

The Temples of **Angkor**



Cambodia: The Temples of Angkor

Version 1.2

by David Raezer and Jennifer Raezer

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Introduction

Previewing this book?

Please [check out our enhanced preview](#), which offers a deeper look at this guidebook.

Angkor, the ancient capital of the Khmer Empire in central Cambodia, is one of the most magnificent sites in Southeast Asia. This recently updated and expanded Approach Guide serves as an ideal companion for travelers exploring the timeless treasures of Angkor and seeking a deeper understanding of the art and architecture of this great Empire.

As with all Approach Guides, we don't just list dates and events, but rather fit them into a framework so that you can begin to appreciate why the Khmer Empire — at this location, at this time in history, and with this style of architecture — became one of the East's greatest and most powerful empires.

The architecture of Angkor

This guidebook begins with a brief overview of Angkor's history, focusing on the key factors that took it from a fragmented, trade-based society to a centralized, agriculture-based power. We then dive into an exploration of the Khmer architectural style, focusing chiefly on its distinctive features. For each architectural feature, this guide provides a detailed description and a perspective on how it changed over time; and in some cases, to provide added context, it reveals elements from Indian architecture that served as inspiration for the Khmer (with images so you can see for yourself the similarities). Finally, we have added color highlights to images to make it easier to visually identify key features.

Detailed site profiles with high-resolution images

For each site in this guidebook, we focus on the most important aspects of its history, layout, distinguishing features, and relief decoration. Our goal is to provide you with a framework for understanding the site and what makes it special. Sites profiled include:

- Angkor Wat
- Angkor Thom, with a special focus on the Bayon
- Banteay Srei
- Ta Prohm
- Neak Pean

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about your experience with Approach Guides — many of our recent updates have been inspired by customers like you. We personally respond to every email.

We hope that this cultural guidebook offers you fresh insights into Angkor's architecture and sets you on a path to making your own discoveries.

Have a great trip!

A handwritten signature in black ink, appearing to read "David Raezer" followed by a flourish.

David and Jennifer Raezer
Founders, Approach Guides

Background on Angkor

The Khmer Empire — with its peak spanning approximately 500 years from 802-1327 in the city of Angkor — is responsible for Cambodia’s greatest Hindu and Buddhist architecture. Before setting off on the focus of this guidebook, the architecture of this great Empire, a brief review of the historical context will prove valuable.

Pre-Angkor Khmer and the Port City of Oc-eo

A trade-based economy

- The pre-Angkor Khmers were traders and merchants and, therefore, required access to the sea (Gulf of Thailand). Accordingly, the Empire’s **pre-Angkor history is fragmented with no core center or capital city**; the primary centers were spread out south and east of Angkor, along the Mekong River.
- The earliest known sea trade route from China to India followed the coastline until it reached the port of Oc-eo (located on the western coast of southernmost Vietnam); goods were then transported by ship across the Gulf of Thailand to the Kra Isthmus (a narrow strip of land in the northern portion of the Malay Peninsula), where they were moved overland (thereby avoiding circumnavigating the 1600 km length of the Malay Peninsula); for the final leg, goods were picked up by ships on the opposite side, at which point they continued their coastline journey to India.

The port of Oc-eo

- Oc-eo was the key stop in Southeast Asia for China-India trade from the 2nd-6th centuries, reaching its apex of importance in the 4th century; the pre-Angkor state that centered on Oc-eo trade was called Fu-nan by the Chinese.
- The port of Oc-eo offered traders two distinct advantages: (1) its geographic position allowed traders access to the main channels of the Mekong River, and so could provide product to the mainland along its massive length; and (2) it could support sufficient levels of rice production to provision the ships that passed through the area, particularly as they waited months for the monsoon winds to change.
- **Oc-eo is the site of the earliest and most meaningful contacts with the early traders**, particularly the Indians, who would contribute meaningfully to the cultural and religious heritage of Southeast Asia as a whole. During this Oc-eo period, a process of “Indianization” begins throughout Southeast Asia. In the sections that follow, this guide will explore the scope of this Indianization process as it relates to Angkor’s architectural tradition.

A shift from trade to rice cultivation set in motion

Khmer Architecture - Layout

This section reviews the layout of Angkor's temples and temple complexes.

