CROCODILES, A FROG, AND OTHER ANCIENT KHMER COSMIC SYMBOLS

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ABSTRACT

"The River of a Thousand Linga" of Mount Kbal Spean in Siem Reap province, Cambodia, is well known for cosmologically symbolic rock carvings, including linga and numerous bas-reliefs of Vishnu reclining on the endless snake Ananta. A less well-known stone image of a frog facing upstream on the ledge of the Kbal Spean Waterfall could represent Mahamanduka, the primordial frog and source of rain in Hindu religion. Three bas-relief images of crocodiles associated with Shiva or Vishnu could represent the related concepts of the Primordial Cosmos or Chaos (the Cosmic Sea) and the non-manifest (bodiless, formless) Shiva as well as the ancient Indian cosmic creative device or symbol *makara*. The mythological crocodile or *makara* takes various forms from naturalistic to abstract and is one of the most pervasive of all ancient Hindu cosmological symbols in Cambodia as well as in India. Kbal Spean bas-reliefs with crocodiles probably date from the eleventh and twelfth centuries. Crocodiles in bas-reliefs of the tenth-century Prasat Kravan, twelfth-century Angkor Wat and Thommanon, and thirteenth-century Bayon apparently are of comparable significance.

A cosmic crocodile occurs at the apex of the bas-relief of an eight-armed Vishnu Trailokyanatha in the central tower of Prasat Kravan, a tenth century temple near Angkor Wat. Immediately below it is a row of nine figures interpreted here as the navagraha or Nine Planetary Divinities. These differ from other Khmer representations of navagraha in several remarkable ways. A large anthropomorphic figure on the extreme left of the scene is represented only by the chest and head with an elaborate coiffeur. This presumably represents the Sun-god Surya. Identification of the ensemble as navagraha, however, is based mainly on the presence of Rahu and Ketu, identifiable because they are closer together than the other figures, are shown only from the waist up, and have enlarged heads. The remaining figures are standing wide apart and are undifferentiated from each other. All of the figures except that of the supposed Surya have the hands joined in front of the body in anjali mudra. The absence of clouds enveloping the lower half of the bodies of Rahu, and the uniform appearance of the other navagraha without attributes or mounts — otherwise unknown in navagraha depictions—suggest that the scene represents the moment of their creation.

The ancient Sanskrit name makara and its derivatives mugger, muggar, maggur, etc., in modern Indian languages, refers to the Indian freshwater crocodile species Crocodylus palustris. The name makara probably was in use for the biological species long before it was applied to mythological animals and cosmic symbolism such as the creative or transformational gateways of Hindu temples known as "makara arches."

Key words.—Astrology, Crocodylus palustris, Kbal Spean, Mahamanduka, makara, navagraha, Prasat Kravan, Prasat Neang Khmau, Thommanon, Bhikshatanamurti, vajimukha, Vishnu Anantashayin

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INTRODUCTION Figure 1

The small river known today as "Stung Siem Reap" played a major role in the civilization of pre-Angkorean and Angkorean Cambodia. During this history its lower course was changed several times. When the pre-Angkorean site of Ak Yom was having its hey-day, in the seventh to eighth centuries, the lower part of the stream could have flowed in a northwesterly direction to the north of the area later occupied by the West Baray before flowing into the Great Lake. During the early Angkorean period, in the ninth and tenth centuries, it flowed into the lake in the vicinity of Lolei and Roluos. During this period its lower course probably corresponded to what is now the decapitated Stung Roluos. It has followed its present course, flowing between the west side of the East Baray and the east side of Angkor Thom, then through what is now the modern settlement of Siam Reap, and into the lake, only since about the eleventh century.

In the ninth-century Roluos period, the river would have fed the Indratataka, the great baray or reservoir built by Indravarman (reigned 877-889), successor to Jayavarman II and Jayavarman III (BRIGGS, 1951: 99, 102). Soon afterwards, in the tenth century, it would have fed the East Baray, built by Yashovarman I (son and successor of Indravarman, reigned 889-910), and originally named the Yashodharataka (op cit.: 106-108). At this time the Stung Siem Reap was diverted from its course and "conducted in straight lines along the western part of the north dike and along the west side of the baray" (op cit.: 106). Possibly this diversion of the river away from Roluos contributed to the temporary abandonment of Roluos. When the West Baray (the original name of which I have not seen mentioned) was built probably beginning in the reign of Suryavarman I (1002-1050) and continued during that of Udayadityavarman II (1050-1066) (op cit.: 165), it was filled by the Siem Reap River. The last of the great reservoirs of ancient Khmer civilization, generally known as the North Baray or the Baray of Preah Khan, but originally called the Jayatataka, was built during the reign of Jayavarman VII (1181-ca 1220) (op cit.: 218). The water resources of the earlier civilization of Ak Yom are not well known; perhaps it was served by a somewhat smaller baray within the area later occupied by the West Baray.

