

HISTORY OF ARCHITECTURE I

ARC 2313 - SPRING 2022

LECTURE-14
23 FEBRUARY 2022

For Friday, 25 February

Ingersoll: 408-422

~ FIRST ~

Before we proceed to **Mesoamerica**
let's finish up with **Ancient Rome**

(I think on 18 February we lost
ten minutes and I didn't get
to the Roman Baths—the slides
will be found in Lecture-12)

The ***baths*** or ***thermae*** of ancient Rome
consisted of these functions:

palaestra (wrestling)

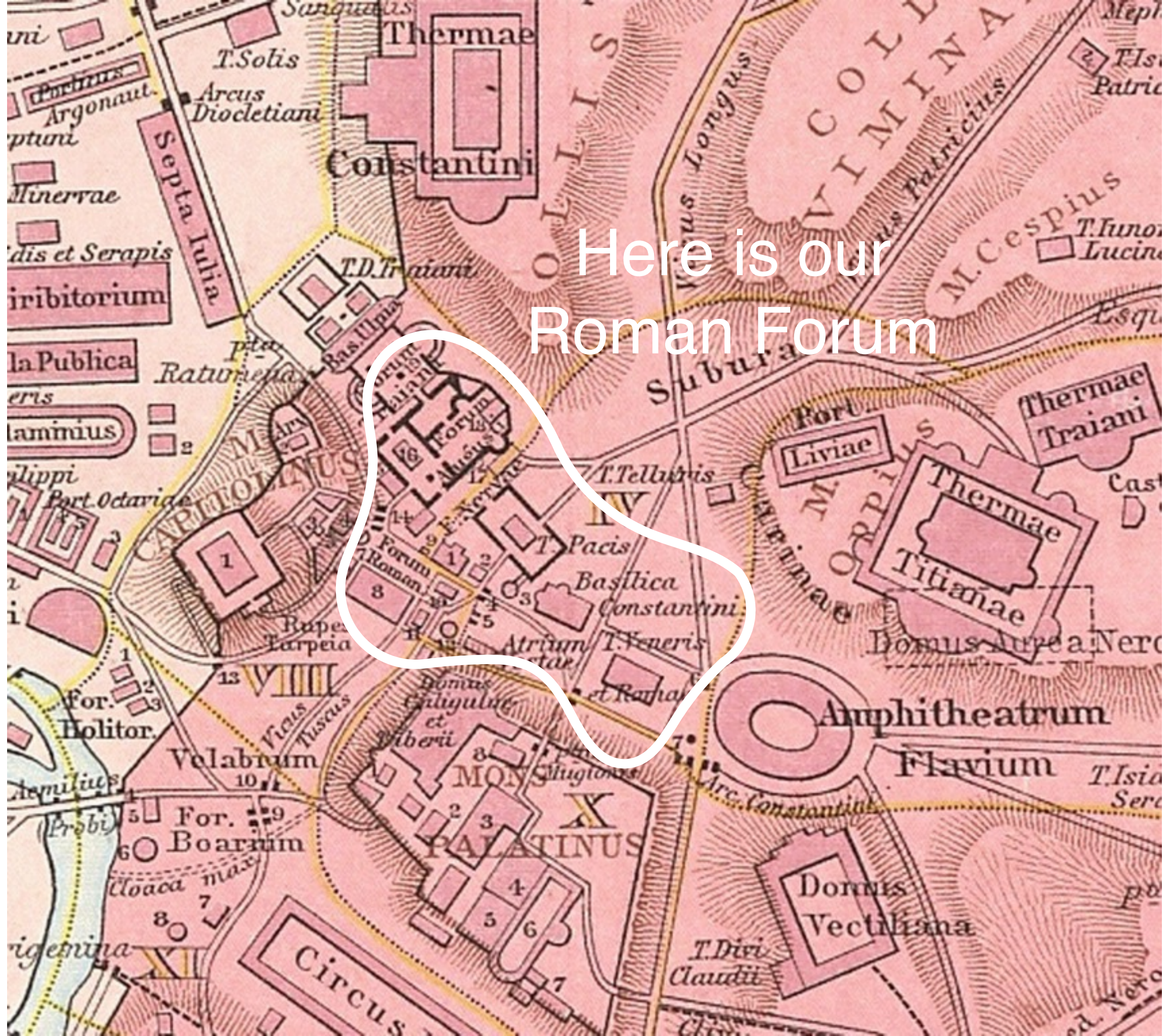
natatorium (swimming pool)

caldarium (hot water)

tepidarium (tepid water)

frigidarium (frigid water)

Here is our
Roman Forum



ROMA.

Mafsstab 1:25 000

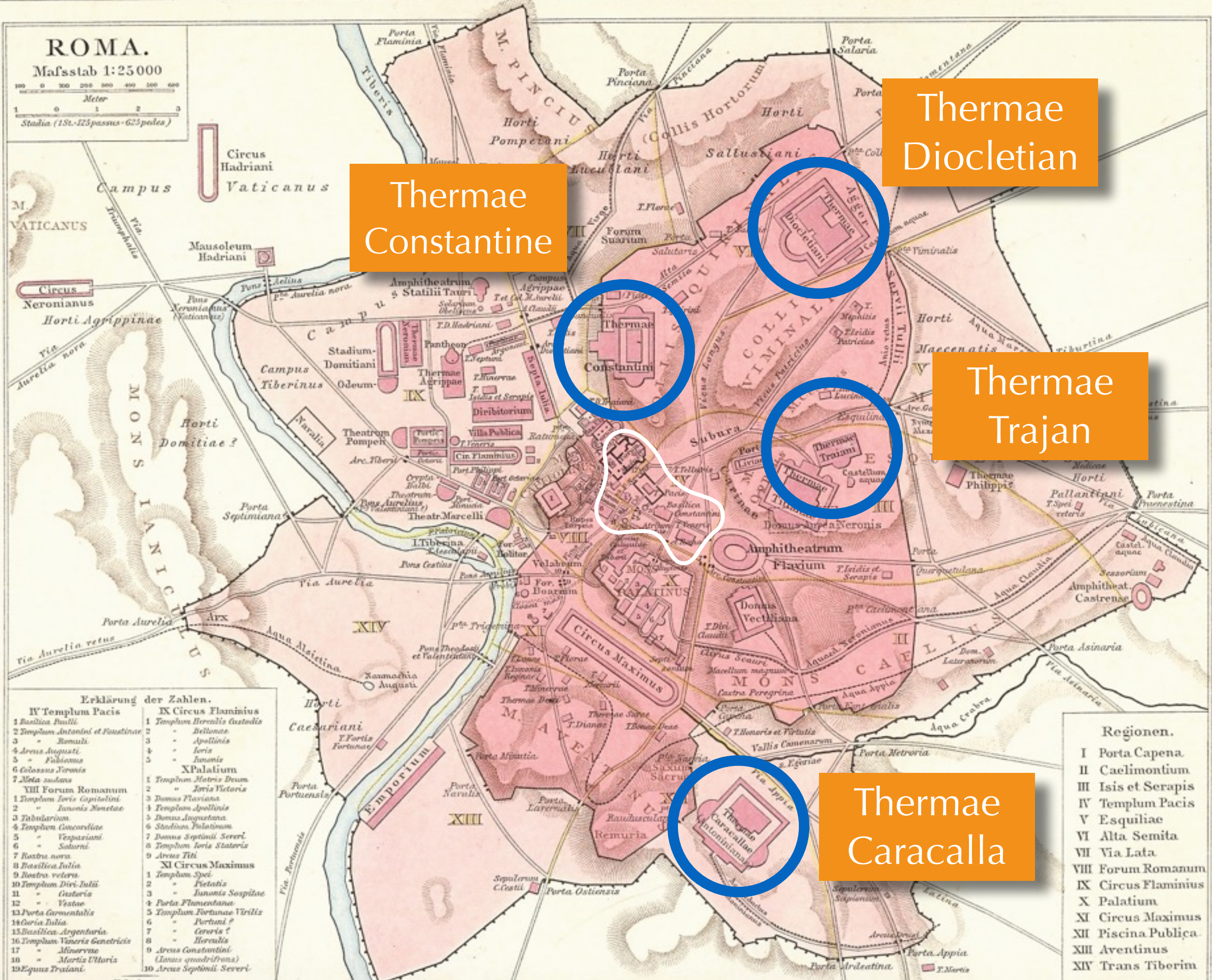
100 0 200 300 400 500 600
Meter
Stadia (1St.=125passus=625pedes)

Thermae
Diocletian

Thermae
Constantine

Thermae
Trajan

Thermae
Caracalla



Erklärung der Zahlen.

IV Templum Pacis

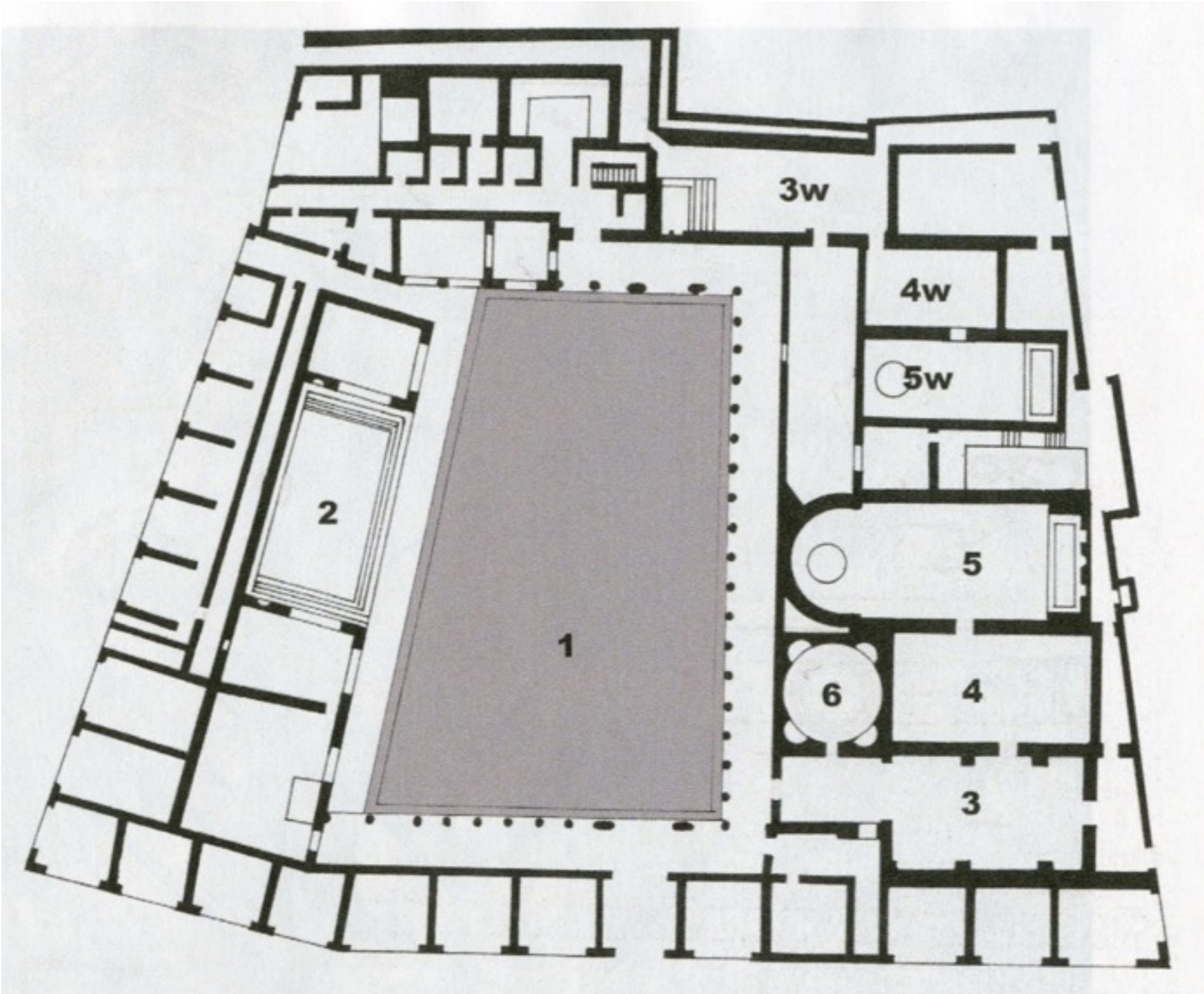
- 1 Basilica Paullina
- 2 Templum Antonini et Faustinae
- 3 - Romuli
- 4 Arcus Augusti
- 5 - Fabianus
- 6 Colonna Traiana
- 7 Meta aurea
- XIII Forum Romanum
- 1 Templum Iovis Capitolini
- 2 - Junonis Montiae
- 3 Tabularium
- 4 Templum Concordiae
- 5 - Vespasiani
- 6 - Salustiana
- 7 Rostra nova
- 8 Basilica Julia
- 9 Rostra vetera
- 10 Templum Divi Iulii
- 11 - Caelia
- 12 - Vestae
- 13 Porta Formosa
- 14 Curia Julia
- 15 Basilica Argentaria
- 16 Templum Veneris Genetricis
- 17 - Minervae
- 18 - Martis Ultoria
- 19 Equus Traiani

