

To prevystem between 2000 and 2003. Measures were also taken to prevent damage to the temples walls being caused by nearby trees.

ANGKOR WAT



Angkor Wat was first a Hindu, then subsequently a Buddhist, temple complex in Cambodia and the largest religious monument in the world. The temple was built by the Khmer King Suryavarman II in the early 12th century in Yasodharapura, present-day Angkor, the capital of the Khmer Empire, as his state temple and eventual mausoleum. Breaking from the Shaivism tradition of previous kings, Angkor Wat was instead dedicated to Vishnu. As the best-preserved temple at the site, it is the only one to have remained a significant religious center since its foundation.



The temple is at the top of the high classical style of Khmer architecture. It has become a symbol of Cambodia, appearing on its national flag, and it is the country's prime attraction for visitors.

Angkor Wat combines two basic plans of Khmer temple architecture: the temple mountain and the later galleried temple, based on early Dravidian Architecture, with key features such as the Jagati (platform where temple is build). It is designed to represent Mount Meru, home of the devas (superhuman being) in Hindu mythology: within a moat and an outer wall 3.6 kilometres long are three rectangular galleries,



each raised above the next. At the centre of the temple stands a quincunx of towers. Unlike most Angkorian temples, Angkor Wat is oriented to the west; scholars are divided as to the significance of this. The temple is admired for the

grandeur and harmony of the architecture, its extensive bas-reliefs, and for the numerous devatas adorning its walls. This one is in three layers representing heaven, present life and hell.

The modern name, Angkor Wat, means "Temple City"



or "City of Temples" in Khmer. Prior to this time the temple was known as Preah Pisnulok (Vara Vishnuloka in Sanskrit), after the posthumous title of its founder.

Angkor Wat lies 5.5 kilometres (3.4 mi) north of the modern town of Siem Reap, and a short distance south and slightly east

of the previous capital, which was centred at Baphuon. It is in an area of Cambodia where there is an important group of ancient structures. It is the southernmost of Angkor's main sites.

According to one legend, the construction of Angkor Wat was ordered by Indra to act as a palace for his son Precha Ket Mealea. According to the 13th century Chinese traveler Daguan Zhou, it was believed by some that the temple was constructed in a single night by a divine architect.

The initial design and construction of the temple took place in the first half of the 12th century, during the reign of Suryavarman II (ruled 1113 – c. 1150). Dedicated to Vishnu, it was built as the king's state temple and capital city. As neither the foundation stela nor any contemporary inscriptions referring to the temple have been found, its original name is unknown, but it may have been known as "Varah Vishnu-lok" (literally "Holy Vishnu Location", after the presiding deity. Work seems to have ended shortly after the king's death, leaving some of the bas-relief decoration unfinished. In 1177, approximately 27 years after the death of Suryavarman II, Angkor was sacked by the Chams, the traditional enemies of the Khmer. Thereafter the empire was restored by a new king, Jayavarman VII, who established a new capital and state temple (Angkor Thom and the Bayon respectively) a few kilometres to the north.



In the late 13th century, Angkor Wat gradually moved from Hindu to Theravada Buddhist use, which continues to the present day.

Angkor Wat is unusual among the Angkor temples in that although it was somewhat neglected after the 16th century it was never completely abandoned, its preservation being due in part to the fact that its moat also provided some protection from encroachment by the jungle.



One of the first Western visitors to the temple was António da Madalena, a Portuguese monk who visited in

1586 and said that it "is of such extraordinary construction that it is not possible to describe it with a pen, particularly since it is like no other building in the world. It has towers and decoration and all the refinements which the human genius

can conceive of." In the mid-19th century the temple was visited by the French naturalist and explorer, Henri Mouhot, who popularised the site in the West through the publication of travel notes, in which he wrote:

"One of these temples—a rival to that of Solomon, and erected by some ancient



Michelangelo—might take an honorable place beside our most beautiful buildings. It is grander than anything left to us by Greece or Rome, and presents a sad contrast to the state of barbarism in which the nation is now plunged."

Mouhot, like other early Western visitors, found it difficult to believe that the Khmers could have built the temple, and mistakenly dated it to around the same era as Rome. The true history of Angkor Wat was pieced together only from stylistic and epigraphic evidence accumulated during the subsequent clearing and restoration work carried out across the whole Angkor site. There were no ordinary dwellings or houses or other signs of settlement including cooking utensils, weapons,

or items of clothing usually found at ancient sites. Instead there is the evidence of the monuments themselves.