These historical changes in the course of the Stung Siem Reap probably all resulted from human manipulations. They were achieved and maintained by a variety of hydrological technology, including surveying techniques, dykes or dams, excavations and embankment of the natural stream beds, diversionary canals, and large irrigation reservoirs known as *baray*.

In addition to the great reservoirs were numerous ponds and moats, some of them quite large, associated with many of the temples. These also had to be supplied and maintained, involving further modifications of the course and flow of the Siem Reap River.

Under natural conditions, rivers tend to find the shortest path to deliver water to their outlet. The natural flow thus established also usually delivers the maximum amount of water possible. Alterations imposed by man inevitably result in water loss. While some places and functions benefitted greatly by engineering modifications of the Siem Reap River, others suffered. Drought, short-term as well as long term, must be included in the list of possible environmental impacts that troubled Khmer civilization.

Hydrological technology was not in itself sufficient to insure the supply of water to the Angkorean civilization. Adequate rainfall also was needed. The Khmer called upon their gods for assistance in providing the rain. This included carving appropriate cosmological symbolism into the river bed of the sources of the Siem Reap River.

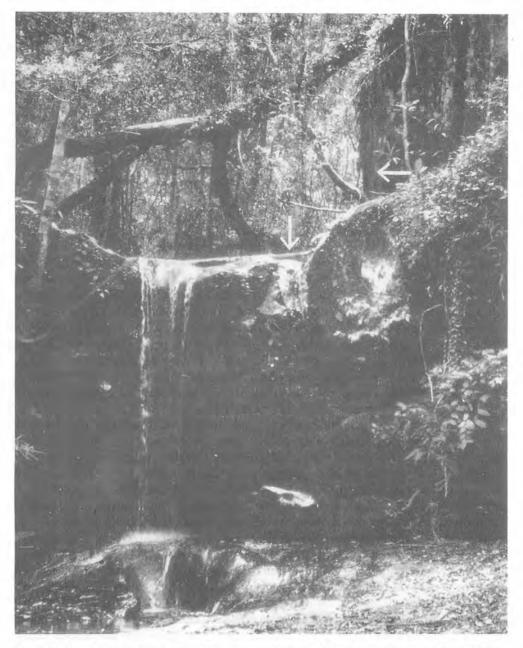


Figure 1. Waterfall at Kbal Spean, "la chute de la grenouille." All of the decorated images of the Stung Siem Reap at Kbal Spean are upstream from this waterfall. The arrow directed downwards indicates the site of the stone frog, observable as a dark oval object a bit below the log spanning this part of the waterfall. The sideways arrow indicates the part of the rock wall on the inside of which was placed the bas-relief of Shiva standing below a crocodile (from BOULBET & DAGENS, 1973). The Stung Siem Reap has two main sources. One arises in the Phnom Kulen (Mount Kulen) and the other in Mount Kbal Spean. The Phnom Kulen branch, the larger of the two, was the essential water resource for the late pre-Angkorean and earliest Angkorean center of civilization that developed on the Phnom Kulen plateau during the reign of Jayavarman II. The entirely rocky and steep terrain of Mt Kbal Spean did not lend itself to comparable settlement. The rivers in both mountains were decorated with sacred rock-carvings, including the "thousand linga" or *sahasralinga* and Vishnu *Anantashayin*. At the commencement of his cosmic dreaming while reclining on Ananta, Vishnu must dream the waters themselves into existence.

The above paragraphs provide a fair overview of the extent and kinds of interventions imposed on the natural hydrology of the Angkorean flood plain. Since writing them I received a recent issue of Catch and Culture with an article "Is the Siem Reap River a River?" by Matti Kummu and Terry Lustig (KUMMU & LUSTIG, 2005). According to this account the area embraced two watersheds before the Angkorean period, that of Stung Puok or Puok River and the Stung Roluos or Roluos River. Both arose in the Phnom Kulen Mountains, the Puok flowing generally southwestwards to join the Stung Sen just above where it flows into the northern end of the Great Lake. The Roluos flowed more nearly southwards to enter the Great Lake well to the south of Angkor and the modern town of Siem Reap (op cit., fig. 1). According to these authors the Siem Reap River is an artificial river sui generis, i.e., owing its existence entirely to human intervention. This seems unlikely. The ancient hydrologists built on pre-existing rivers, even if they were insignificant streams that did not flow all year round. Their diversions always diminished the waters of one stream (even to the point of desiccation) while augmenting those of another. The riverless area shown on the first map in KUMMU & LUSTIG between the lower reaches of the Puok and Roluos rivers presumably was occupied by the much smaller watershed of the early Siem Reap River.

