



History of architecture I

Lecture 8: Ancient Egyptian Architecture II

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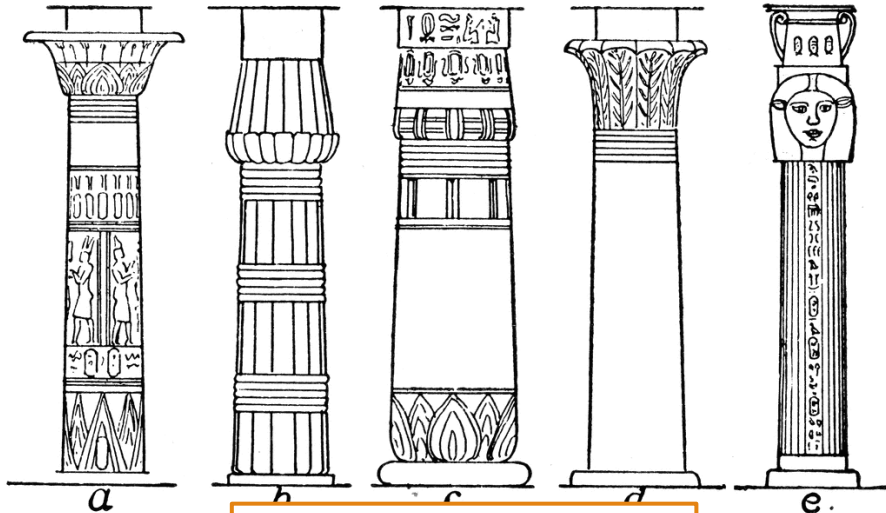
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Architecture and building types

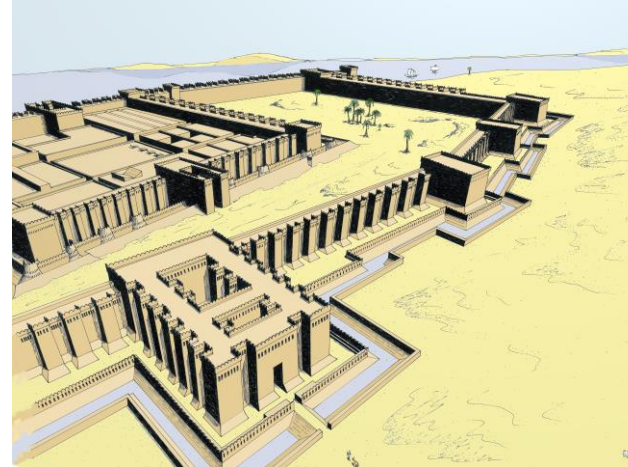
The architecture of ancient Egypt serves mainly **religious purposes**, which includes (Temples, Tombs, Palaces).

Some cities had a defensive walls or fortresses for protection.

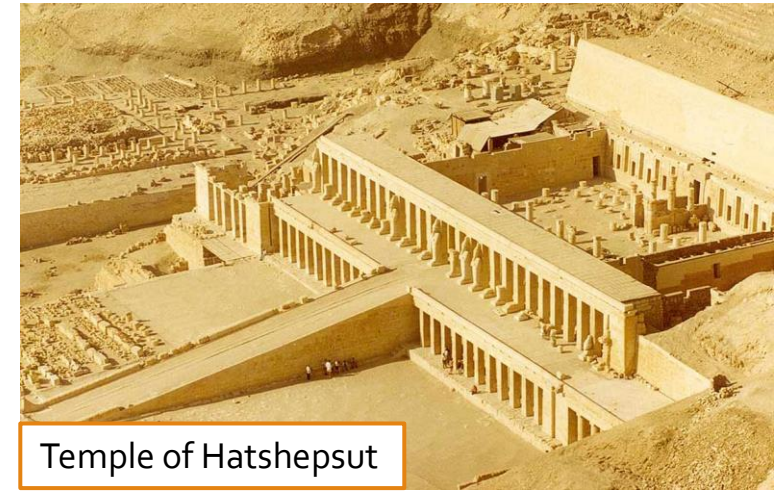
Ancient Egyptians developed unique columns styles that were used in monumental buildings, these columns includes: (Lotus column, Papyrus column, Palm column, Hathoric column, Composite columns, and Tent-pole column.)



Ancient Egyptian columns



Buhen fortress



Temple of Hatshepsut



The great pyramid



Amenhotep III Palace

Ancient Egypt columns



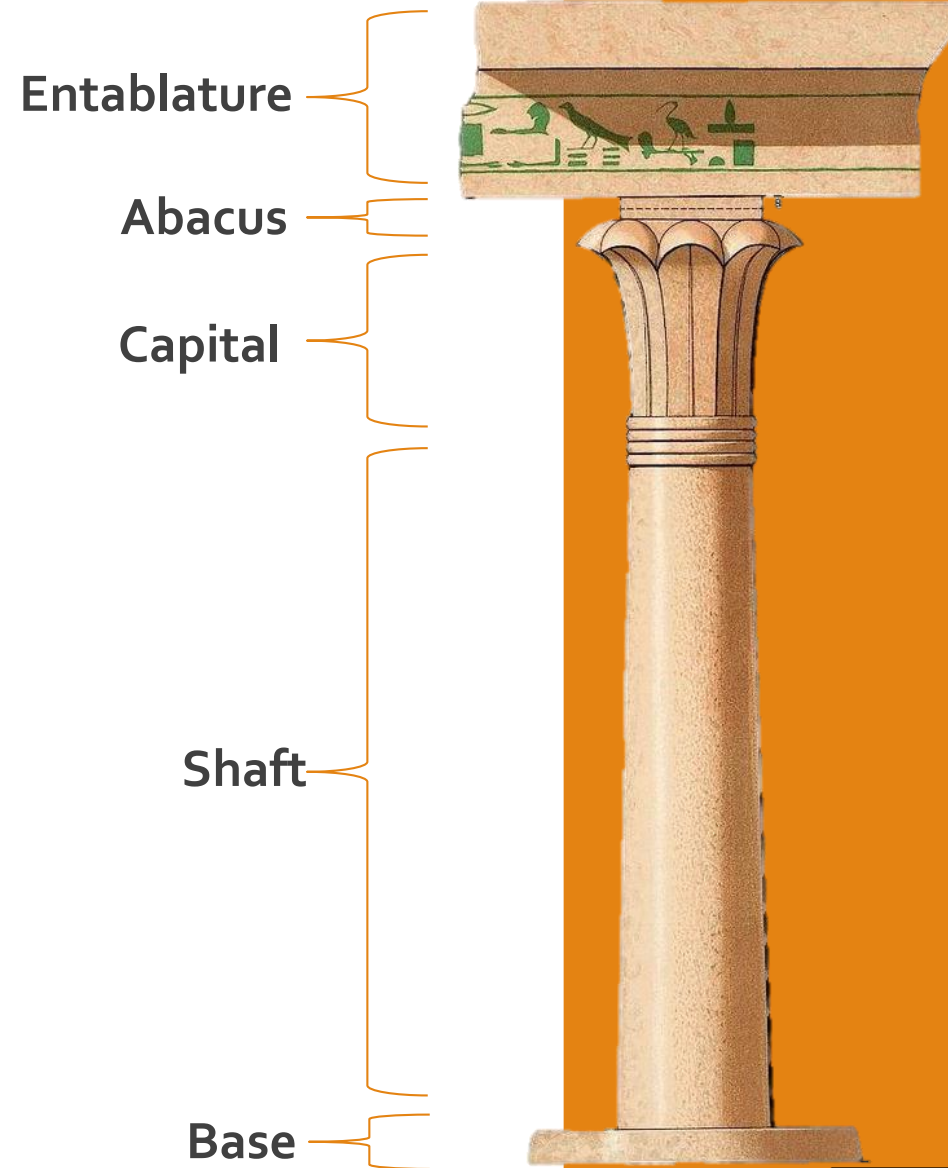
Ancient Egypt columns

Ancient Egyptian architects developed a rich variety of **stone column** forms **inspired by plants and religious symbols**.

These columns were used in temples, tombs, and other monumental structures, often decorated with hieroglyphs and carvings

Columns Components

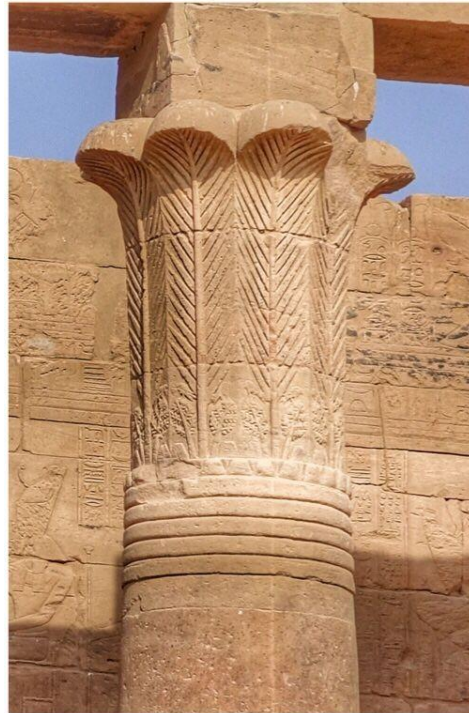
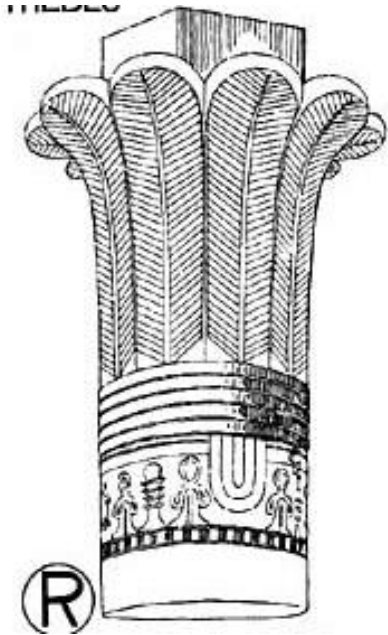
- Entablature
- Abacus
- Capital
- Shaft
- Base



