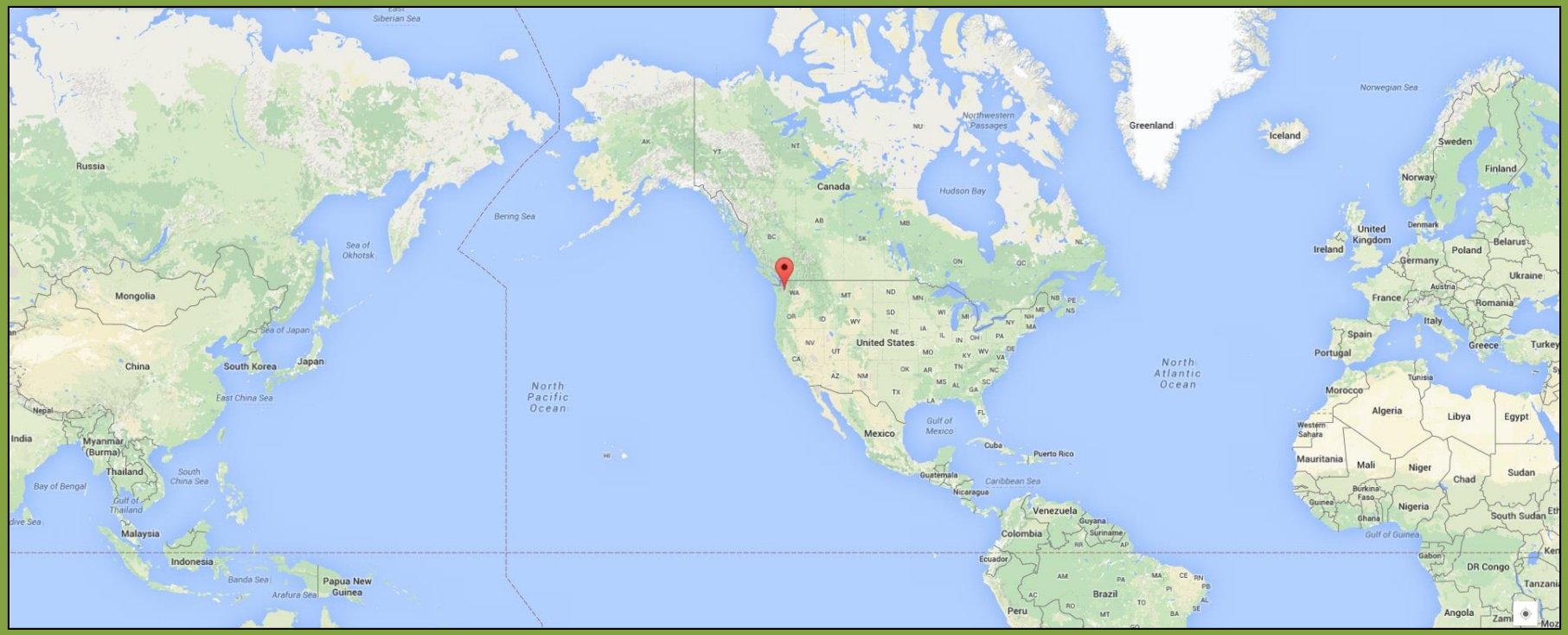
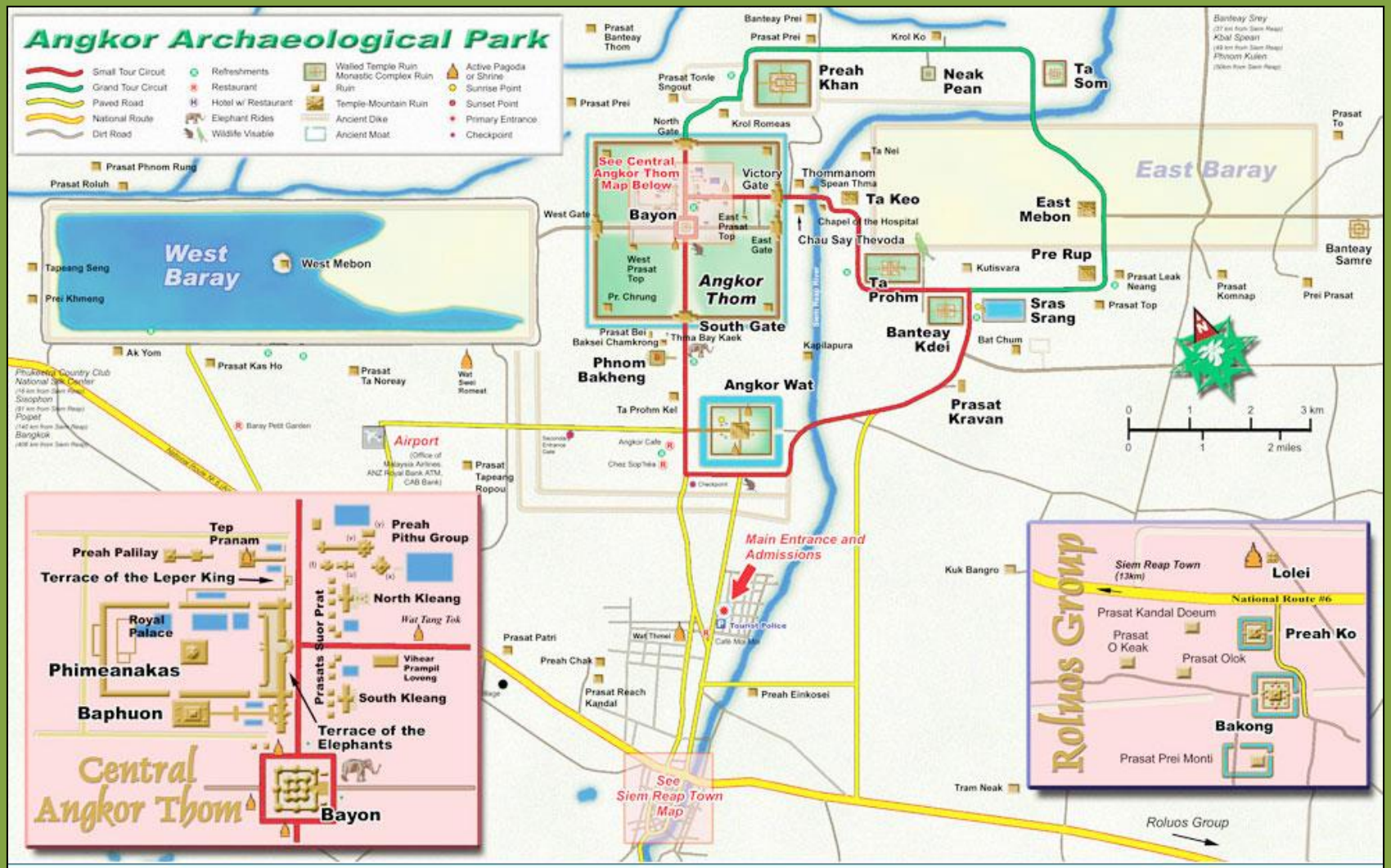
Architecture in Cambodia



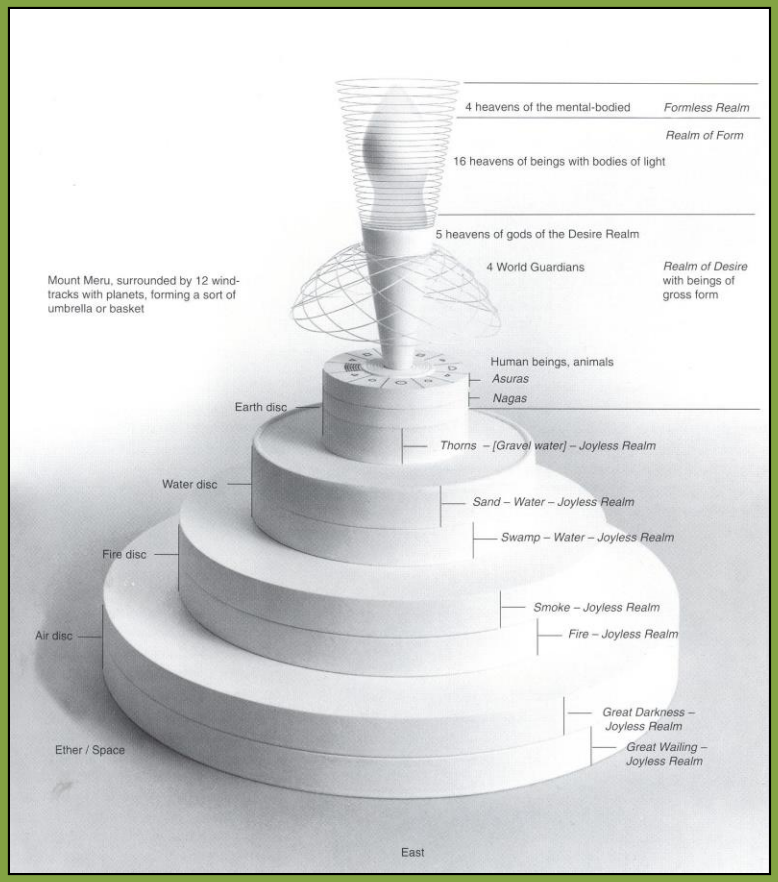
Khmer Empire at it's height compared to the size of Cambodia today – Angkor was it's capital

Angkor Archaeological Park



Angkor Archaeological park

Angkor - Mount Meru



Home of the Indian Gods in Hinduism and Buddhism;
Angkor Temples are designed to represent this

Angkor Temples of the Khmer Empire

Banteay Srei

Bakheng

Angkor Thom

Angkor Wat

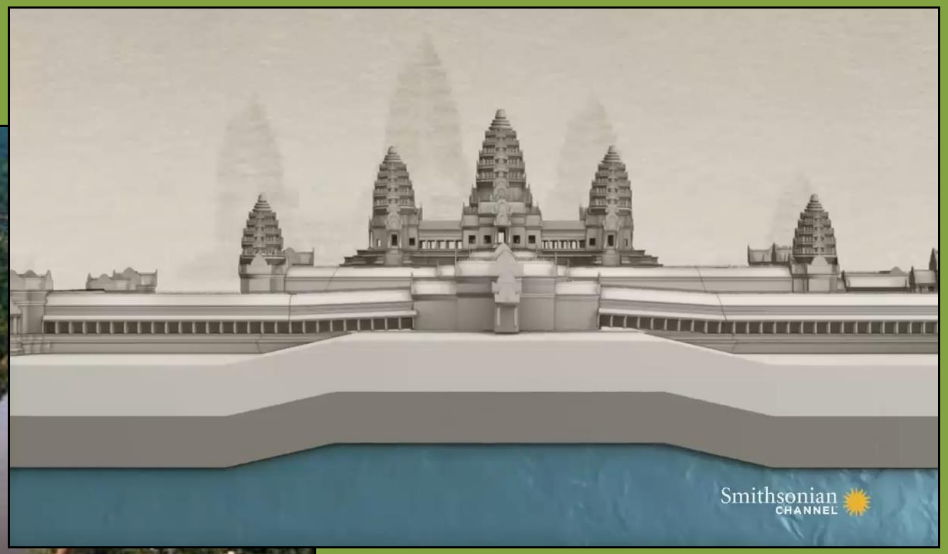
Shiva the Destroyer (Shiva Nataraja);
Most of the temples at Angkor are dedicated to this God.

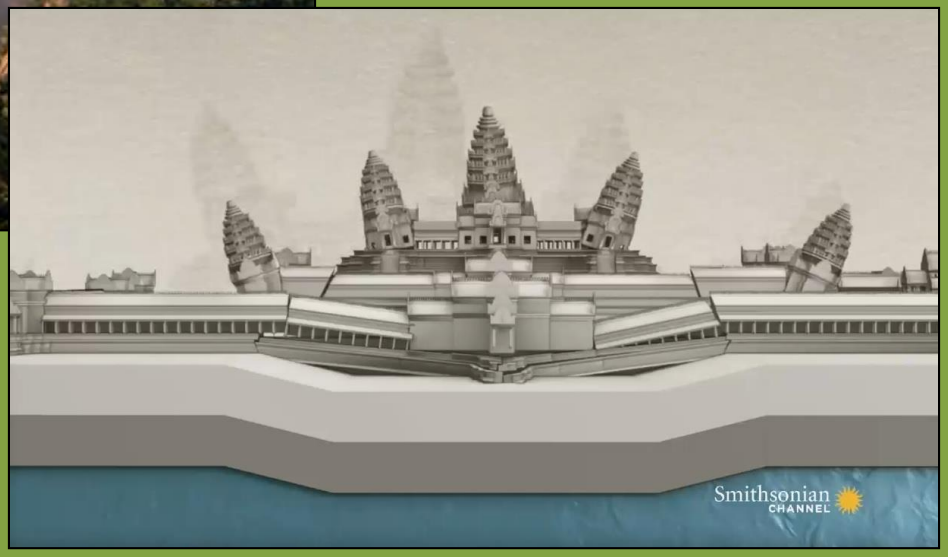
Angkor - Stones quarried at Phnom Kulen (“Mount Kulen”) floated down Siem Reap River to Angkor

Angkor – Elephants, slave labor and rafts on the Siem Reap river and man made canals used to get the stone to the building site

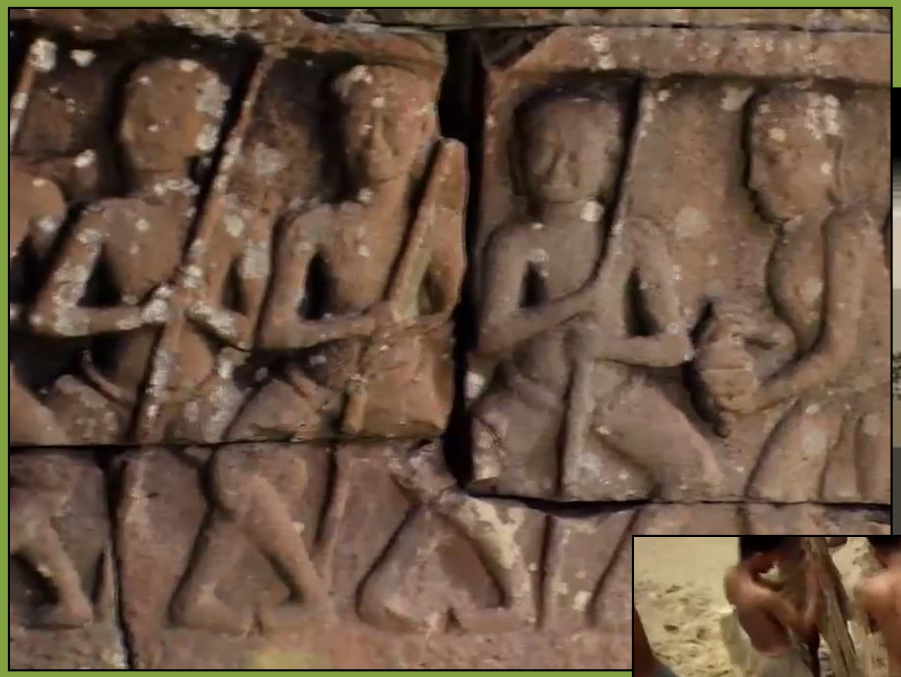
Angkor – Stone blocks were separated by chiseling a groove and then using metal or wooden wedges to break the stone into the desired size

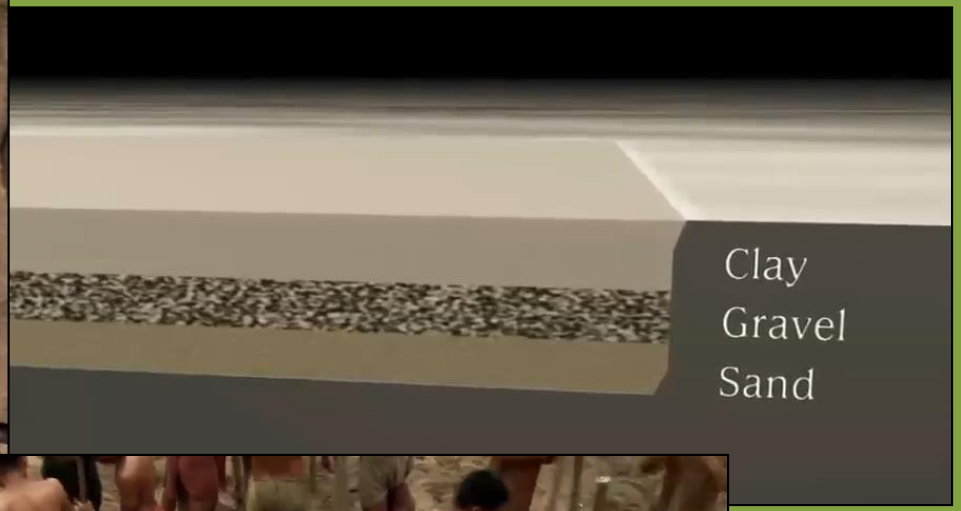
Angkor – The moats surrounding the Khmer temple cities keep the water table constant in both flood and drought seasons





Angkor – Foundations for the temples were dug out over 30’ deep, compacted with large sticks and then filled with sand, gravel, and clay





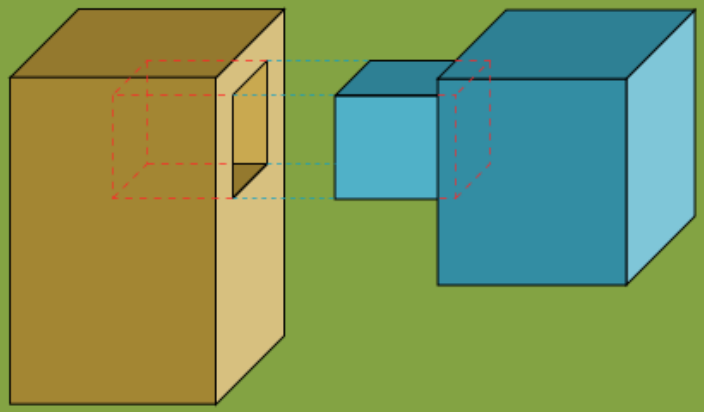
Angkor – Stones were ‘dressed’ (rubbed smooth) so that they would fit together perfectly without the use of mortar.