In a land with many enchanting and holy places, Kbal Spean is particularly special. It is named after a sort of natural rock bridge (span or spean) that hides the river for some 60 feet. A few hundred meters downstream the deeply forested river falls over a 5–6 m high waterfall. A frog carved out of stone sits on the ledge of the fall facing upstream. Above this waterfall the rocks of the river banks and river bed are decorated with numerous Hinduist images. Inscriptions at the site indicate that at least some were made during or soon after the reign of Suryavarman I (1002–1050) and during the reign of Udayadityavarman II (1050–1066).

The "twin" temples of Prasat Kravan and Prasat Neang Khmau were built in the early tenth century near the end of the reign of Harsharvarman I (ca 900–923). Prasat Kravan is near Angkor Wat, while Prasat Neang Khmau is at Tonle Bati, nearly 300 km south. The trip between the two sites can be made almost entirely by water via the Stung Siem Reap, Great Lake, Tonle Sap canal, Mekong mainstream, and Tonle Bati canal.

Prasat Kravan and Prasat Neang Khmau both consisted originally of five chapels or towers set close together in a straight line from North to South, with their single doors facing East. All five towers of Prasat Kravan were restored by EFEO in the 1960's. They are notable for having the interior walls decorated with bas-reliefs carved on brick surfaces. The most important of these bas-reliefs, occupying the West wall of the central tower, is the so-called Vishnu *Trailokyanatha* bas-relief. Fortunately this highly detailed relief is in superb condition. Except for some damage to the central Vishnu figure, it is virtually intact and in almost original condition. At the top, enclosed in a small cosmic space or *makara* arch by itself, is a realistically sculpted crocodile. The central Vishnu also is enclosed in a *makara* arch, as is the entire bas-relief. Prasat Neang Khmau, of which only two dilapidated brick towers remain standing (the other three are totally reduced), is equally notable for the decoration of its interior brick walls with paintings. These may be the only paintings surviving from Angkorean times until the twentieth century. The most important of them, and the focus of the second half of this article, is much smaller and simpler but basically similar to the Vishnu *Trailokyanatha* basrelief of Prasat Kravan. Unfortunately is was almost totally destroyed; according to a guide at the temple this happened when prisoners were kept under close confinement in the tower by the Khmer Rouge.

A photograph of the painting was published by MARCHAL (1955) but without remarks on its history. Hence it is unclear how close the painting in the photograph is to the original appearance. It has the look of being substantially restored from a painting perhaps already extensively damaged. Unlike the Prasat Kravan bas-relief, the rows of figures are nearly uniform. Immediately above the Vishnu is a horizontally elongate form that might represent a crocodile. There is no indication of a panel with *navagraha*. While the Vishnu Trailokyanatha painting of Prasat Neang Khmau and bas-relief of Prasat Kravan clearly present the same theme, and may have served similar purposes, neither of them is a copy of the other. It is unclear which is earlier.

Just as no one had made a serous effort to explain the symbolism of the crocodiles and the stone frog on the ledge of the waterfall at Kbal Spean, so the meaning of the Prasat Kravan Vishnu *Trailokyanatha* bas-relief and its crocodile were previously unexplored.

KBAL SPEAN INSCRIPTIONS

Four inscriptions—K. 1011, 1012, 1015 and 1016—have been found at Kbal Spean (BOULBET & DAGENS, 1973: 11, footnote 3). These are on the wall of a rocky recess above the waterfall; on the left bank of the fall (*op cit.*, photo 2); on a rock with a bas-relief of Siva and Uma mounted on Nandin (*op. cit.*, photo 6); and on a rock in the river bed itself further upstream (*op. cit.*: 11, footnote 1). These inscriptions have yet to be reported upon fully. One of them, K. 1011.2, bears the tentatively established date of 978 (BOULBET & DAGENS, 1973, footnote 1 on p. 49), which would put it during the reign of Jayavarman V (969–ca 1000). A much later inscription relates that in 1054 a minister of Suryavarman I [supposedly deceased in 1050] had the site decorated by a thousand linga (*sahasralinga*). Then in 1059 Udayadityavarman II (reigned 1050–1066) "paid a solemn visit to the river and dedicated there a large gold (probably gilded) *linga*" (BOULBET & DAGENS, 1973).

