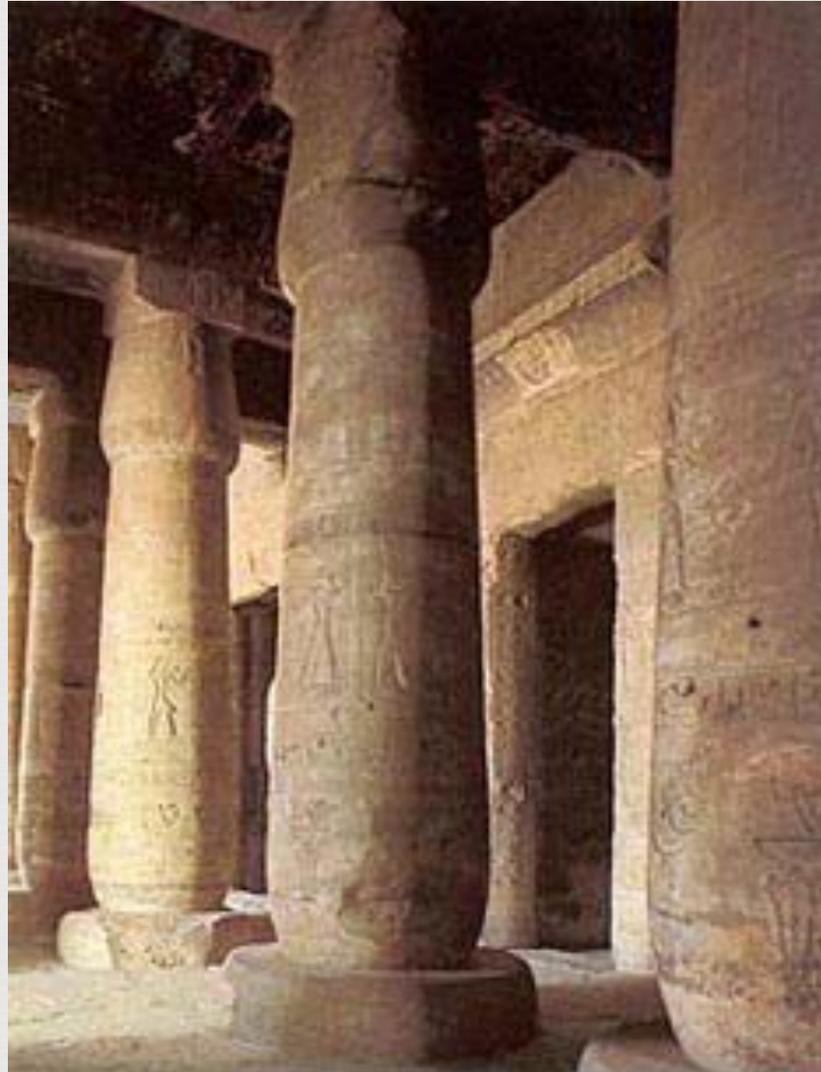
# The temple of Luxor (1408-1300 BC)

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# The Temple of Seti (1312 BC)