Ancient Egypt columns

1. Palmiform columns

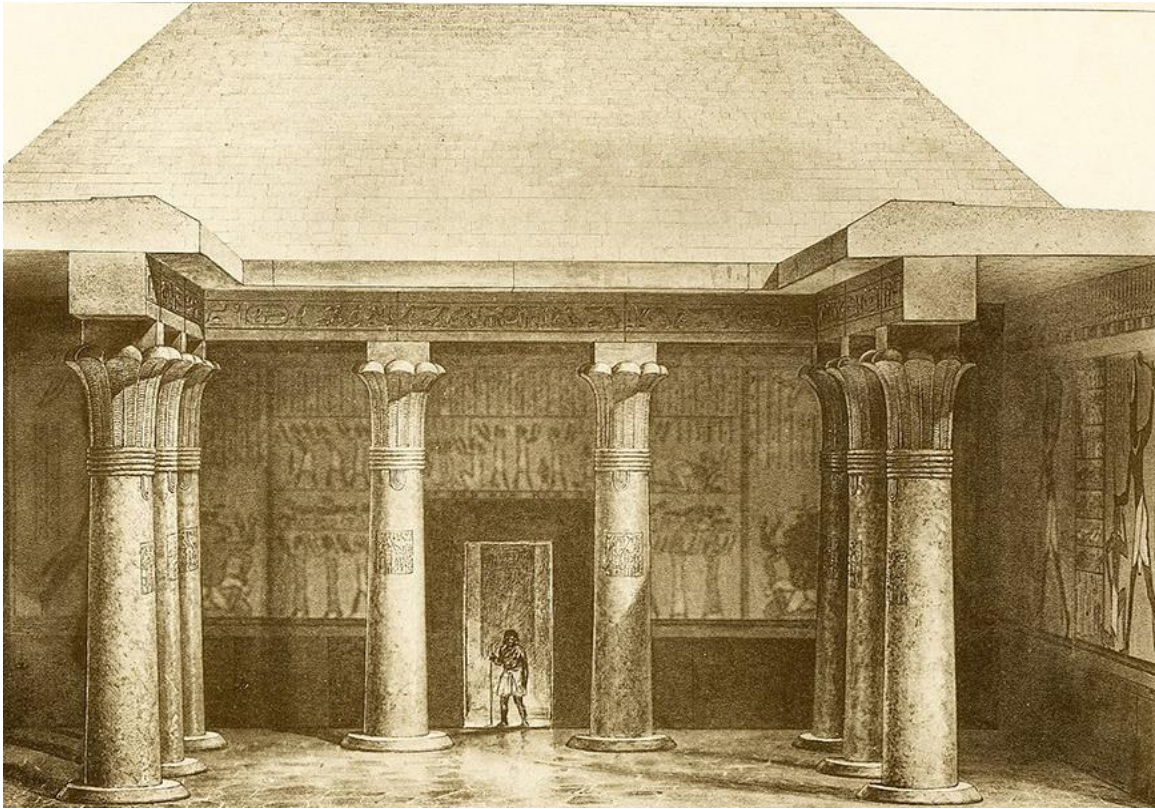
- **The Capital** is decorated with palm tree leaves.
- **The shaft** is Tall, slim with a bundled stalk motif on the upper part.
- Not fluted.
- **The base** is circular or square, some have roots carved on the block.
- Ratio 7:1
- Symbolic of the date-palm



Ancient Egypt columns

1. Palmiform columns

courtyard in the pyramid temple of the pharaoh Sahure



Ancient Egypt columns

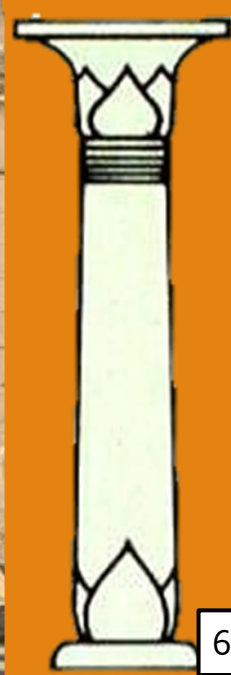
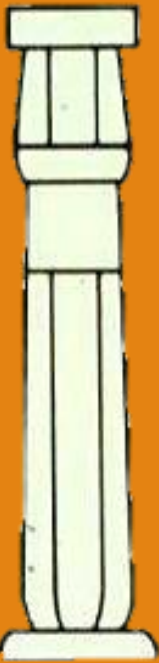
2. Papyriform columns

Closed Bud

- **The Capital** is decorated **closed bud of papyrus flower**
- **The shaft** is thick inspired by tied papyrus stems.
- fluted.
- **The base** is circular or square.
- Ratio 6:1
- Symbol is Papyrus plant

Open flower

- **The Capital** is decorated bell-shape, **open papyrus flower**.
- **The shaft** is slimmer and more elegant.
- Not fluted.
- **The base** is circular or square, some have rings.
- Ratio 8:1
- Symbol is Papyrus plant