Decoration of the Kbal Spean site was completed by Jayavarman VII [reigned 1181–ca 1220] according to BOULBET & DAGENS (1973: 49), but no documentation is provided for this statement. Presumably it does not relate to the decoration of the riverbed, which is entirely Shivaite and Vishnuite, but rather to a small Buddhist temple or temples, now in an advanced state of ruin.

Given his ubiquitous involvement throughout the kingdom and personal identification as Vishnu, it is surprising that there is no indication of the involvement of Suryavarman II (reigned 1113–ca 1150) at Kbal Spean. Apart from the lack of inscriptions dating from his reign, there are no images of Suryavarman II as Vishnu reclining on a *gajasimha* rather than on the naga Ananta (for further explanation see ROBERTS, 2004) or other bas-reliefs that can be associated with him.

CROCODILES OF KBAL SPEAN AND PRASAT KRAVAN Figures 2, 4, 6

The Prasat Kravan brick bas-relief of Vishnu *Trailokyanatha* and the rock carvings in the "River of a Thousand Linga" or Stung Siem Reap of Kbal Spean prominently feature a reptile that has defied previous attempts at explication. Kamaleswar Bhattacharya, in *Religions brahmaniques dans l'ancien Cambodge*, mentioned briefly the image of a crocodile at the top of the Prasat Kravan bas-relief of an eight-armed Vishnu. Perhaps influenced by George Coedès, he suggested that it might represent "une mythe autocthone" (BHATTACHARYA, 1961: 108–109, pl. 18). By this he presumably meant that crocodile images with similar symbolic significance apparently do not occur in India, and therefore that the Prasat Kravan crocodile might represent a local Cambodian tradition. As other possible examples he mentioned bas-reliefs that include lizard- or crocodile-like images at Angkor Wat, the Bayon, and Beng



Figure 2. Shiva standing below a crocodile on rock wall to the right and above the frog. The object in Shiva's upraised right hand is unidentified (could it be a frog?). The small gods sitting at Shiva's feet are the four-armed Vishnu (on the right side of Shiva) and the four-headed Brahma (on his right side). The crocodile and two groups of small figures to left and right were all that remained of the bas-relief at the time of my first visit to the site. The entire bas-relief was still intact some time between its discovery in 1968 and 1973 when it was photographed by Jean Boulbet (Figs. 2–3). By 1998 the central part (including Shiva, Vishnu and Brahma) had been gouged out (ROVEDA, 2002: 262, footnote 4). For further remarks and discussion see text (from BOULBET & DAGENS, 1973).

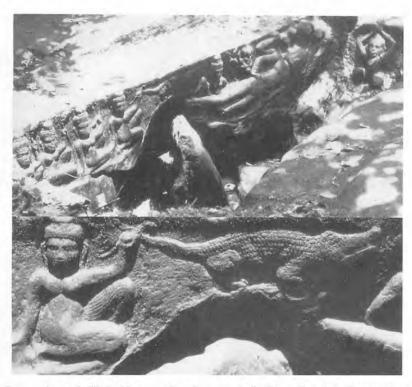


Figure 3. Rectangular pool, filled with water when the stream is flowing well, a short distance above the waterfall, with opposing images of Vishnu *Anantashayin*. Above, overall view of one side of the pool with one of the two reclining Vishnu. In the center and at the top of the bas-relief is a crocodile with a goddess holding the end of its tail (crocodile largely hidden in shadow in photograph above). Below, detail with crocodile (from BOULBET & DAGENS, 1973).



Figure 4. Another Vishnu *Anantashayin* with a crocodile at the top of the scene, in a sacred pool located a bit further upstream (from BOULBET & DAGENS, 1973).



Figure 5. Stone frog at the top of the Kbal Spean waterfall. The frog's head is pointed upstream. Left, the frog's right side; right, its left side (photographs by author). A series of jaw-teeth are clearly depicted in the photo. None of the living frog species in Cambodia have jaw teeth.



Figure 6. Prasat Kravan Vishnu Trailokyanatha brick bas-relief; for explanation see text (photo by Luc Ionescu, from JACQUES & FREEMAN, 1997).

Mealea. As footnoted by Bhattacharya, these images were mentioned by George Coedès in an article on Beng Mealea (COEDÈs, 1913). Coedès, however, identified them not as crocodiles but as lizards. Authors who have identified the reptile as a lizard, usually a chameleon, have linked it to a late *Reamker* (Cambodian *Ramayana*) story of Ravanna changing into a lizard in order to gain access to Krishna's palace and seduce Sitha. Authors who have followed Bhattacharya in recognizing it as a crocodile have also agreed with him that its meaning is unknown (GITEAU, 1965: 133; JACQUES & FREEMAN, 1997: 88; ROVEDA, 2002: 103).