Temple Floorplans

***Author Tip:** We spend a lot of time on floorplans as they are fundamental to a complete understanding of the development of Angkor's temples and what makes them unique. Further, since these temple layouts are complex, it is difficult to fully appreciate them on location unless you have a framework in mind as you walk through. To make reading the floorplans easier, we have added color highlights to the elements referenced in the text.*

Evolution from square- to cruciform-shaped temples

The floorplans of temple sanctuaries at Angkor demonstrate a clear progression, increasing in complexity from square, to cruciform, to modified cruciform:

- **Square.** The early temples at Angkor have square-shaped sanctuaries; the sanctuary, the most sacred part of the temple, is where the presiding deity resides. This square shape is in strict accordance with Indian Hindu temple precedent. The square-shaped sanctuaries of Banteay Srei's three temples are highlighted with yellow in [Fig. 1](#).

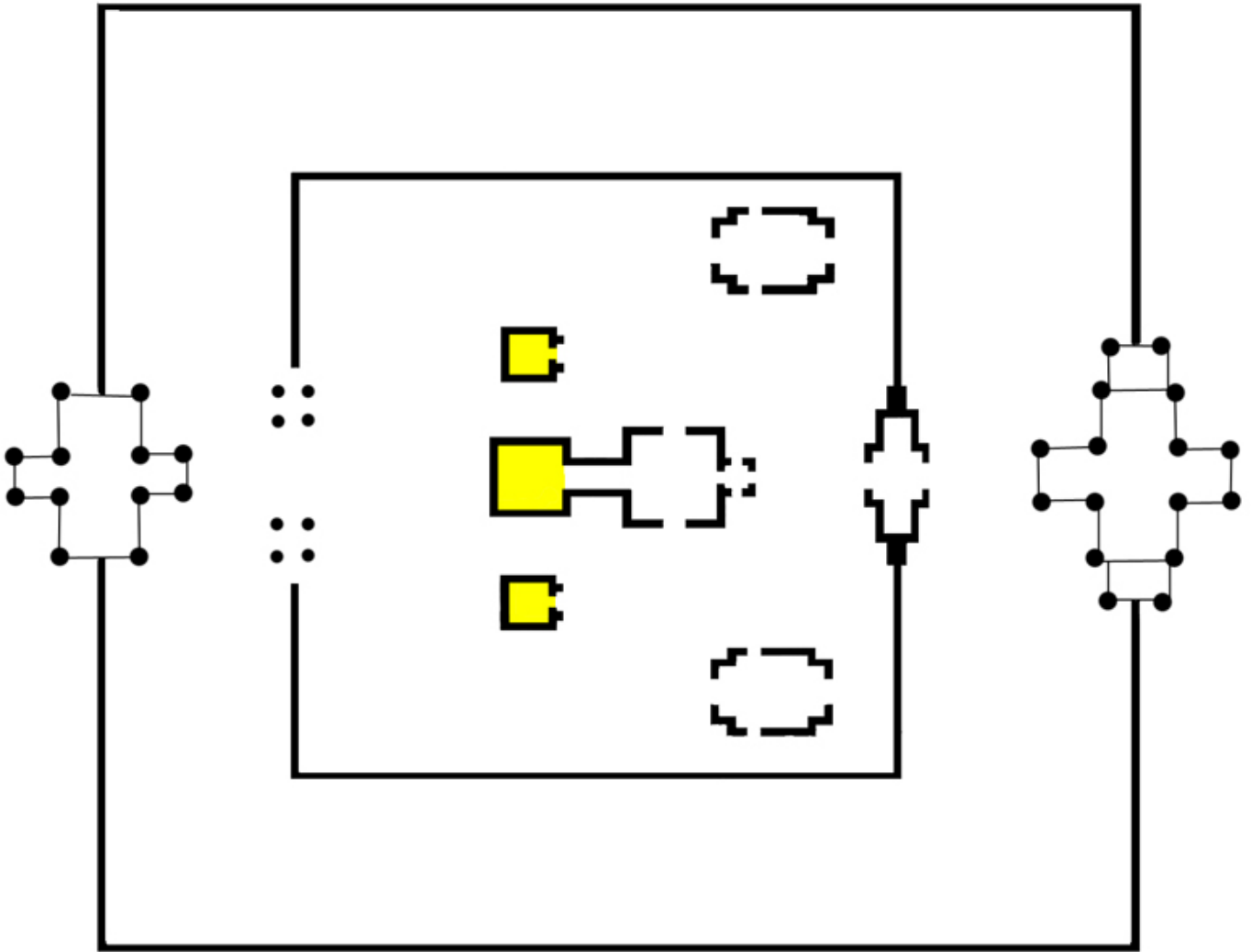


Fig.1. Floorplan, Banteay Srei (built 967 CE). Highlights added.