Ancient Egypt columns

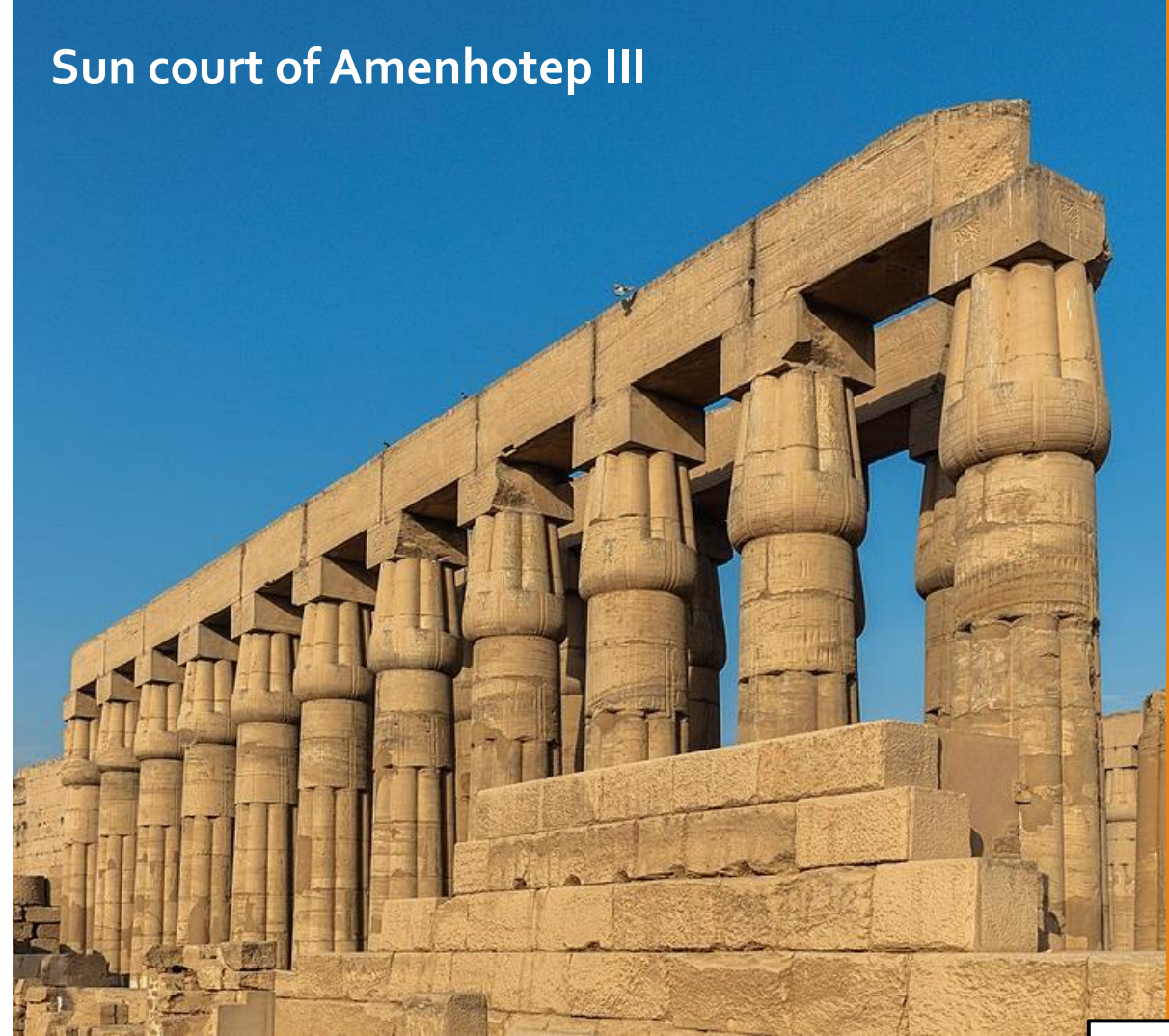
2. Papyriform columns

Luxor Temple/ Egypt

The Grand Colonnade



Sun court of Amenhotep III

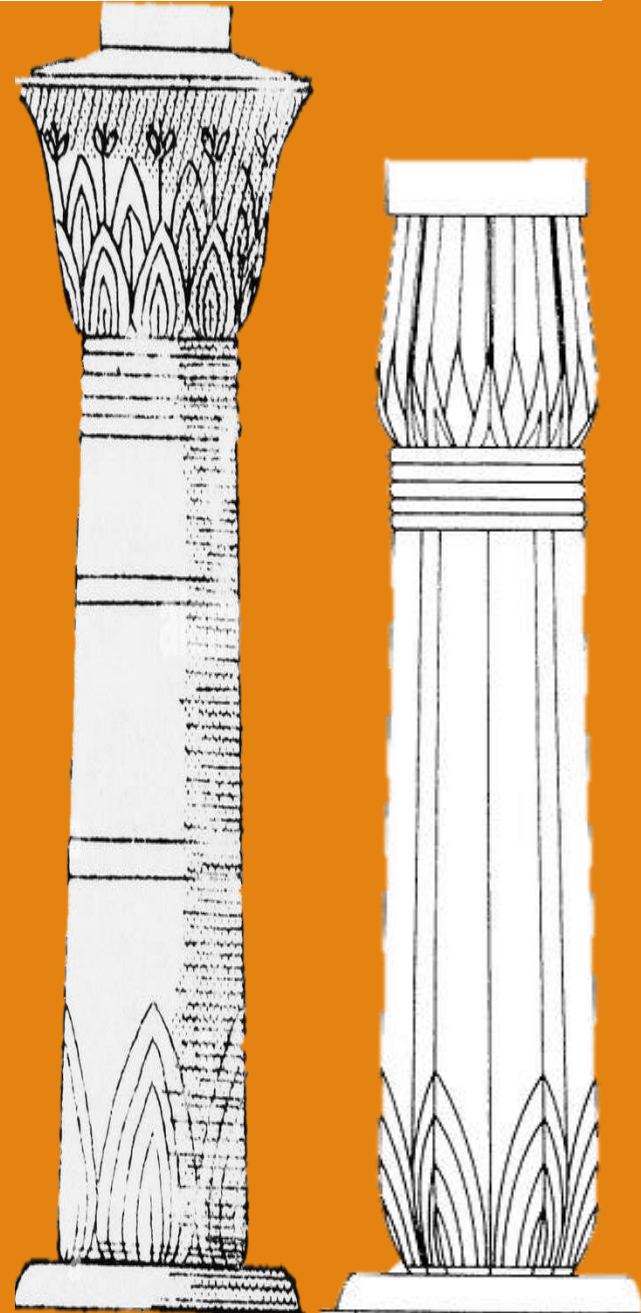


Ancient Egypt columns

3. Lotiform columns

Closed Or Open Lotus

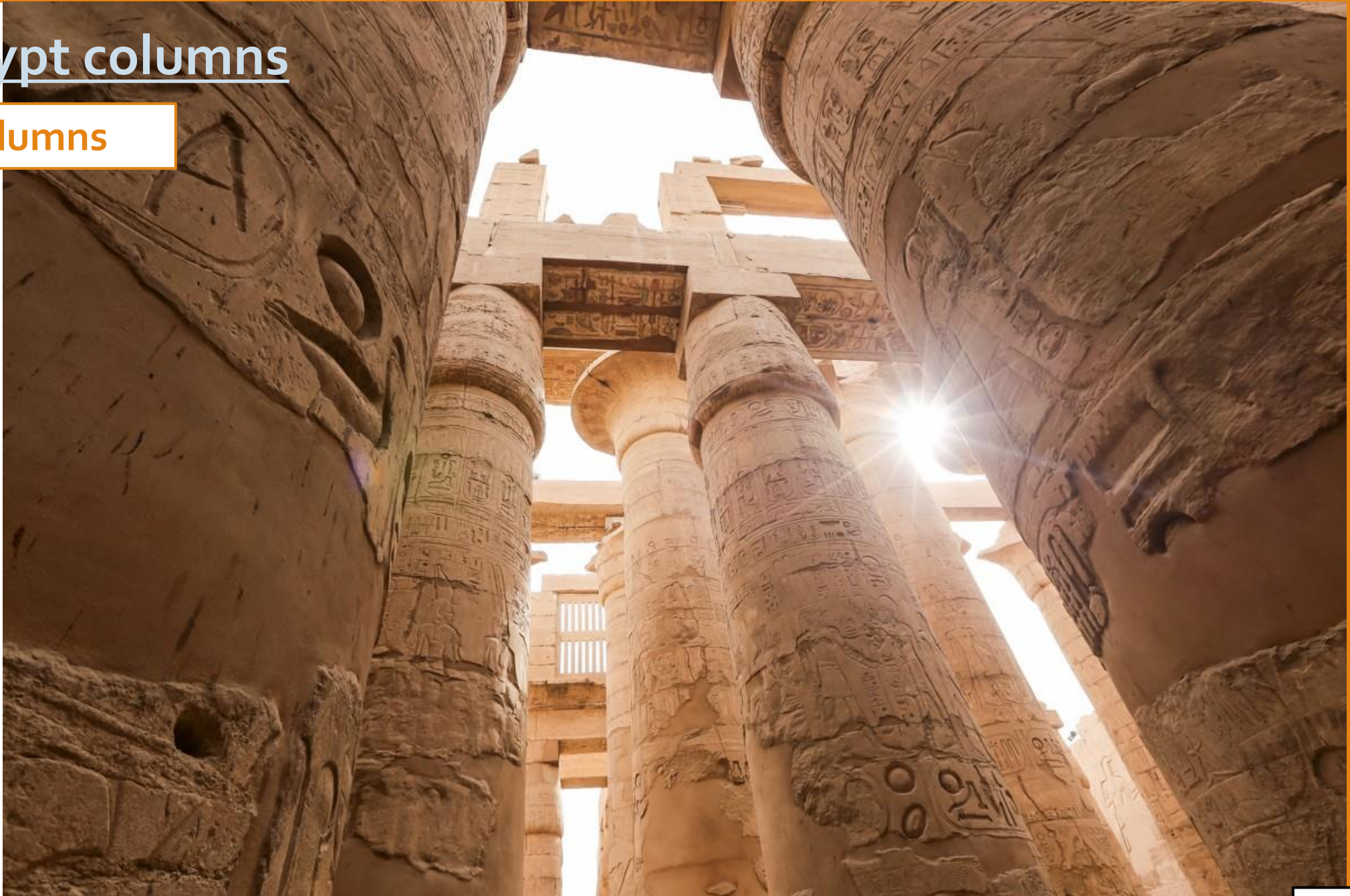
- **The Capital** is decorated with a closed lotus bud or an open lotus flower (bell shape).
- **The shaft** is smooth, has simple carving or paintings.
- Not fluted.
- **The base** is circular or square.
- Ratio 5:1 (closed lotus) or 7:1 (open lotus)
- Symbol is Lotus plant (water lily)



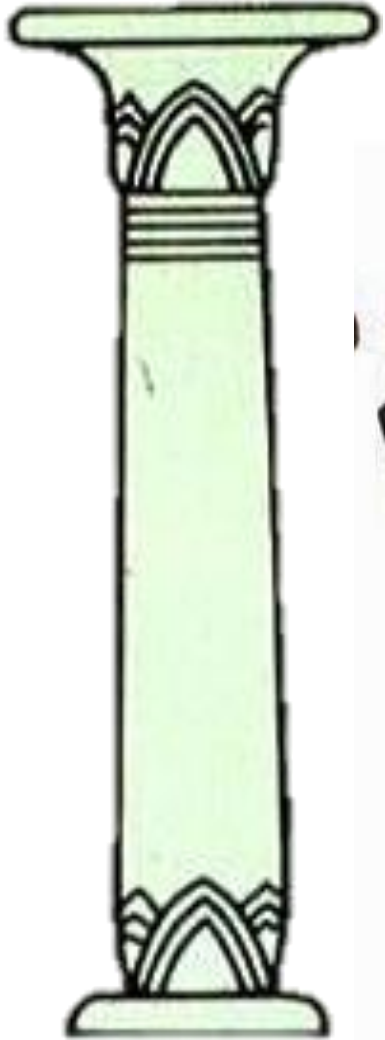
Ancient Egypt columns

3. Lotiform columns

Temple of Isis
at Philae in
Egypt



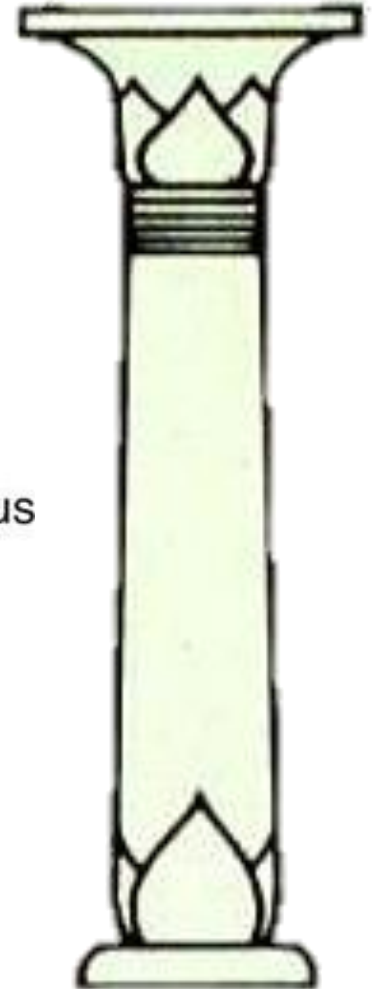
Ancient Egypt columns



Lotus



Papyrus



Ancient Egypt columns

4. Tent Pole Column

- **The Capital** is simple with no decoration
- **The shaft** is thin, smooth and has no decoration.
- Not fluted.
- **Has no Base.** Or Simple stone slab (often).
- Ratio 8:1
- Symbol is wooden tent pole.



Ancient Egypt columns

4. Tent Pole Column

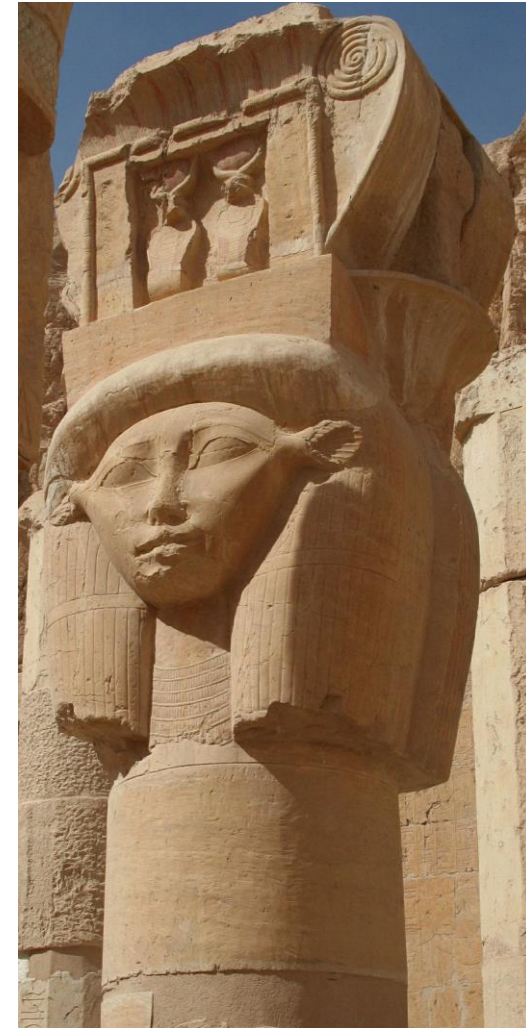
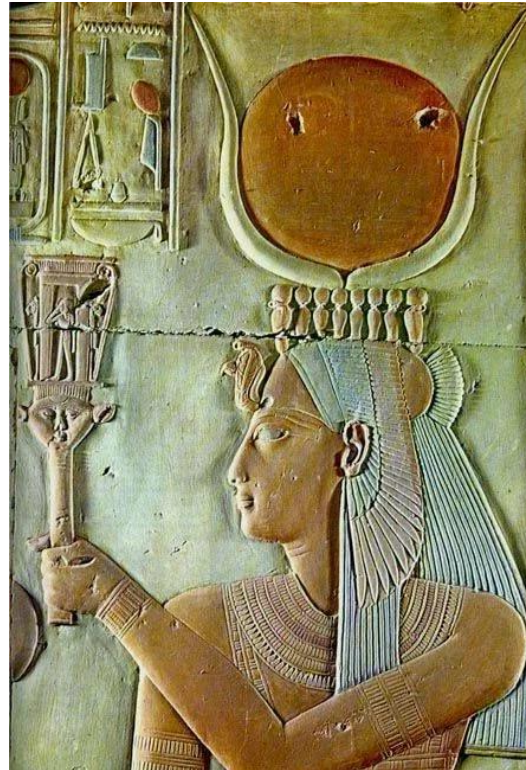
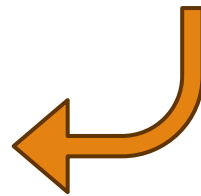
Temple of
Tuthmosis III at
Karnak