Angkor – Stones were ‘dressed’ (rubbed smooth) so that they would fit together perfectly without the use of mortar.

Referred to as a
Razor Joint

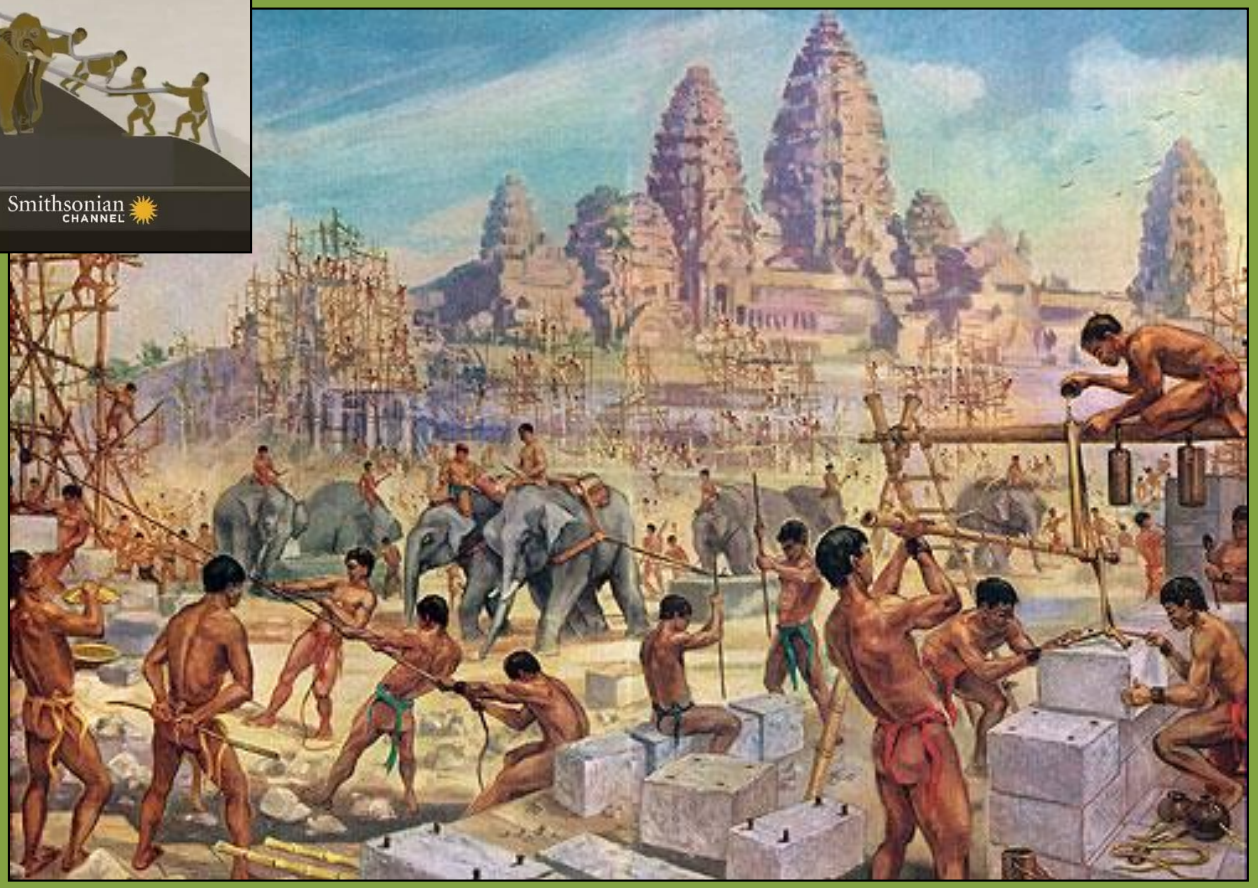
Angkor: Razor Joints provided smooth surfaces for wall carvings called Bas-reliefs

Angkor - Mortis and Tenon (Cavity and Projection)

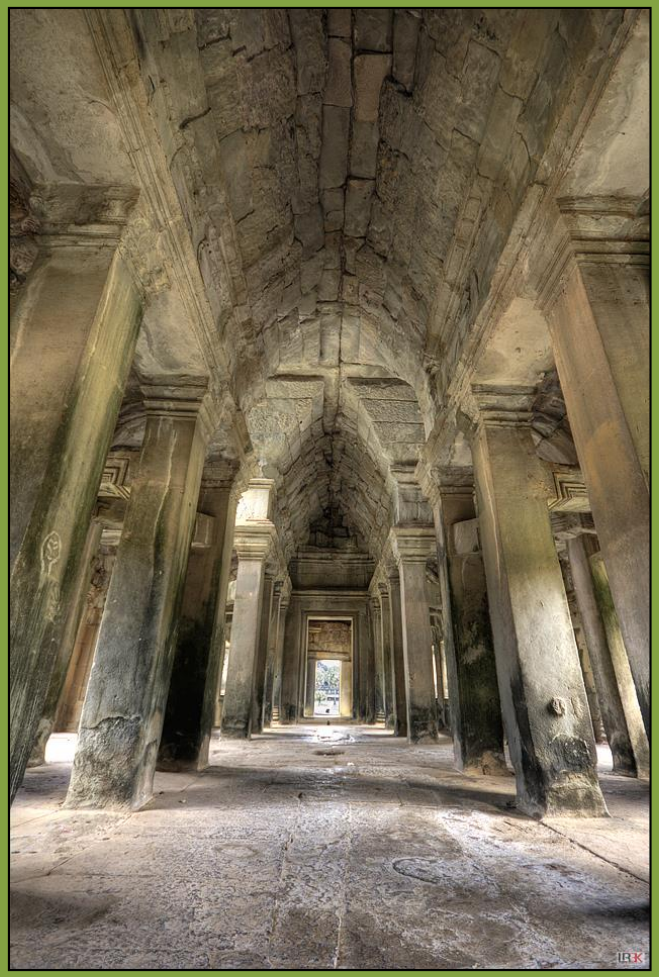


Angkor - Khmer Architecture: Labor

Humans and Elephants,
Ropes, Scaffolding



Angkor – Corbel Arches Limited how high the Khmers could build

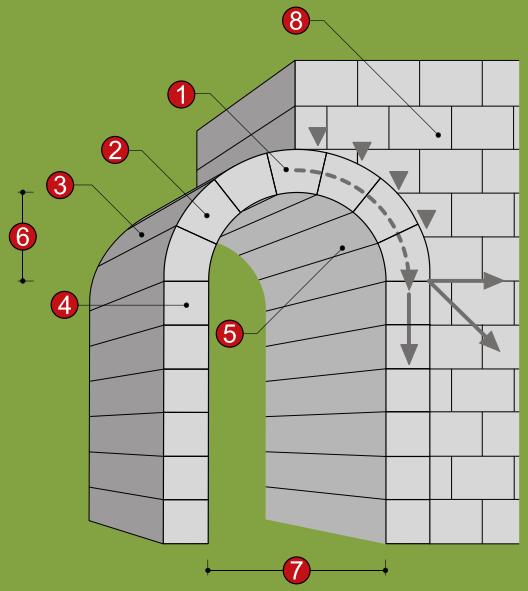


Angkor Wat

Angkor Thom

Khmer Architecture: What they didn't have….

Mortar



True Arch

Modern Construction Equipment

Angkor: Raw materials used by the Khmer

Brick

Sandstone

Wood

Laterite

Stucco (Lime/Sand)

Gold Leaf

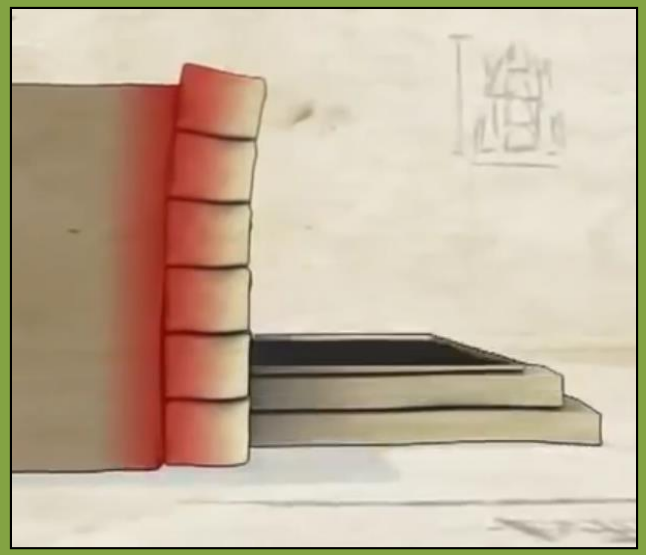
Angkor – The Khmer temples would have been white lime plaster with gold leaf

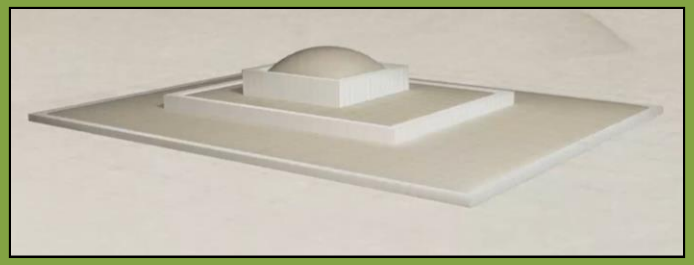
Angkor: Khmer temples were enclosed by concentric walls

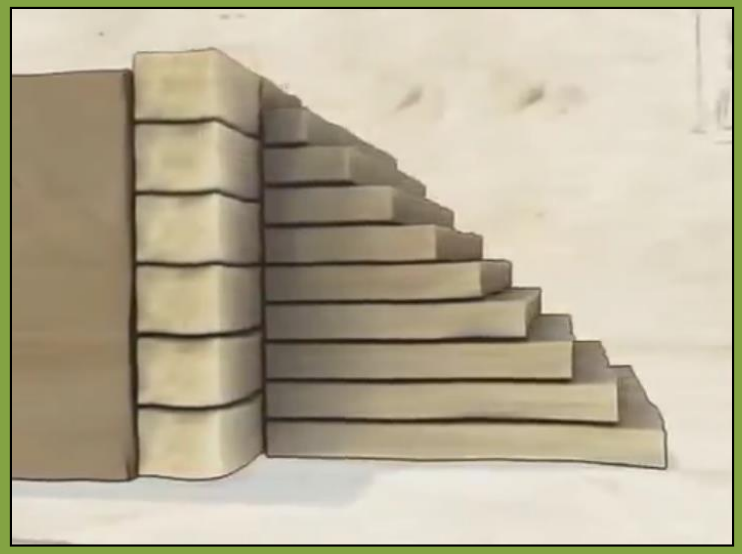
Angkor Wat Temple

Angkor – The concentric walls were made of laterite on the inside and carved sandstone on the outside.

Angkor – Each of the concentric walls encloses a higher level, supported by an early type of buttressing