Whereas Coedès and Bhattacharya knew of the Prasat Kravan crocodile, they did not know about the crocodile images of Kbal Spean. The latter site supposedly was unknown to Europeans until its discovery in February 1968 (BOULBET & DAGENS, 1973). The Kbal Spean saurian or reptile images, of which there are at least three, clearly represent crocodiles. They are prominently displayed, at or near the top, in bas-reliefs with undoubted cosmological significance. These include one with a giant standing Shiva (identified by BOULBET & DAGENS, 1973, as *Bhikshatanamurti*, "Shiva as mendicant") and two with Vishnu reclining on the naga Ananta while he dreams of creation and gives birth to Brahma.

The reptile is identified here as a crocodilian. Chameleons (Chameliontidae) occur naturally in Africa, Madagascar (where their diversity is greatest), parts of the Near East, and India and Sri Lanka (only one species). They are absent in the rest of Asia including Cambodia. These strange slowly-moving lizards, with independently-moving beady eyes on turret-like stalks, deep bodies, and prehensile tails, never frequent houses, temples or other buildings. Some live on the ground, but most live in trees or thick bush. Geckos are members of a different family of lizards, Gekkonidae. Some of the smaller species of this family, commonly known as "house geckos", habitually dwell in human constructions. They readily climb walls and run upside down on ceilings; chameleons do not have these abilities. In Cambodia, as in Thailand, there are two common species of house geckos. These are *Cosymbotus platyurus* (SCHNEIDER, 1792) and *Hemidactylus frenatus* (DUMERIL & BIBRON, 1836) (Jarujin Nabhitabhata, pers. comm., October 2005). They attain a total length of about 140 mm (some gecko species that usually do not enter houses grow considerably larger). The lizard of the Ravana story presumably is a gecko but it is not identifiable with the reptile of Prasat Kravan or Kbal Spean.

The Prasat Kravan and Kbal Spean saurians surely represent the same animal, identifiable as a crocodile (Crocodylidae). Ancient Cambodia, like the modern country, probably had only two species of Crocodylidae. Commonest was *Crocodylus siamensis* Schneider 1801. Attaining only 3.5 m, this species usually does not attack humans unless the female is provoked while guarding her nest. The other species is the estuarine crocodile, *C. porosus* Schneider 1801. Attaining 7–8 m, this is the most dangerous crocodile species in the world and is extremely aggressive. This presumably is the species depicted eating people in the aquatic battle scenes of the Bayon bas-reliefs. It probably is the species "as large as a boat" mentioned by Chou Takuan or Zhou Daguan, the late thirteenth century Chinese visitor to Angkor. Although now rare or absent in Cambodia's Great Lake, in Angkorean times it probably was not uncommon there.

Four related or nested hypotheses are proposed here concerning the symbolic significance of this crocodile. First, that it represents the shoreless, featureless, and limitless Cosmic Sea or Chaos. Second, that it represents the Supreme Non-Manifest Shiva. Third, that it represents a *makara* or cosmic creation device. Fourth, that it portrays the crocodile in Indian myths involving Shiva and Vishnu. These hypotheses are mutually compatible: the crocodile may represent all four things. How the crocodile is interpreted, as with other religious symbolism, depends upon the observer's experience and level of understanding.

The concept of *makara* reached Cambodia from India. The oldest Indian mythological *makara* probably was basically a crocodile. Later versions typically represent combinations of a crocodile (rarely shark) head, often with an elephant-like snout or trunk, and the body of an elephant, lion, or fish. The most constant element, however, is the crocodile. The *makara* is visually depicted in two main ways. It may be represented in the round or in profile, showing the entire head and body, or frontally, in which only a more or less abstract version of the gaping mouth is presented. In Khmer versions of the gaping mouth of a *makara*, the sides of the gape usually exhibit a small profile version of the *makara* head. Symbolically the *makara* mouth represents a portal or gateway between worlds, such as between the celestial realm and earth. For further discussion of the *makara* arch as a cosmic creation device and for its relationship to crocodiles see ROBERTS (2004: 143–144).

KBAL SPEAN FROG Figure 5

The intimate association of frogs and toads with water has earned for these creatures a widespread reputation as custodians of rain; and hence they often play a part in charms designed to draw needed showers from the sky... it is said that the Aymara Indians often make little images of frogs and other aquatic animals and place them on the tops of hills as a means of bringing down rain.