Ancient Egypt columns

6. Hathor columns

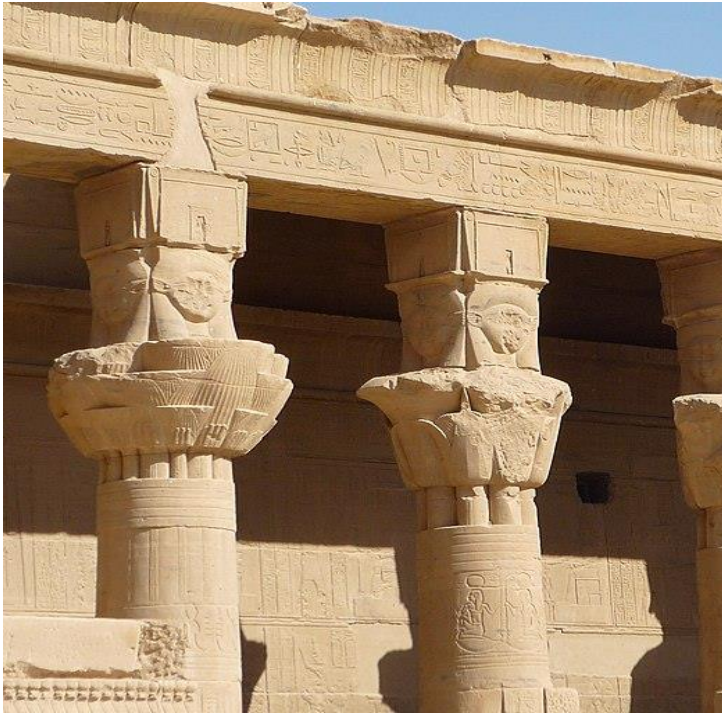
- The **Capital** has carved face of the goddess Hathor, with cow ears.
- The **shaft** is short and thick.
- Some has flutes some doesn't.
- The **base** is circular or square.
- Ratio 5:1
- Symbol is **goddess Hathor** (love, music, beauty), and **sistrum** (her musical symbol)



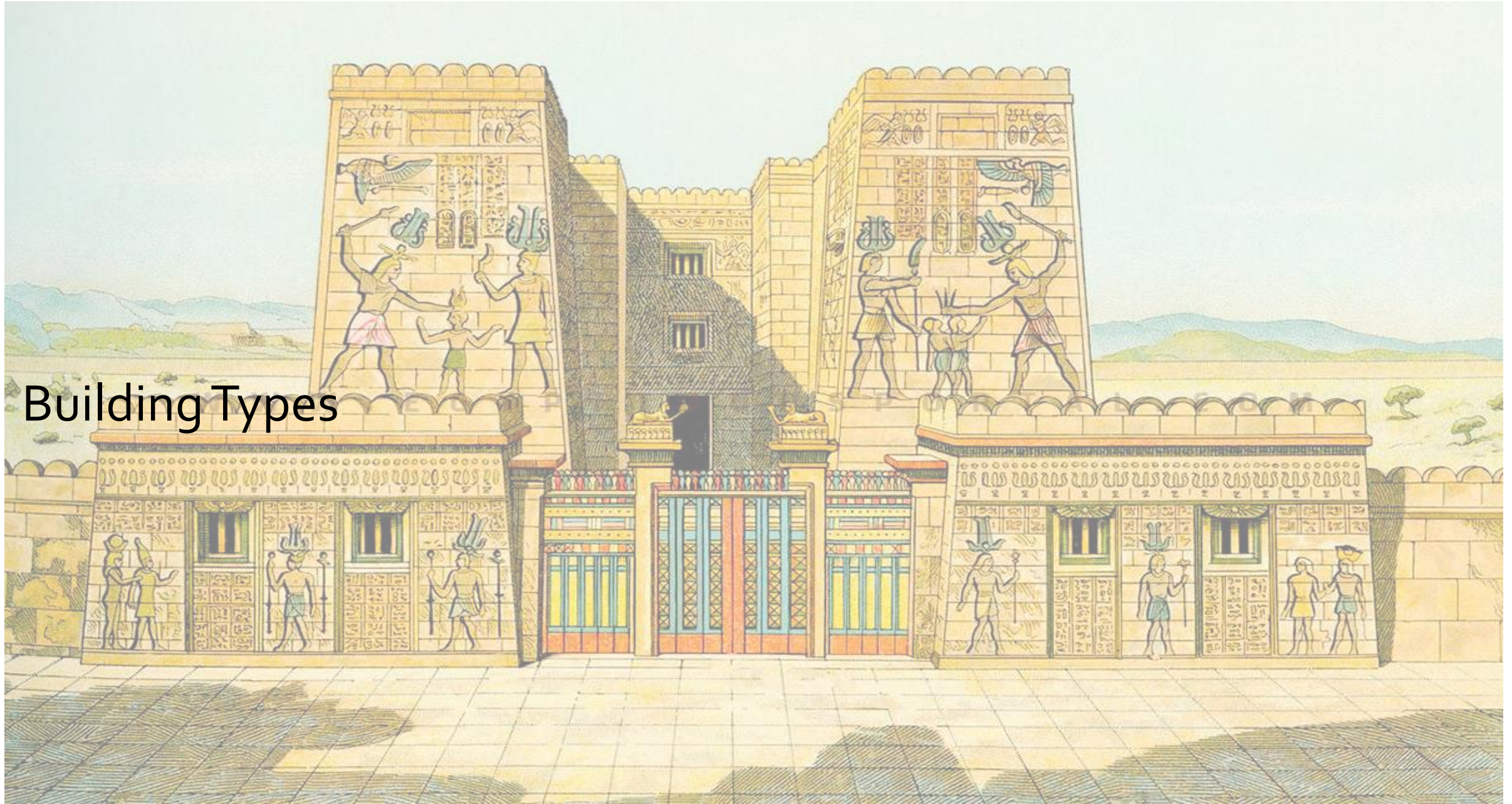
Ancient Egypt columns

4. Tent Pole Column

Temple of
Tuthmosis III at
Karnak



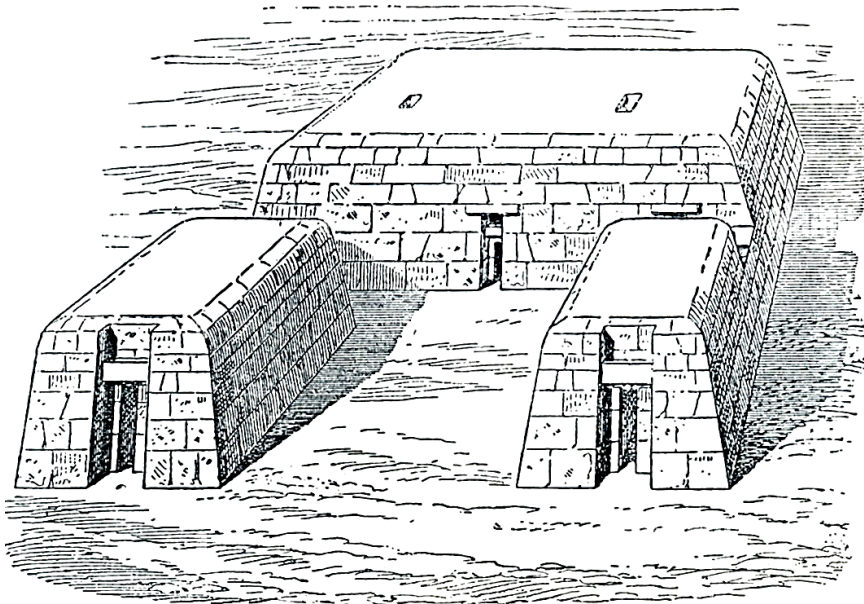
Building Types



Building Types: Tombs

The Tombs can be categorized into three types:

1. **Mastabas** : Rectangular structures with sloping sides and flat roofs
2. **Pyramids** : Evolution of mastabas into monumental geometric structures
3. **Rock-cut tombs** - tombs carved into cliff faces (Valley of the Kings)



Mastabas



Pyramids

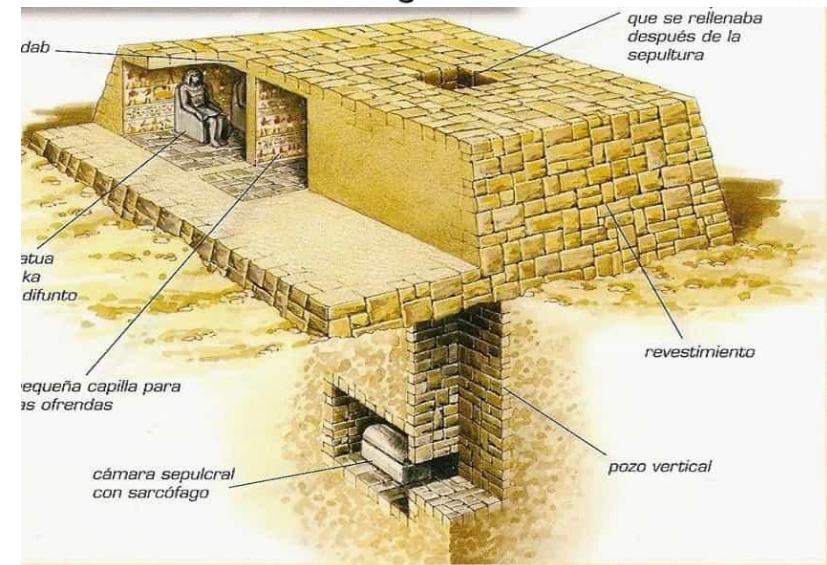
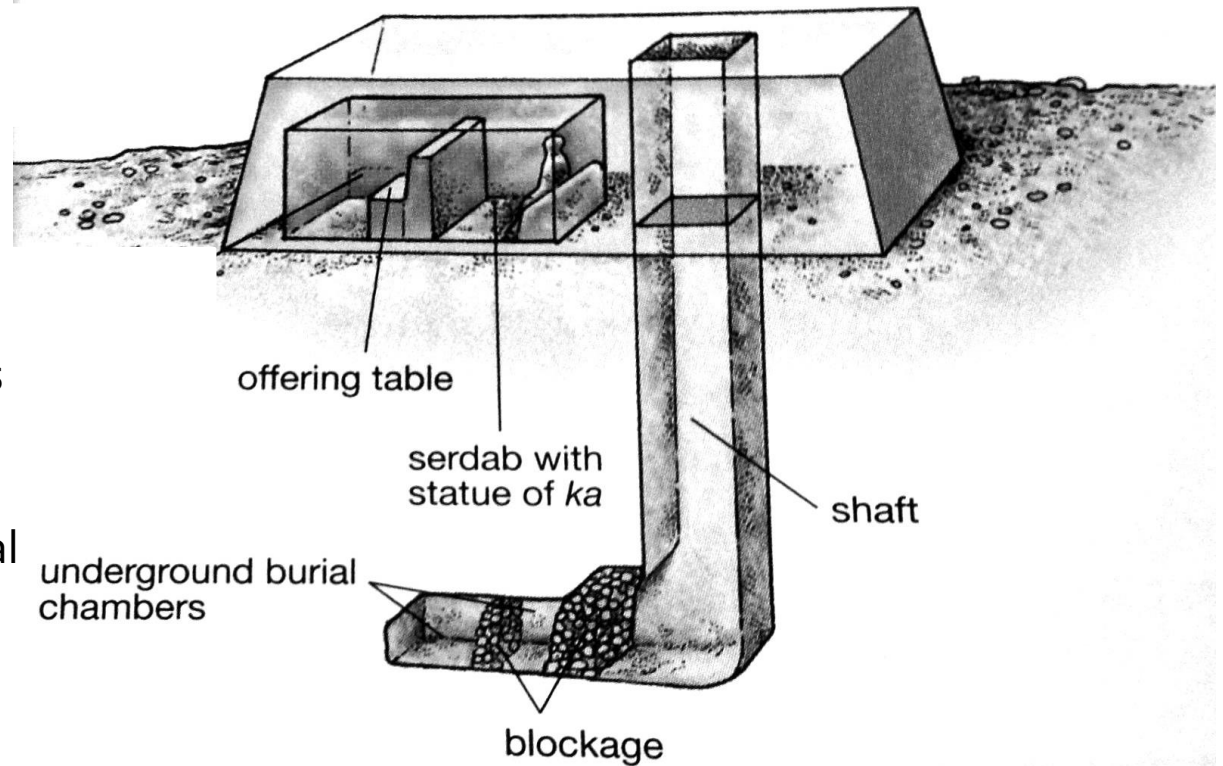
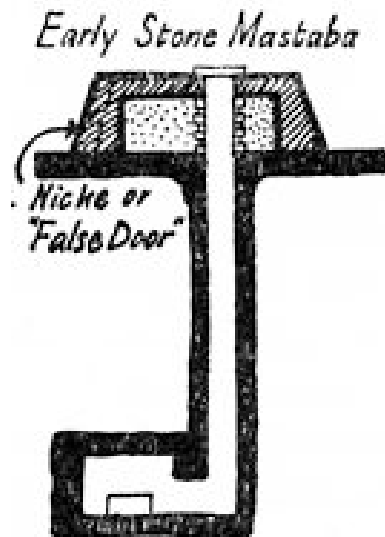
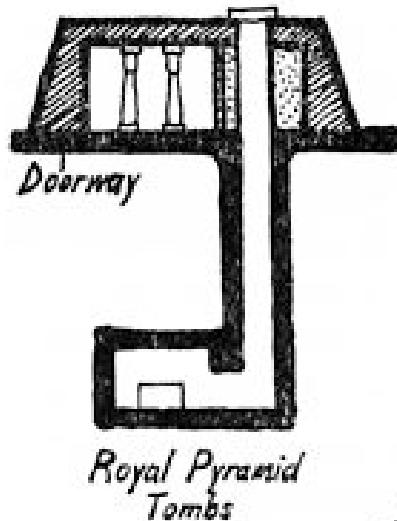