- **Cruciform.** In a definitive break with Indian Hindu temple precedent, later Angkor temples transition from square sanctuary plans to cruciform ones. In this arrangement, the temple sanctuary sits at the center of a cross, that is, at the intersection of two intersecting transverse axes; these transverse axes are aligned with the cardinal directions. The earlier square is not abandoned entirely, however, as it is the shape of the platform that supports the cruciform temple. In [Fig. 2](#) of Angkor Wat, the cruciform sanctuary is highlighted with yellow; the square-shaped platform is highlighted with green.

Khmer Architecture - Distinguishing Features

This section reviews the defining features of the Khmer style, including construction materials, structural elements, tower shapes, frontons, window openings, and water works.

Construction Materials

While many of the earliest temples at Angkor are made of bricks and mortar masonry, this medium is soon replaced — due to Indian influence — with stone. The two primary stone types used in Khmer architecture are:

- **Sandstone.** Sandstone is the primary stone used for temple construction. Much was pulled from the hills of Phnom Kulen (20 kilometers northeast of Angkor); after it was quarried, it was floated down the Siem Reap River to Angkor.
- **Laterite.** Laterite — typically red hued due to its high iron oxide content and sourced from throughout the area — was used for more basic architectural elements, such as enclosure walls and platforms.

Structural Elements

- **No mortar.** All Khmer stone architecture is mortarless, consistent with Indian Hindu temple precedent.
- **Corbelling.** Structures consist **exclusively of trabeate forms** (straight horizontal and vertical lines), such as the post and lintel. Again, consistent with Indian building precedent, Khmer architecture **never employs the true arch**, which utilizes a keystone; accordingly, the arch, the vault, and the dome are largely absent. Corbelling techniques provide the only form of “vaulting” — a corbelled arch is constructed by offsetting successive courses of stone comprising two opposing walls so that they project towards the archway’s center until the courses meet and close the gap. The technique of corbelling is clearly visible in [Fig. 6](#); see red highlights.

Tower shape: South Indian foundation

Hindu temples in India adhere to one of two basic styles associated with their geographical position: the North Indian temple style or the South Indian temple style. While the shapes of early temple towers at Angkor were influenced most greatly by those of South India, they **later take on a hybrid appearance, incorporating elements of both Northern and Southern styles; it is this fusion of styles that makes Angkor temple towers unique.**

That said, the Hindu temples of South India serve as the initial prototype for those of Angkor. In this style, the tower **over the temple consists of a series of diminishing floors that form a pyramidal outline.** Comparing Banteay Srei (Fig. 8) — representative of the early Angkor temple style — with a South Indian prototype (Fig. 9) reveals their shared horizontal emphases (red highlights) and pyramidal profiles (green highlights).



Fig. 8. Banteay Srei, Angkor. Highlights added.



Fig. 9. Dharmaraja ratha, Mahabalipuram, India. Highlights added.

Tower shape: Later North Indian influences

While later Angkor temples maintain some degree of the Southern style's horizontal emphasis, they incorporate the following Northern Hindu temple features as well:

- **The crowning of the tower: ribbed fruits and pot finials.** A direct borrowing from the North Indian Hindu temple style: Angkor's temples are topped with a form resembling a pot finial sitting upon a ribbed fruit; this topping element is called a sikhara. While earlier temples (Banteay Srei) do not appear to have embraced the ribbed fruit base (only the pot finial is visible), both elements (pot and ribbed fruit) are in evidence at the later built temple of Angkor Thom's Bayon. To ease identification of the sikhara forms, we have added yellow highlights to them in [Fig. 8](#), [Fig. 9](#), and [Fig. 10](#) of Banteay Srei (the early Angkor temple model), Dharmaraja ratha (the South Indian prototype in Mahabalipuram, India), and Kandariya Mahadeva Temple (the North Indian prototype in Khajuraho, India), respectively. Note that the South Indian prototype's sikhara ([Fig. 9](#)) is dome-shaped; this is not used in Angkor.