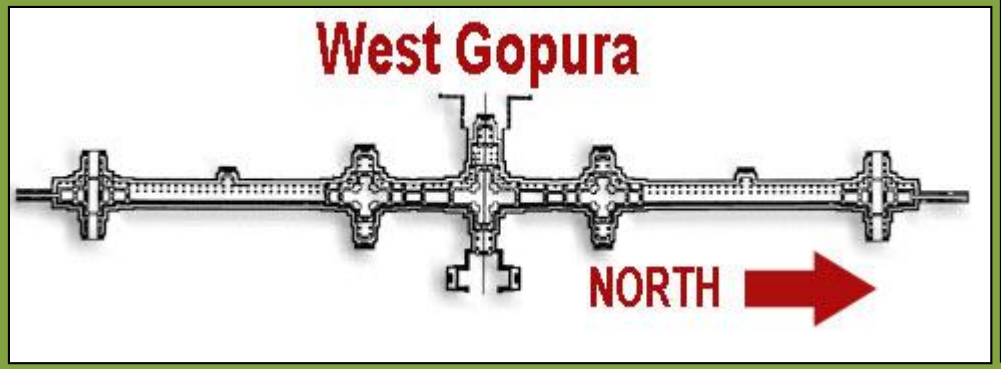






Angkor – A Gopura is a building that provides passage through the outside walls

Angkor Wat; Gallery with a Gopura at the corner



Angkor Thom Gopurams

Angkor: Hall of Dancers

Banteay Kdei

Preah Khan

Angkor: Libraries

Angkor Wat Temple

Preah Khan

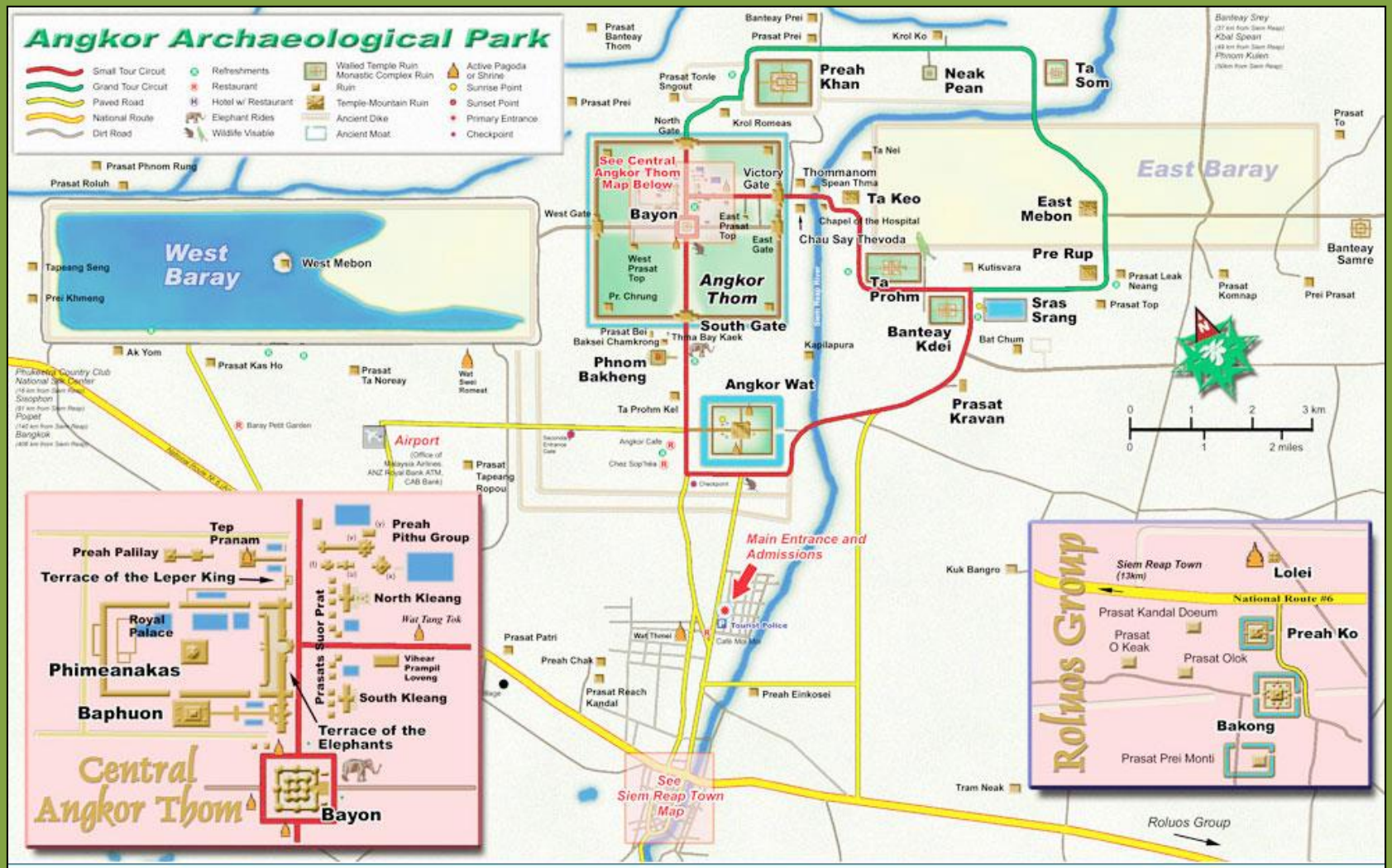
Angkor: House of Fire

Preah Khan

Ta Prohm

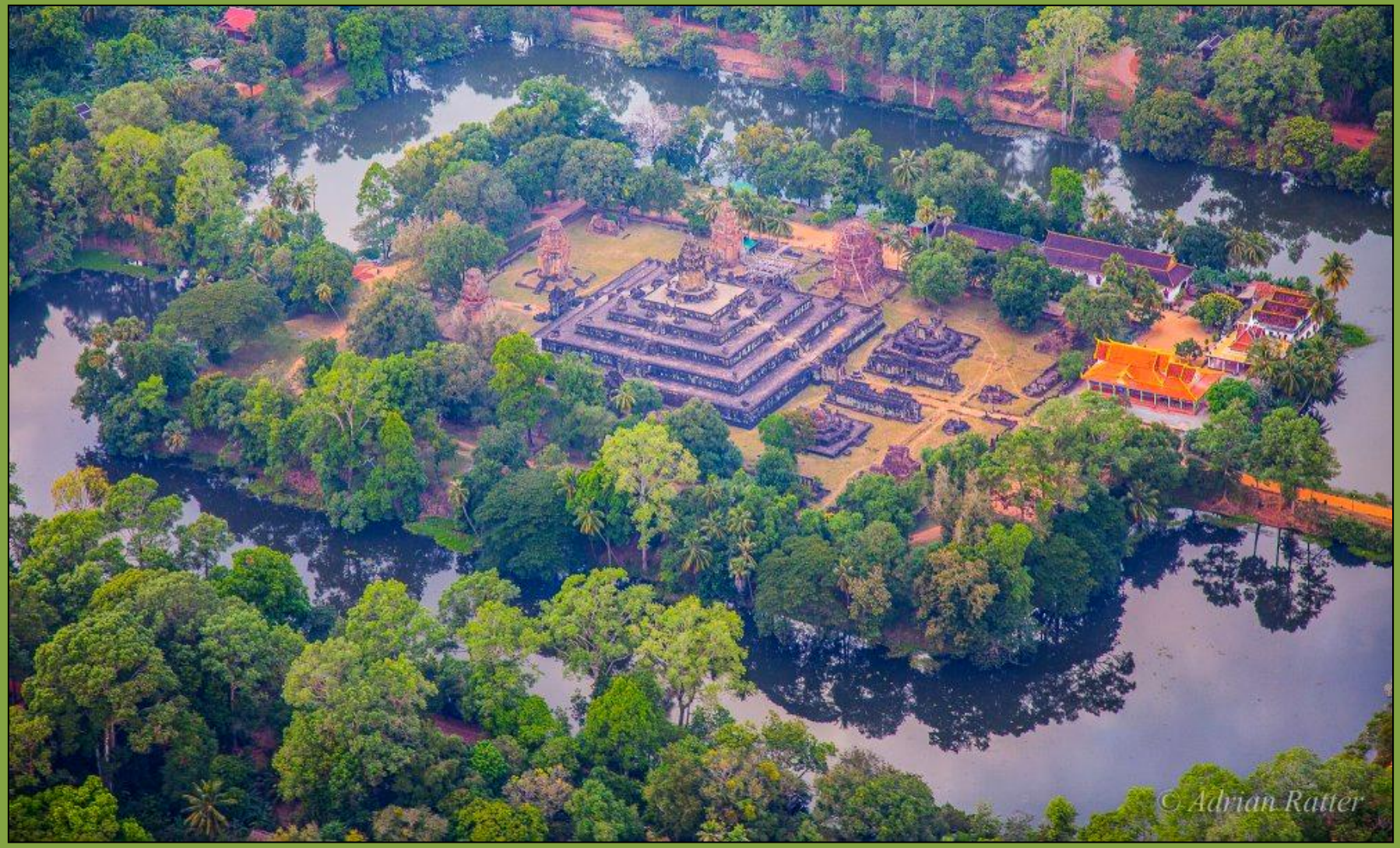
Angkor: Less important structures like dwellings were made of wood

Angkor: Bakong Temple; Completed +/- 877 AD



Angkor Archaeological park

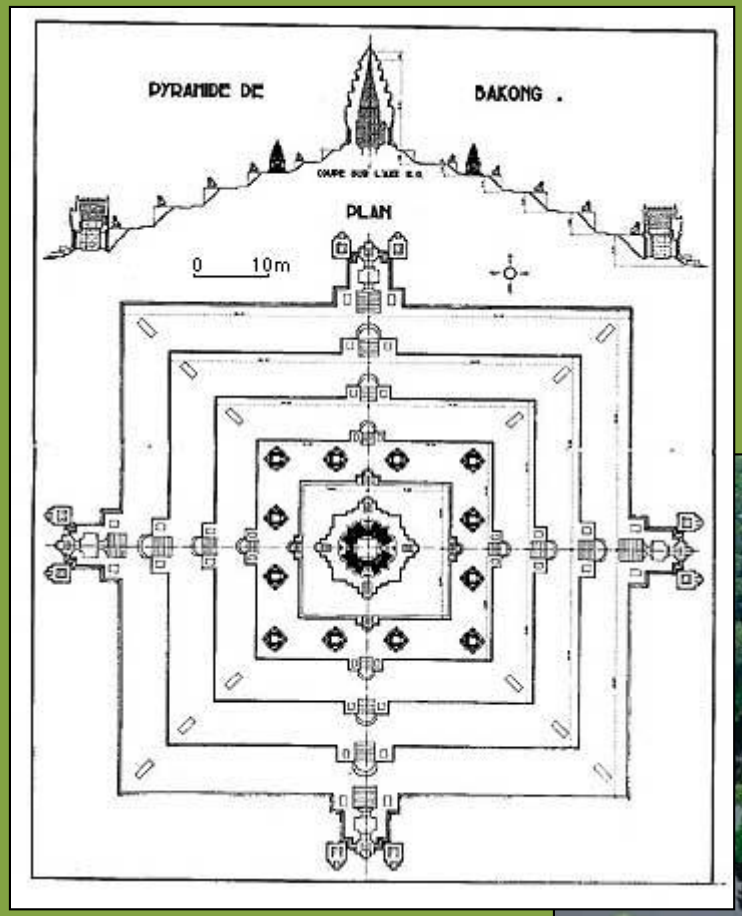
Angkor: Bakong Temple, built by King Indravarman, who also built the first irrigation system



Angkor: Bakong, 1st Stone temple. It's a step pyramid dedicated to Shiva

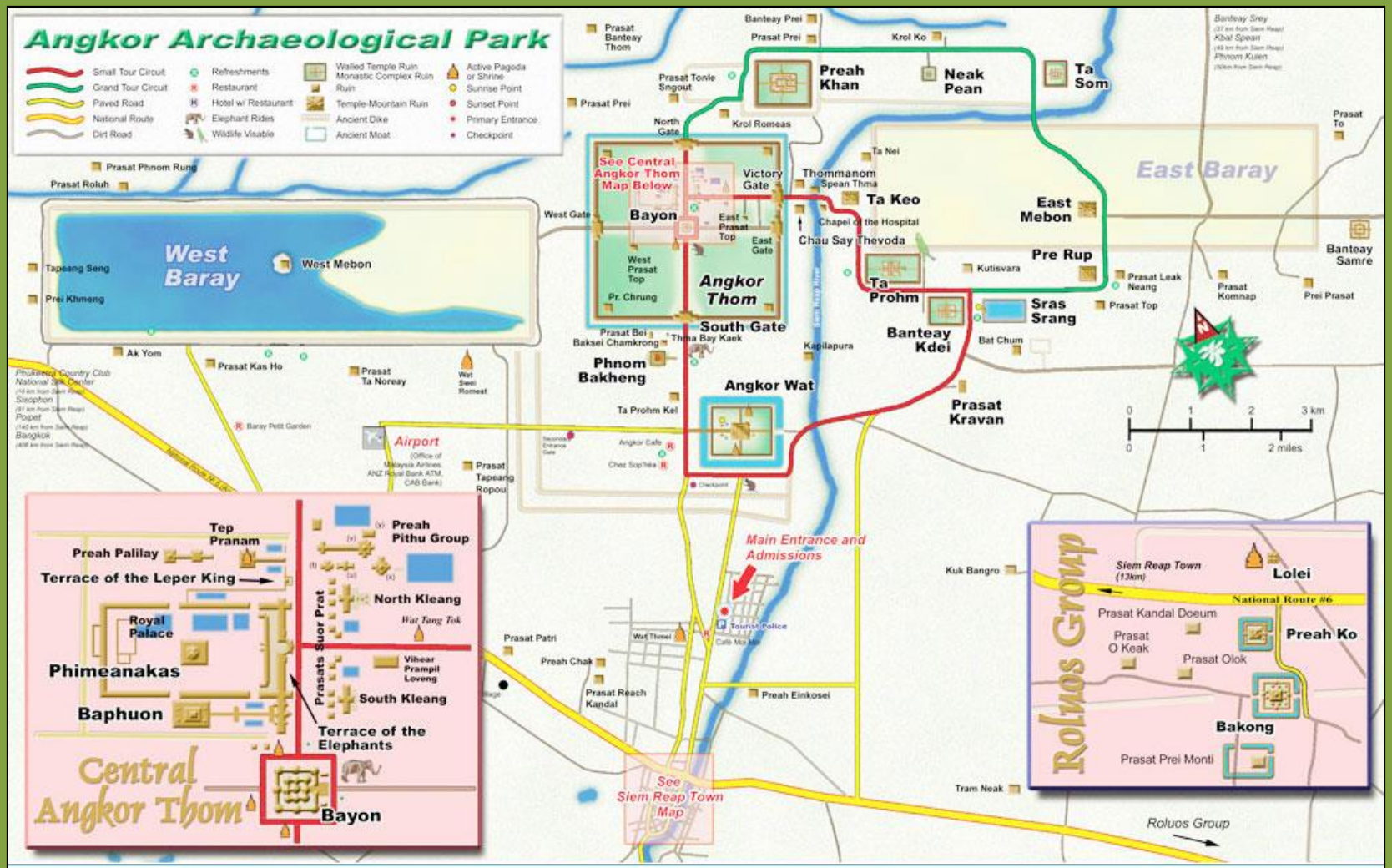
Step Pyramid of Djoser, 2650 BC

Angkor: Bakong temple, 50’ tall and over 200’ across



Angkor: Bakong Temple, central tower added about 250 years later – during the time Angkor Wat was built.

Angkor: Phnom Bakheng Temple, built by King Indravarman's son King Yasovarman I



Angkor Archaeological park

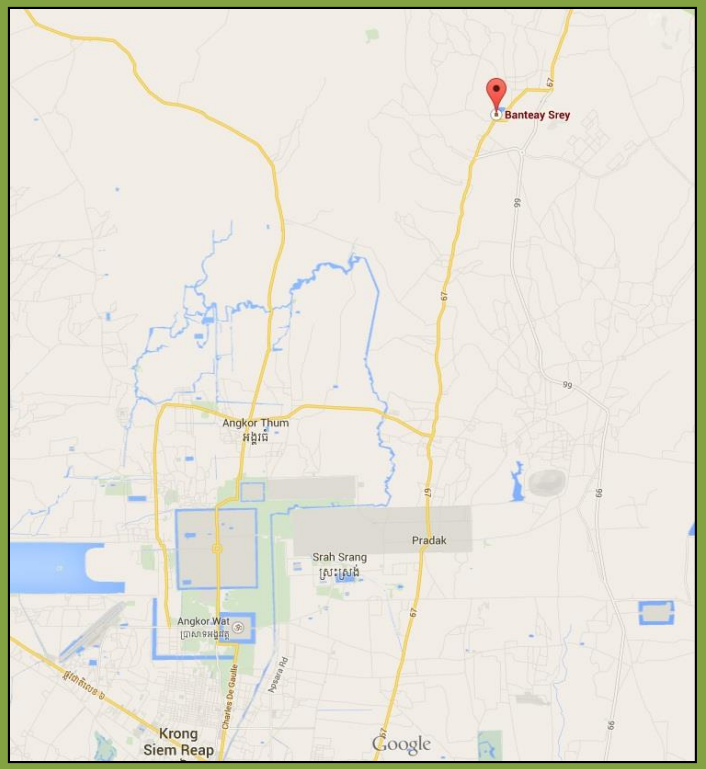
Angkor: Phnom Bakheng Temple (+/- 889 AD) - it was dedicated to Shiva and is also a step pyramid

Angkor: Phnom Bakheng Temple, symbolic representation of Mount Meru

Angkor: Phnom Bakheng Temple; Originally there were 108 small towers around the temple and on its tiers