Rock-cut tombs

Building Types: Tombs

Mastabas

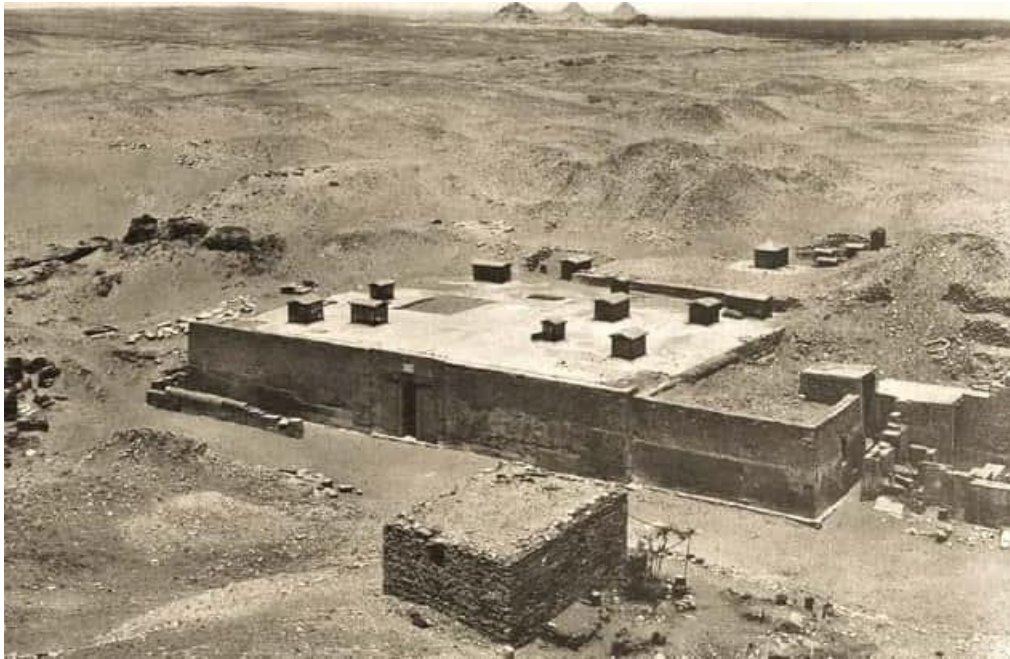
- Rectangular structure with Flat roof with sloping sides
- **The outer chamber**, for offerings to 'Ka', walls decorated with drawing and carvings of festival and other scenes. It's considered a camouflage room, to protect the buried mummy from thieves.
- **The Long Shaft** with **secret chamber**, leading to the burial chamber.
- Made from mud brick or limestone
- Decoration painted limestone reliefs



Building Types: Tombs

Mastabas

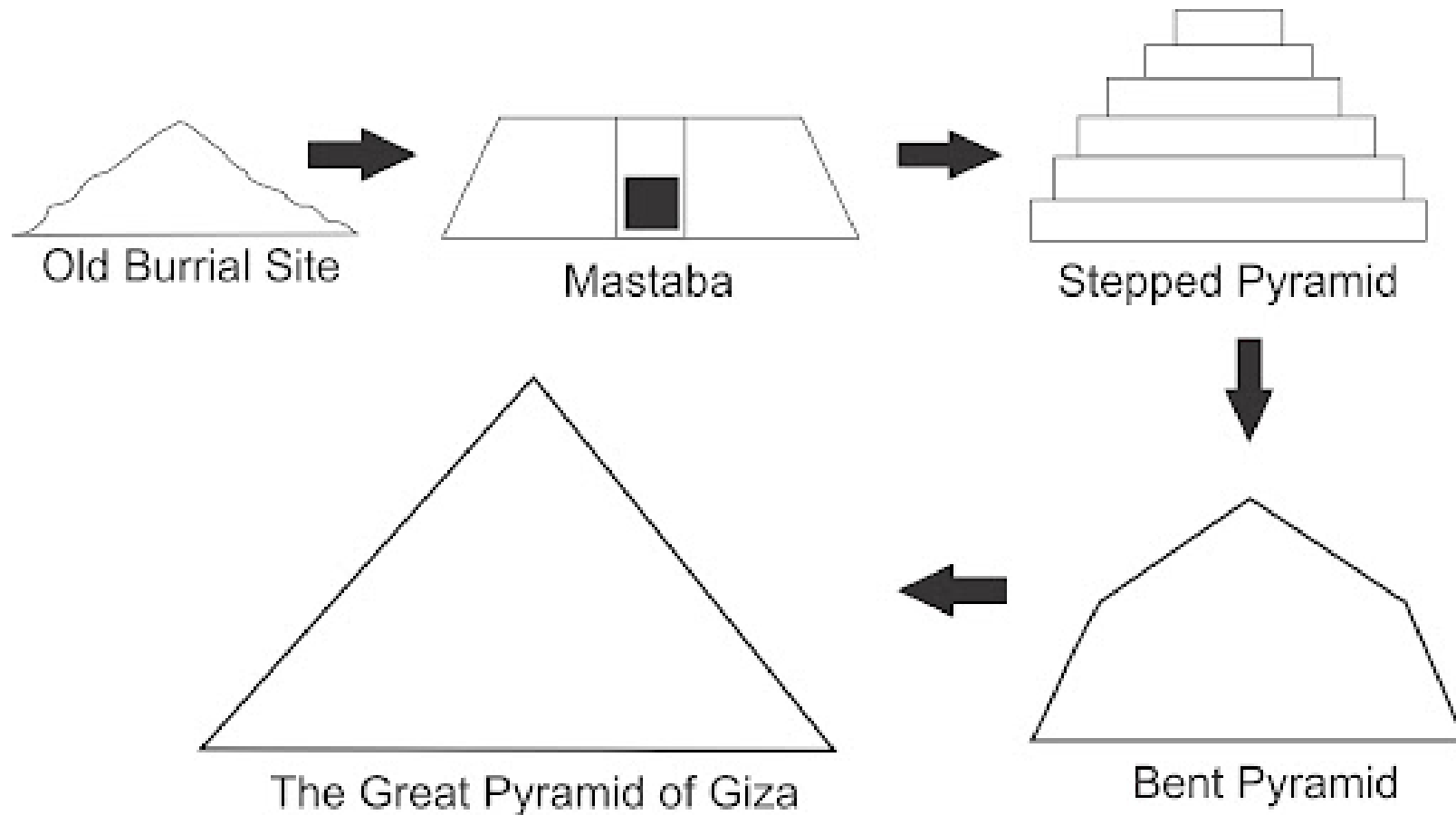
Mastaba of Mereruka



Building Types: Tombs

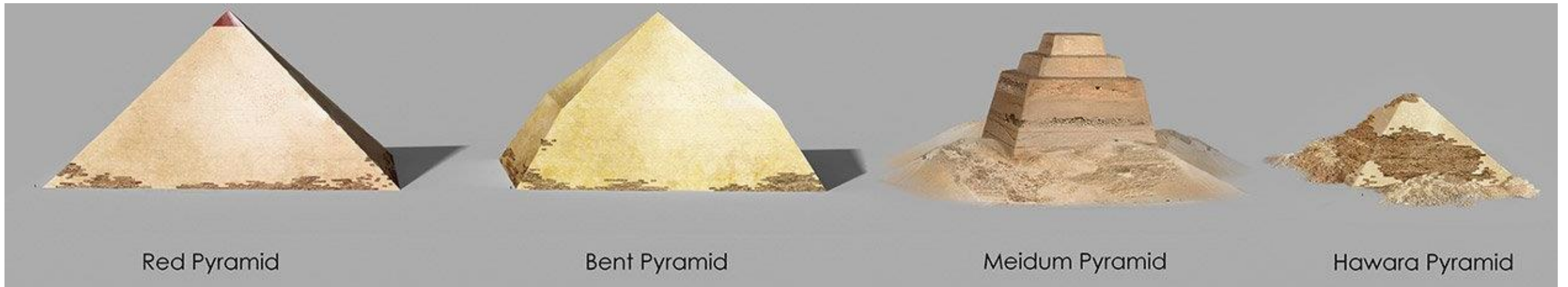
Pyramids

Pyramids passed through several phases through the dynasties and developed from **old burial sites** to **Mastaba** to **stepped pyramid** to **Bent pyramid** to the **true pyramid**.



