

History of Architecture I

ARC 2313 - Spring 2022

Lecture-04

26 January 2022

For Friday 28 January:

Ingersoll pages 48-60 and 86-97

As we move onward from the prehistoric times of the Neolithic Age and the Bronze Age — of primitive huts and architecture that responds to the rotation of the heavens — I want to point out that these concepts were written about and studied.

The Primitive Hut as a theoretical abstraction

Vitruvius wrote his ***Ten Books of Architecture***
about 25 BCE for Augustus Caesar

Marc-Antoine Laugier published his
An Essay on Architecture in 1753

Laugier

(The savage in his primitive state) does not know how to protect himself, and moves from meadow to glade, to cave - all prove unsatisfactory.

Wants to make a shelter that protects but does not bury him.

Chooses four fallen branches, arranges them in a square, and on top arranges four more branches. Hoists a row of branches inclining from either side resting on these, and sheaths all tightly with leaves.

Simple nature: ***by imitating the natural process, art was born.***

All the splendors of architecture ever conceived have been modeled on the little rustic hut I have described...



Laugier

The frontispiece for
An Essay on Architecture
(1753)

Vitruvius & Ingersoll

On Fire and Sky...

V: After the (furious) flames subsided, people drew near and observing they were comfortable, placed more wood on the fire and showed it to others. This gathering originated conversation...

I: (Neanderthal) pursued the *primal architecture act* of building a fire...

V: Due to the natural gift of man, he walked upright unlike the animals with face to the ground, observing the firmament

I: As (primitive man) became aware of the movement of the sun and celestial bodies (he) designed landscapes to register these...

On to *Mesopotamia*...

Mesopotamia

Meso meaning middle...

Mesopotamia means the area between the two rivers, the Euphrates to the south and the Tigris to the north...

This area is known as the ***Fertile Crescent***

~ essentially the heart of modern-day Iraq ~

(Note on map that ancient cities that once had waterfronts today are arid and land-locked)



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MESOPOTAMIA

SUMER

approximate extent of the Persian Gulf until 5500 B.C.

300 km



Modern Day
Iraq →

300 km



Our time period today is
approximately 5000 - 1500 BCE

Roughly corresponding to
Bronze Age

Development of urban settings dominated by a temple called a ***ziggurat*** a ***physical expression*** of the concept of a place between earth and heaven

This sacred concept of the link between *earth and heaven* is the ***Axis Mundi***

(Axis of the World)

(Sacred Center of the World)



Conceptual drawing of the *ziggurat*

Mesopotamian cultures developed written language called ***cuneiform***, c 3000 BCE

Cuneiform characters spiraled a cone, written in clay... *ironically*, the ones that survived across time were left by the civilizations that were destroyed.

As you can imagine, a destroyed city was most likely burned, and their clay cuneiform cones inadvertently were baked by the fires into permanent *terra cotta*...



Mesopotamian cities grew *vertically* over time, as a great mound known as a ***tell*** (Arab word)

The *sacred precinct* was known as the ***temenos*** (Greek word)

(generally the location of the ziggurat and later, the palace and the temple)



Tell

Cities built of mud piled on top of each other for millennia

Kurdistan, aerial view of Tell Erbil, also called Arbil, Iraq. The mound of the city rose from successive generations building on top of one another since the seventh millennium BCE.

Tell Erbil — beginning **6500 BCE** — a city being built upon itself until it becomes a mound (**tell**) with each succeeding layer below the foundation for the next

The Sacred and the Profane

A dichotomy set forth by a French sociologist Émile Durkheim (c 1912) that identifies concept of ***Sacred*** and ***Profane*** as the essence of religion.