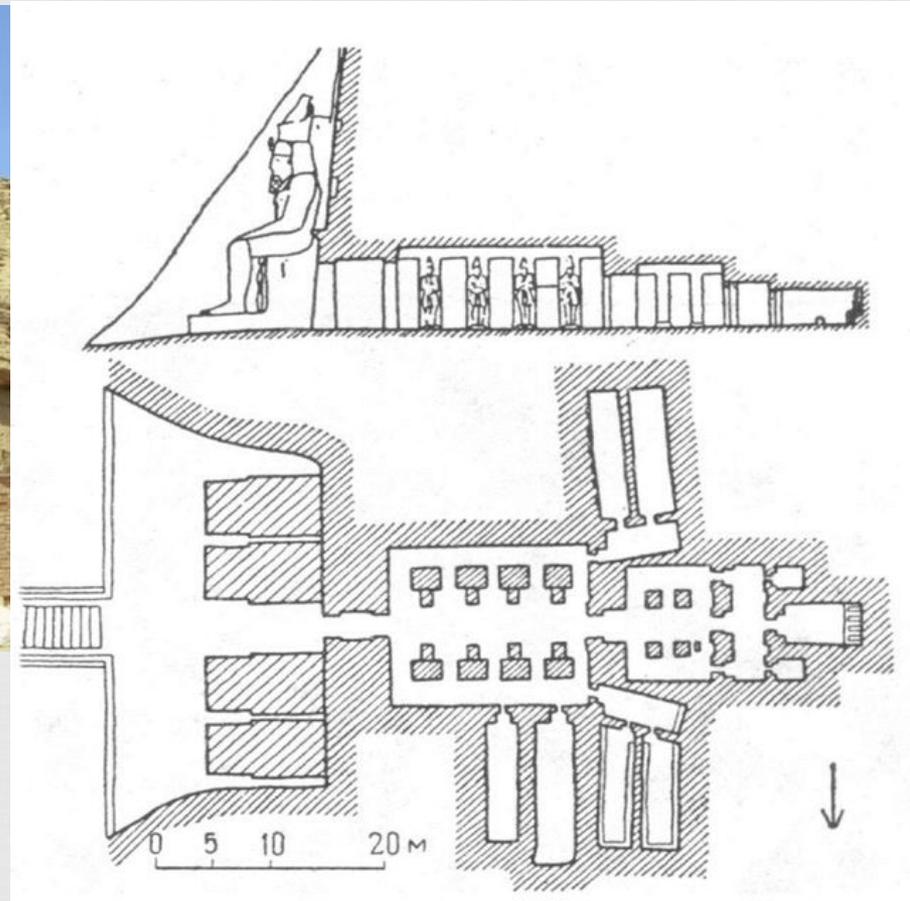
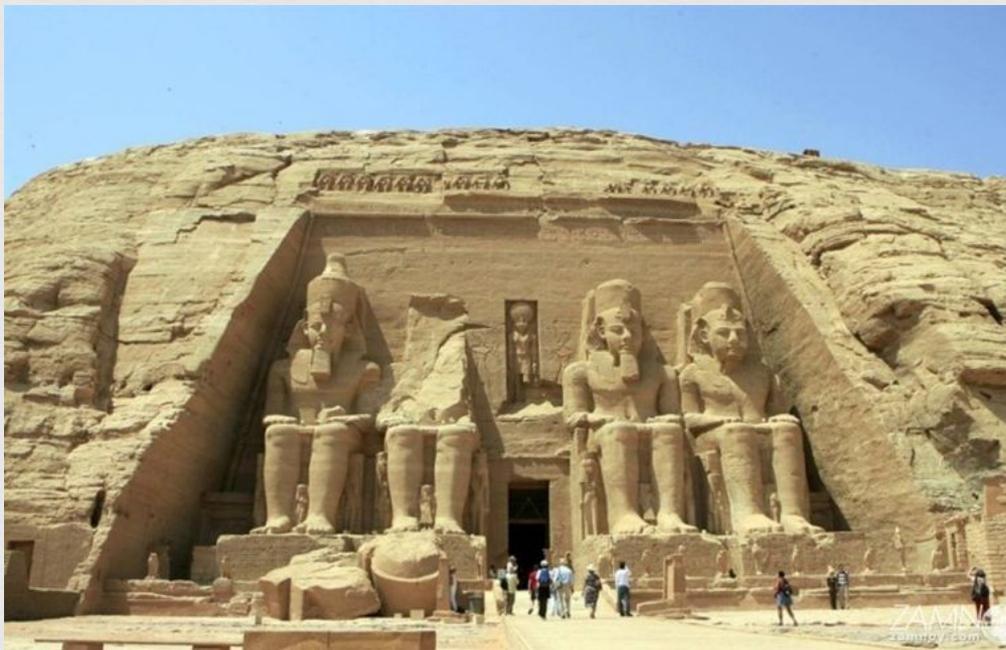
The Interior, Temple of Seti at Abydos

# The Ramesseum Thebes (1301 BC)



# The Great Temple Abu Simbel (1301 BC)

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# Conclusion



- Two buildings types dominated ancient Egyptian architecture; tombs and temples
- Minimal attention was paid to houses because belief
- House were simple designed to last a life time
- Effort was on buildings associated with the afterlife
- Tombs and temples were design to last forever
- Tomb construction varied with the various period of Egyptian civilization

# Materials



- Plant materials, clay and stone
- Plants consist of readily available material like reeds, papyrus and palm ribs and shaft
- Timber was available in limited quantity; used for roofing
- Clay was used for construction either as for frame construction or as sun dried brick
- Stone was not much used during the early period of ancient Egyptian civilization
- It became popular after the 3rd dynasty of the Early Kingdom and was used for tombs and temples

# Construction System



- Construction system in ancient Egypt reflected the availability of materials
- Two construction systems were predominant: Adobe construction and post and beam construction
- Adobe construction took the form of clay on vegetable material or sun dried brick construction
- This construction was reserved for houses and other buildings of daily life
- These buildings are supposed to last for only a generation

# Technologies



- Ancient Egyptians contributed to technologies in the aspect of lighting
- Egyptians used courtyards extensively for lighting
- The greatest contribution of the Ancient Egyptians is in the aspect of Clerestory lighting
- In the hypostyle hall of Egyptian temples is found one of the earliest application of the clerestory method of lighting
- By making columns higher and creating two roof levels, the ancient Egyptians were able to admit light into halls

# Principles of Arch. Organization



- Emphasis on Building Massing
- Linear and Geometrical Organization
- Application of harmony and Contrast

## **Forces shaping Arch Organization**

- Influence of the desert environment
- Influence of religion and social symbolism