IX Circus Flaminius

- 1 Templum Iovis Capitolini
- 2 - Bellonae
- 3 - Apollinis
- 4 - Iovis
- 5 - Iovis
- X Palatium
- 1 Templum Matris Deum
- 2 - Iovis Victoria
- 3 Domus Flavia
- 4 Templum Apollinis
- 5 Domus Augustana
- 6 Stadium Palatinum
- 7 Domus Septimii Severi
- 8 Templum Iovis Statoris
- 9 Arcus Titi
- XI Circus Maximus
- 1 Templum Spei
- 2 - Pietatis
- 3 - Junonis Sospitae
- 4 Porta Flaminiana
- 5 Templum Fortunae Virilis
- 6 - Portus
- 7 - Cereris
- 8 - Herculis
- 9 Arcus Constantini
- 10 Arcus Septimii Severi

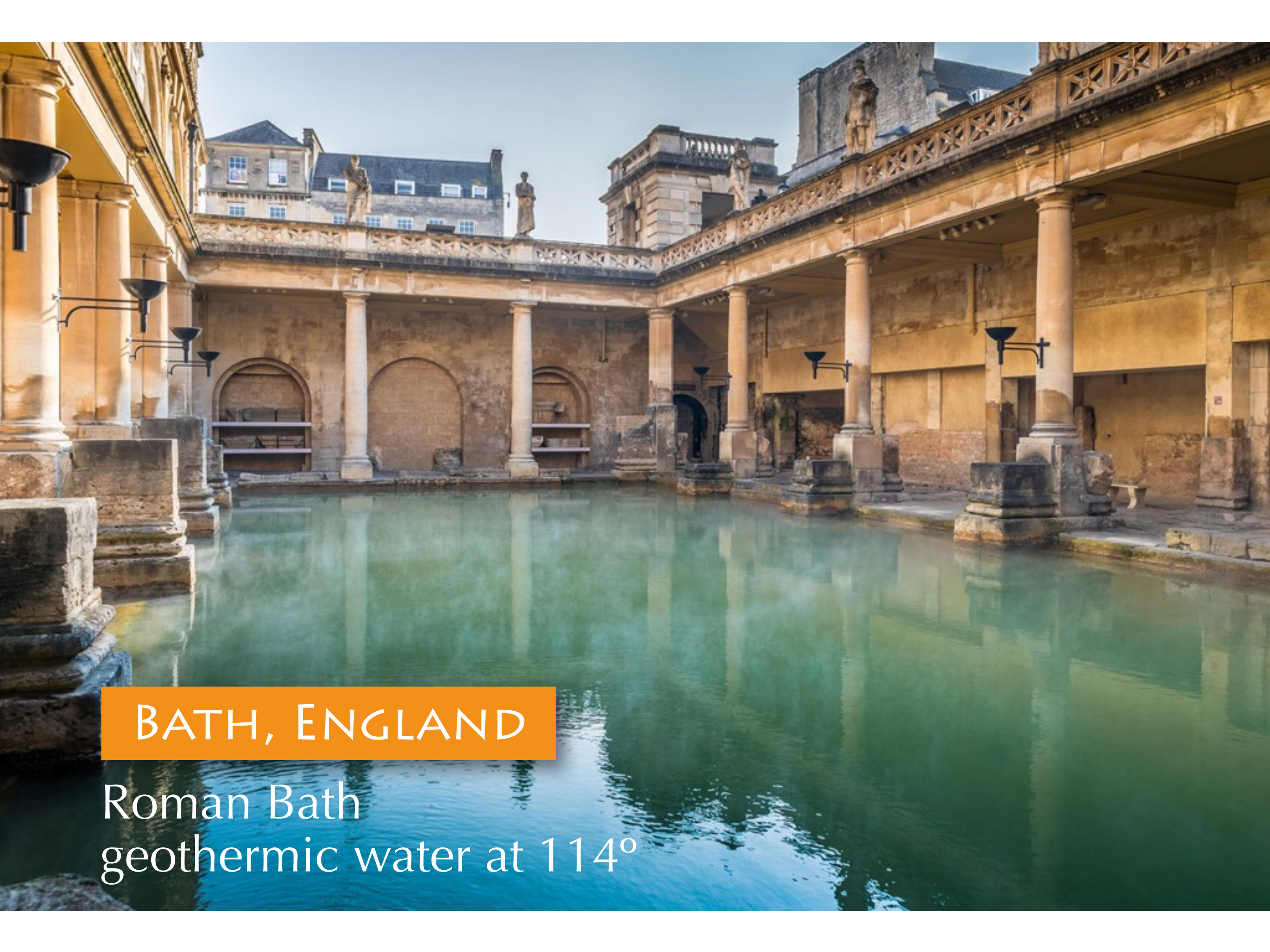
Regionen.

- I Porta Capena
- II Caelimontium
- III Isis et Serapis
- IV Templum Pacis
- V Esquiliae
- VI Alta Semita
- VII Via Lata
- VIII Forum Romanum
- IX Circus Flaminius
- X Palatium
- XI Circus Maximus
- XII Piscina Publica
- XIII Aventinus
- XIV Trans Tiberim



- 1) Palaestra
- 2) Natatorium
- 3) Men's area
- 4) Tepidarium
- 5) Caldarium
- 6) Frigidarium
- w) Women's areas

STABIAN BATHS OF POMPEI



BATH, ENGLAND

Roman Bath
geothermic water at 114°

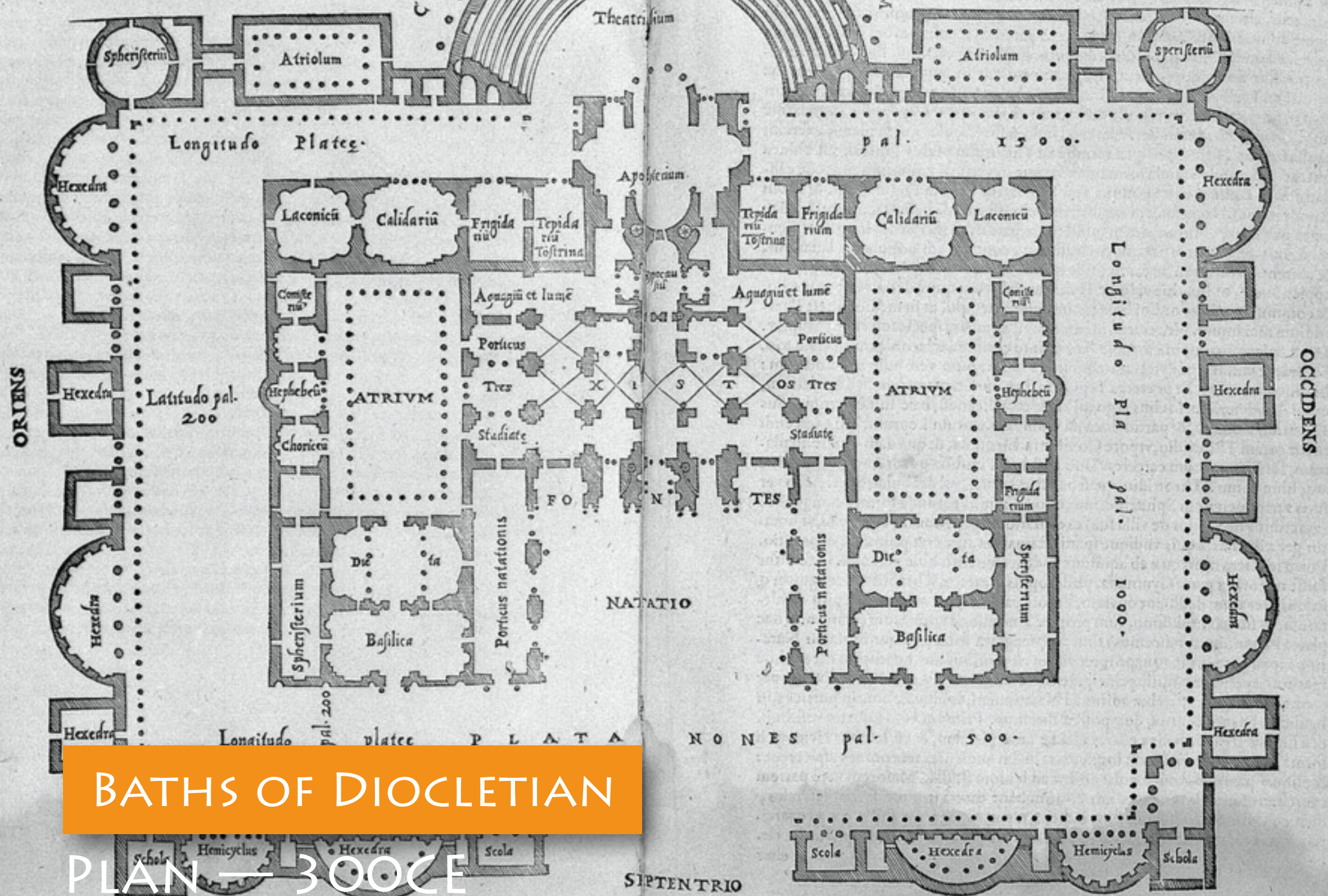


BATH, ENGLAND

Roman Bath
geothermic water at 114°

THERMARVM DIOCLE-

TIANARVM ICON.