Those steps are very steep to climb and tiring. Up and down, up and down. The next day my muscles were that stiff I al-

most needed crutches to walk. They have no escalators there!

Angkor Wat re-quired consider-able restoration in the 20th century, mainly the removal of accumulated earth and vegetation. Work was interrupted by the civil war and Khmer Rouge control of the country during the 1970s and 1980s, but relatively little damage was done during this period other than the theft and destruction of mostly post-Angkorian statues.

The temple is a powerful symbol of Cambodia, and is a source of great



national pride that has factored into Cambodia's diplomatic relations with France, the United States and its neighbor Thailand. A depiction of Angkor Wat has been a part of Cambodian national flags since the introduction of the first version circa 1863

The splendid artistic legacy of Angkor Wat and other Khmer monuments in the Angkor region led directly to France adopting Cambodia as a protectorate on 11 August 1863 and invading Siam to take control of the ruins. This quickly led to Cambodia reclaiming lands in the northwestern corner of the country that had been under Siamese (Thai) control since 1351 AD (Manich Jumsai 2001), or by some accounts, 1431 AD. Cambodia gained independence from France on 9 November 1953 and has controlled Angkor Wat since that time.



Angkor Wat, is a unique combination of the temple mountain, the standard design for the empire's state temples and the

later plan of concentric galleries. The temple is a representation of Mount Meru, the home of the gods: the central quincunx of towers symbolises the five peaks of the mountain, and the walls and moat the surrounding mountain ranges and ocean. Access to the upper areas of the temple was progressively more exclusive, with the laity being admitted only to the lowest level.

Unlike most Khmer temples, Angkor Wat is oriented to the west rather than the east. This has led many (including Glaize and George Coedès) to conclude that Suryavarman intended it to serve as his funerary temple. Further evidence for this view is provided by the bas-reliefs, which proceed in a counter-clockwise direction—*prasavya* in Hindu terminology—as this is the reverse of the normal order. Rituals take place in reverse order during Brahminic funeral services. The archaeologist Charles Higham also describes a container which may have been a funerary jar which was recovered from the central tower. It has been nominated by some as the greatest expenditure of energy on the disposal of a corpse. Freeman and Jacques, however, note that several other temples of Angkor depart from the typical eastern orientation, and suggest that Angkor Wat's alignment was due to its dedication to Vishnu, who was associated with the west.

A further interpretation of Angkor Wat has been proposed by Eleanor Mannikka. Drawing on the temple's alignment and dimensions, and on the content and arrangement of the bas-

reliefs, she argues that the structure represents a claimed new era of peace under King Suryavarman II: "as the measurements of solar and lunar time cycles were built into the sacred space of Angkor Wat, this divine mandate to rule was anchored to consecrated chambers and corridors meant to perpetuate the king's power and to honor and placate the deities manifest in the heavens above." Mannikka's suggestions have been received with a mixture of interest and scepticism in academic circles. She distances herself from the speculations of others, such as Graham Hancock, that Angkor Wat is part of a representation of the constellation Draco.



Angkor Wat is the prime example of the classical style of Khmer architecture—the Angkor Wat style—to which it has given its name. By the 12th century Khmer architects had become skilled and confident in the use of sandstone (rather than brick or laterite) as the main building material. Most of the visible areas are of sandstone blocks,

while laterite was used for the outer wall and for hidden structural parts. The binding agent used to join the blocks is yet to be identified, although natural resins or slaked lime have been suggested.

Angkor Wat has drawn praise above all for the harmony of its design, which has been compared to the architecture of ancient Greece and Rome. According to Maurice Glaize, a mid-20th-century conservator of Angkor, the temple "attains a classic perfection by the restrained monumentality of its finely balanced elements and the precise arrangement of its proportions. It is a work of power, unity and style."



Architecturally, the elements characteristic of the style include: the ogival, redented towers shaped like lotus buds; half-galleries to broaden passageways; axial galleries connecting enclosures; and the cruciform terraces which

appear along the main axis of the temple. Typical decorative elements are devatas (Vedic deities) or apsaras (female spirit of the clouds and waters in Hindu and Buddhist mythology), bas-reliefs, and on pediments extensive garlands and narrative scenes. The statuary of Angkor Wat is considered conservative, being more static and less graceful than earlier work. Other elements of the design have been destroyed by looting and the passage of time, including gilded stucco (fine plaster) on the towers, gilding on some figures on the bas-reliefs, and wooden ceiling panels and doors.