Angkor: Banteay Srey (Srei) Temple, Citadel of Beauty

Angkor Archaeological park

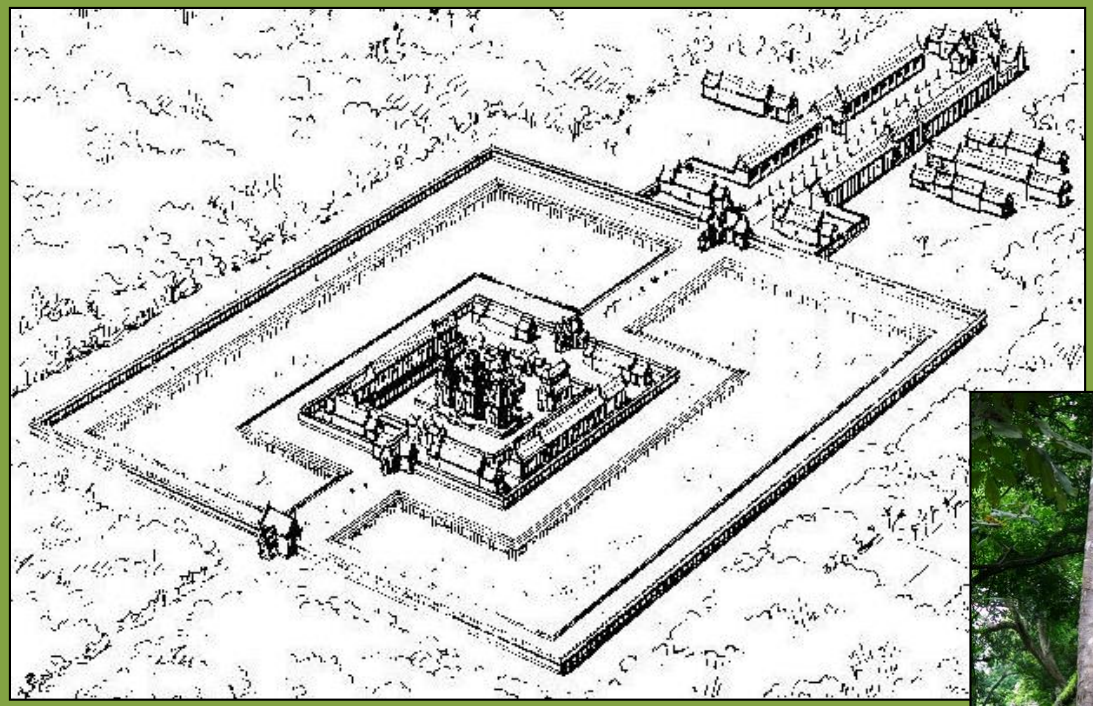


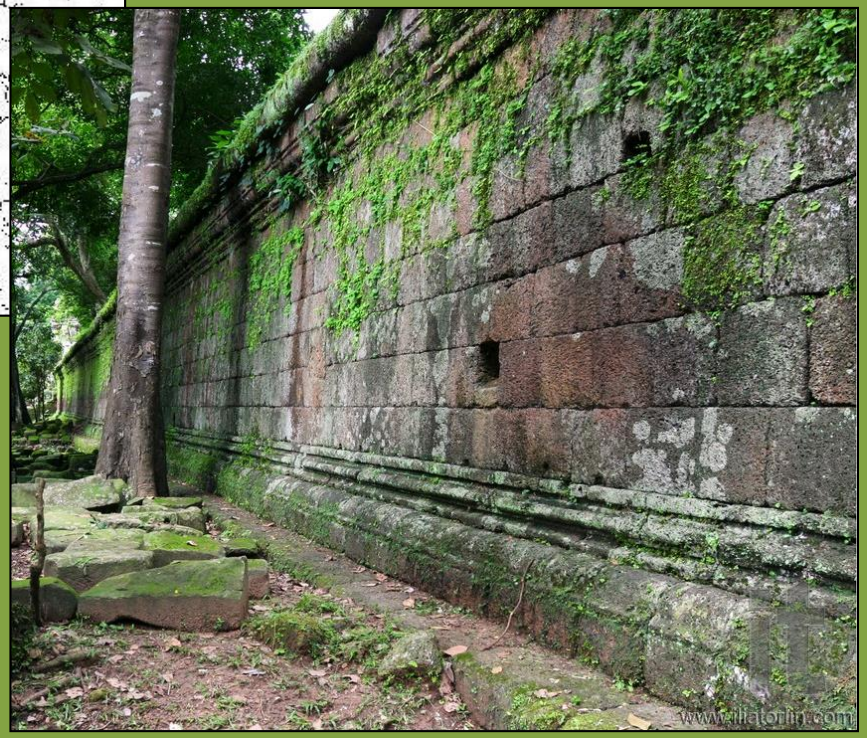
Angkor: Banteay Srey (Srei) Temple; Completed in 967 AD by King Jayavarman V

Angkor: Banteay Srey (Srei) Temple, Bas Reliefs

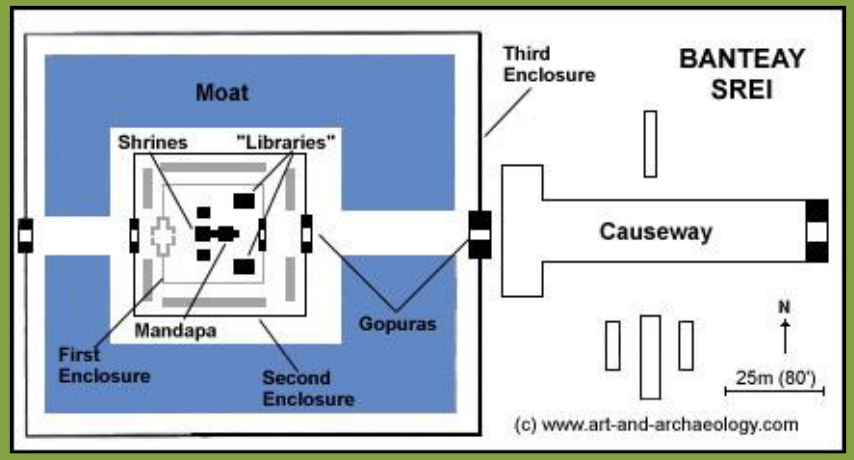
Compared to Angkor Bas Reliefs

Angkor: Banteay Srey (Srei) Temple; Made of pink sandstone, brick and laterite



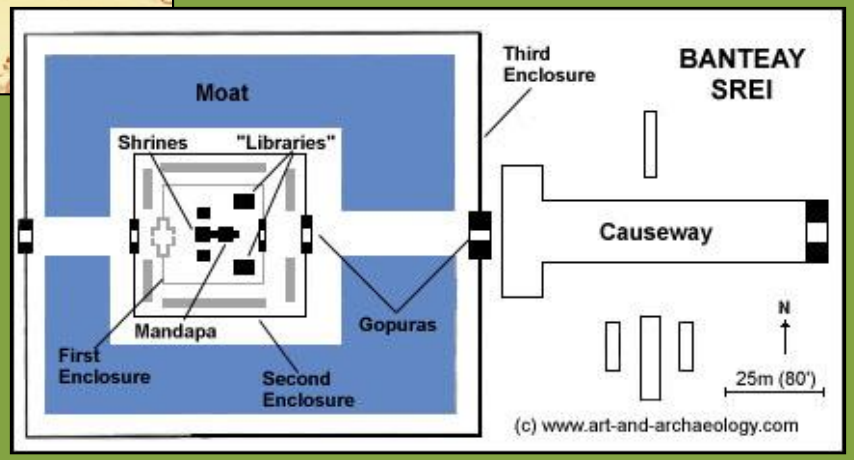


Angkor: Banteay Srey (Srei) Temple, dedicated to Shiva

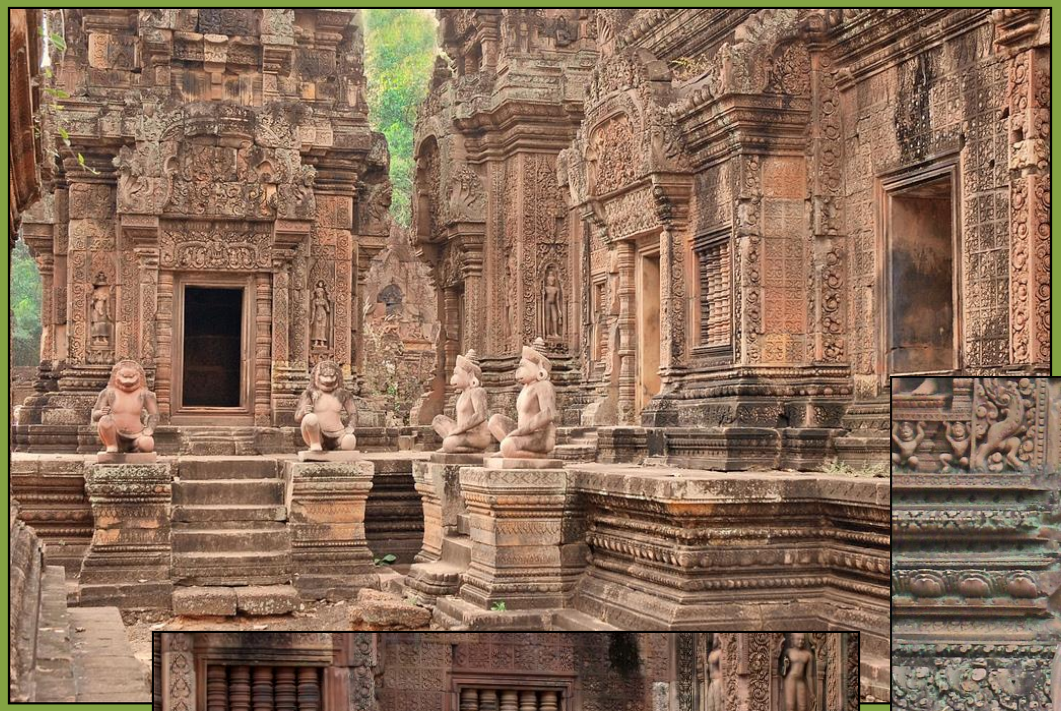


Banteay Srey (Srei) Temple ; the Libraries

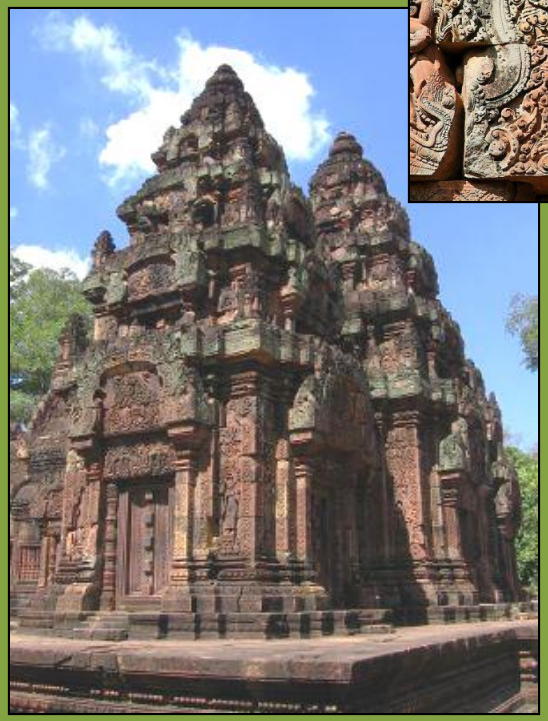
Banteay Srey (Srei) Temple ; Entrance chamber called the Mandapa



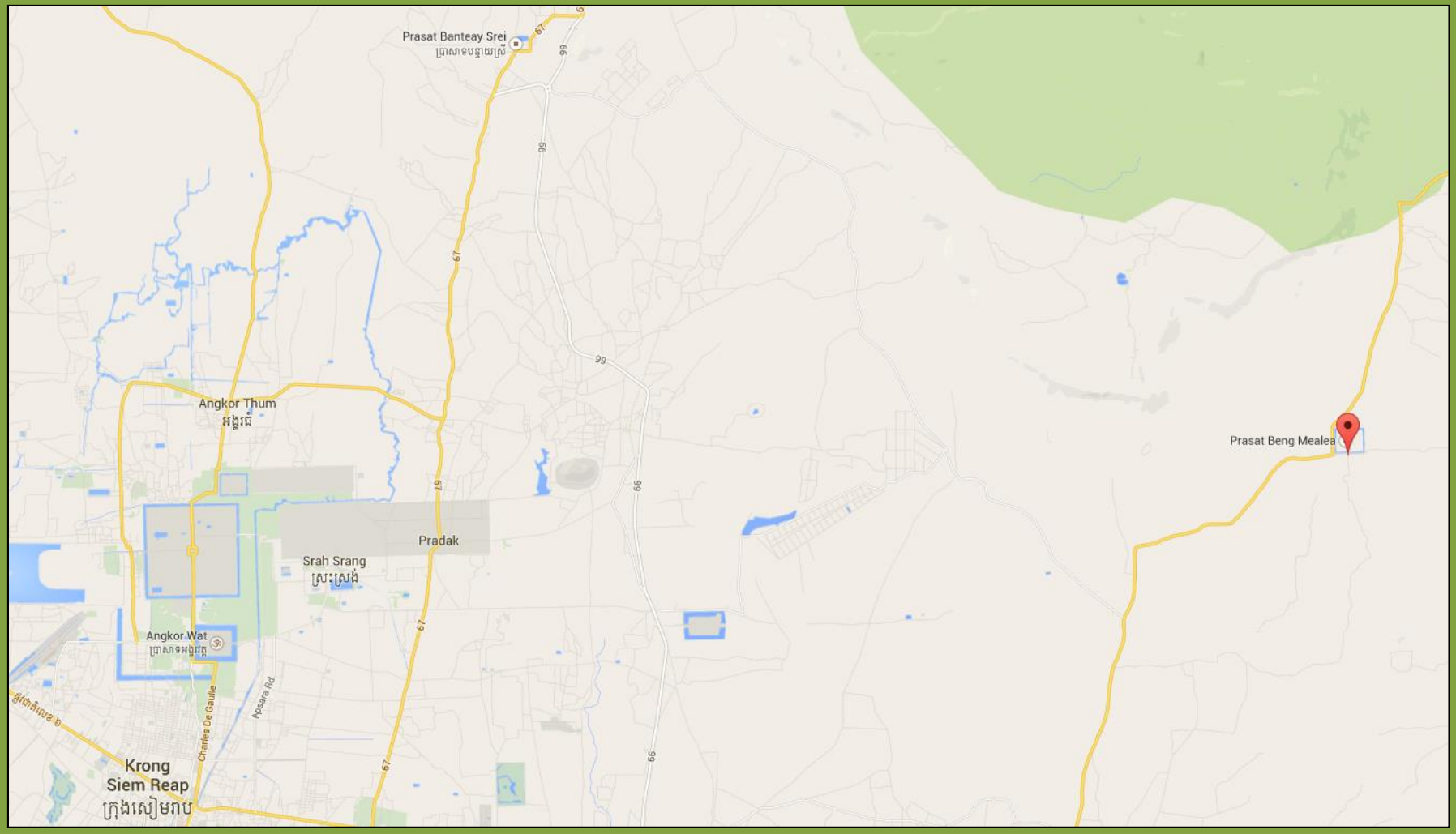
Banteay Srey (Srei) Temple; Stone Guardians



Banteay Srey (Srei) Temple; Pediments of mythological scenes



Beng Mealea Temple (Lotus Pond Temple) ; built by King Suryavarman II in 1112 - Almost a million people in and around the immediate area (Paris had 100,000 during this time).

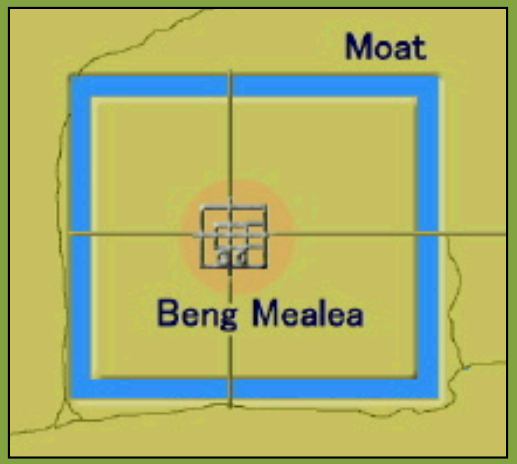


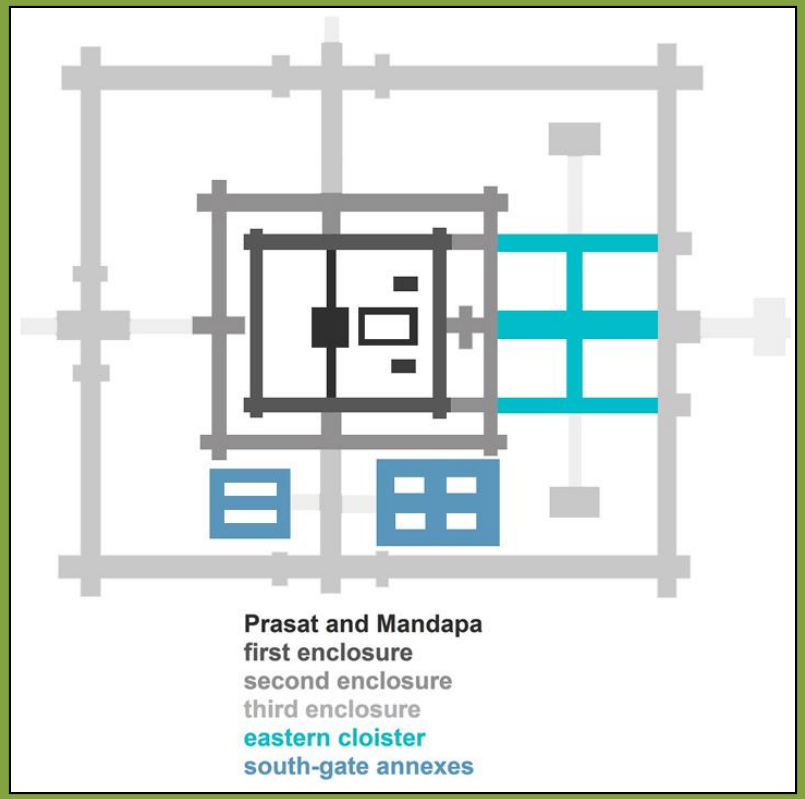
Angkor: Beng Mealea Temple ("Lotus Pond Temple"); About 900 years old