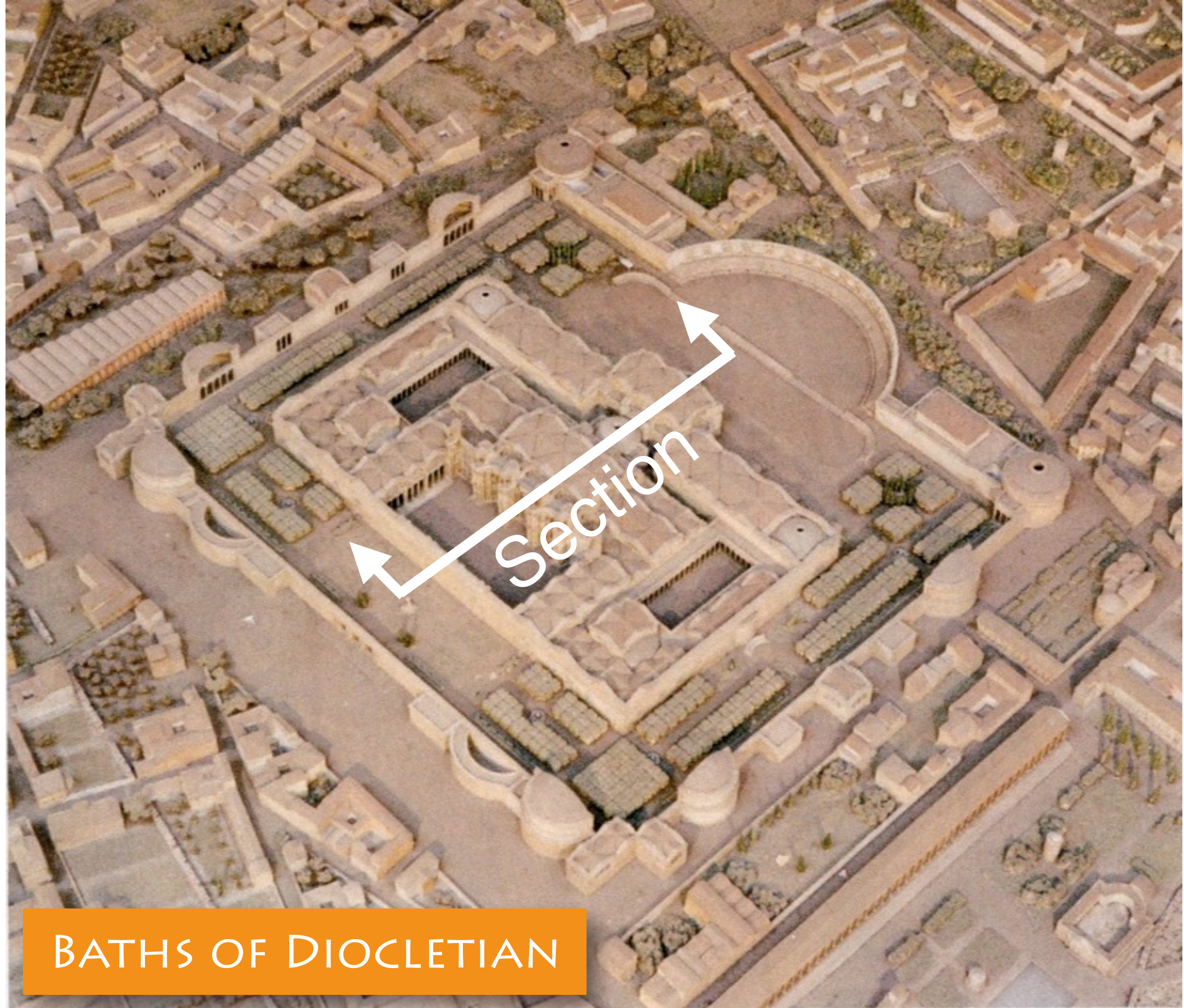
BATHS OF DIOCLETIAN

PLAN — 300CE



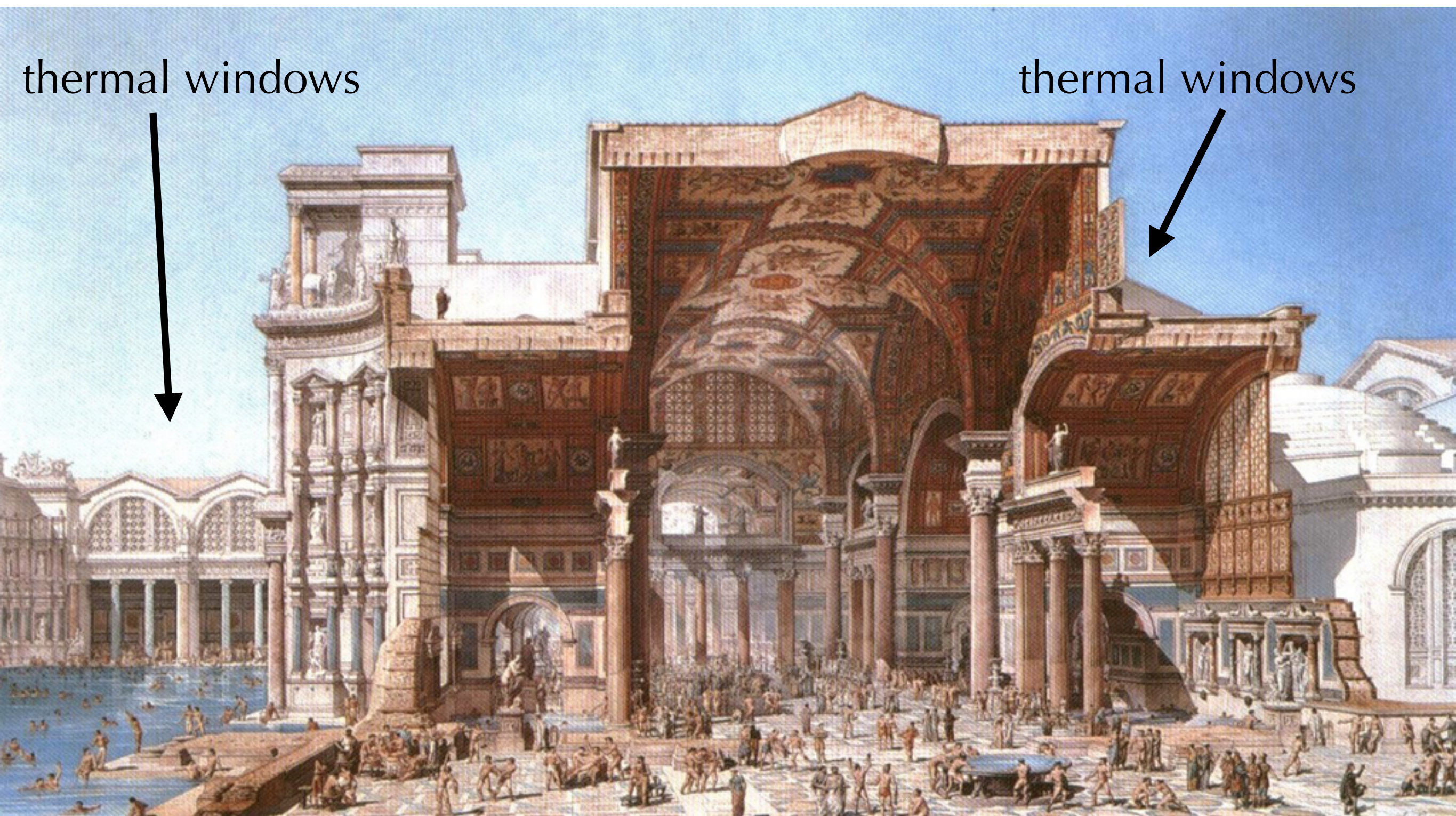
BATHS OF DIOCLETIAN

Figure 5.1-17 Rome. Model of the Baths of Diocletian, late third century CE.



BATHS OF DIOCLETIAN

Figure 5.1-17 Rome. Model of the Baths of Diocletian, late third century CE.



BATHS OF DIOCLETIAN

SECTION — 300CE



BATHS OF CARACALLA

THERMAL WINDOW



BATHS OF CARACALLA

TODAY



Penn Station New York (1911)

Union Station, Jacksonville, Fla.—14



Jacksonville Train Station (1917)

Ancient Central America
Pyramids & Sacrifice

Mesoamerica

*We go out of temporal sequence today
as we travel to Mesoamerica
in Space-Time*

OLMEC CULTURE

A mysterious mother culture in mesoamerica that worshipped a panoply of gods such as the Feathered Serpent, Maize God, Water God.

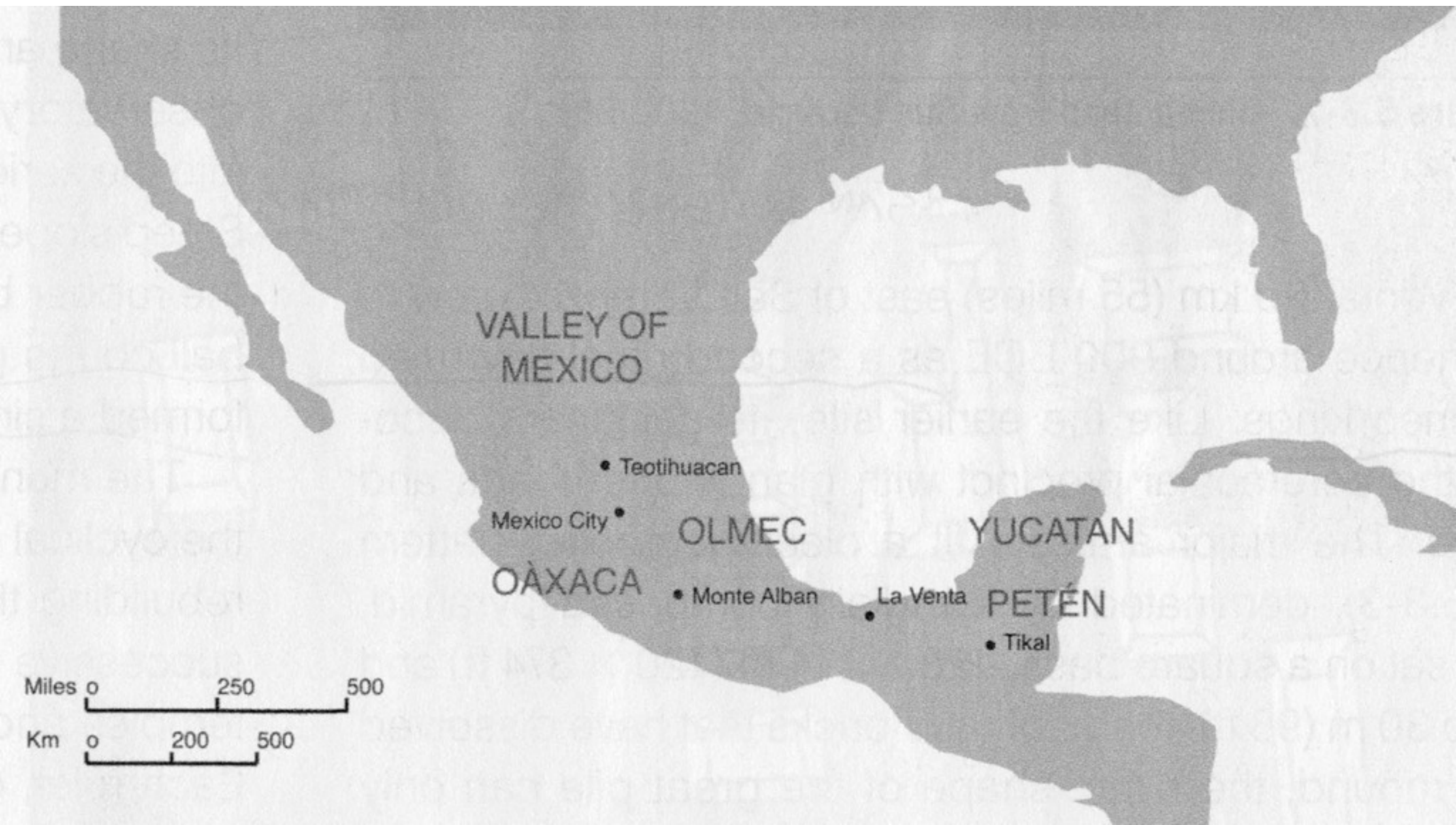
Earliest complex civilization in mesoamerica.

Had an awareness of the cosmos, sky realm, underworld. Were good artists, as seen especially with the colossal heads carved in stone

Not much is known about the **Olmec** culture and they died off about **900 BCE** leaving no written record.

First principal city referred to by archaeologists as **San Lorenzo**.

900-400 BCE power shifted to **La Venta**.