The outer wall, 1024 by 802 m and 4.5 m high, is surrounded by a 30 m apron of open ground and a moat 190 m wide. Access to the temple is by an earth bank to the east and a sandstone causeway to the west; the latter, the main entrance, is a later addition, possibly replacing a wooden bridge. There are gopuras (entrance gateway to the Hindu temple enclosure) at each of the cardinal points; the western is by far the largest and has three ruined towers. Under the southern tower is a statue of Vishnu, known as Ta Reach, which may originally have occupied the temple's central shrine. Galleries run between the towers and as far as two further entrances on either side of the gopura often referred to as "elephant gates", as they are large enough to admit those animals. These galleries have square pillars on the outer (west) side and a closed wall on the inner (east) side. The ceiling between the pillars is decorated with lotus rosettes; the west face of the wall with dancing figures; and the east face of the

wall with balustered windows, dancing male figures on prancing animals, and devatas, including (south of the entrance) the only one in the temple to be showing her teeth.



The outer wall encloses a space of 820,000 square metres (203 acres), which besides the temple proper was originally occupied by the city and, to the north of the temple, the royal palace. Like all secular buildings of Angkor, these were built of perishable materials rather than of stone, so nothing remains of them except the outlines of some of the streets. Most of the area is now covered by forest. A 350 m causeway connects the western gopura to the temple proper, with naga (group of serpent deities in Hindu and Buddhist mythology) balustrades and six sets of steps leading down to the city on either side. Each side also features a library with entrances at each cardinal point, in front of the third set of stairs from the

entrance, and a pond between the library and the temple itself. The ponds are later additions to the design, as is the cruciform terrace guarded by lions connecting the causeway to the central structure.

The temple stands on a terrace raised higher than the city. It is made of three rectangular galleries rising to a central tower, each level higher than the last. Mannikka interprets these galleries as being dedicated to the king, Brahma, the moon, and Vishnu. Each gallery has a gopura at each of the points, and the two inner galleries each have towers at their corners, forming a quincunx with the central tower. Because the temple faces west, the features are all set back towards the



east, leaving more space to be filled in each enclosure and gallery on the west side; for the same reason the west-facing steps are shallower than those on the other sides.

The outer gallery measures 187 by 215 m, with pavilions rather than towers at the corners. The gallery is open to the outside of the temple,

with columned half-galleries extending and buttressing the structure. Connecting the outer gallery to the second enclosure on the west side is a cruciform cloister called Preah Poan (the "Hall of a Thousand Gods"). Buddha images were left in the cloister by pilgrims over the centuries, although most have now been removed. This area has many inscriptions relating the good deeds of pilgrims, most written in Khmer but others in Burmese and Japanese. The four small courtyards marked out by the cloister may originally have been filled with water. North and south of the cloister are libraries.

Beyond, the second and inner galleries are connected to each other and to two flanking libraries by another cruciform terrace, again a later addition. From the second level upwards, devatas abound on the walls, singly or in groups of up to four. The second-level enclosure is 100 by 115 m, and may originally have been flooded to represent the ocean around Mount Meru. Three sets of steps on each side lead up to the corner towers and gopuras of the inner gallery. The very steep stairways represent the difficulty of ascending to the kingdom of the gods. This inner gallery, called the Bakan, is a 60 m square with axial galleries connecting each gopura with the central shrine, and subsidiary shrines located below the corner towers. The roofings of the galleries are decorated with the motif of the body of a snake ending in the heads of lions or garudas (large mythical bird, bird-like creature, or humanoid bird that appears in both Hindu and Buddhist mythology) . Carved lintels and pediments decorate the entrances to the



galleries and to the shrines. The tower above the central shrine rises 43 m to a height of 65 m above the ground; unlike those of previous temple mountains, the central tower is raised above the surrounding four. The shrine itself, originally occupied by a statue of Vishnu and open on each side, was walled in when the temple was converted to Theravada Buddhism, the new walls featuring standing Buddhas. In 1934, the conservator George Trouvé excavated the pit beneath the central shrine: filled with sand and water it had already been robbed of its treasure, but he did find a sacred foundation deposit of gold leaf two metres above ground level.

The bas-relief of the Churning of the Sea of Milk shows Vishnu in the centre, his turtle Avatar (god or goddess appearing in bodily form on earth) Kurma (second Avatar of Vishnu) below, asuras (group of power-seeking deities) and devas to left and

right, and apsaras and Indra (leader of the Devas or gods and the lord of Svargaloka or heaven in the Hindu religion) above.