Angkor: Beng Mealea Temple (“Lotus Pond Temple”)

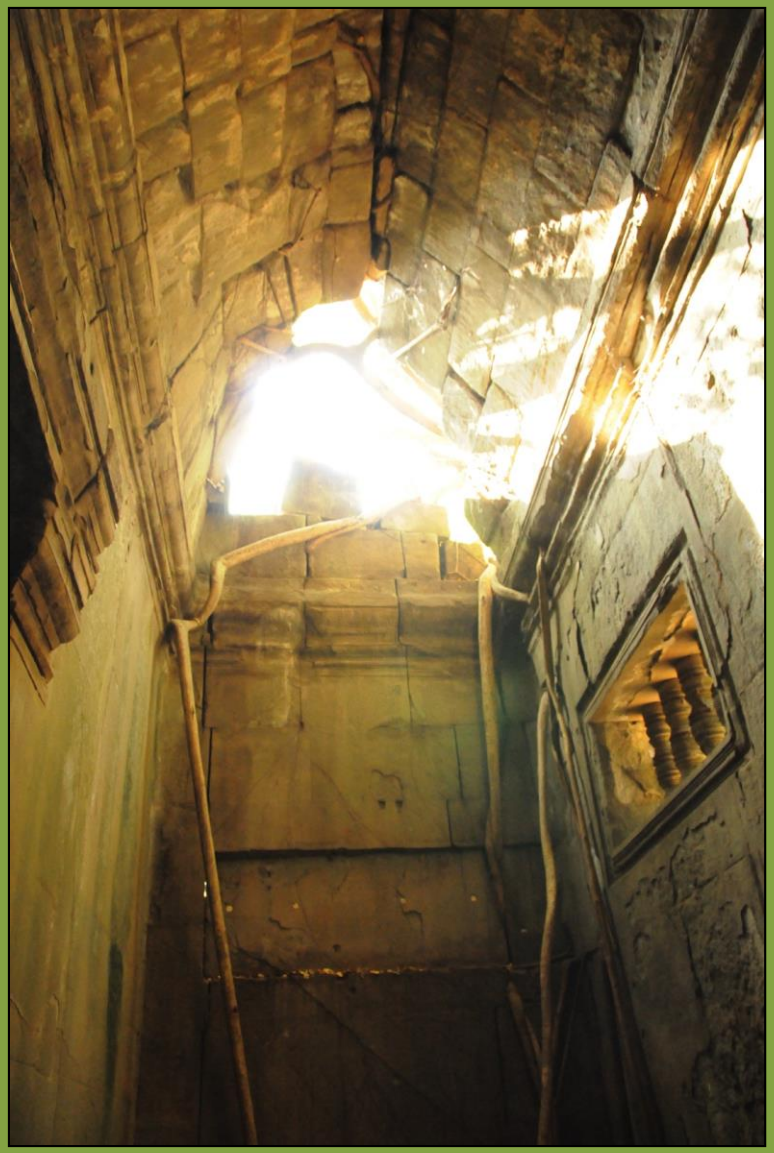
Angkor: Beng Mealea Temple (“Lotus Pond Temple”)

Angkor: Beng Mealea Temple ("Lotus Pond Temple")



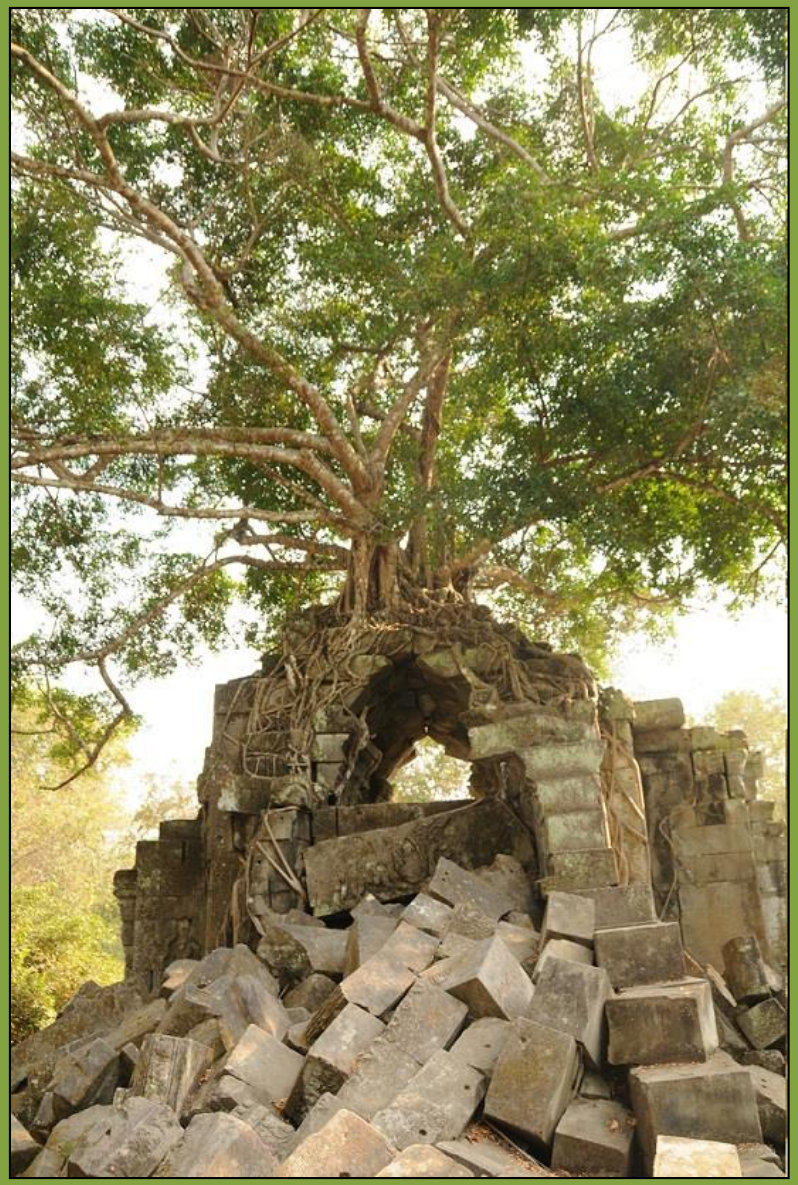


Angkor: Beng Mealea Temple ("Lotus Pond Temple"); Corbel Arches

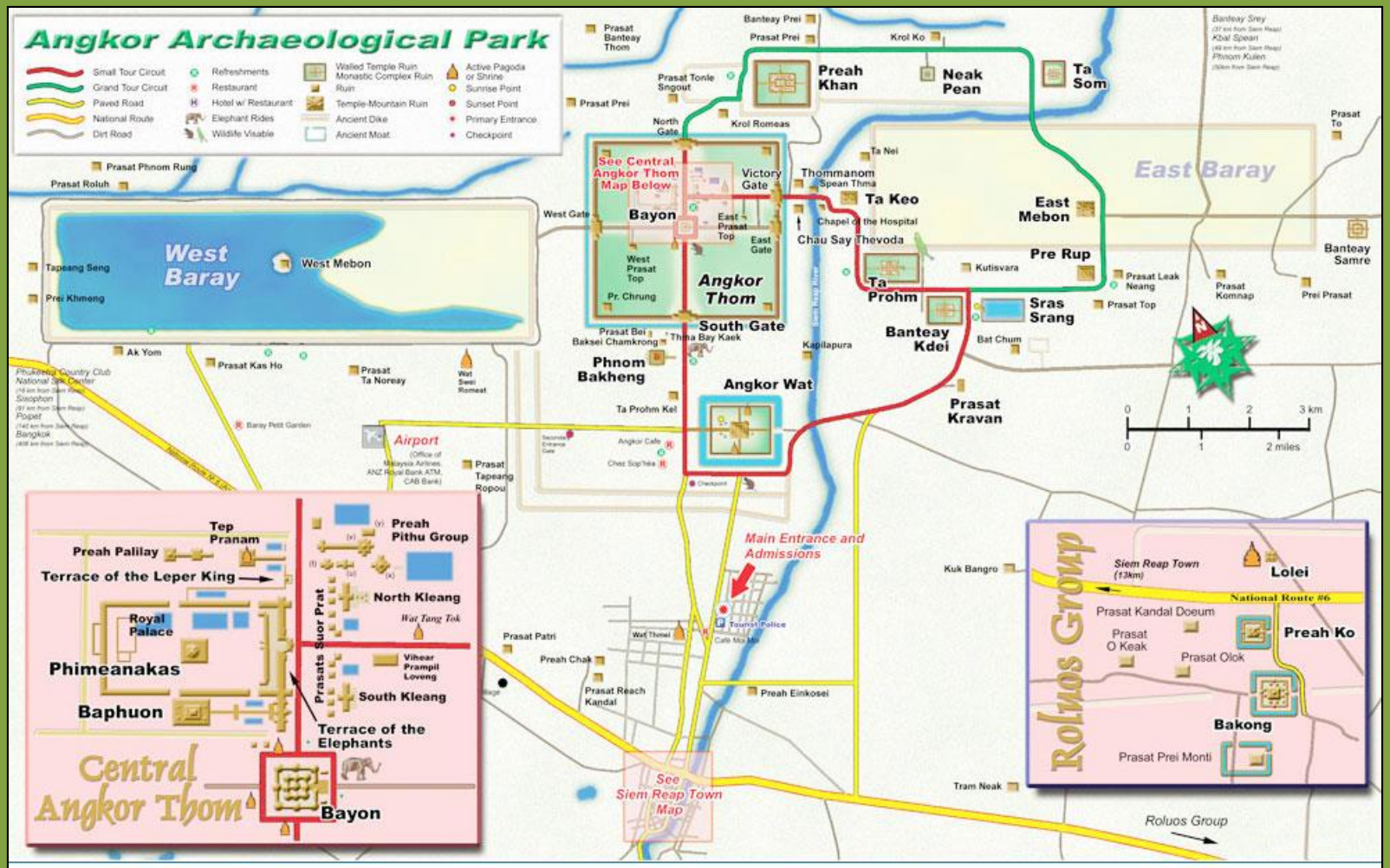


Angkor: Beng Mealea Temple (“Lotus Pond Temple”)

Angkor: Beng Mealea Temple ("Lotus Pond Temple")



Angkor Wat Temple: Also built by King Suryavarman II. Completed around 1150.



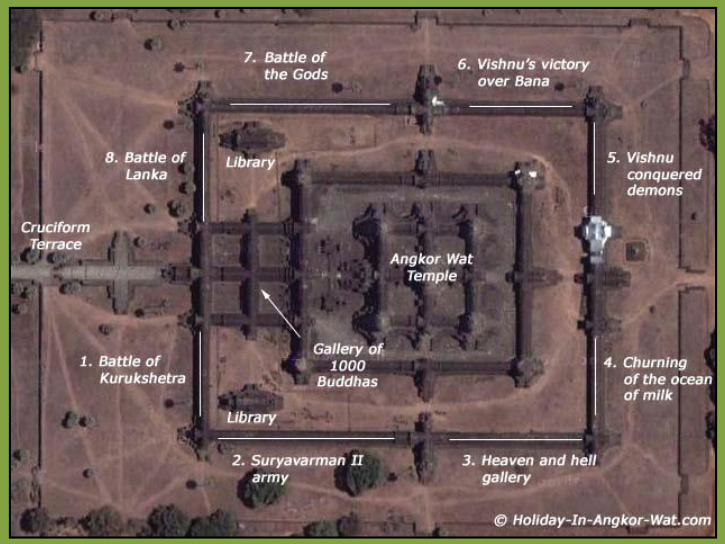
Angkor Archaeological park

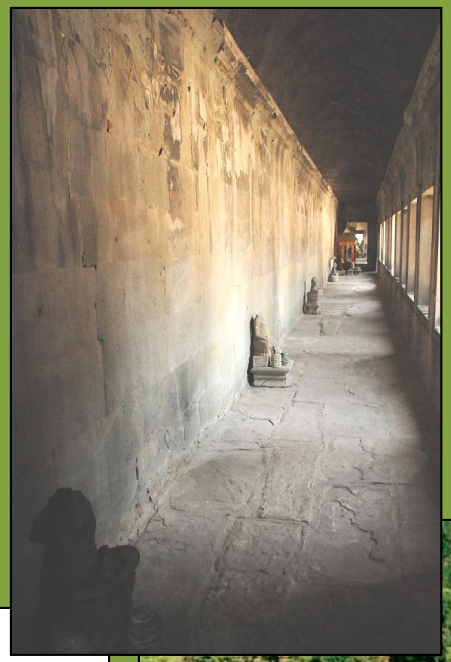
Temple City of Angkor Wat, 1150; This temple is dedicated to Vishnu and was King Suryavarman II's state temple and mausoleum

The moat is over 650' wide; the area inside is the equivalent of +/- 300 football fields

Angkor Wat Temple; 1150 – Over 5 million tons of materials used including gray sandstone, plaster, gold, and laterite

Angkor Wat Temple; Most visible areas are made of sandstone

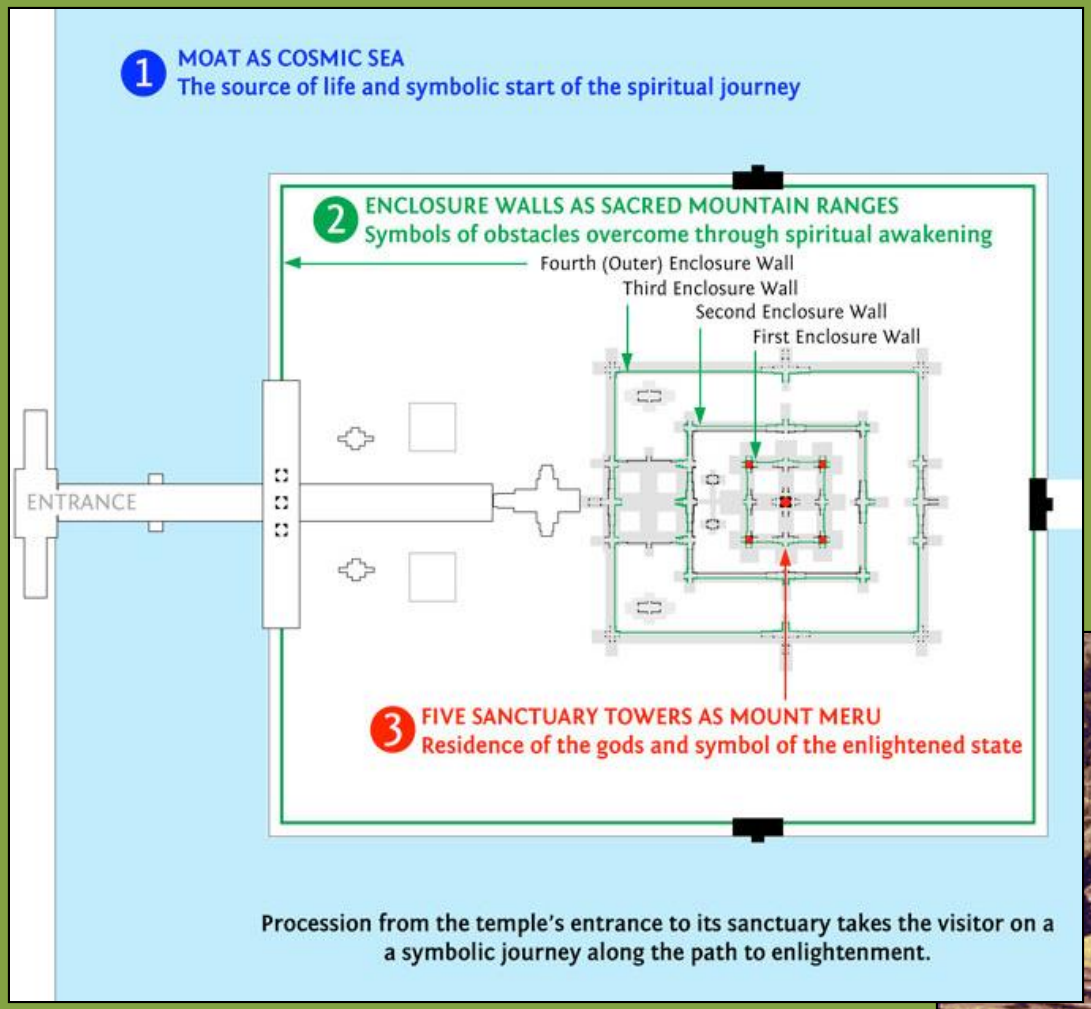




Angkor Wat; 3 rectangular galleries, each raised above the next

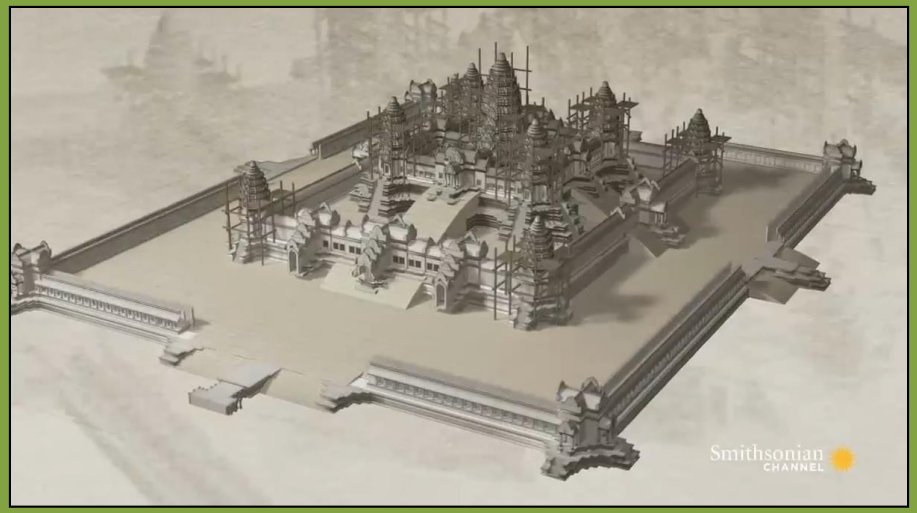
The platform the temple sits
on is the Jagati