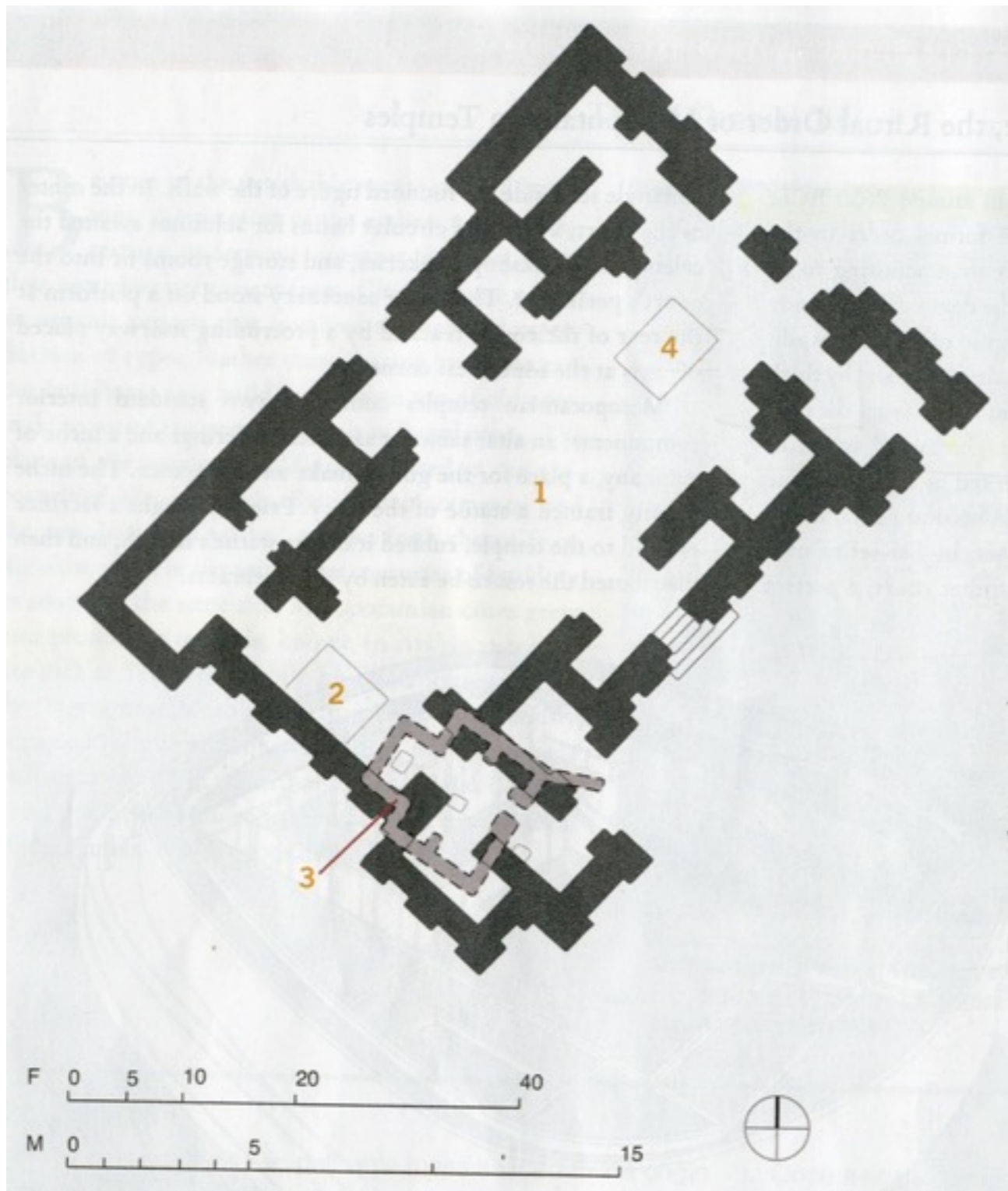
Religion - a unified system of beliefs and rituals relative to ***Sacred*** things or precincts, that is things set apart and forbidden (except by and for the priests). ***Profane*** things and precincts were everything else... mundane and individual exigencies of life.

*The **Sacred** and the **Profane***

*~ **Sacred & Profane** ~*

do not necessarily represent

*~ **Good & Evil** ~*



- 1) Temple VII
- 2) Niche for statue of God epiphany
- 3) First temple 5000 BCE
- 4) Altar for sacrifices