VALLEY OF
MEXICO

• Teotihuacan

Mexico City •

OLMEC

YUCATAN

OAXACA

• Monte Alban

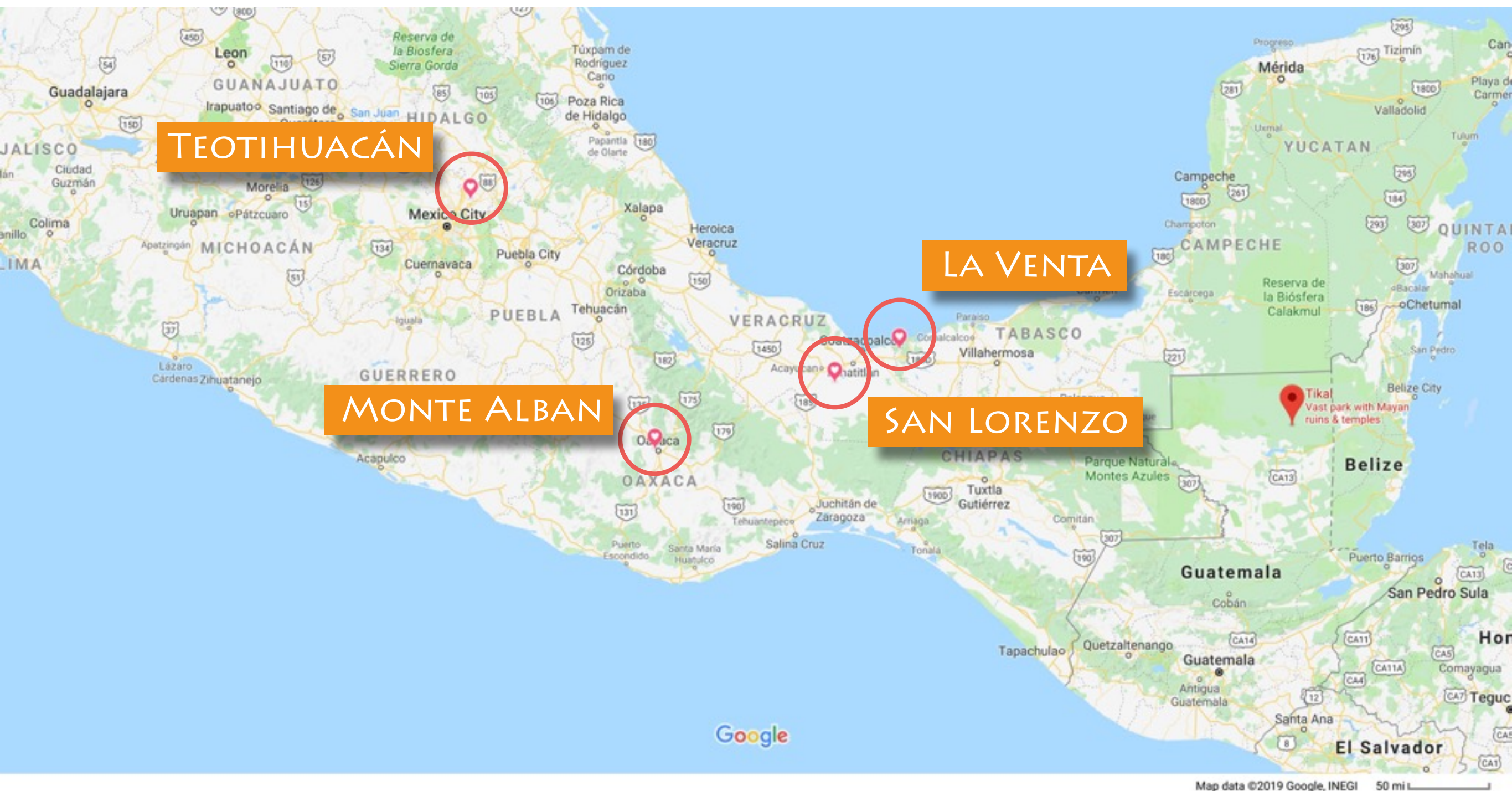
La Venta

PETÉN

• Tikal

Miles 0 250 500

Km 0 200 500



For the Olmec it was **San Lorenzo** and then **La Venta**

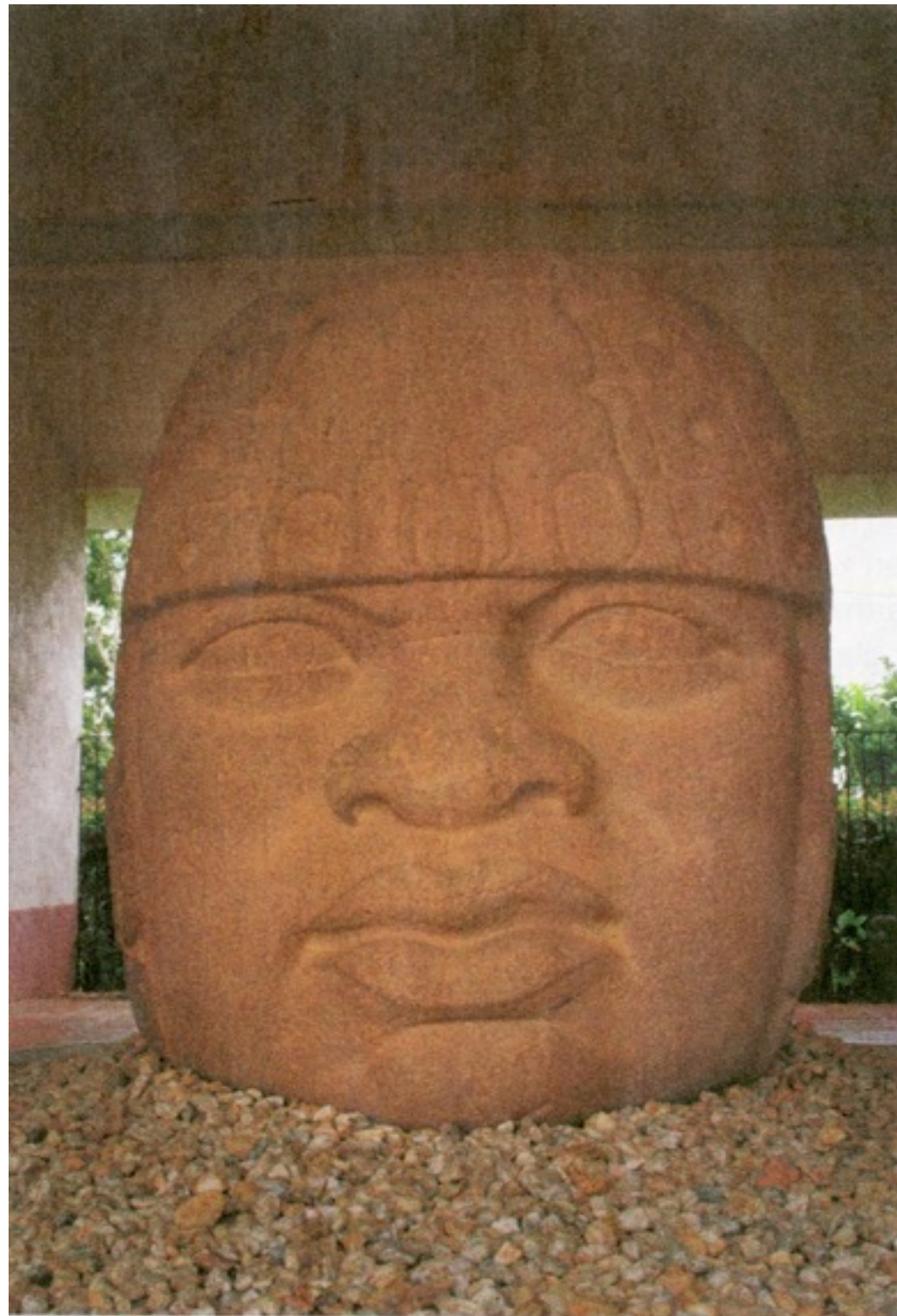
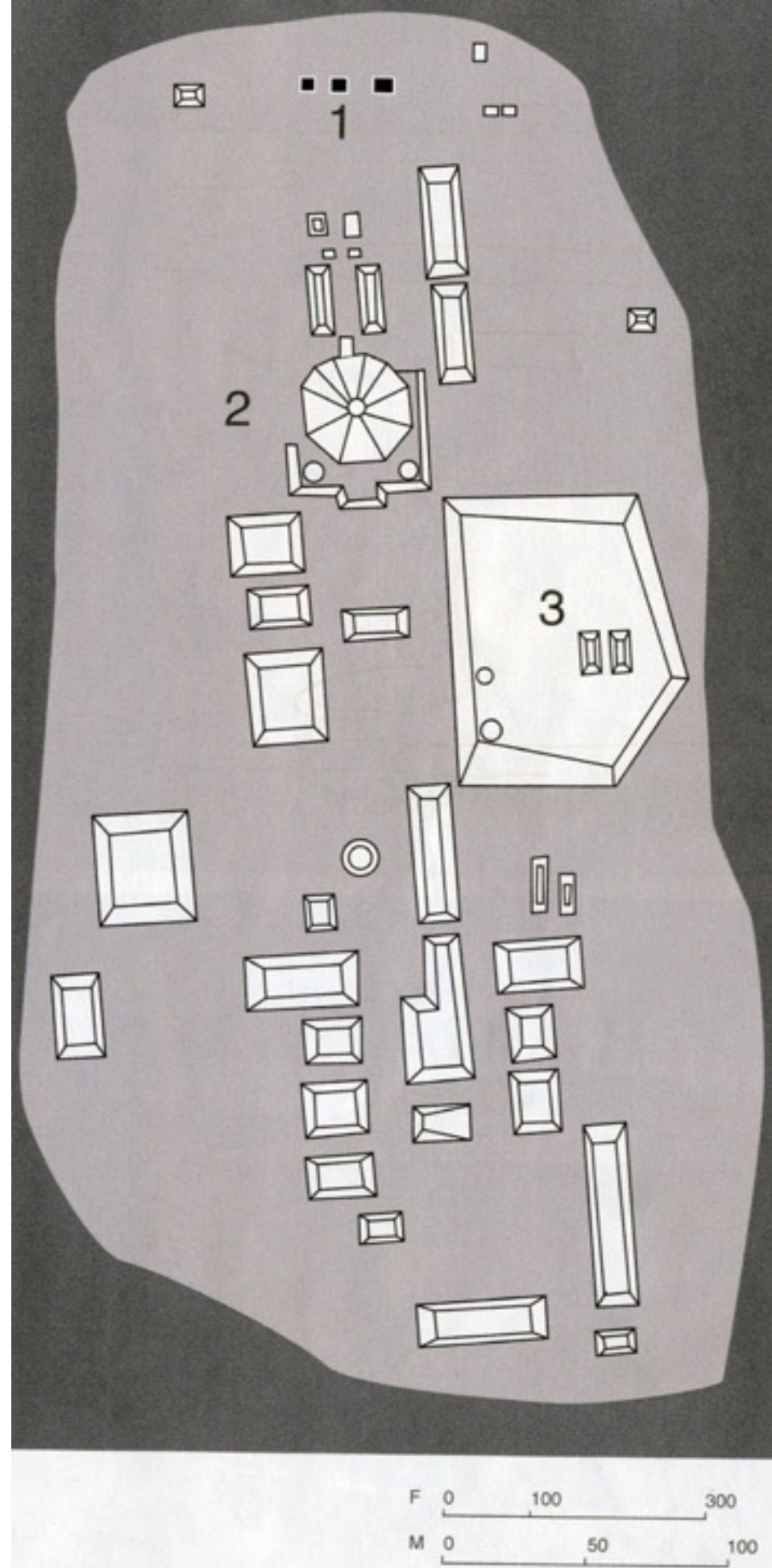


Figure 5.3-2 Olmec head from San Lorenzo, 1200 BCE.

San Lorenzo dates back to 1500 BCE

Steep decline about 900 BCE





***La Venta** replaced
San Lorenzo as the
capital of the Olmec*

Radial Pyramid, ball
court

900 - 400 BCE

This culture declined and
disappeared by 400 BCE

Figure 5.3-3 Plan of La Venta, 400 BCE. (1) Placement of colossal heads; (2) the radial pyramid; (3) terrace with the ball court.