Angkor Wat Temple

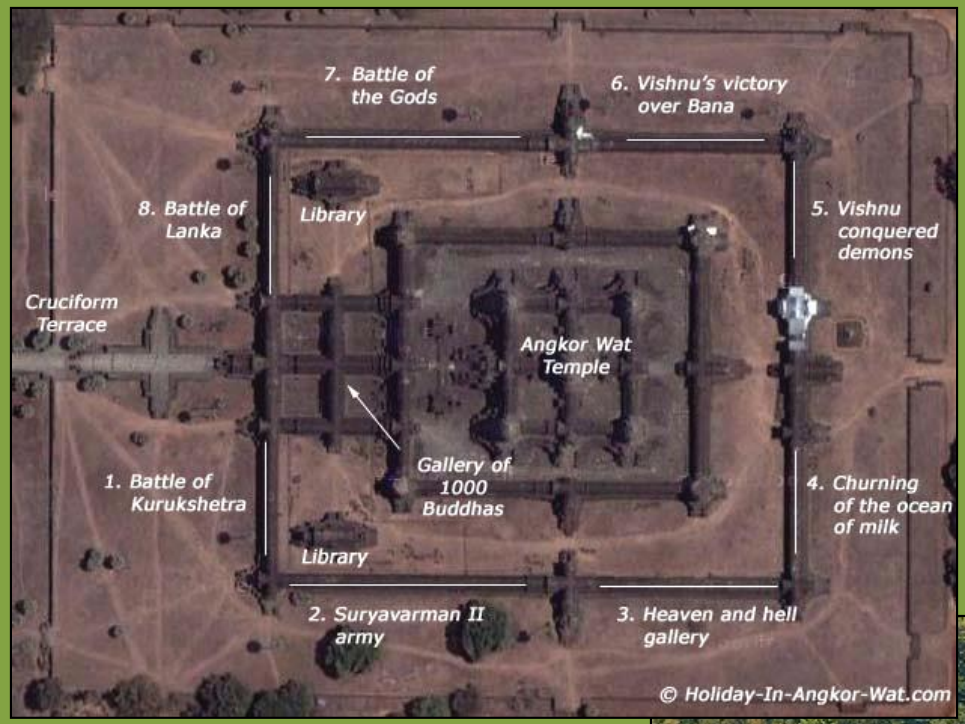


The 5 Temple towers symbolize the 5 peaks of Mount Meru

Angkor Wat Temple; Built from the inside out

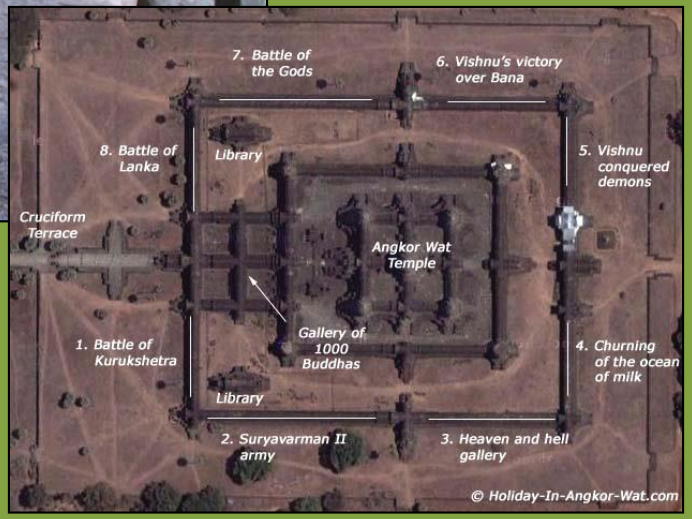


Angkor Wat Temple; Central tower raised above the surrounding 4



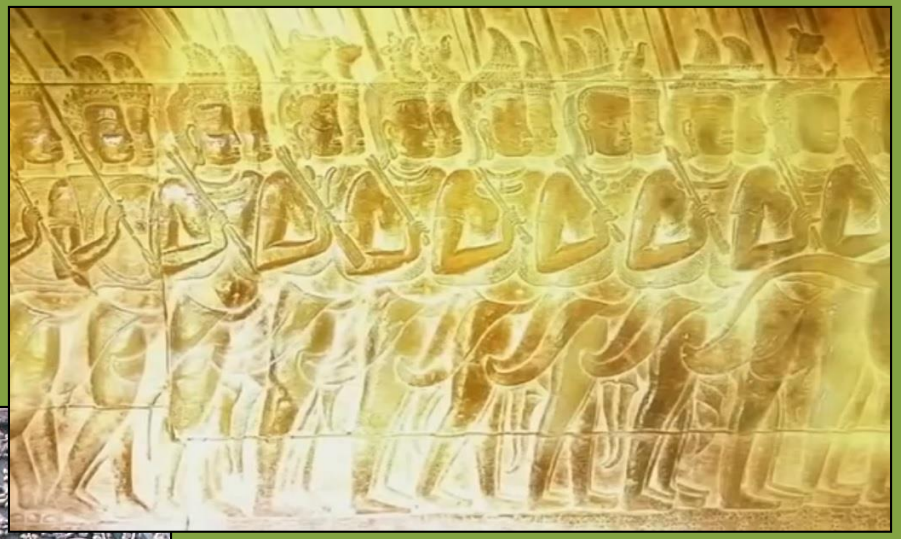
Temple is oriented west, with the Bas-reliefs proceeding in the counter-clockwise direction

Angkor Wat Temple; Gallery interior showing the Bas-reliefs

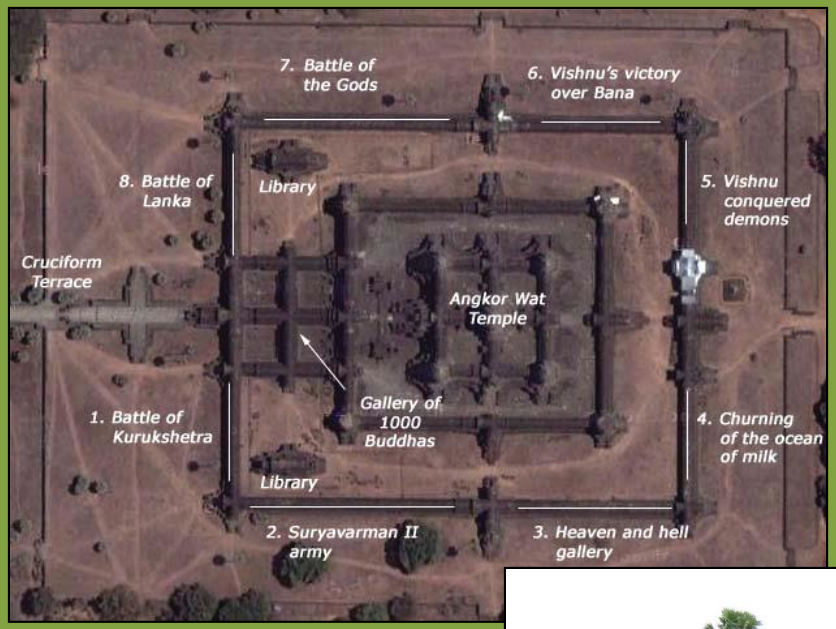


Angkor Wat Temple; Churning the Ocean of Milk

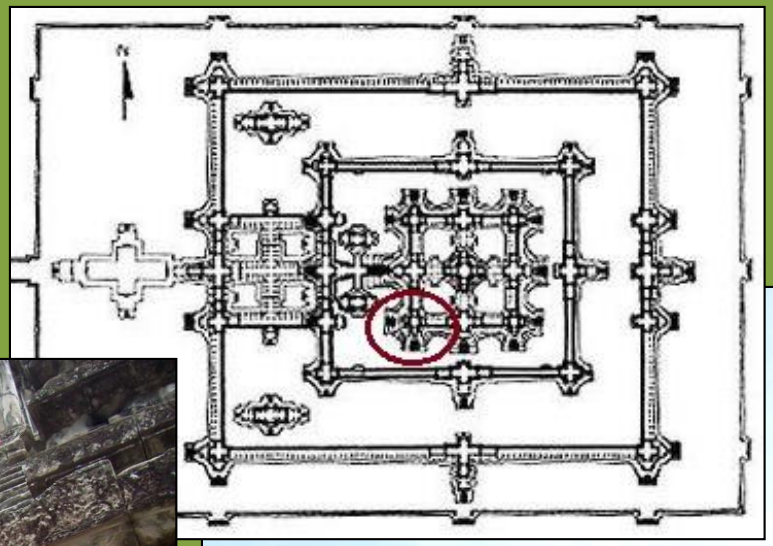
Angkor Wat; Bas-reliefs – Originally they were covered in gold leaf



Angkor Wat Temple; Gallery of 1000 Buddhas (Gods) and Libraries



Angkor Wat Temple



The steep steps represent the difficulty of ascending to the divine kingdom

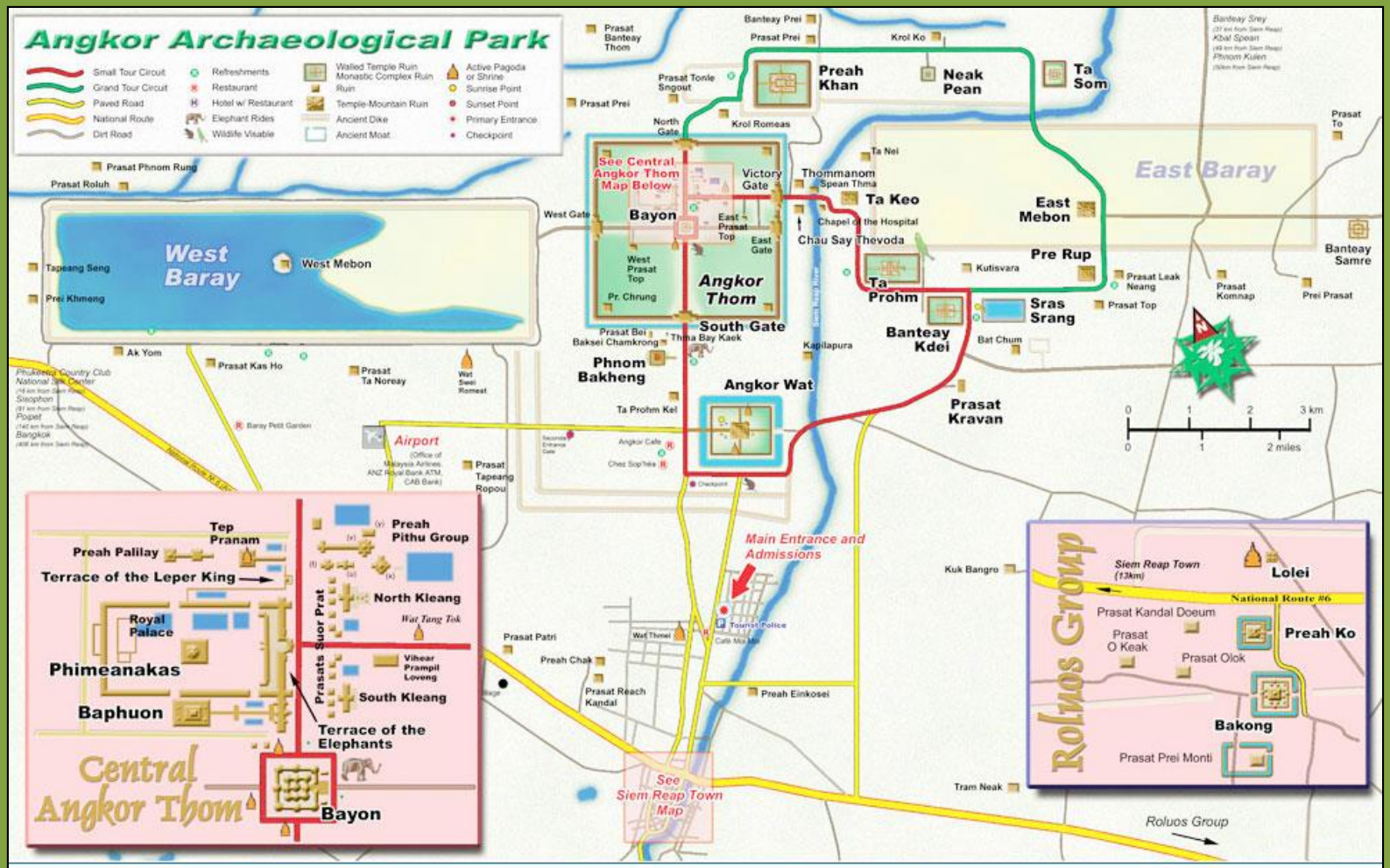
Angkor Wat Temple Shrine; Statue of Vishnu replaced with Buddha

Angkor Wat Temple Reconstruction

Angkor Wat Temple Reconstruction

Angkor Wat Temple Reconstruction

Angkor Thom – Bayon Temple;
Built by King Jayavarman VII around 1190

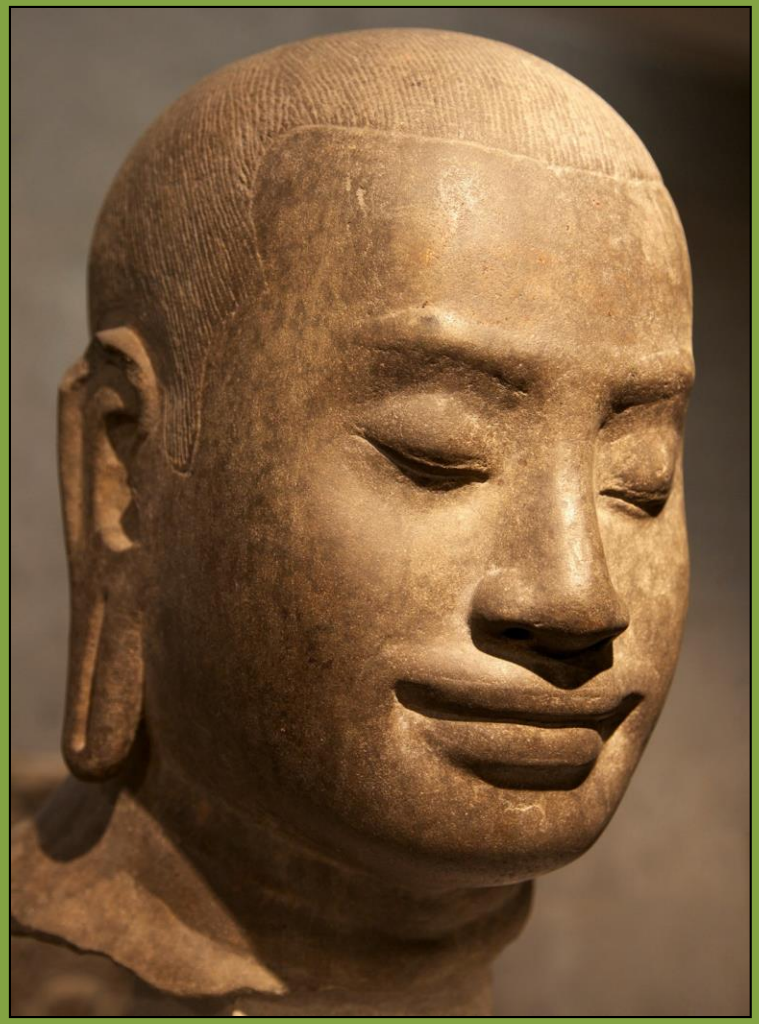


Angkor Archaeological park

Angkor Thom – Bayon Temple;
Built by King Jayavarman VII around 1200

Last City of the Khmer Empire. Each side of the outside enclosure is over 2 miles long