-Sir James Fraser, "The Golden Bough"

The cosmological significance of the Kbal Spean site is indisputable. The presence of a stone frog in such a conspicuous place where it actually is the very first artifact, facing upwards towards many hundreds of artifacts, must also be significant. One possibility from classical Indian mythology is that it represents the Great Primeval Frog Mahamanduka. Its enormous energy supports the World Serpent, Sesha or Ananta, which in turn supports the Universe (STUTLEY, 1985). The frog is, of course, an emanation of Shiva.

The frog, previously mentioned but not illustrated by BOULBET & DAGENS (1973), is on the rock ledge of the waterfall just before it plunges down. During the wet season the frog may be completely submerged. Only if the stream stops flowing, so that water only goes over part of the fall, is it fully emerged. This stone frog is about 60 cm long. Its head faces directly upstream against the current. It appears to have been carved from a piece of stone projecting from the edge of the waterfall. BOULBET & DAGENS refer to the frog as appearing in one of their photographs, but it seems there is no frog in their photographs, and certainly not the frog illustrated here on the lip of the waterfall.

The Shivaite yogic posture *Mandukasana* literally means "sitting like a frog." For about one thousand years, then, this frog has been sitting patiently at the same spot on the lip of Kbal Spean Waterfall. With its snout pointing upstream into the current, its energy continues to support Ananta in the numerous Vishnu Anantashayin bas-reliefs upstream. This ensures that the water keeps flowing from the mountain down to the plains of Angkor and into the Great Lake.

KBAL SPEAN SHIVA Figure 2

On a sheer rock wall immediately to the left and a couple of meters above the Kbal Spean frog is now the recently gouged-out remains of a splendid bas-relief topped by a crocodile. The crocodile and two groups of small figures to left and right were all that remained of the bas-relief at the time of my first visit to the site. The entire bas-relief was still intact some time between its discovery in 1968 and 1973 when it was photographed by Jean Boulbet (Figs. 2–3). By 1998 the central part (including Shiva, Vishnu and Brahma) had been gouged out (ROVEDA, 2002: 262, footnote 4).

The entire scene was referred to as the "bas-relief of the gecko" and the large standing central figure as the *Bhikshatanamurti* of Shiva. The gecko, of course, is our crocodile. At the feet of the Shiva, immediately to his left and to his right, were small kneeling images of the four-headed Brahma and four-armed Vishnu. These also are now gone.

The Shiva at Kbal Spean waterfall was identified by Jean Boulbet and Bruno Dagens as *Bhikshatanamurti*, that is, Shiva in the guise of a mendicant or ascetic. They did not discuss this identification. Presumably it was based upon the relatively well known images of Shiva *Bhikshatanamurti* standing beneath a reptile (actually a crocodile) in the Southwest Corner Pavilion of Angkor Wat (BHATTACHARYA, 1961; GITEAU, 1965) and in bas-reliefs of the Bayon (DAGENS, 1969). While there is good reason to accept the *Bhikshatanamurti* identification of the Angkor Wat image, the identification of the Kbal Spean Shiva as such may be questioned. The associated Kbal Spean bas-reliefs, unlike those in the Angkor corner pavilion, are not devoted to the episodes of Rama, Lakshmana and Sitha in the Dura forest. The Kbal Spean Shiva is not surrounded by the *rishi patani* or wives of the Brahmins or other scenes associated with the *Bhikshatanamurti*. He is not obviously dressed as an ascetic.²

The Kbal Spean standing Shiva with its upraised arm touching the fundament on which the crocodile is lying calls to mind the tiny figure of Shiva on the viewer's left of the series here identified with *navagraha* in the next to upper register of the Prasat Kravan Vishnu *Trailokyanatha* bas-relief. This Shiva also has its upraised hand touching the fundament of the crocodile. In its hand is an unidentified object or attribute that may be the same as the unidentified object that looks like a rock in the upraised hand of the Kbal Spean Shiva. The Shiva in this unusual *navagraha* composition obviously has nothing to do with Shiva *Bhikshatanamurti*. If its identification with the Kbal Spean Shiva is correct as seems likely, then the Kbal Spean Shiva also is not *Bhikshatanamurti*. Until a more specific identification can be made, this Shiva image may be referred to as an example of *Maheshvara* (a relatively non-committal or non-specific name for a great Shiva in anthropomorphic guise).

KBAL SPEAN VISHNU ANANTASHAYIN Figures 3–4

As mentioned in the Introduction, there are many bas-reliefs of Vishnu Anantashayin-Vishnu reclining on the back of the naga Ananta while dreaming the creation-at Kbal

²On the point of the attire of the Angkor Wat Bhikshatanamurti, see discussion in Roveda, 2002: 100-104.