ZAPOTEC CULTURE

Zapotec lasted until about 1521 CE
in several phases with several
capital cities



Monte Albán
(capital city 700 BCE -700 CE)



Monte Albán overlooking the valleys of Oaxaca
(wah-HA-kah)







Monte Albán
the Cosmic Ball Court



The Cosmic Ballcourt



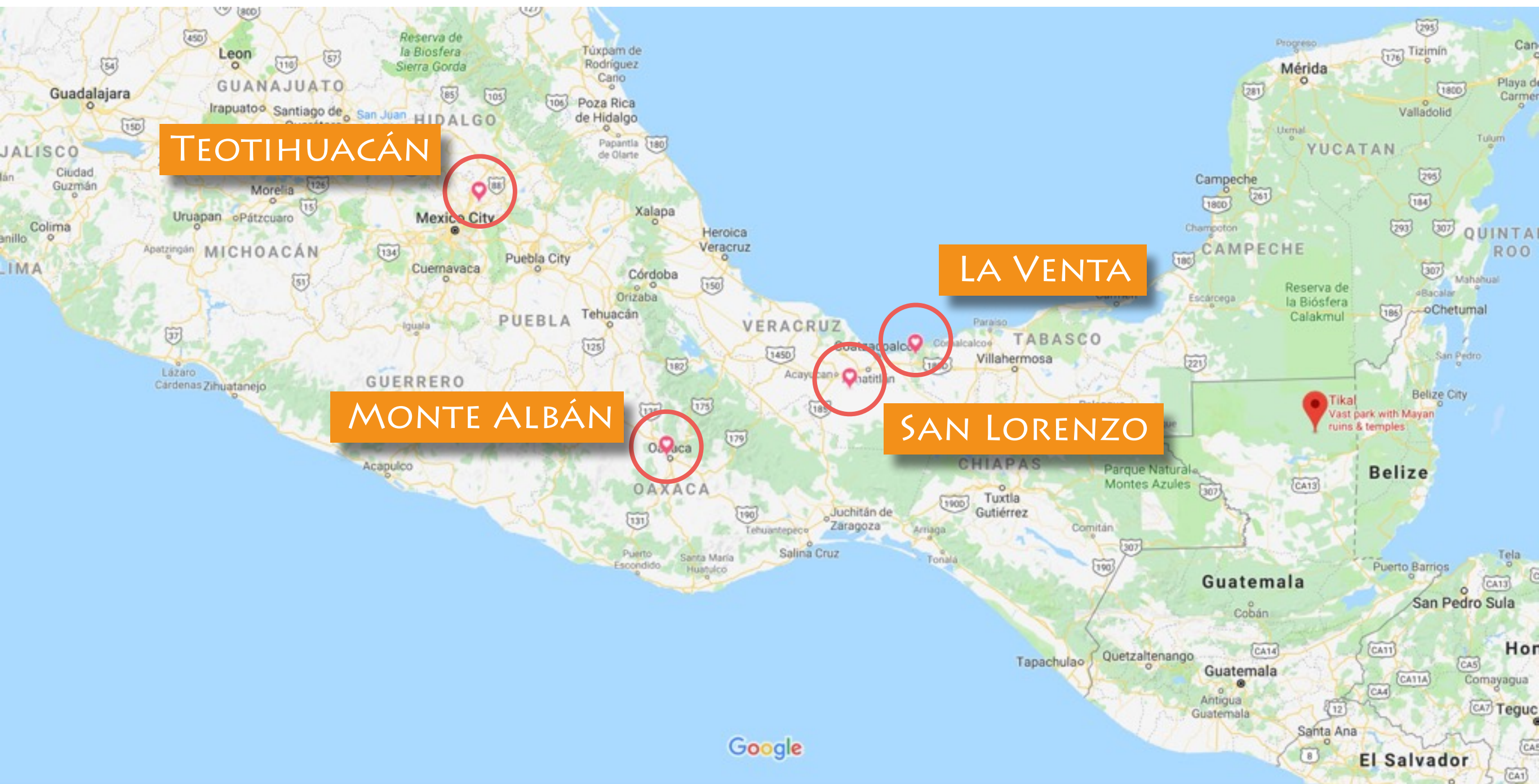




Monte Albán the Cosmic Ball Court
Not sure exactly *what it meant*, but...

... these early cultures
marked by ***ritual, sacrifice,***
violence, hierarchy, renewal
(of the mud architecture),
violent games in which loser
was decapitated or sacrificed

TEOTIHUACÁN CULTURE



TEOTIHUACÁN

MONTE ALBÁN

LA VENTA

SAN LORENZO

Google

Map data ©2019 Google, INEGI 50 mi

Teotihuacán - the biggest and most powerful of cities in Mesoamerica

From about **200 BCE - 535 CE**

Destroyed by extreme weather event?

Theocratic, hierarchical, sacrificial violent culture that aligned Teotihuacán with its underpinnings and its celestial place

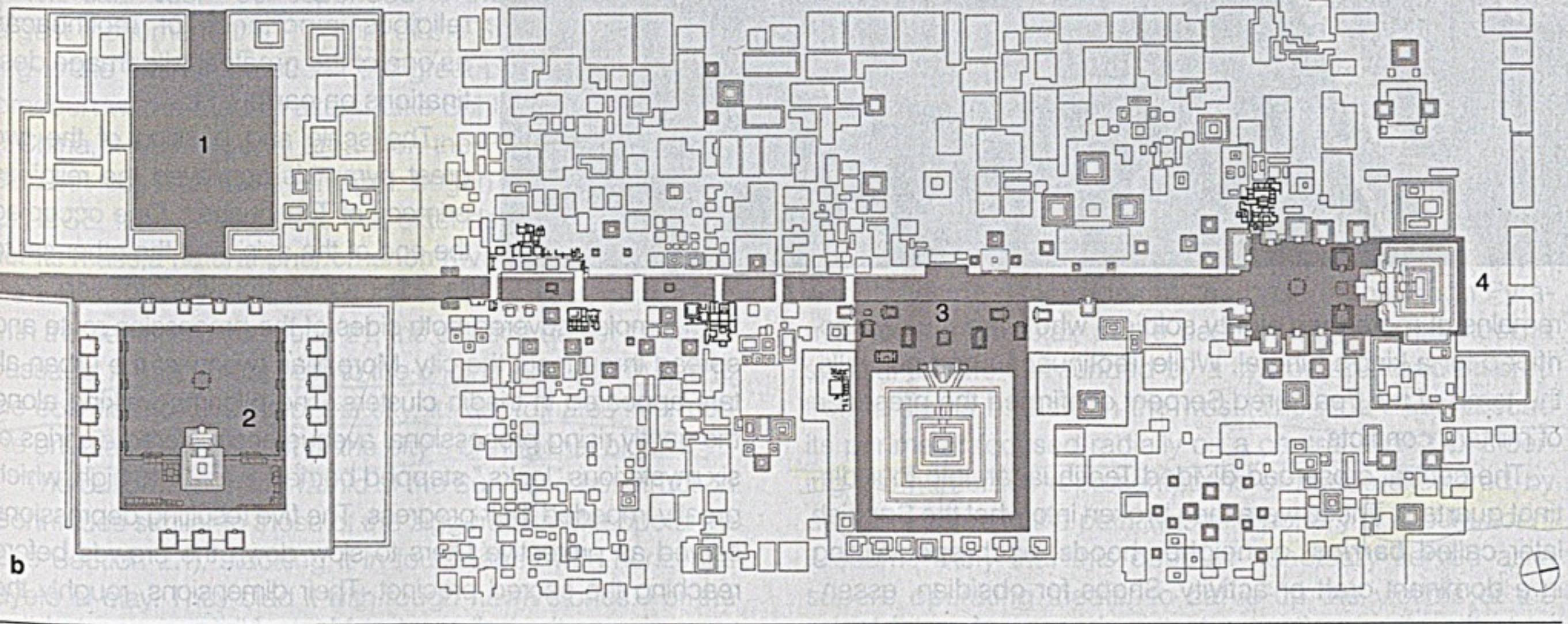


Figure 5.3-5 Teotihuacán. (a) Avenue of the Dead. (b) Plan: (1) market; (2) Temple of Plumed Serpent compound; (3) Pyramid of the Sun; (4) Pyramid of the Moon (after René Millon).

Teotihuacán - 200 BCE - 535 CE

axis mundi long wide horizontal N-S avenue
 called ***Avenue of the Dead*** -
this was their understanding of the world



A satellite map of the Giza pyramid complex in Egypt. A long, straight, light green rectangular area runs diagonally from the bottom left towards the top right, labeled 'AVENUE OF THE DEAD'. At the top right end of this avenue is a small, light green square labeled 'PYRAMID OF THE MOON'. Further down the avenue, towards the bottom left, is a larger, light green square labeled 'PYRAMID OF THE SUN'. The surrounding landscape is a mix of brown and green fields, with some buildings and roads visible. A scale bar in the bottom right corner indicates 1000 feet.

PYRAMID OF THE MOON

PYRAMID OF THE SUN

AVENUE OF THE DEAD

Actual Orientation
From Google Maps

1000 ft



~ Most important site ~

PYRAMID OF THE MOON



PYRAMID OF THE MOON



~ Miccaotli ~

AVENUE OF THE DEAD



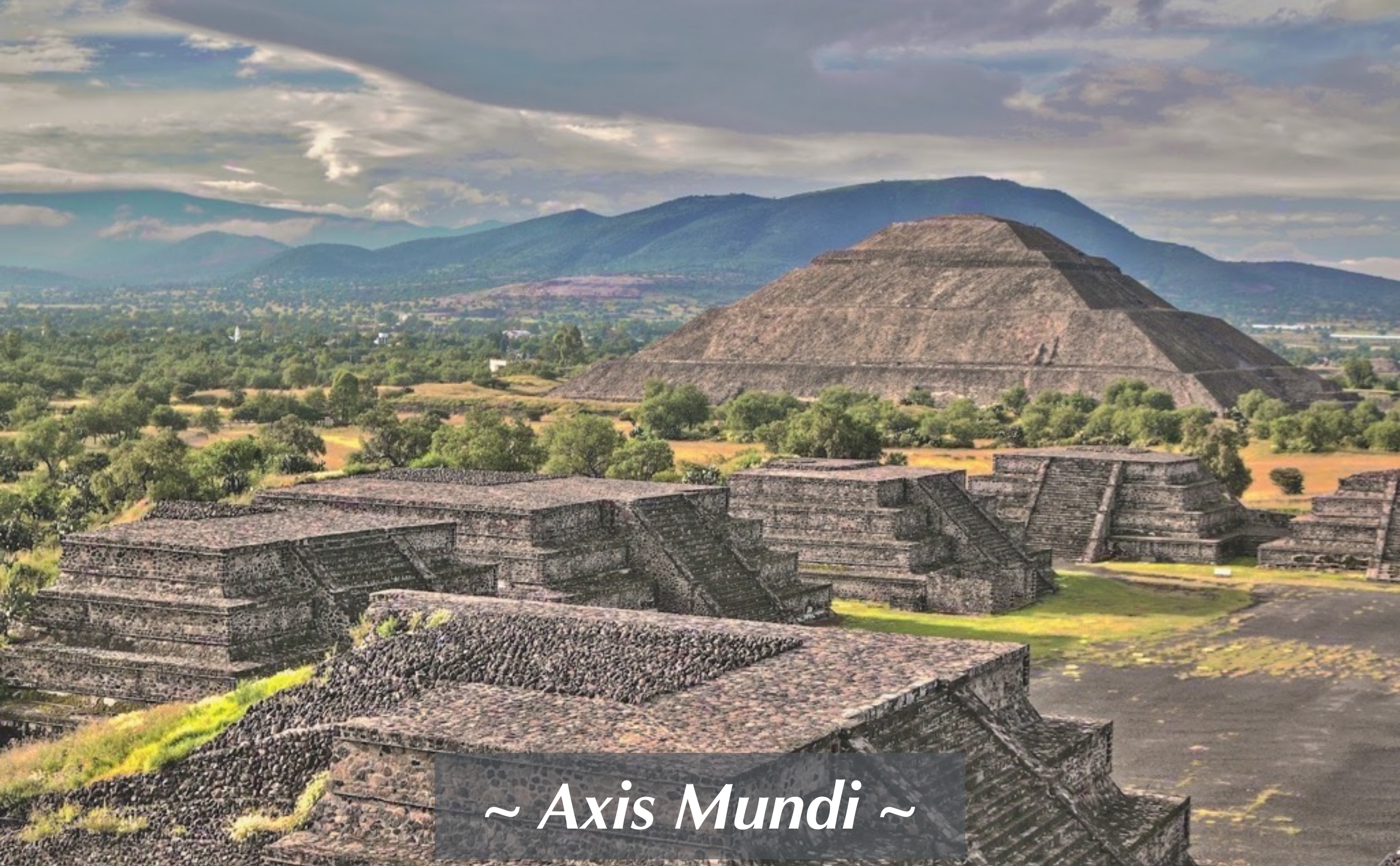
PYRAMID OF THE SUN

Pyramid of the Sun — an Axis Mundi
built over a massive cavern thought to be the
origin of the world