Eridu - oldest settlement in the region — **5000 BCE**

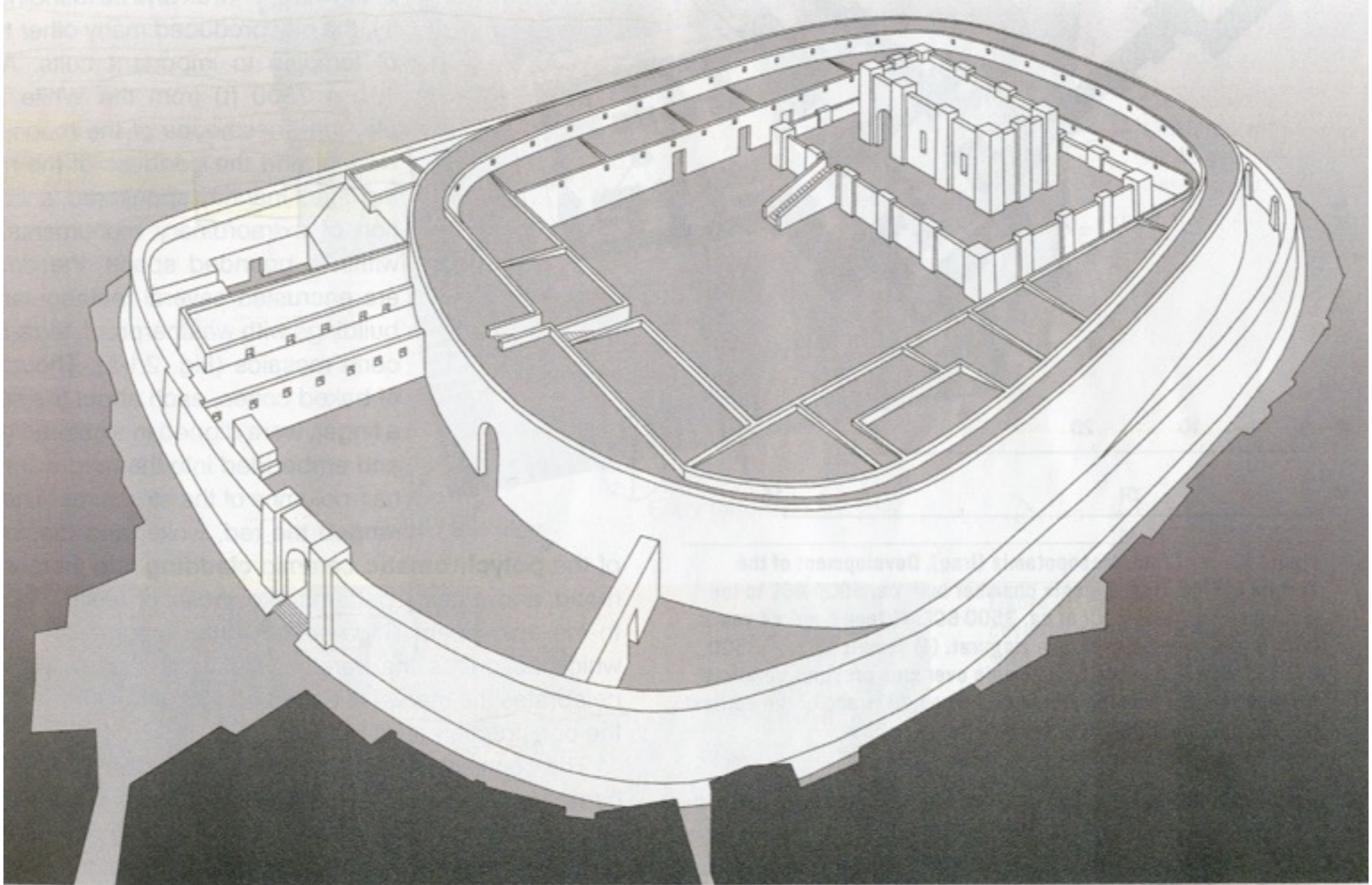
Temple of Enki

Nine versions built on top of each other, culminating in **Temple VII (3500 BCE)**

By 2000 BCE Temple VII had been covered by a gigantic ziggurat

Priest entered from NE
Anu (God) entered SW

Theocratic Socialism



Reconstruction of the Oval Temple at Khafaje, Mesopotamia (Iraq), ca. 2500 BCE.

Oval Temple at Khafage — 2650 BCE

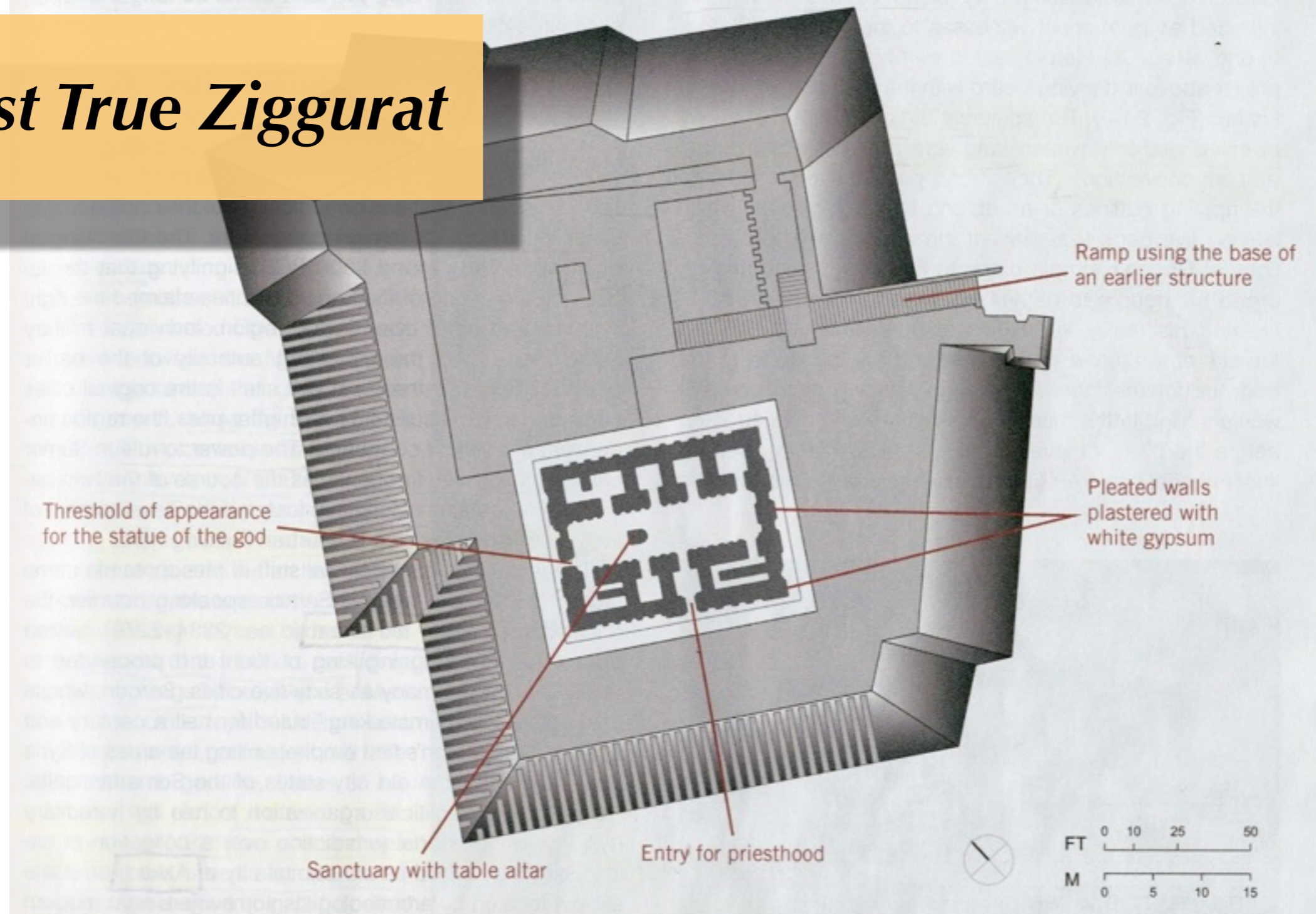
The City (the realm of the ***Profane***) lower area away from temple