Spean. BOULBET & DAGENS (1973: 13, footnote 1) stated that there are 15. They published photos of 11 of them (photos 4a, c–d; 5b–c; 10, 12a–c; and 13a–b. One more is shown in COE (2003: 81, fig. 33). It seems that the only ones with the crocodile are those on the walls of the two *travan* or rectangular pools dug out of the rocky stream bottom. All of them are in the river itself, so that at high water they are nearly or entirely under water. Most of them have been carved out of the sides of stones projecting from the river bed. At low water they may be entirely exposed or in pools or depressions, mostly natural, where water collects. In at least one site an opposing pair occurs on the walls of a rectangular pool excavated from the solid rock substrate. The purpose of all of these images may have been to ensure that Vishnu continues to dream the Cosmic Sea into existence by stimulating the flow of its headwater of the Stung Siem Reap on Phnom Kbal Spean. Other images are found in the branch of the Stung Siem Reap on nearby Phnom Kulen.

At least two of the Kbal Spean Vishnu *Anantashayin* exhibit an unusual feature: a crocodile (Figs. 3–4). The animal is prominently displayed near the middle and at the top in both instances. These are the only examples of reclining Vishnu known to me in which crocodiles appear at the top of the scene. There are no examples of this in Mireille Benisti's well-illustrated paper on Khmer reclining Vishnu (BENISTI, 1965). Crocodiles occasionally are included in such scenes, but they do not have the same cosmological significance. They appear in the Cosmic Sea beneath Vishnu, and then always in the company of an assortment of other aquatic organisms, typically including lotus, fish, and occasionally turtles. In most ways the Kbal Spean reclining Vishnu images are typical of the Khmer genre and therefore also of the Indian models. They often include Brahma seating on a lotus, the stem of which arises from Vishnu's navel (Fig. 5).

PRASAT KRAVAN'S EIGHT-ARMED VISHNU Figures 6–7

One of the most significant Khmer bas-reliefs featuring the "celestial" or "primordial crocodile" is the eight-armed Vishnu *Trailokyanatha* bas-relief of Prasat Kravan. An excellent photograph of this bas-relief was published by JACQUES & FREEMAN (1997: 87). The figure caption reads: "Eight-armed Vishnu surrounded by rows of attendants whose precise significance is unknown, as is that of the crocodile above. West wall of the central shrine, Prasat Kravan (photo: Luc Ionescu)." This photo is reproduced here as Fig. 6. One need only compare it with the poor quality photographs published earlier to understand why so little has been known about the details of the bas-relief before now. I visited the central tower of Prasat Kravan several times but could not make out the details of this bas-relief at all well in the dim light.

Prasat Kravan was built about 921 and dedicated to Vishnu *Trailokyanatha*, as indicated by the Prasat Kravan inscription (*Inscriptions Cambodges*, IV, p. 68). The most important of three bas-reliefs in the central sanctuary or tower of Prasat Kravan, indicated by its central position, is that of the eight-armed Vishnu *Trailokyanatha* (BHATTACHARYA, 1961: 108). Two other bas-reliefs represent *Garudavahana* (four-armed Vishnu mounted on an anthropomorphic Garuda) and *Trivikrama* (Vishnu taking three giant steps to establish his rule over the three realms). The name "*Trailokyanatha*" means "Lord of the Three Worlds" (BHATTACHARYA, 1961). The Three Worlds, in some contexts, correspond to the heavens or celestial realm, the



Figure 7. Details from Prasat Kravan Vishnu Trailokyanatha bas-relief. Above, the crocodile; middle, the row of figures including the one figure with its hands raised above the head; and bottom, the row of figures including the male and female *vajimukha*. Although somewhat simplified, the crocodile is recognizable by anyone familiar with reptiles.



Figure 8. The two remaining towers of Prasat Neang Khmau (photo by author, 12 March 2006).



Figure 9. Two of the three statues recovered from Prasat Neang Khmau. Left, theriomorphic statue with horse-head; right, headless statue of the so-called "black lady" (*neang khmau*) (from DALSHEIMER, 2001). The head of the horse-headed statue differs in color from the body because it was separated from it for a long time under different conditions.