Building Types: Tombs

Pyramid types

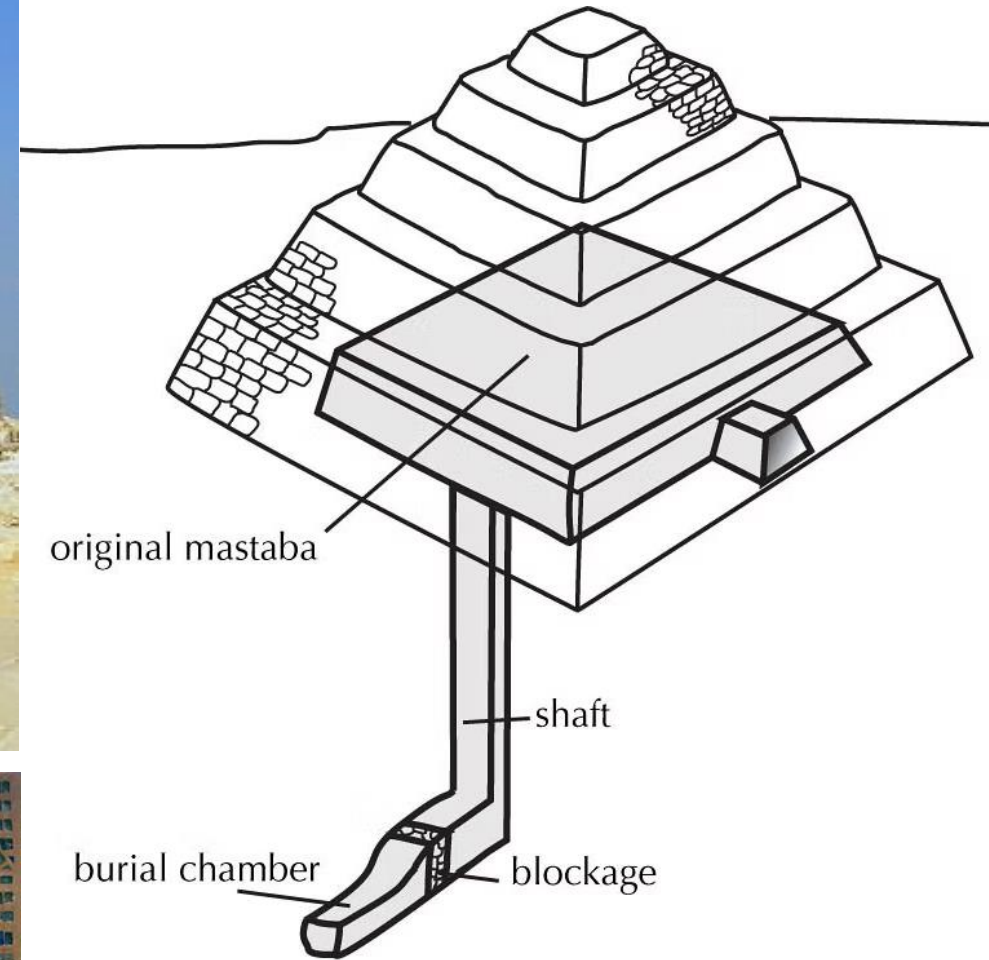


Building Types: Tombs

Pyramids

Djoser Pyramid (Stepped Pyramid)

Buried over original Mastaba



stepped pyramid

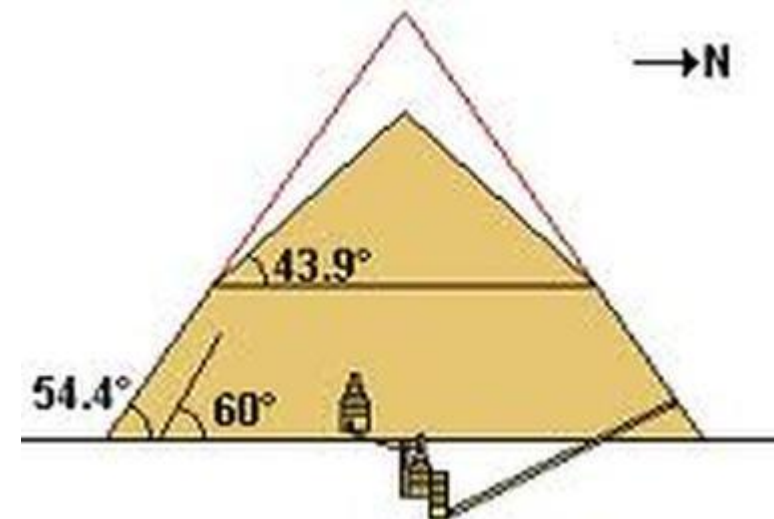
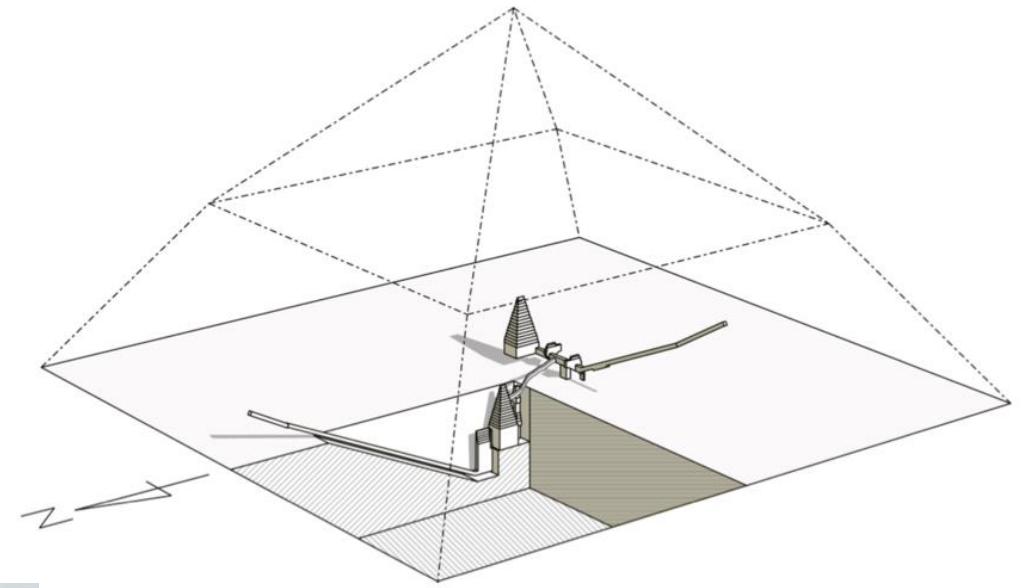
Stepped Pyramid of Djoser,
Saqqara, c. 2667–2648 BCE

Building Types: Tombs

Pyramids

Sneferu's Bent pyramid at Dahshur

The Bent Pyramid has a bent shape **due to changes in its construction plan**. The lower part was built at a steep 54-degree angle. Concerns about stability led builders to switch to a shallower 43-degree angle for the upper portion



Building Types: Tombs

Pyramids

The great pyramid of Giza

- It's the largest Egyptian pyramid. It served as the tomb of pharaoh Khufu, who ruled during the Fourth Dynasty of the Old Kingdom.
- Its considered to be one of the 7 wonders of the ancient world.
- It is a massive stone structure with a square base and four sloping triangular sides that meet in a point at the top.
 - Core: Limestone blocks or mud brick
 - Casing: Polished limestone
 - Inner chambers: Granite, limestone