The Temple (the realm of the ***Sacred***) a new urban building type

Full design intent here to build a realm of the Sacred and the Profane

Figure 2.1-4 Uruk, Mesopotamia (Iraq). The White Temple of Anu, ca. 3400–3000 BCE, the first ziggurat.

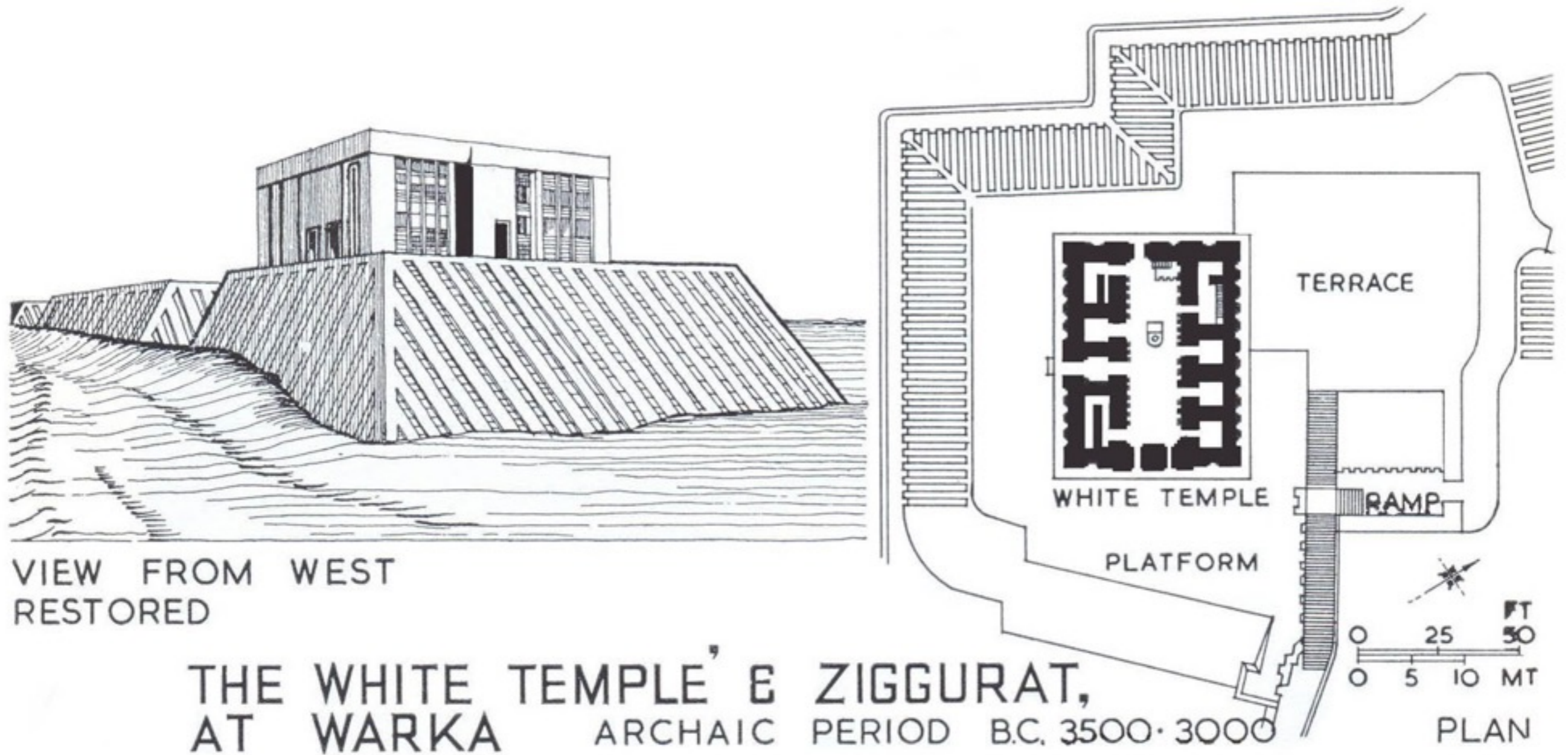
First True Ziggurat



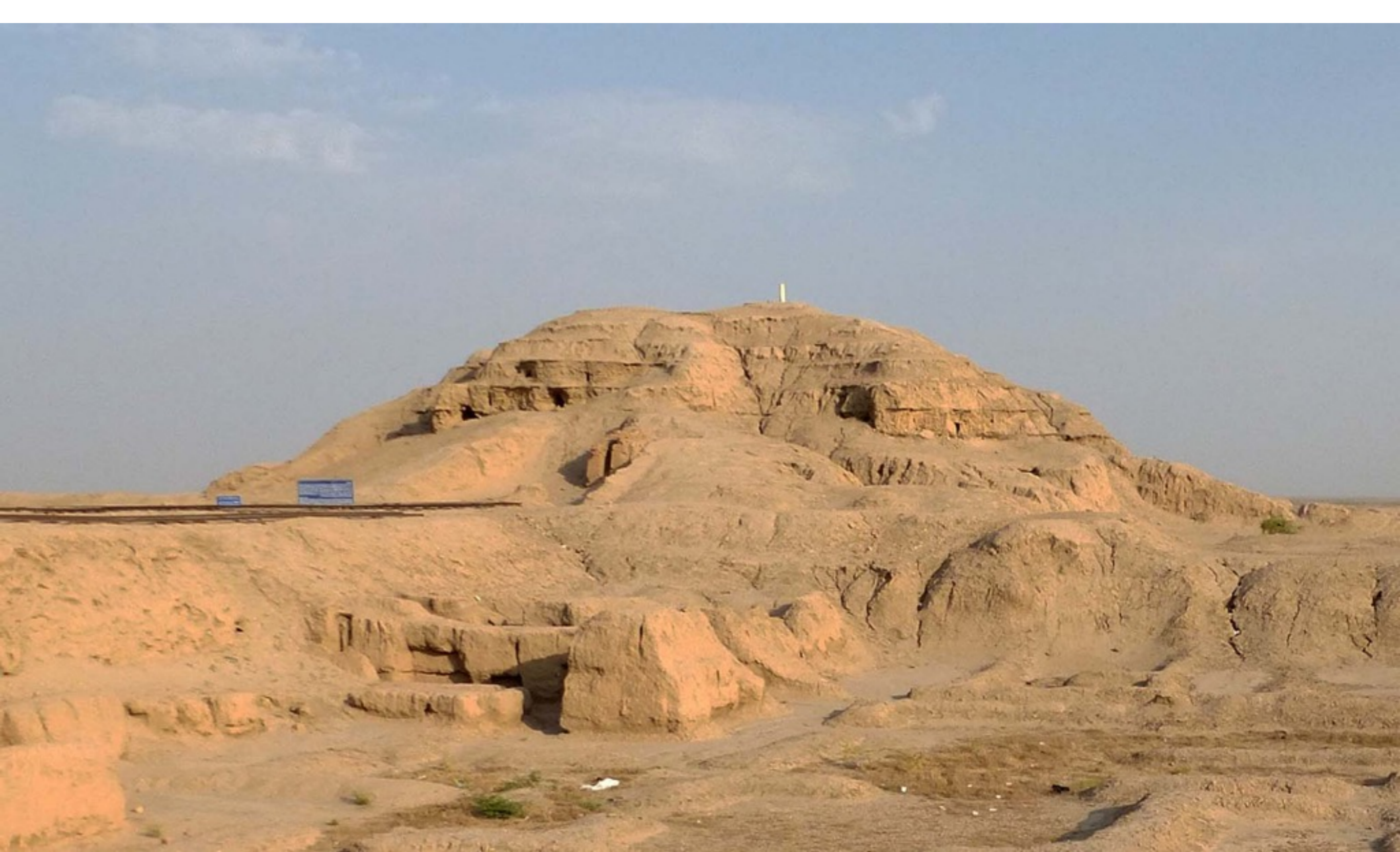
White Temple of Anu in Uruk - 3400-3000 BCE - first ziggurat

(The gleaming white stepped profile visible from Eridu)

~ Theocratic Socialism ~



White Temple of Uruk as restored



White Temple of Uruk as it appears today



Figure 2.1-5 The cone mosaics covering some of the urban temples with more permanent cladding, ca. 3400–3000 BCE.

Much more **permanent cladding** (rather than mud) were glazed and baked terracotta building units assembled in patterns... written about regarding Uruk

Sargon the Great — 2334 - 2279 BCE

Seized power from Kish and took control of scores of cities, founding his capital city at

Akkad — *exact location not known*

(Kings of the Four Quarters of the Earth)

Akkadian Dynasty built their city on fresh ground — not on top of a previous city

Akkadians were post-Sumerian as they took power after the fall of Southern Mesopotamian Sumerians



Akkadian Empire
under Sargon the Great
considered by some
as the first *Empire*

Being a *dynasty* and an *empire*, they needed a place for a *king*, hence the Akkadians are credited with:

The Palace

a new urban building type

(c 2300 BCE)



Ebla (Syria) destroyed by Sargon in 2300 BCE

Akkad may have looked like Ebla. Ebla is known only b/c it was destroyed.