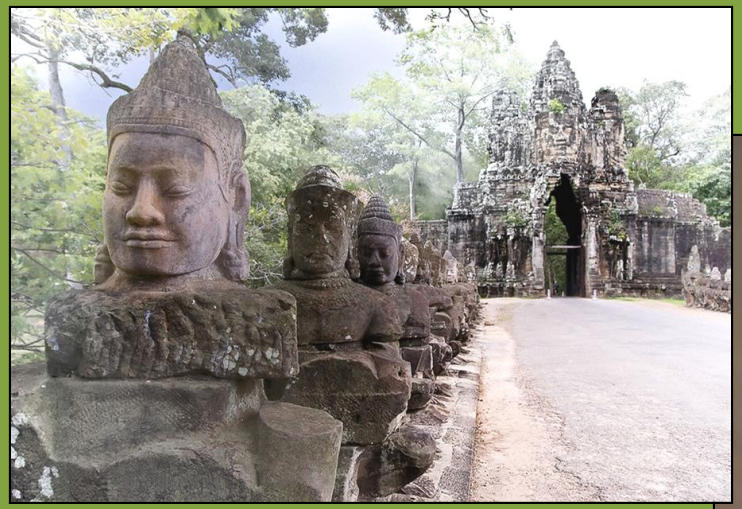
Angkor Thom – Bayon Temple; Built by King Jayavarman VII around 1200

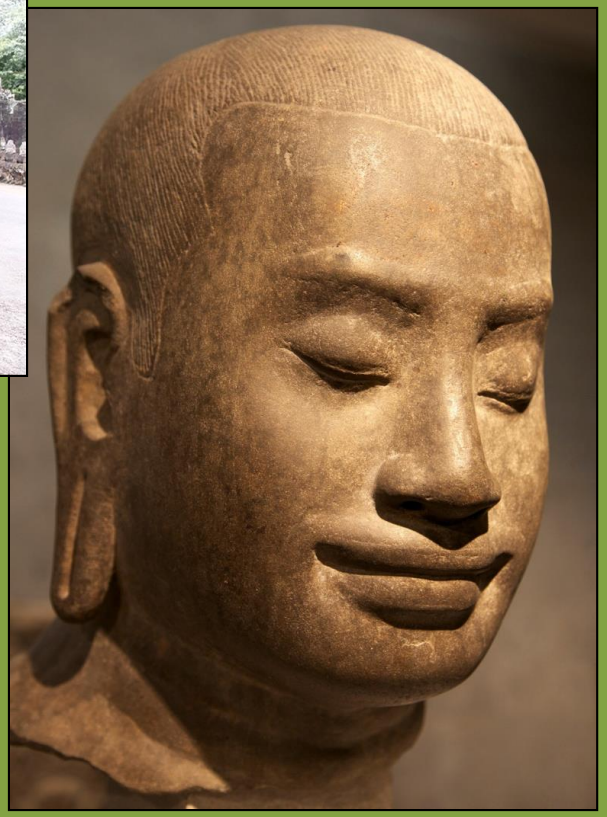


Jayavarman VII was one of the most powerful Khmer monarchs of all time, reigning from 1180-1218. As a Mahayana Buddhist, his declared aim was to alleviate the suffering of his people. He oversaw the construction of Angkor Thom ("Grand City") and the temple mountain within, Bayon. He also oversaw the construction of Ta Prohm ("Ancestor Brahma"), a temple dedicated to his mother. Considered a wise and generous king, he built at least 102 hospitals for his citizens.

Angkor Thom – Bayon Temple;
Built by King Jayavarman VII around 1200

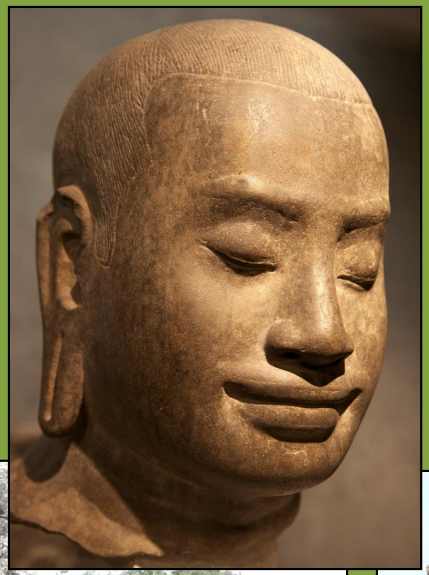
Outer Gopura leading into Angkor Thom





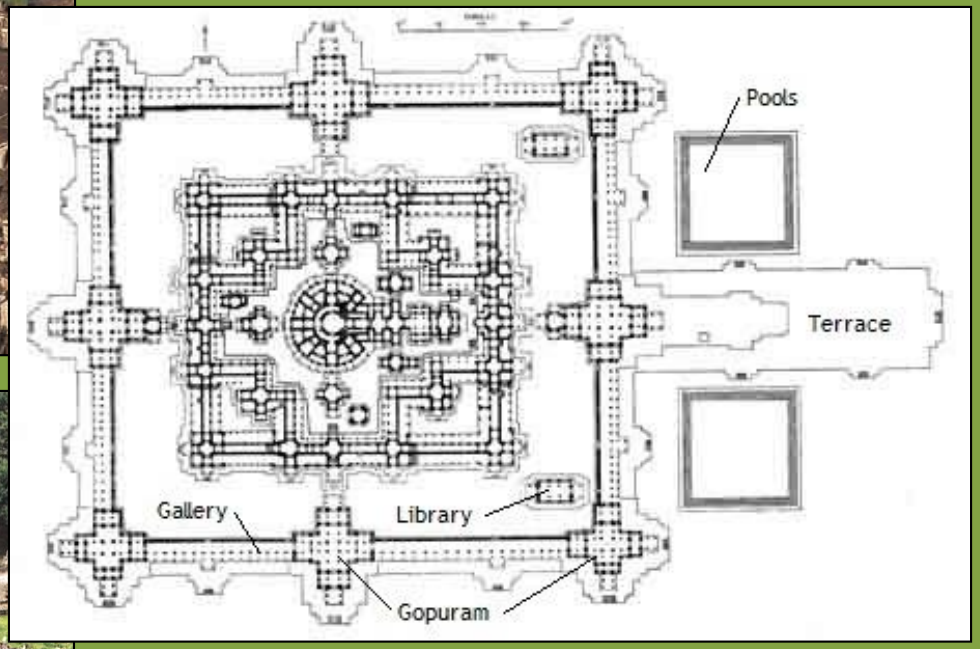
Angkor Thom – Bayon Temple; Called the ‘Temple of the Smiling Buddhas… or Smiling King Jayavarmans?

Angkor Thom – Bayon Temple; Over 200 faces carved on the towers and no 2 are exactly alike



Angkor Thom – Bayon Temple; Towers have 4 faces, each one facing north, south, east and west

Angkor Thom – Bayon Temple; Buddhist Shrine, not Hindu

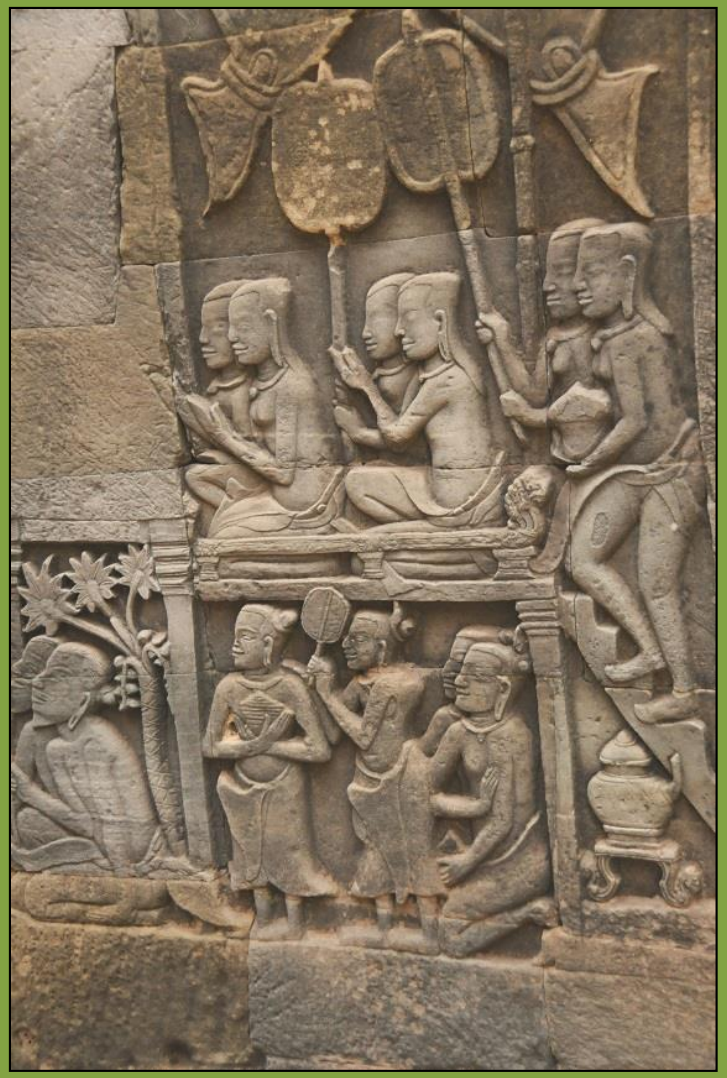


Angkor Thom – Outside of Bayon Temple

Angkor Thom – Outside of Bayon Temple

Angkor Thom – Bayon Temple Bas-reliefs

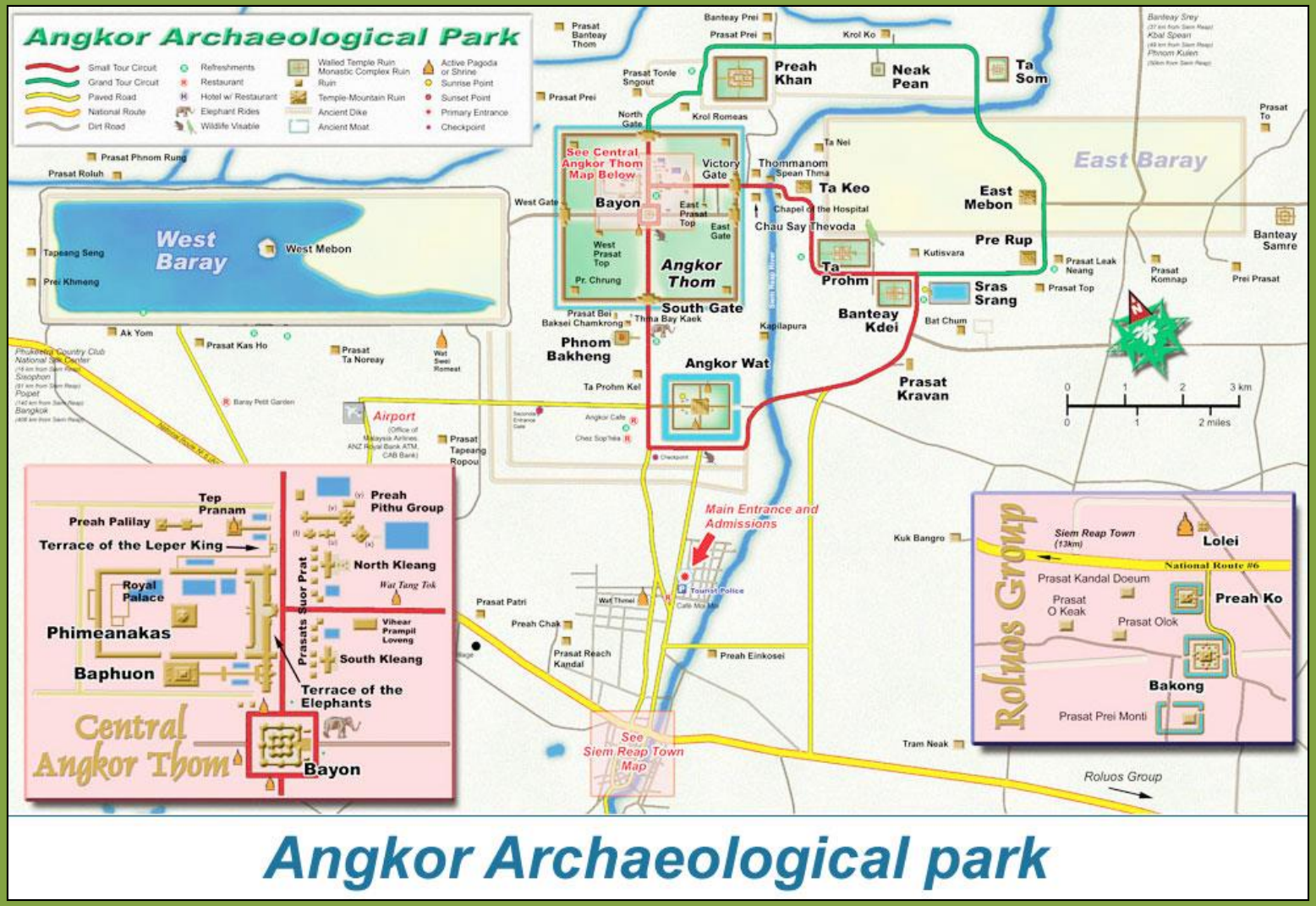
Angkor Thom – Bayon Temple Bas-reliefs



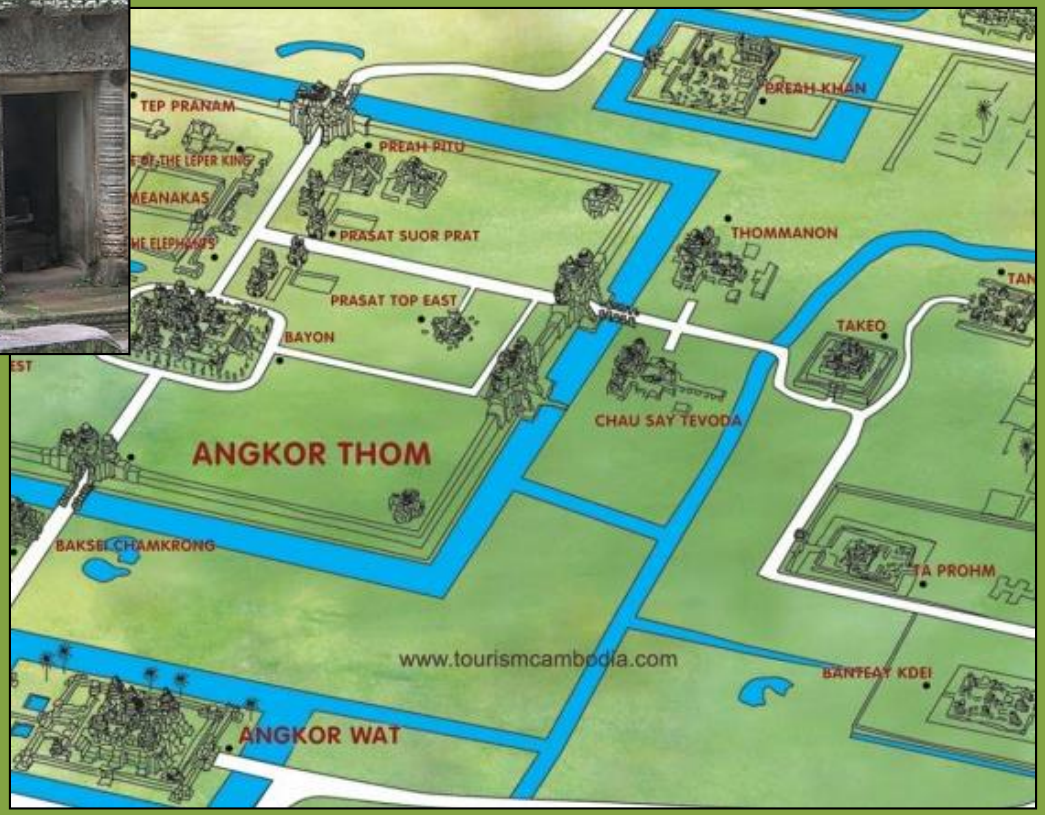
Angkor Thom - Bayon Temple Reconstruction