It also faced 15° North-of-West to align with
setting sun of the Summer Solstice

Larger in base than Great Pyramid of Giza
but half the height

***Therefore — The Pyramid of the Sun
connected the underworld with the heavens***



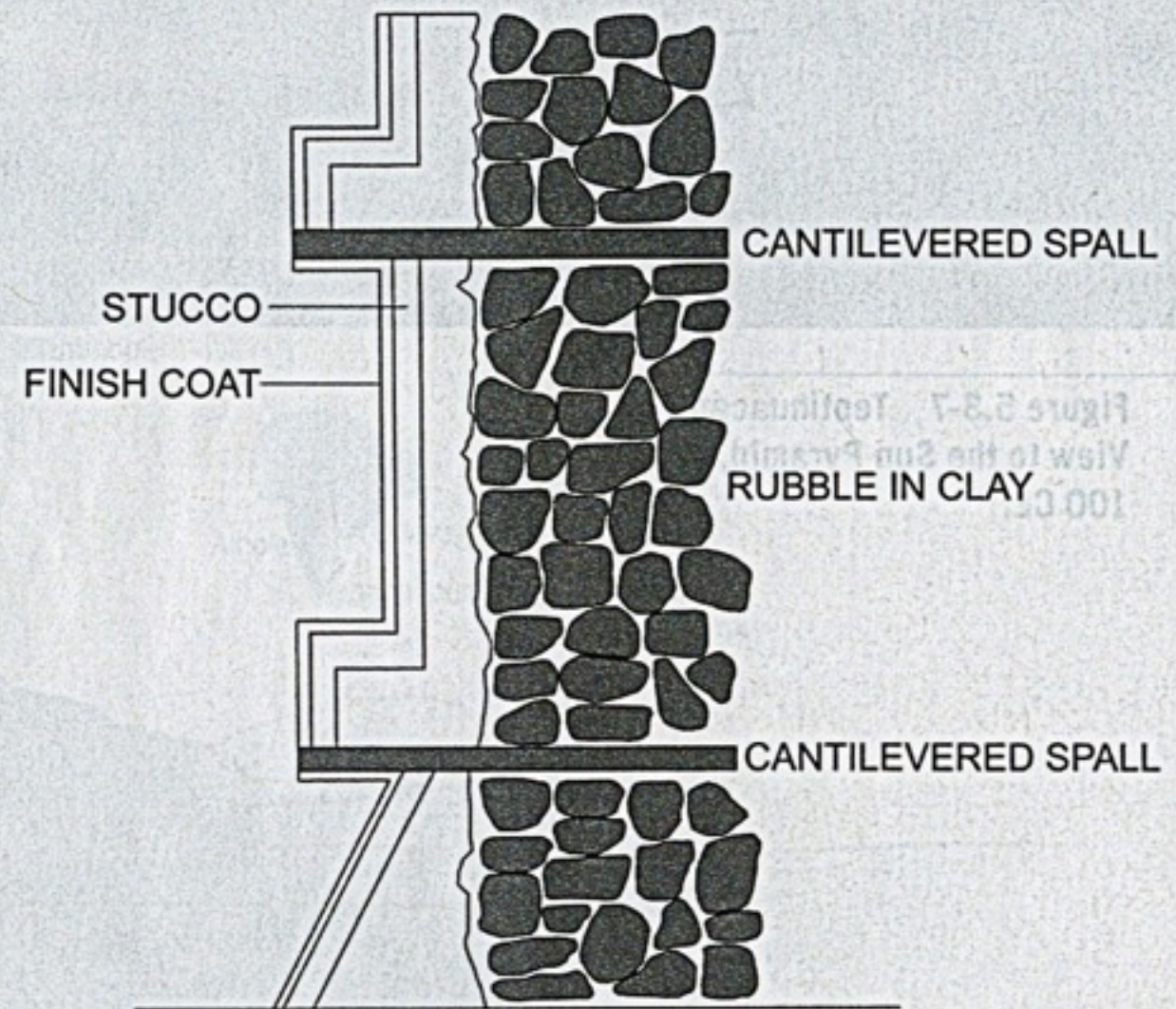
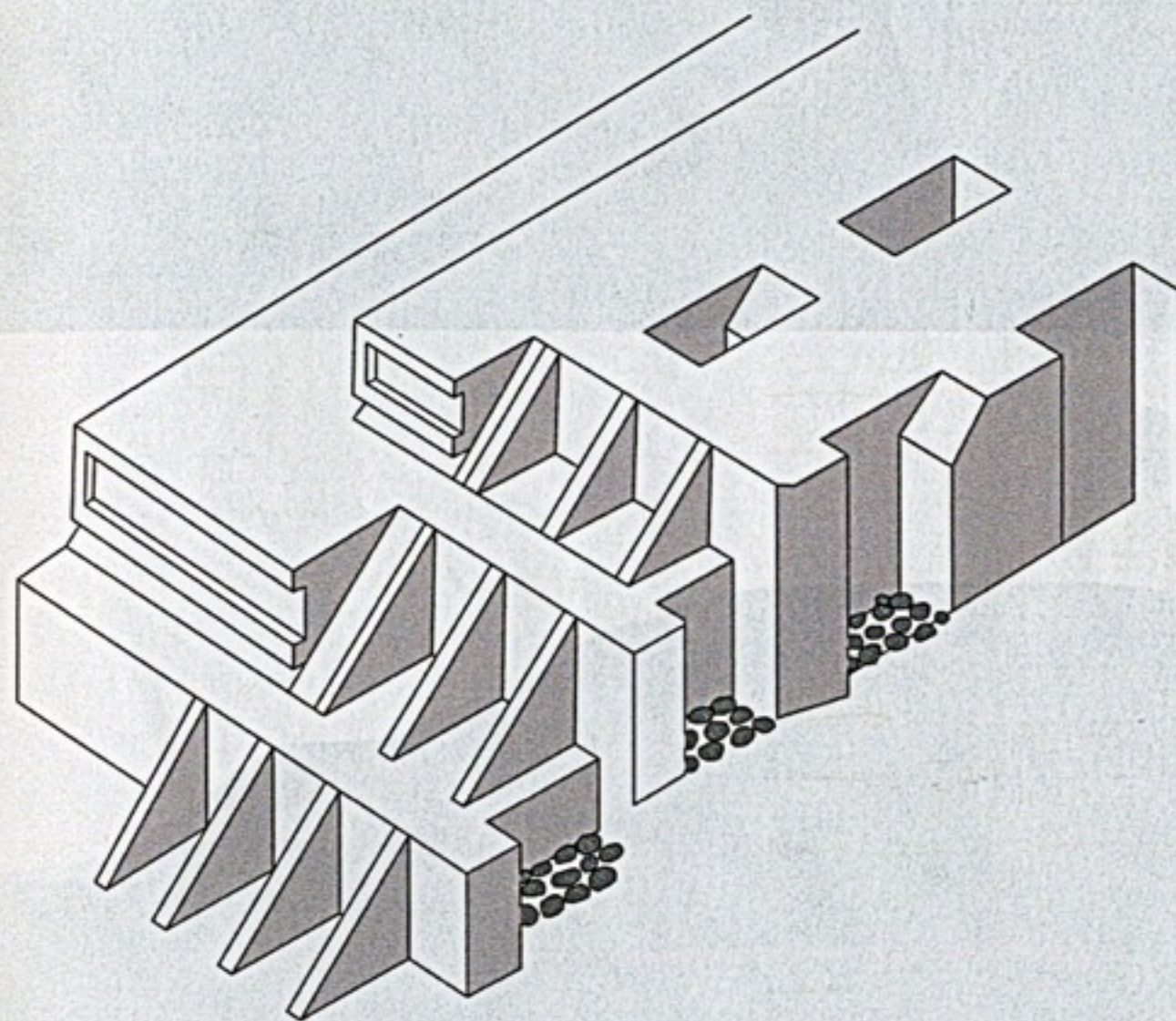
~ *Axis Mundi* ~

PYRAMID OF THE SUN



PYRAMID OF THE SUN

Building Techniques



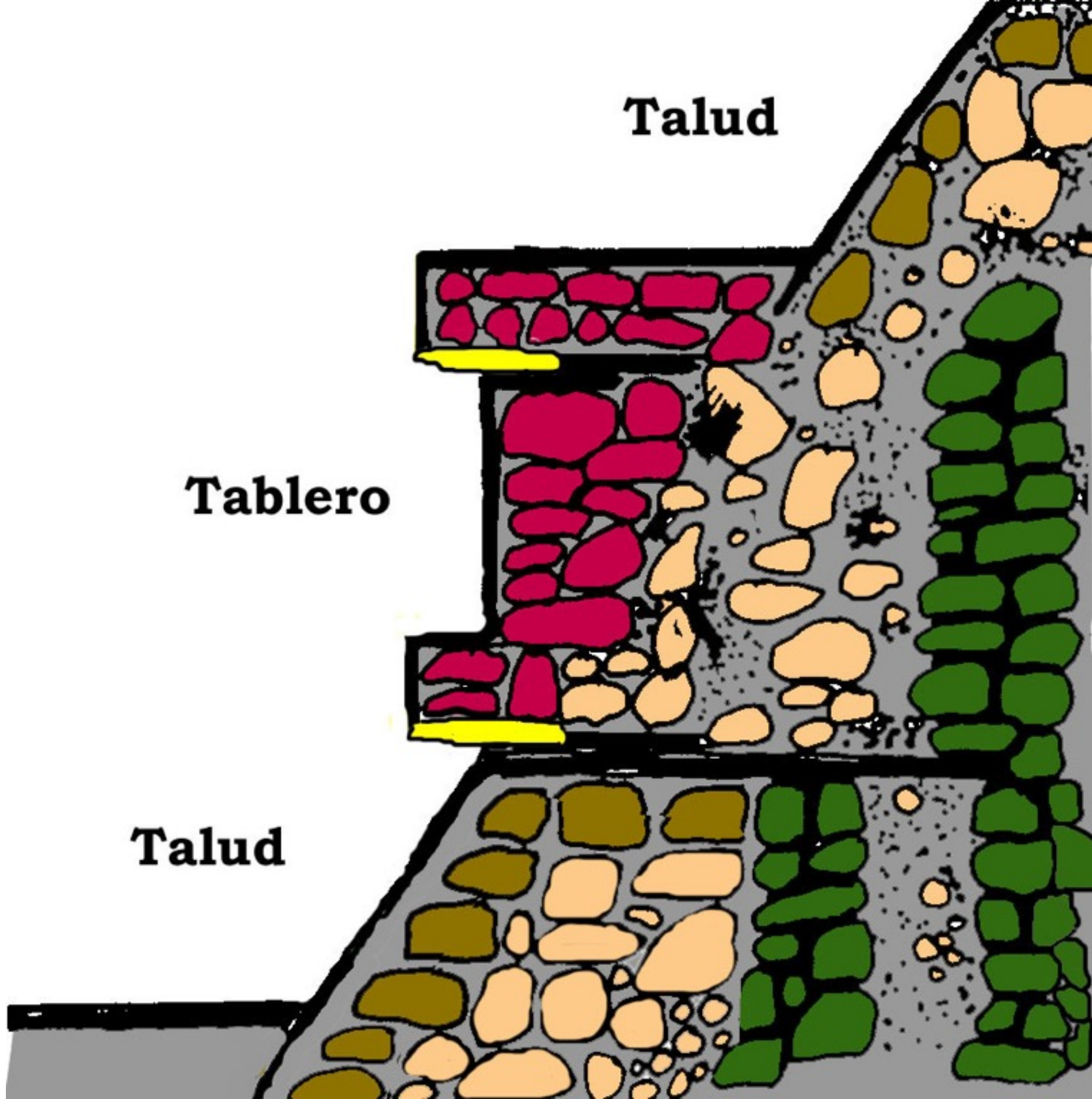
Talud-tablero, cutaway section (after Kubler).