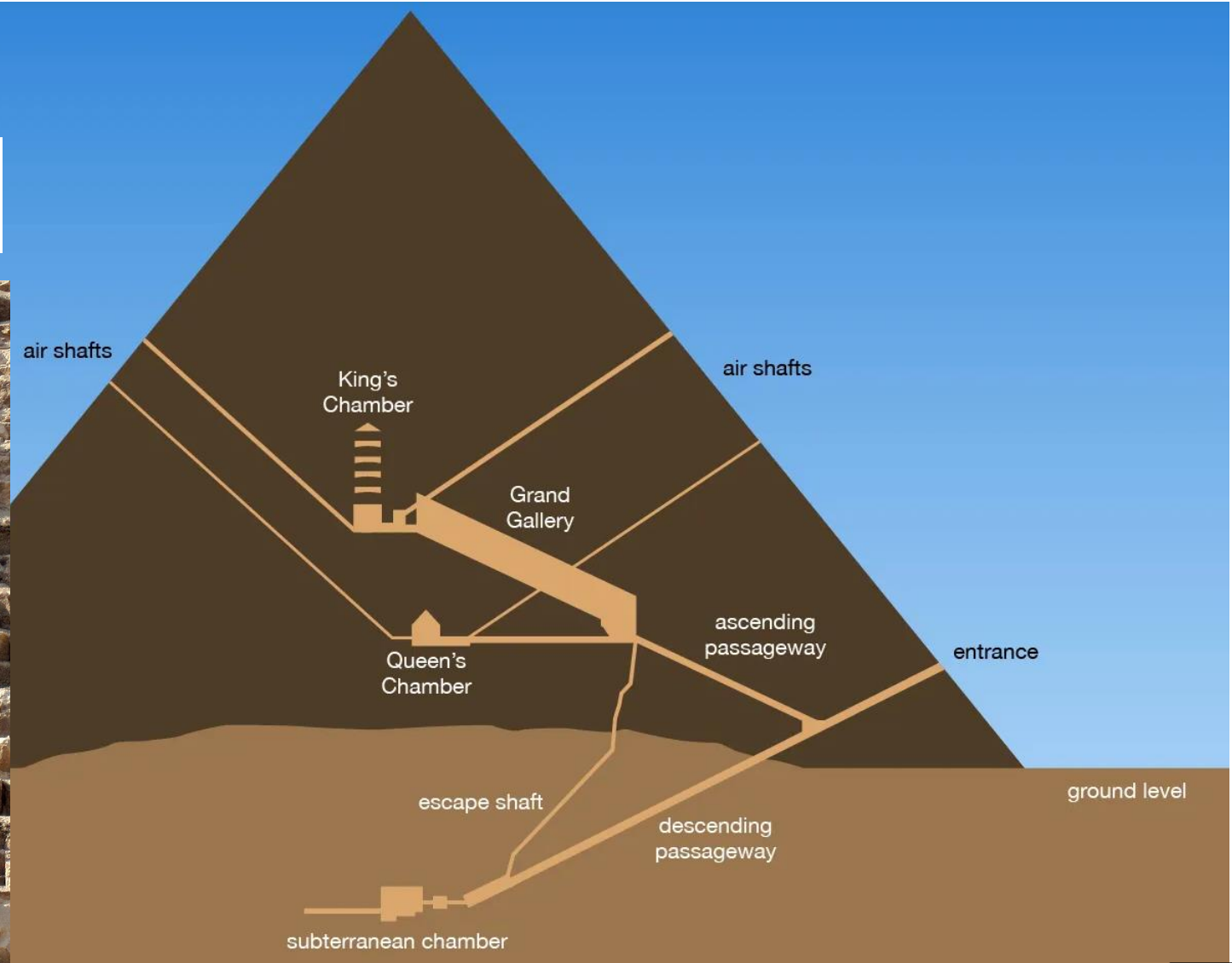


Building Types: Tombs

Pyramids

The great pyramid of Giza

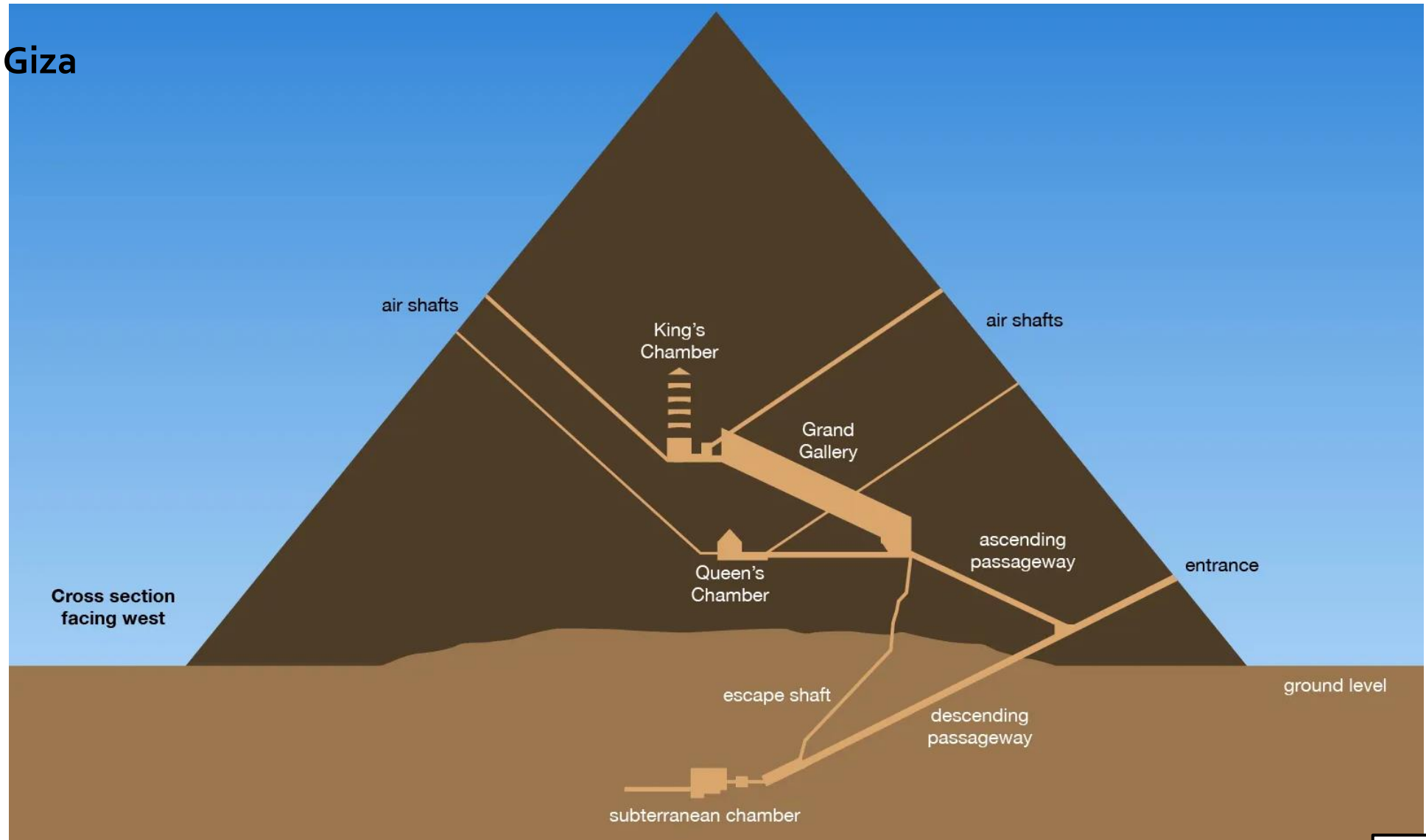
The main entrance with a large limestone blocks in inverted V-shape works to distribute the load.



Building Types: Tombs

Pyramids

The great pyramid of Giza

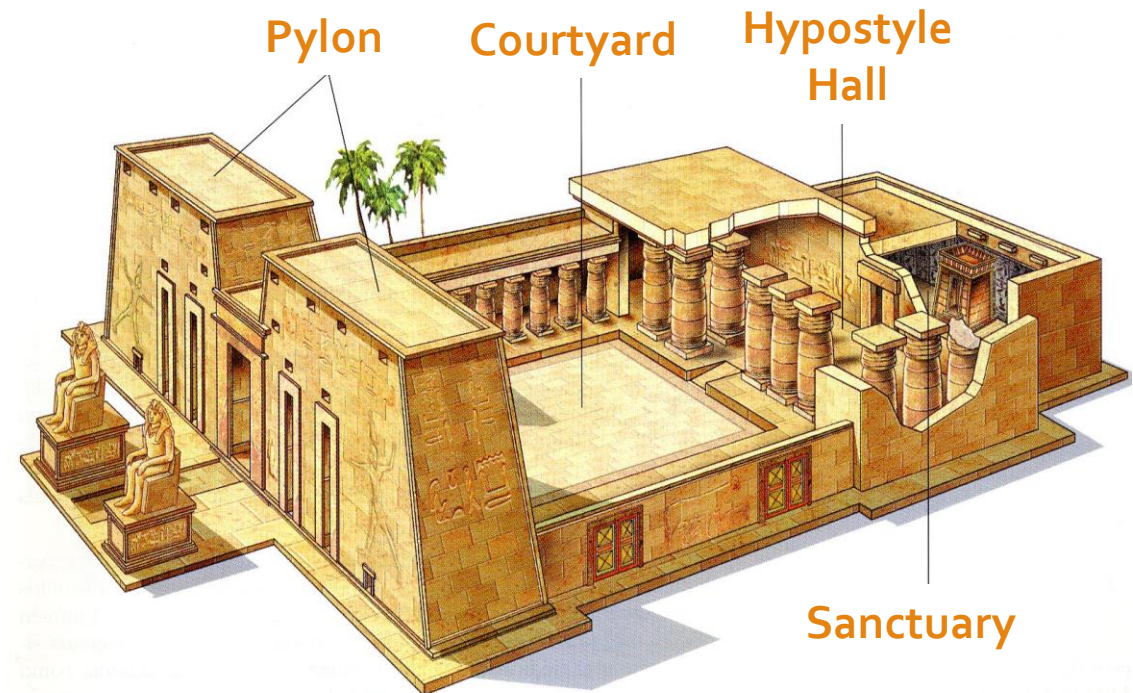
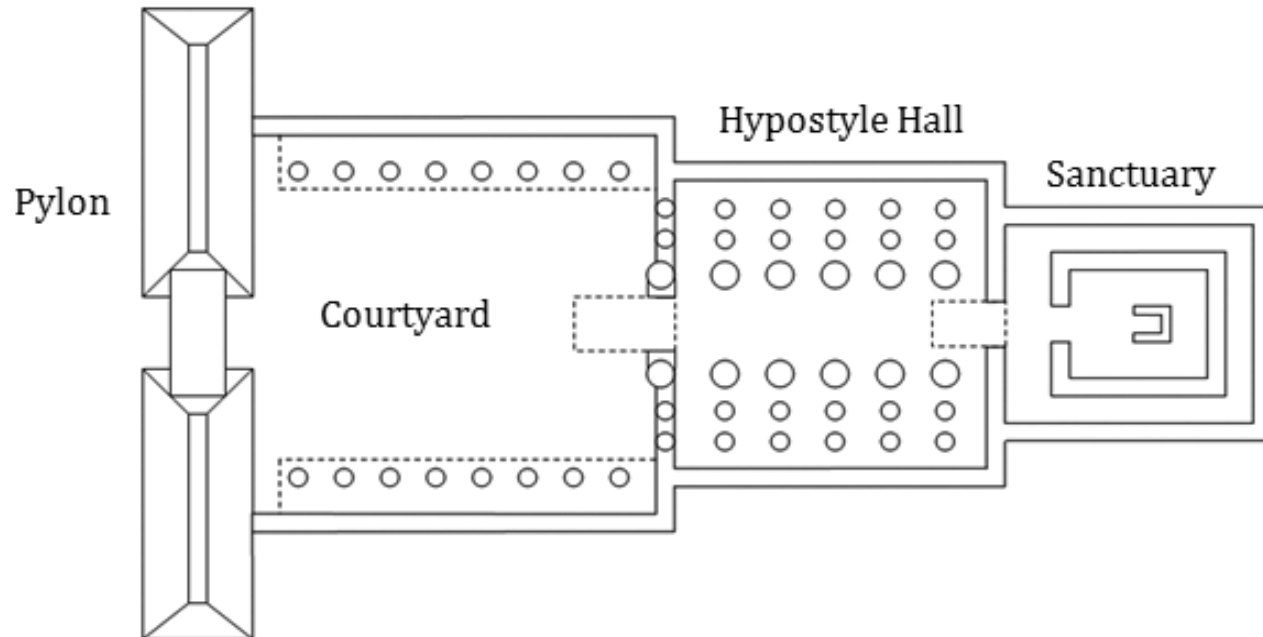


Building Types: Temples

Egyptian temples built to serve and worship the gods, it was decorated with wall paintings, carvings and statues for the Pharaoh and the gods. every temple had a library of ritual papyrus.