Angkor Wat Profile

Quick Profile

- Built 1113-1150, under King Suryavarman II (ruled 1113-1150).
- Hindu religious orientation (dedicated to Vishnu). The term “wat” means temple and was probably added to this temple complex when it was converted to a Theravada Buddhist monument in the 16th century.
- Angkor Wat’s laterite walls enclose an area of roughly 203 acres; the rectangle-shaped complex is approximately 1,024 x 802 meters; this is approximately one-tenth the size of Angkor Thom.

The Temple Layout

- The plan rises on **three ascending levels** of rectangular or square platforms. Covered galleries lined with square columns encircle the lower two levels.
- **Entrance from west.** Angkor Wat breaks with tradition, in that its main entrance is from the west, as opposed to the typical eastern orientation. Since west is associated with the setting sun, and its symbolic equivalent, death, it has been speculated that Wat was designed not only as a temple, but also as a tomb. This funerary complex theory is further corroborated by the atypical left-to-right orientation of the reliefs (see discussion below), which indicates that visitors were meant to circumambulate the structure in a counterclockwise direction; such a direction is typically reserved for funerary structures.
- **Cross-shaped temple.** Angkor Wat **marks the transformation from the square sanctuary plan employed in earlier temples to a cruciform one.** Angkor Wat’s temple sanctuary sits at the center of the cross, that is, at the intersection of two intersecting transverse axes; these transverse axes are oriented to the cardinal directions. The earlier square plan is not abandoned entirely, however, as it is the shape of the platform that supports the cruciform temple. In [Fig. 17](#), the cruciform floorplan of the sanctuary is highlighted with yellow; the square-shaped platform is highlighted with green.