Angkor Thom - Bayon Temple Reconstruction

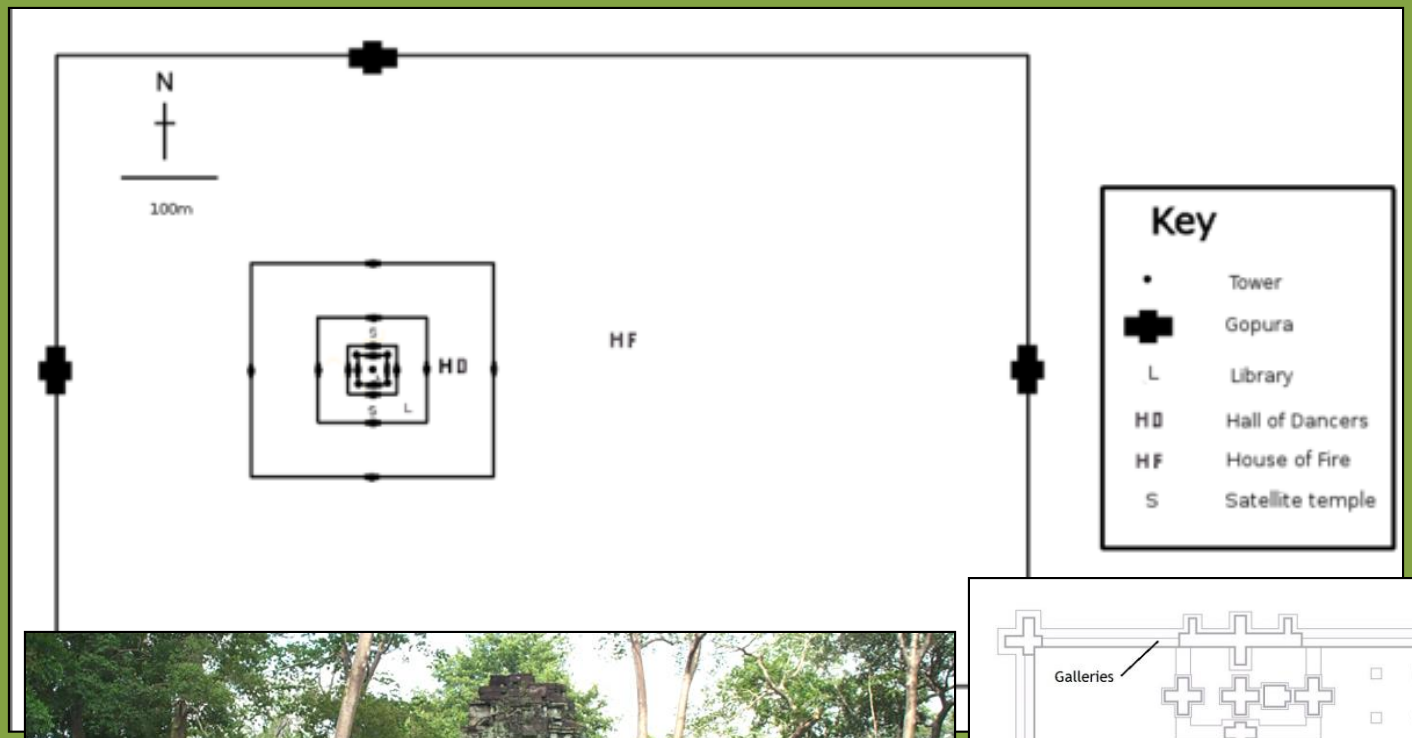
Angkor – Ta Prohm (Ancestor Brahma); Also built by King Jayavarman VII, built around 1200

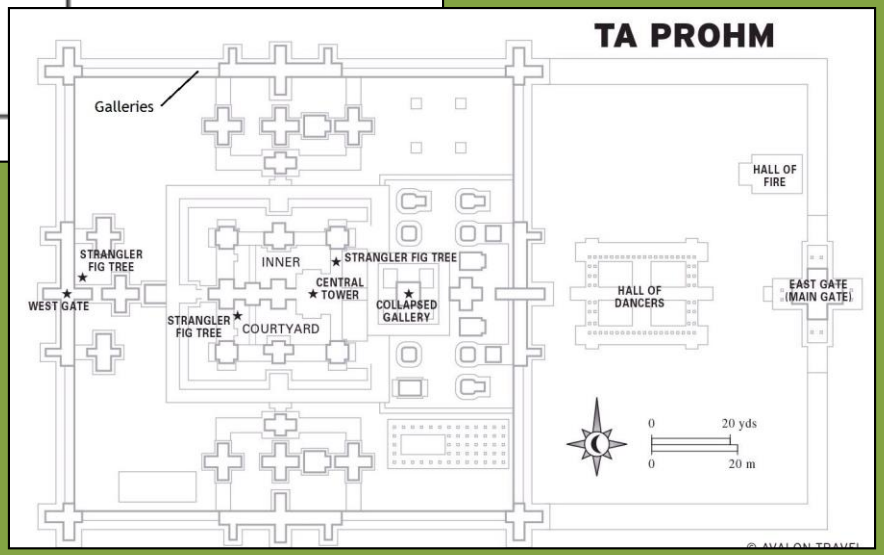


Angkor – Ta Prohm (Ancestor Brahma); Buddhist Monastery and University



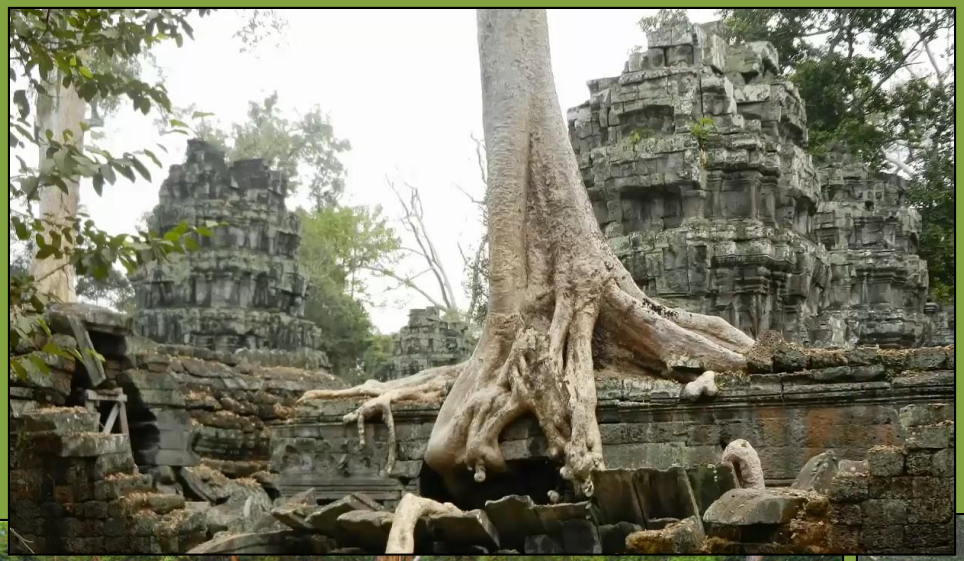
Angkor – Ta Prohm (Ancestor Brahma); 5 rectangular enclosing walls

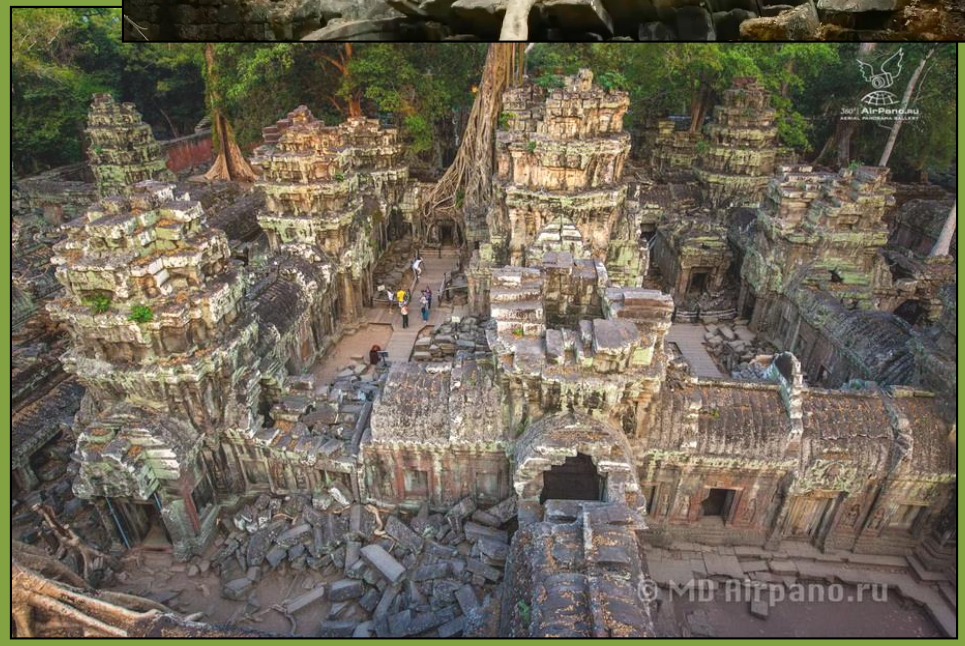




Angkor – Ta Prohm (Ancestor Brahma); Galleries

Angkor – Ta Prohm (Ancestor Brahma); Built in honor of King Jayavarman VII's Mother



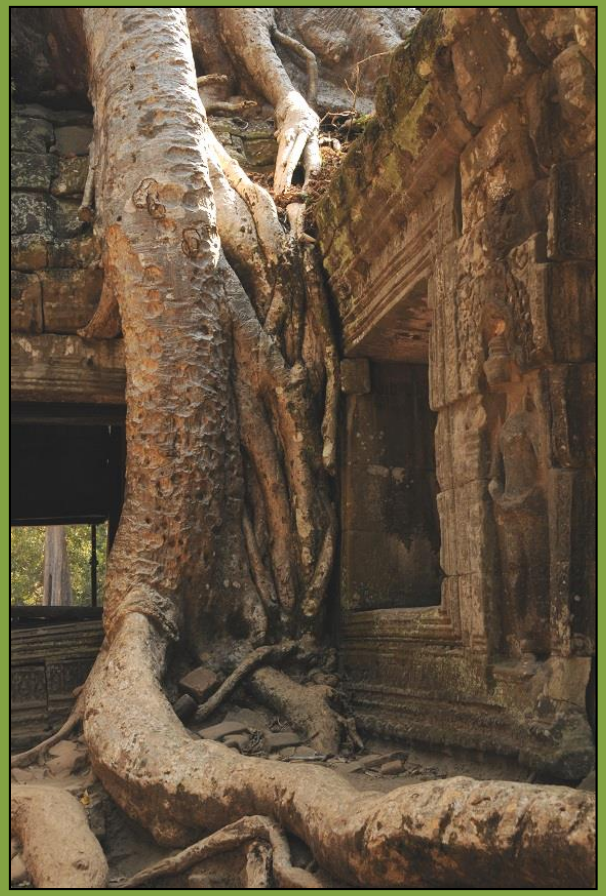


Angkor – Ta Prohm (Ancestor Brahma)

Angkor – Ta Prohm (Ancestor Brahma)

Angkor – Ta Prohm (Ancestor Brahma)

Angkor – Ta Prohm (Ancestor Brahma)

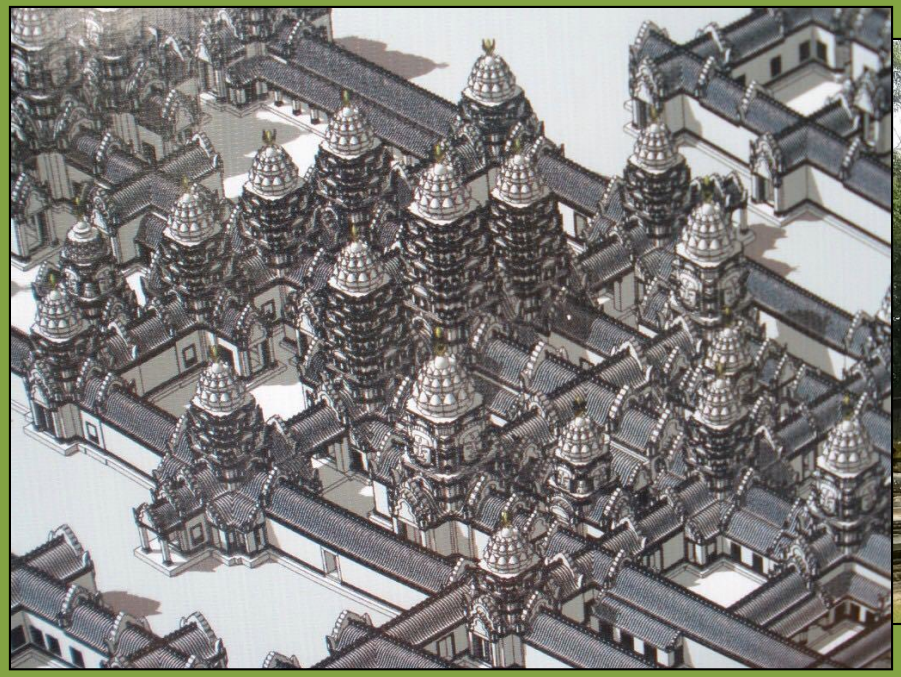
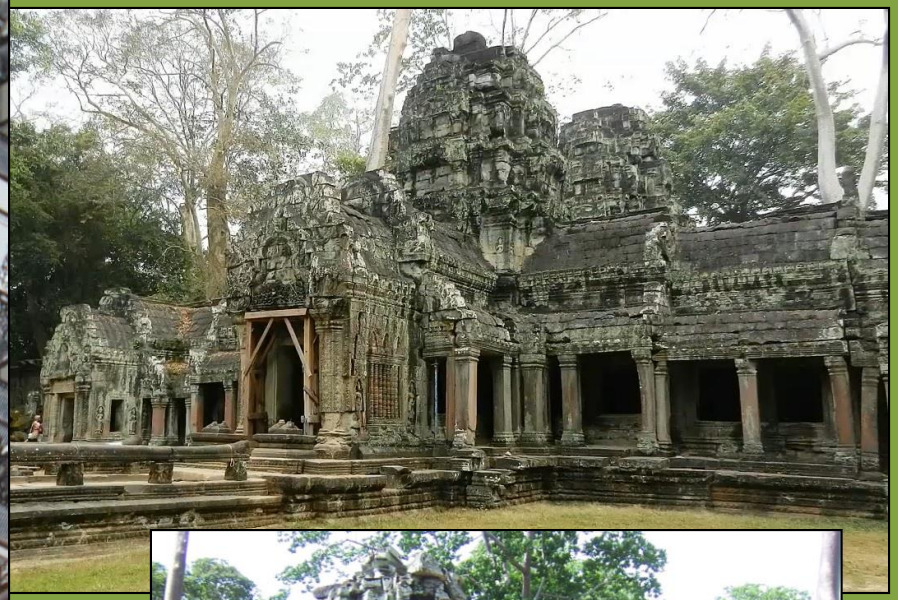


Angkor – Ta Prohm (Ancestor Brahma)

Angkor – Ta Prohm (Ancestor Brahma); Remaining Buildings

House of Fire

Library

Angkor – Ta Prohm (Ancestor Brahma); Sculpture and Bas-reliefs

Angkor – Ta Prohm (Ancestor Brahma); Reconstruction