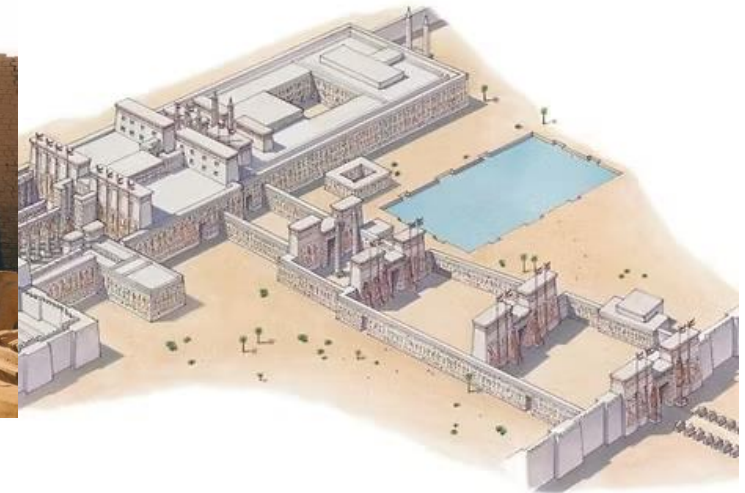
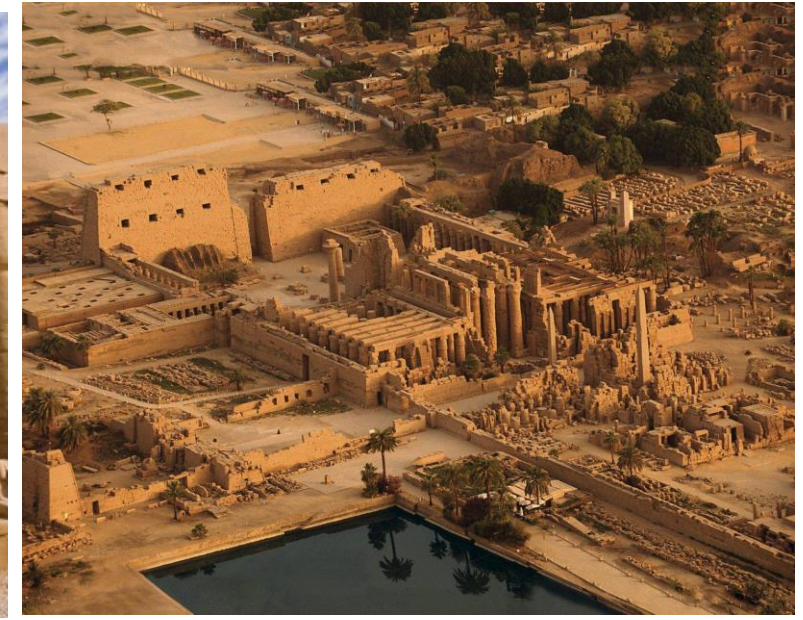
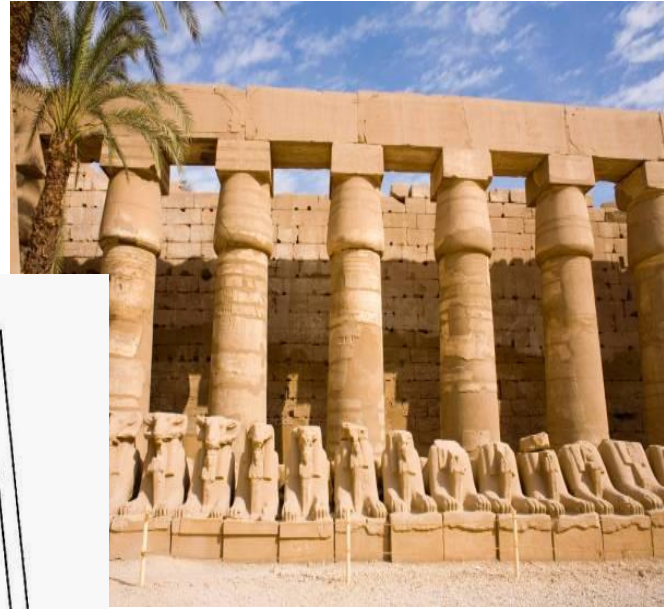
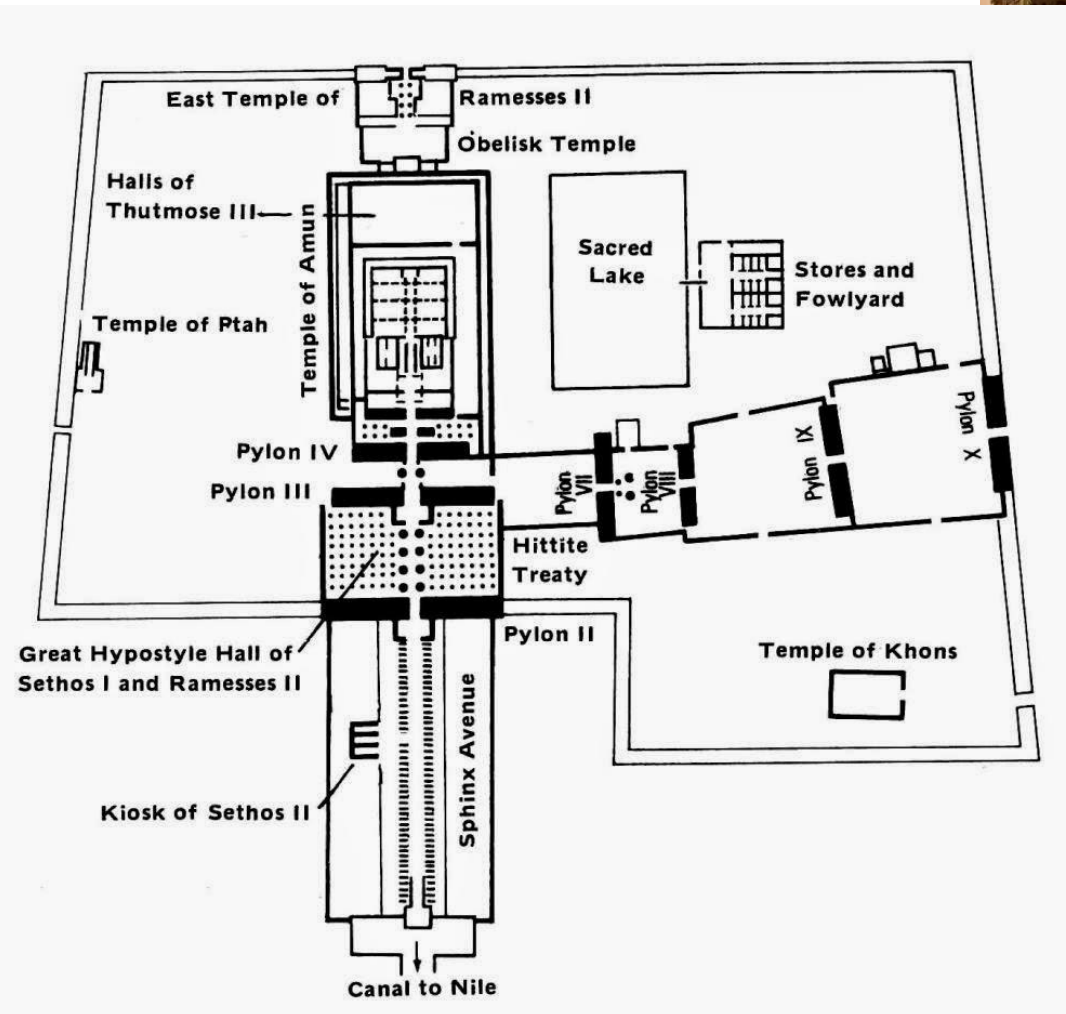
The temples followed a standard layout movement:

- **Pylon** - Massive trapezoidal entrance gateway
- **Open courtyard** - public space within the temple for multiple purposes
- **Hypostyle hall** - Forest of columns supporting the roof
- **Inner sanctuary** - Most sacred space, housing the deity's statue
- **Sphinxes** and **Obelisks** located Infront of the Pylon



Building Types: Temples

Karnak Temple Complex

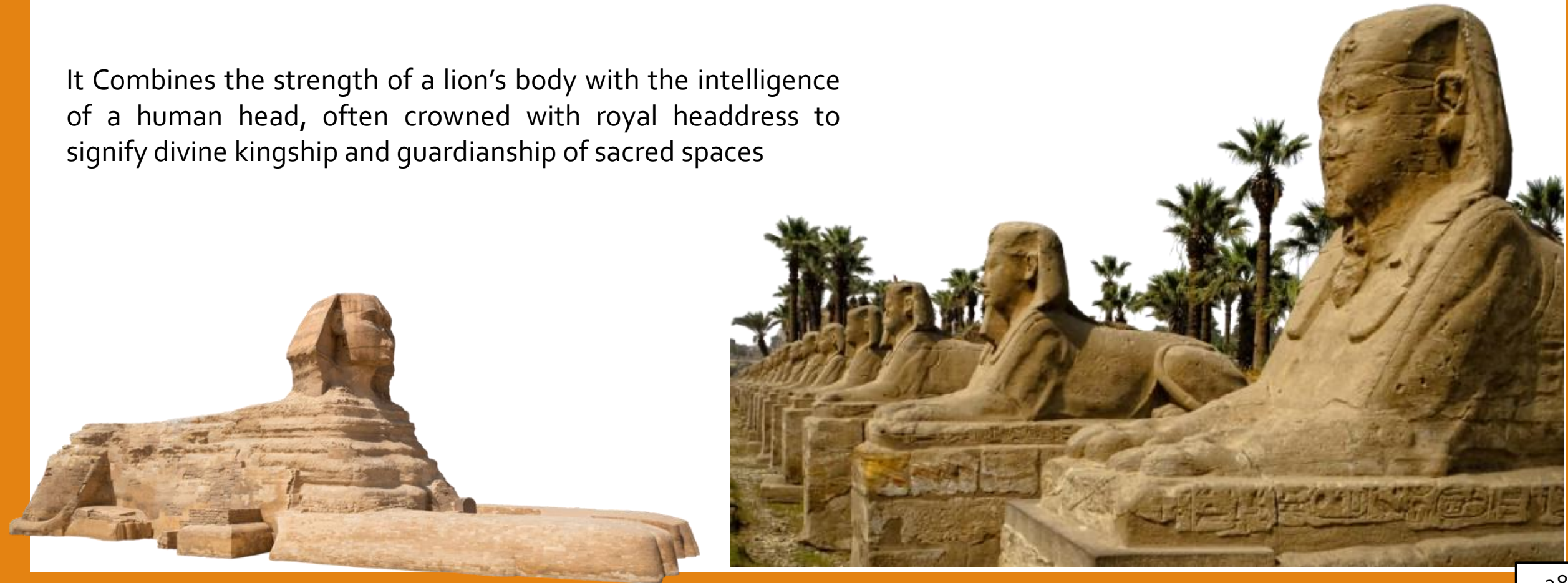


Building Types: Other Elements

Sphinx

"A mythological creature with a lion's body and a human head".
Invented in ancient Egypt and used in temple complexes .

It Combines the strength of a lion's body with the intelligence of a human head, often crowned with royal headdress to signify divine kingship and guardianship of sacred spaces



Building Types: Other Elements

Obelisks

"An upright four-sided monolithic pillar that gradually tapers as it rises and terminates in a pyramid"

Typically carved from a single piece of granite, with a gold-silver alloy details to catch the sun's rays.
Serves as solar markers and symbols of stability, power, and connection between earth and sky



Obelisk of Theodosius by pharaoh Tutmose III