Human-made acropolis or **tell** rose 83 feet above surrounding region

They in fact went to
the fortified entry

Figure 2.1-7 Ebla, Syria. The *tell* of the ancient city destroyed during the twenty-third century BCE by Sargon the Great.

***Public and Private
realms within the palace***

King Zimrilim's Palace

Mari — destroyed by Sargon circa 2300 BCE

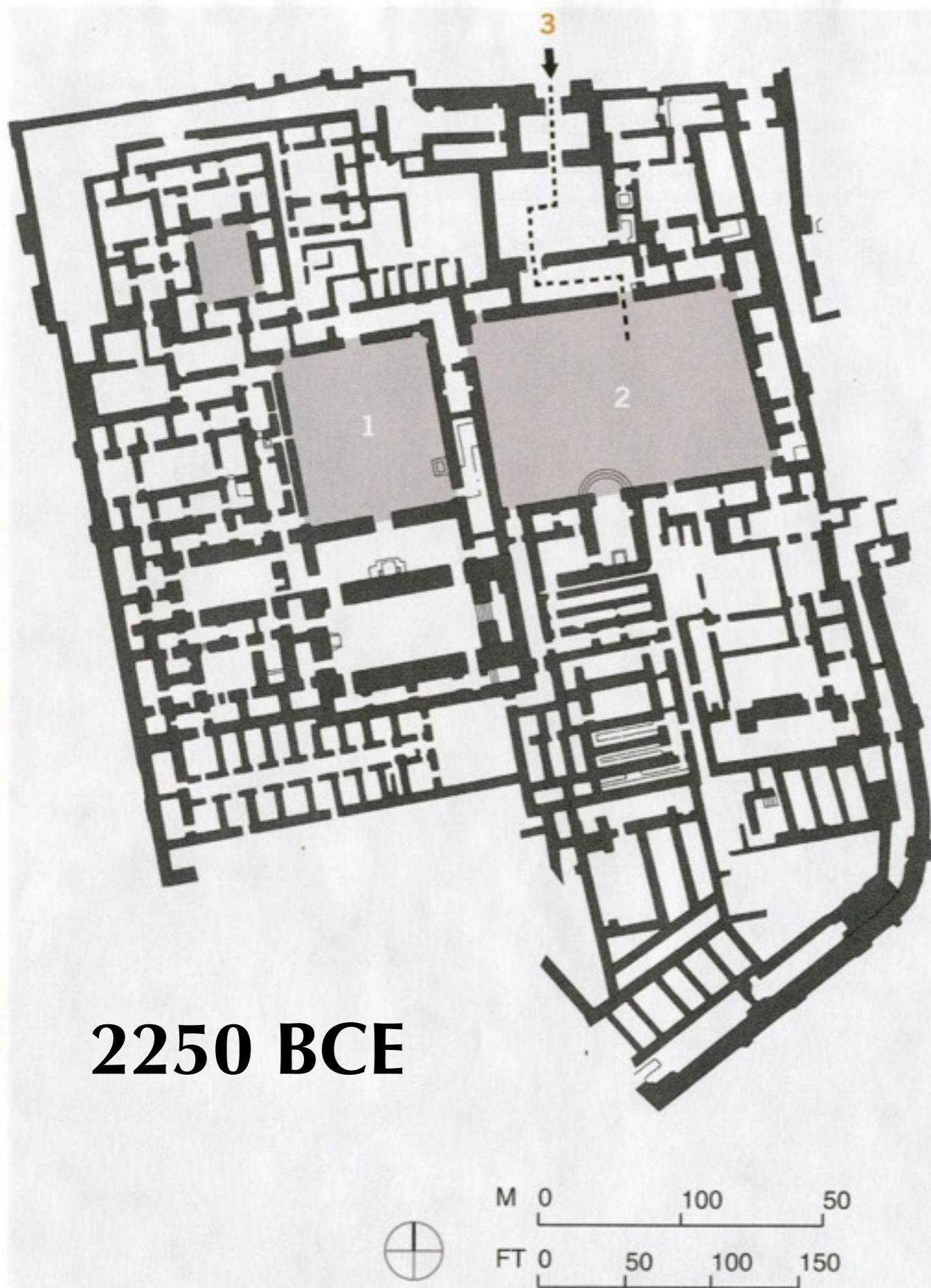
Destroyed again in 1759 BCE by Hammurabi of Babylon

Left the most complete set of cuneiform documents yet, including a "List of Kings"

Palace complex included a **public // private** separation

Ruler = Priest = Demigod

Goddess Ishtar



2250 BCE

Figure 2.1-8 Mari, Syria. Reconstructed plan of the Palace of Zimrilim, ca. 2250 BCE., showing the private (1) and public (2) courts. The arrow path (3) traces the route through the three antechambers leading to the public court.

Figure 2.1-9 Ur, Mesopotamia (Iraq). Plan showing oval outer walls, a northern port and a western port, a canal traversing the city, and near the geographic center a *temenos*, an orderly religious nucleus for the ziggurat, twenty-second century BCE.