Talud-Tablero

Talud

Tablero

Talud





Talud-Tablero *construction*



MAYAN CULTURE



THE RADIAL PYRAMID

(four-sided with a temple on top)



May have had religious or political significance; losers may have been killed; played with rubber ball and hips

THE COSMIC BALLCOURT

(this is the largest one at Chichén Itzá)

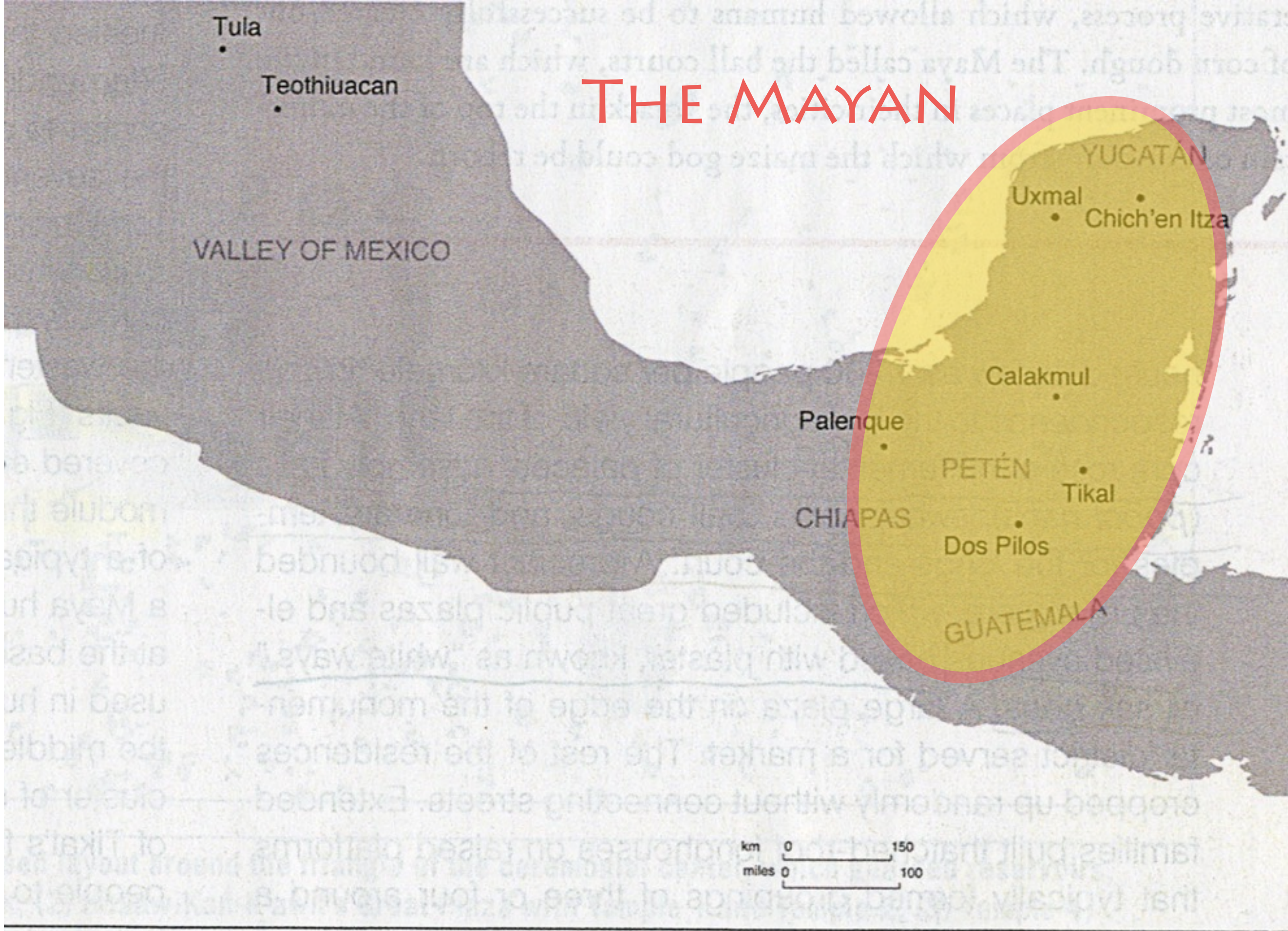
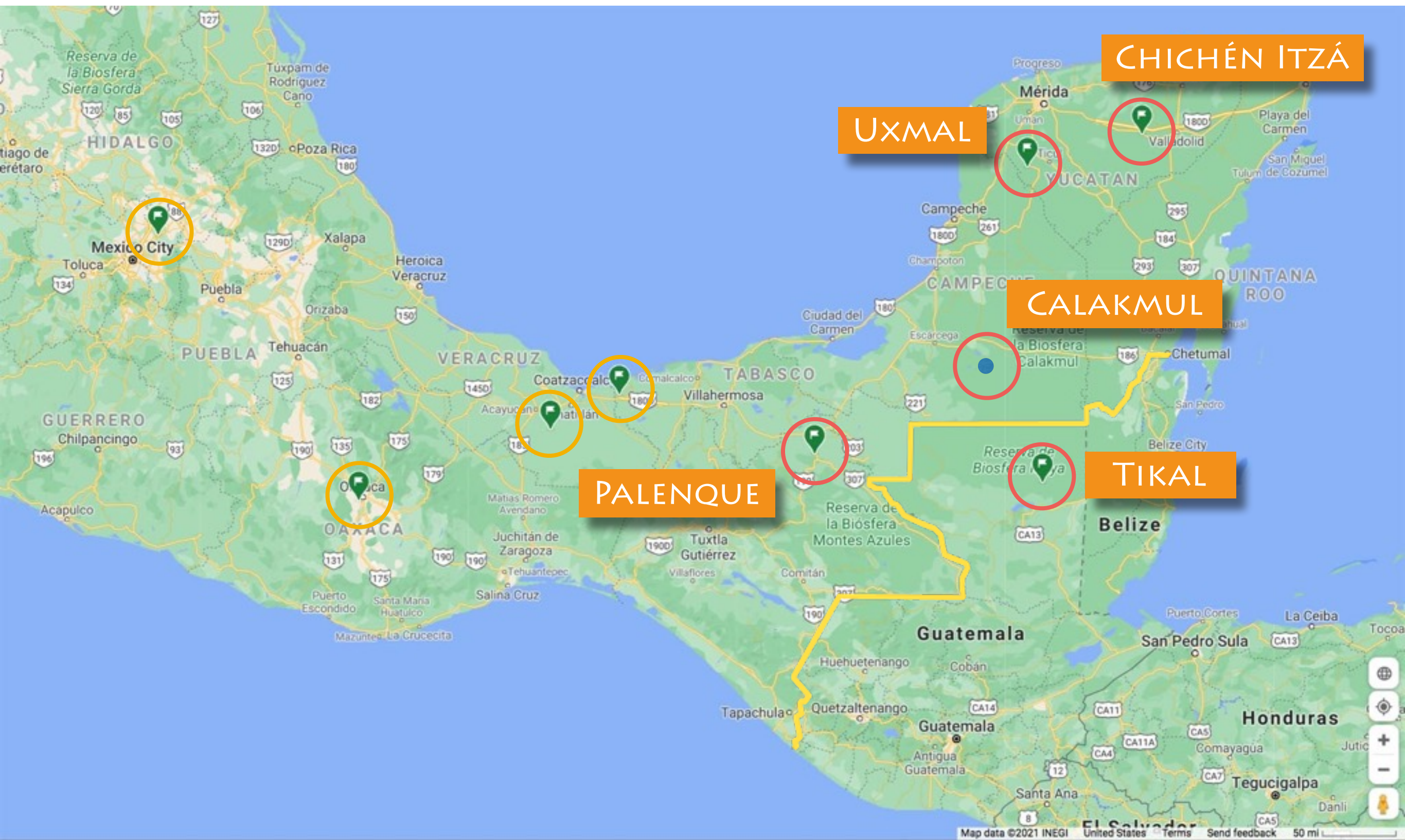


Figure 7.3-1 Map of Mayan lands between Mexico and Guatemala.



Mesoamerica sites of the Maya

Petén region (decline about **900 CE**)

Tikal (Guatemala)

Calakmul (Mexico)

About 100 BCE *Mayans* develop...

~ *hydraulics, irrigation, canals, reservoirs, terraces* ~

Populations less dense,
50,000 - 350,000

Major rebuilding of *Tikal* in *695 CE*
due to a victory over *Calakmul*



Tikal

Mayans considered
their pyramids to be
mountains

*(metaphorically
speaking)*

roofcombs on top



Tikal - Temples I & II in foreground

Palenque

Pakal is the king

Demurred to the greater power
Tikal - a successful political move



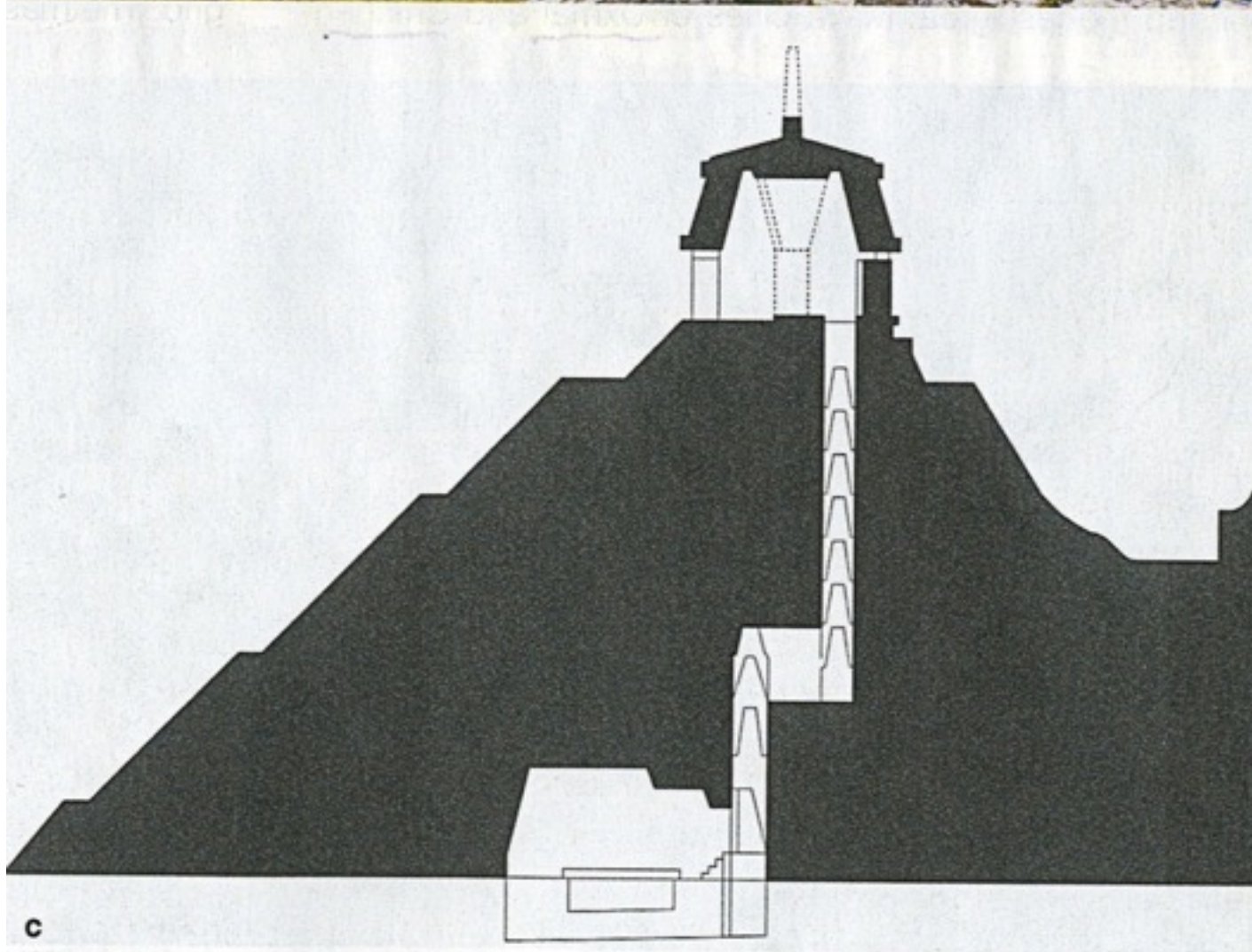
Pakal's palace

aqueduct on corbeled vaults — **corbeled groin vaults**
carved orthostats telling narratives