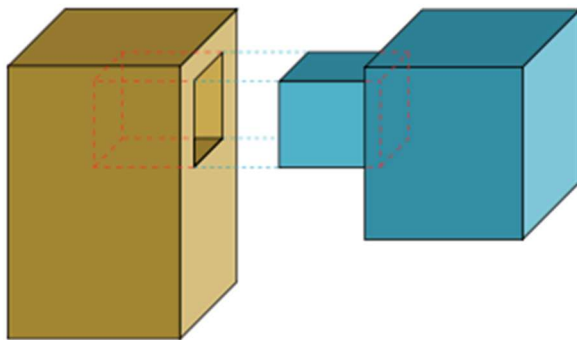
Integrated with the architecture of the building, and one of the causes for its fame is Angkor Wat's extensive decoration, which predominantly takes the form of bas-relief friezes. The inner walls of the outer gallery bear a series of large-scale scenes mainly depicting episodes from the Hindu epics the Ramayana and the Mahabharata. Higham has called these, "the greatest known linear arrangement of stone carving". From the north-west corner anti-clockwise, the western gallery shows the Battle of Lanka (from the Ramayana, in which Rama defeats Ravana) and the Battle of Kurukshetra (from the Mahabharata, showing the mutual annihilation of the Kaurava and Pandava clans). On the southern gallery follow the only historical scene, a procession of Suryavarman II, then the 32 hells and 37 heavens of Hindu mythology.



On the eastern gallery is one of the most celebrated scenes, the Churning of the Sea of Milk, showing 92 asuras and 88 devas using the serpent Vasuki to churn the sea under Vishnu's direction (Mannikka counts only 91 asuras, and explains the asymmetrical numbers as representing the number of days from the winter solstice to the spring equinox, and from the equinox to the summer solstice). It is followed by Vishnu defeating asuras (a 16th-century addition). The northern gallery shows Krishna's victory over Bana (where according to Glaize, "The workmanship is at its worst") and a battle between the Hindu gods and asuras. The north-west and south-west corner pavilions both feature much smaller-scale scenes, some unidentified but most from the Ramayana or the life of Krishna.

Angkor Wat is decorated with depictions of apsaras and devata; there are more than 1,796 depictions of devata in the present research inventory. Angkor Wat architects employed small apsara images (30–40 cm) as decorative motifs on pillars and walls. They incorporated larger devata images (all full-body portraits measuring approximately 95–110 cm) more prominently at every level of the temple from the entry pavilion to the tops of the high towers. In 1927, Sappho Marchal published a study cataloging the remarkable diversity of their hair, headdresses, garments, stance, jewelry and decorative flowers, which Marchal concluded were based on actual practices of the Angkor period.[43][44]

The stones, as smooth as polished marble, were laid without mortar with very tight joints that are sometimes hard to find. The blocks were held together by mortise and tenon joints in



some cases , while in others they used dovetails and gravity. The blocks were presumably put in place by a combination of elephants, coir ropes, pulleys and

bamboo scaffolding. Henri Mouhot noted that most of the blocks had holes 2.5 cm in diameter and 3 cm deep, with more holes on the larger blocks. Some scholars have suggested that these were used to join them together with iron rods, but others claim they were used to hold temporary pegs to help manoeuvre them into place.

The monument was made out of enormous amounts of sandstone, as much as Khafre's pyramid in Egypt (over 5 million tons). This sandstone had to be transported from Mount Kulen, a quarry approximately 40 km to the northeast. The stone was presumably transported by raft along the Siem Reap river. This would have to have been done with care to avoid overturning the rafts with such a large amount of weight. One modern engineer estimated it would take 300 years to complete Angkor Wat today. Yet the monument was begun soon after Suryavarman came to the throne and was finished shortly after his death, no more than 40 years.

Virtually all of its surfaces, columns, lintels even roofs are carved. There are miles of reliefs illustrating scenes from Indian literature including unicorns, griffins, winged dragons pulling chariots as well as warriors following an elephant-mounted leader and celestial dancing girls with elaborate hair styles. The gallery wall alone is decorated with almost 1,000 square meters of bas reliefs. Holes on some of the Angkor walls indicate that they may have been decorated with bronze sheets. These were highly prized in ancient times and were a prime target for robbers. While excavating Khajuraho, Alex Evans, a stonemason and sculptor, recreated a stone sculpture under 4 feet (1.2 m), this took about 60 days to carve. Roger Hopkins and Mark Lehner also conducted experiments to quarry limestone which took 12 quarrymen 22 days to quarry about 400 tons of stone. The labor force to quarry, transport, carve and install so much sandstone must have run into the