City of Ur — 2200 BCE

Emerged as the imperial power after the fall of Sargon

King Ur-Nammu 2047 - 2030
Southern Mesopotamian

Great Ziggurat of Ur
completed about 2000 BCE
by Ur-Nammu's son Shulgi





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MESOPOTAMIA

SUMER

approximate extent of the Persian Gulf until 5500 B.C.

300 km

City of Ur — 2200 BCE

Residential blocks
coordinated planning //
open urban spaces //
turning radii on street
corners // houses modest
except for the wealthy //
wealthy - court with
impluvium -
leads to Greek oikos and
Roman domus

**Sumerians most likely
invented the wheel**



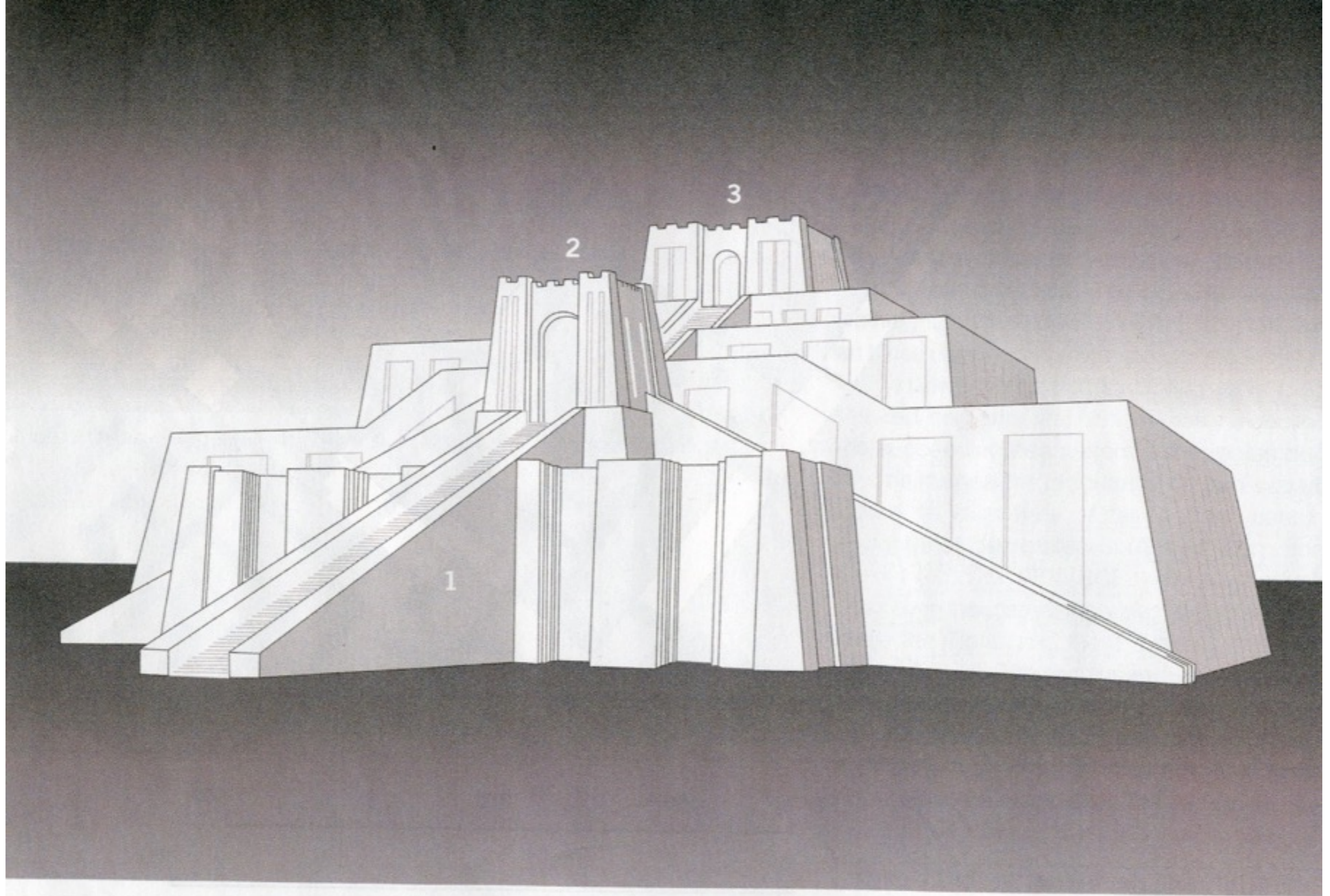


Figure 2.1-13 Ur, Mesopotamia (Iraq). Axonometric drawing reconstructing the Ziggurat of Ur Nammu, ca. 2100 BCE: (1) triple stair; (2) pavilion at the landing; (3) the "bridal" chamber at the summit.