Pakal's tomb

675 CE

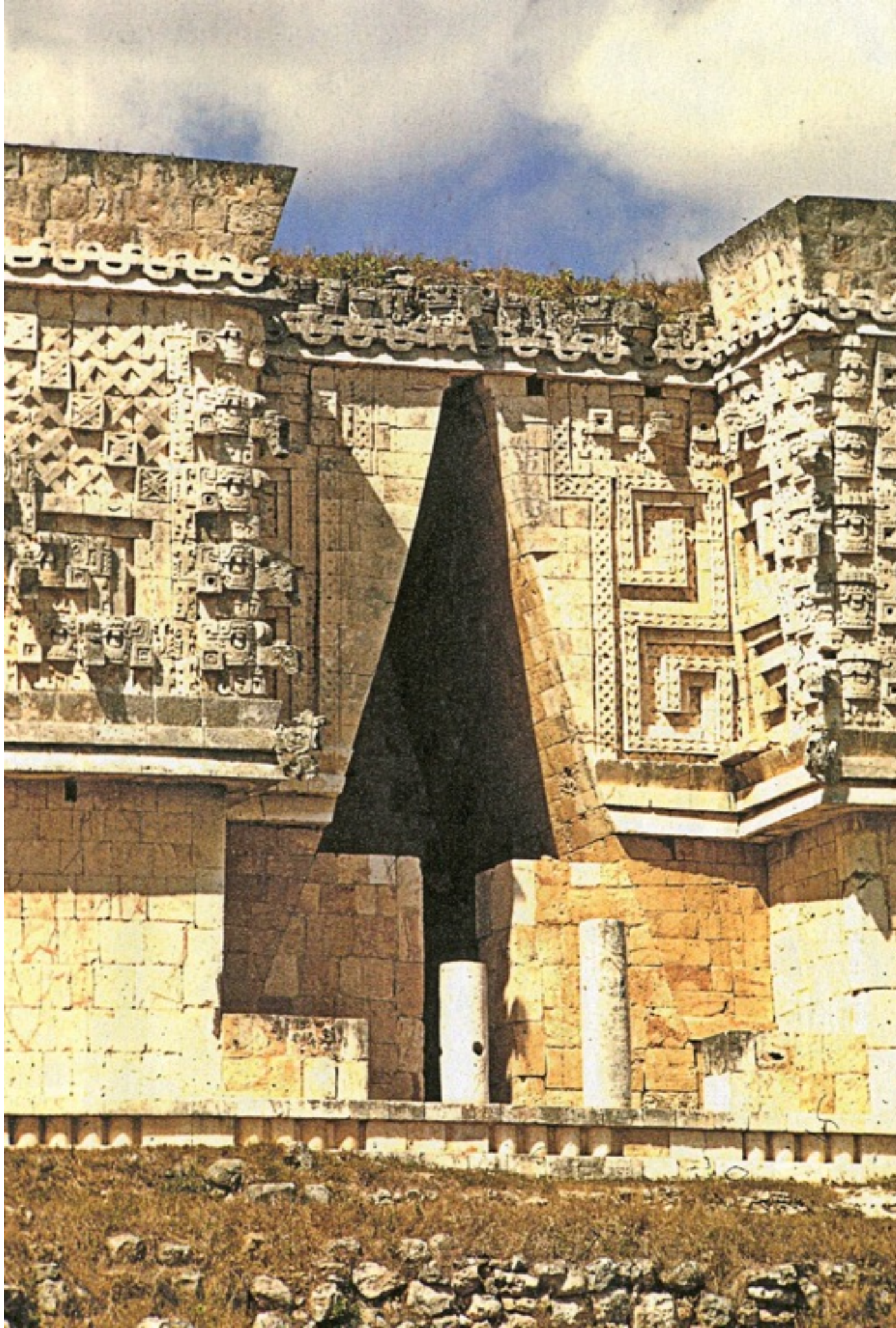


After the decline of the *Petén* region
in about **900 CE**,
the last two major Mayan cities
emerged in *Yucatan*

Uxmal and *Chichén Itzá*



Uxmal



Uxmal

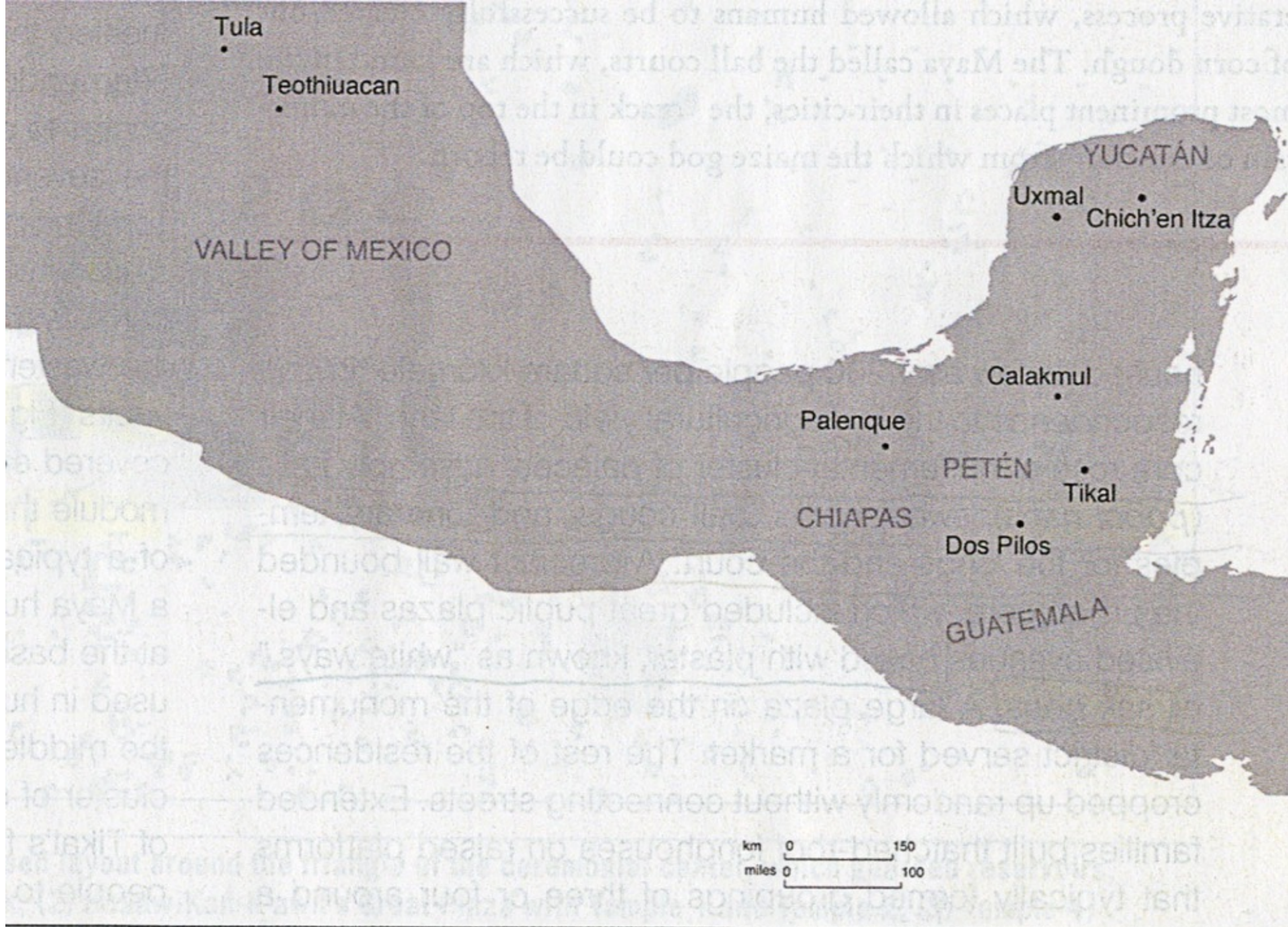


Figure 7.3-1 Map of Mayan lands between Mexico and Guatemala.

Chichén Itzá

Meaning “At the mouth of the well of the Itzá”

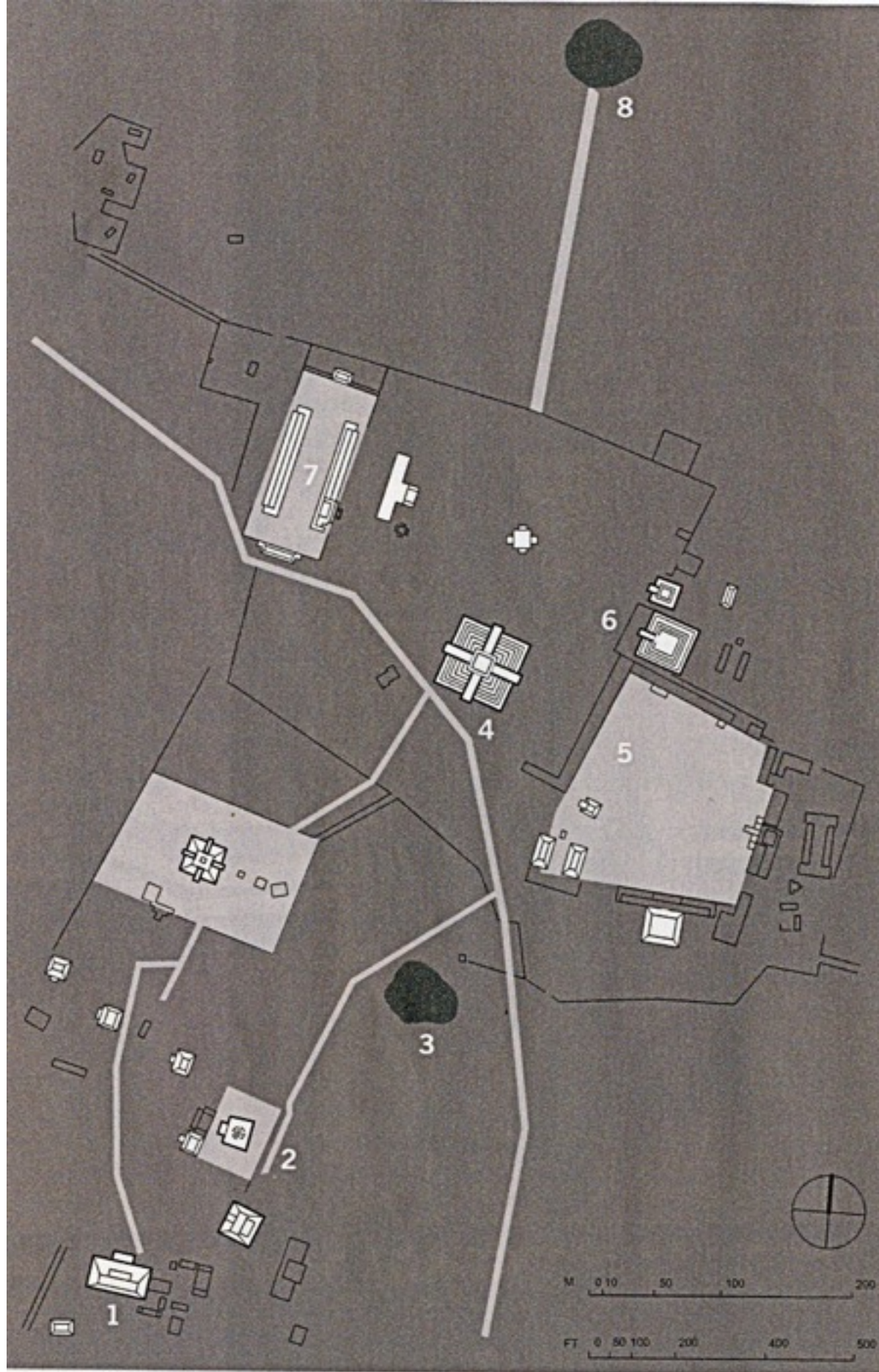


Figure 7.3-9 Chichén Itzá, Mexico. Plan: (1) The Nunnery; (2) El Caracol observatory; (3) small *cenote* watering hole; (4) El Castillo radial pyramid; (5) 1,000 columns; (6) Temple of the Warriors; (7) ball court; (8) large *cenote* watering hole.



Figure 7.3-11 Chichén Itzá, Mexico. El Castillo radial pyramid, ca. 890.

Chichén Itzá's radial pyramid



Twice a year on the equinox,
a shadow develops on the
pyramid's stair in the shape
of a descending serpent



DO YOU SEE
THE SERPENT?



Chichén Itzá's Observatory called the *Caracol*

Aligned with the
northernmost positional
extreme of Venus



Figure 7.3-12 Chichén Itzá, Mexico. Temple of the Warriors and Group of a Thousand Columns, ca. 900.

Temple of Warriors at Chichén Itzá

Last of Mayan cities abandoned by
950 CE

end