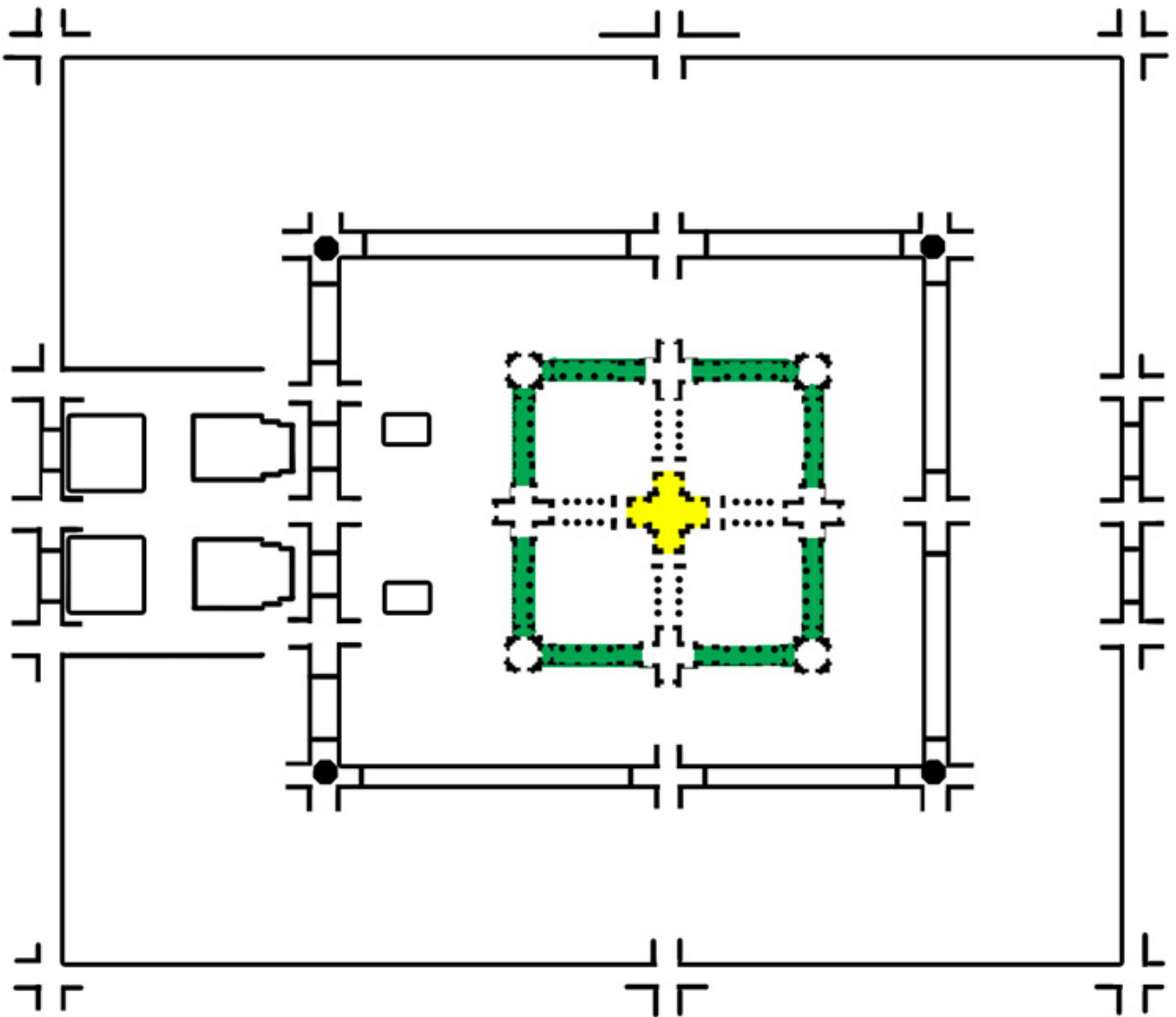


Fig. 17. Floorplan, Angkor Wat. Highlights added.

The Five Towers

Angkor Wat's third and highest platform supports **five enormous towers** (symbolic of Mount Meru at the center, the residence of the gods), one on each of the four corners and one in the center; this arrangement is called a **quincunx**. Interestingly, unless viewed from an oblique angle, only three of these towers are visible to the approaching visitor. The profiles of the towers are shown in Fig. 18; and the positions of the five towers are marked with red highlights in Fig. 19.

Angkor Thom Profile - Bayon

Quick Profile

- The Bayon is the chief site within the Angkor Thom complex and perhaps the best site at Angkor overall, its dynamic towers and well executed decoration perhaps outdoing even Angkor Wat.

Author Tip: *A sunrise visit to Angkor Thom's Bayon is perhaps even more impressive than to Angkor Wat. Angkor Wat's west-facing orientation means that the sun rises behind it; this creates more of a silhouette effect, rather than exposing the temple's details. Since the entrance of Angkor Thom's Bayon is from the east, the sun rises in front of it, casting its orange glow all over the famous tower faces.*

- Built in the late 12th century / early 13th century, under Jayavarman VII (reigned 1181-1220), approximately 50 years after the completion of Angkor Wat.
- Buddhist religious orientation.

Layout and Construction

- **Marks the center of Angkor Thom.** Indicative of its importance, Bayon stands at the exact center of the Angkor Thom complex. Symbolically, it represents the point at which the divine and profane worlds are joined.
- **Eastern entrance.** The primary entrance to the complex is from the east, as is typical.
- **Smaller sandstone blocks.** The sandstone blocks used to build the Bayon are much smaller than those of Angkor Wat. They were salvaged from other monuments and temples, rather than having been quarried specifically for the site (as was the case at Angkor Wat). Perhaps this reuse symbolizes a weaker financial position of the Khmer Empire at this point in its history.

Although both Angkor Wat and Angkor Thom's Bayon rise on three ascending square or rectangular platform levels, there are many differences, despite being constructed only 50 years apart:

- **Concentrated plan.** The Bayon's temple plan is much more concentrated than that of Angkor Wat, making it easier to appreciate the overall arrangement.
- **Modified cruciform sanctuary.** Following on the move from square-shaped to cruciform sanctuary initiated at Angkor Wat, **the Bayon marks another step forward in the development of Angkor's distinctive temple floorplans.** At the Bayon, the cruciform plan increased in complexity, forming what might be termed a 'modified cruciform' plan: the temple sanctuary again sits at the center of the cross (see yellow highlights in [Fig. 26](#)); however, in addition to the two axes aligned with the cardinal points, there are two incremental axes that bisect the originals (see green highlights in [Fig. 26](#)), creating a symmetrical, eight-pointed star.

- Uzbekistan's Amu Darya (west pool, with a horse-shaped waterspout); and
- China's Yellow River (north pool, with an elephant-shaped waterspout).

Note that the base of the round island at the center consists of two coiled serpents that defend the sanctuary. See red highlights in Fig. 46.

In the center of the pool, an in-the-round sculpted horse traverses the water in the direction of the sanctuary; this horse is an incarnation of Avalokitesvara, the bodhisattva of compassion responsible for shuttling humanity to salvation. See green highlights in Fig. 46.



Fig. 46. Neak Pean. Highlights added.

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Los Angeles Times