Ziggurat of the City of Ur at its zenith — about 2100 BCE

Temenos at Ur

Order versus Chaos
(Sacred versus Profane)

Built to be permanent

Ziggurat

Temple of Nanna on top

Palace of E-Gi-Par

Palace of E-Hur-Sag

By 1800 BCE Babylonians
took over and restored **Ur**

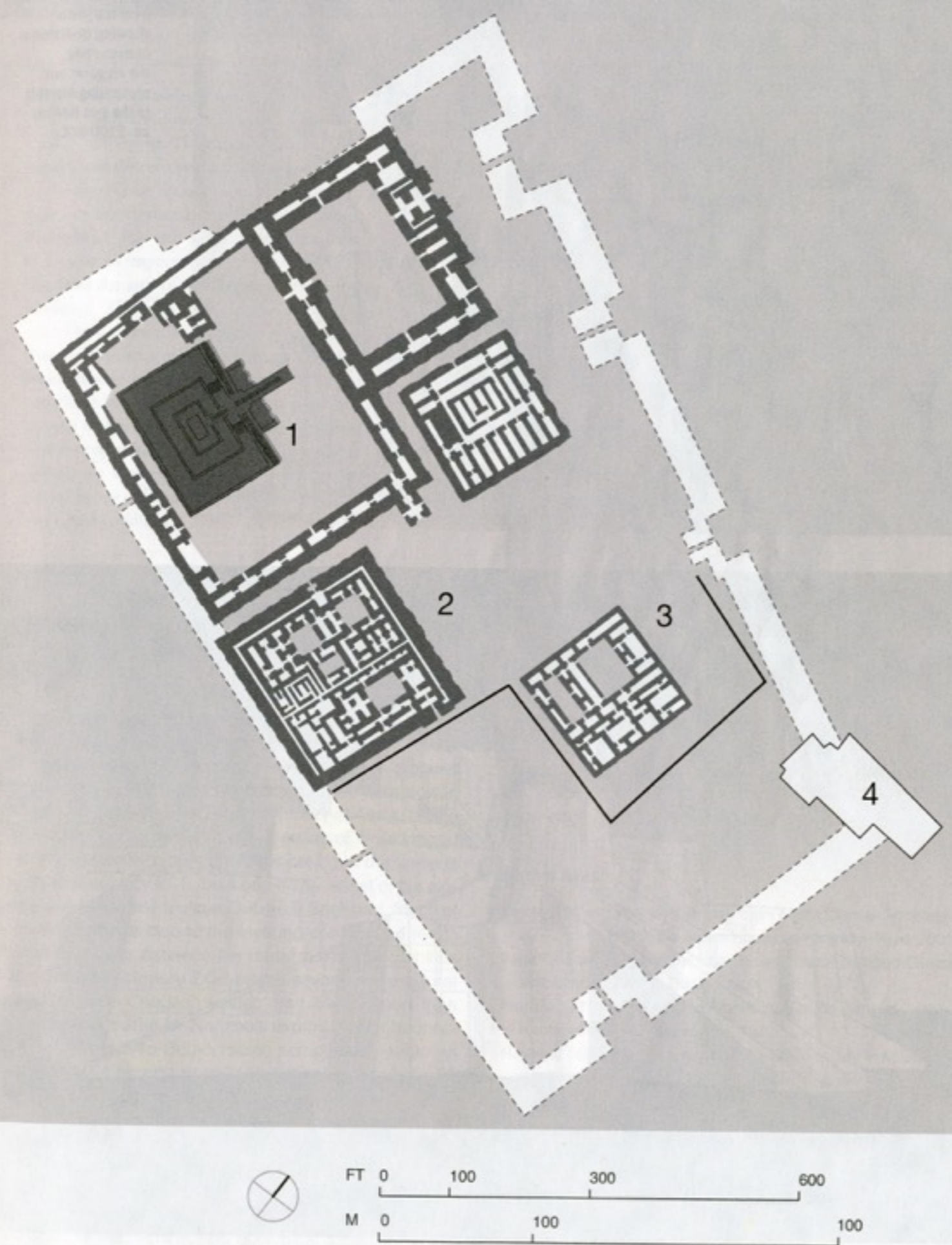


Figure 2.1-11 Ur, Mesopotamia (Iraq). Plan of Ur-Nammu's temple compound, ca. 2100 BCE. (1) ziggurat; (2) palace of E-Gi-Par; (3) palace of E-Hur-Sag; (4) royal cemetery.



Stele showing Ur-Nammu constructing the ziggurat and presenting himself to god Nanna (2100 BCE)

King Gudea of Lagash — 2144 - 2124 BCE

*Sumerians probably invented writing, the wheel,
and architectural graphic drawing*

In cuneiform cone writings High Priest Gudea of Lagash wrote that there was an environmental crisis regarding the water levels in Mesopotamia.

City God **Ningirsu** appeared in a dream with instructions on building the temple, which is depicted in statues celebrating Gudea

Unfortunately for them, **Lagash** was no longer sustainable as a large city by **2000 BCE**



Figure 2.1-6 King Gudea of Lagash, Mesopotamia (Iraq), with a plan of a temple in his lap, twenty-third century BCE.

King Gudea of Lagash 2130 BCE





Map of Nippur

1500 BCE

Cuneiform
representation of
two dimensional plan

**A very sophisticated
seminal development
in architecture**

end