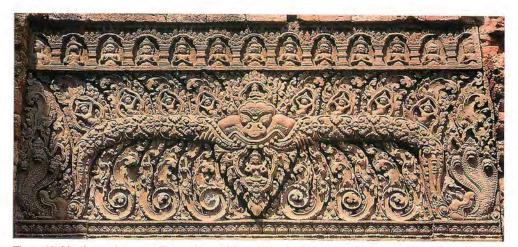
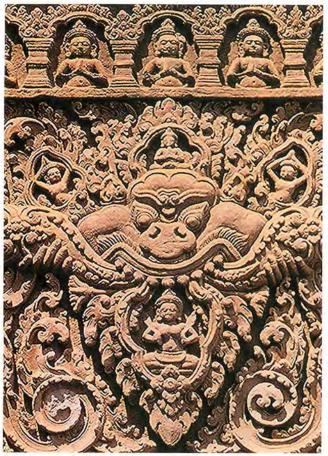


Figure 10. Lintel over doorway of Prasat Neang Khmau chapel with painting (photo by author, 12 March 2006). The figures at the top of the lintel with the hands in may represent the "Thirteen Witnesses" who cannot be deceived because they see everything and are all-knowing.



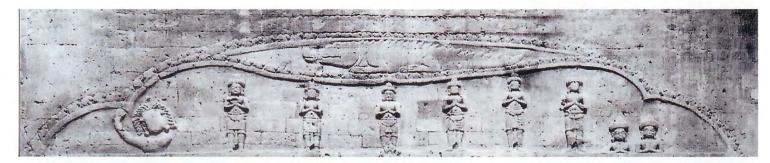


Figure 12. "Creation of the navagraha" detail from Vishnu Trailokyanatha bas-relief of Prasat Kravan.



Figure 13. Navagraha lintel from Lolei, presumed tenth century (National Museum of Thailand in Bangkok; photograph by author). This lintel is closely related to the Prasat Neang Khmau navagraha in the National Museum of Cambodia in Phnom Penh.



Figure 14. Crocodile supporting Indra mounted on the three-headed white elephant Airavata, the whole supported by a crocodile-*makara*. Thommanon, Angkor Thom, Cambodia (photo courtesy of Asger Mollerup).

earthly realm, and the underworld. Here, however, the underworld is not represented. The three realms apparently are all celestial. The six lower registers plus the one register containing the *navagraha* may correspond to the seven heavens above the earth. The crocodile occupies a space of its own, embedded within the cosmic creative arch. This domain might be identifiable with the Cosmic Sea. Since this sea has no shores and therefore no limits, representing it poses a problem.

The Vishnu *Trailokyanatha* of Prasat Kravan can be identified with *Vishnu Varadaraja*. Vishnu gained the epithet *Varadaraja*, "King among boon bestowers", when he rescued the Lord of the Elephants, Gajendra, from the clutches of a crocodile, and then bestowed boons on Gajendra for his faith. Vishnu as *Varadaraja* is sometimes depicted with an elephant and a crocodile (STUTLEY, 1985). He also may be depicted with eight-arms, with a boon in each hand. His attributes or boons include but are not limited to the discus, conch, club, sword, shield, bow, arrow, and lotus. Whether or not the hands are not holding boons they may be held in the attitude of *varada mudra*, indicating assent to the boon or actually bestowing it. In the former instance the hand is extended palm forward and fingers downward. In the latter, the fingers may be curled around the boon, or the boon may be balanced on the fingertips. The discus, club, sword, shield, and bow and arrow are employed by Vishnu to provide the boon of protection or deliverance from evil. With the conch he bestowed the Vedas, Puranas, and all other holy literature for the benefit of mankind. Vishnu's lotus is the source of many boons, including Brahma, the evolution of the universe from the Unmanifest, and the *dharma*.

Prasat Kravan has Khmer inscriptions on three of its pillars, all dated about 921 AD. They tell of the foundation there in that year of a *Trailokyanatha* by Mahidharavarman and Jayaviravarman and of a *Tribuneshvari* by Virendradhipativarman (COEDÈS, 1908).

NAVAGRAHA IN THE PRASAT KRAVAN BAS-RELIEF

Between the figure of Vishnu and the crocodile, set off in a well-defined compartment with discrete bordering, is the uppermost celestial realm occupied by nine figures. The figures have not been identified previously, but they clearly belong to the tradition of the *navagraha*. Bas-reliefs of the *navagraha* or Nine Planetary Divinities of ancient Cambodia have been the subject of an exchange of scholarly articles by Kamaleswar Bhattacharya and Louis Malleret in the journal *Arts asiatiques* (BHATTACHARYA, 1956; 1958; 1964; MALLERET, 1960). The numerous examples documented in these reports all differ from the present bas-relief in several respects. Most importantly the previously reported bas-reliefs have all been lintels. None have been part of the composition of a larger scene such as the Prasat Kravan relief under consideration. Other differences are that the deities have always been presented with identifying devices or attributes in their hands rather than as a group displaying *anjali mudra*, and that the missing lower half of Ketu's body usually is replaced by a cloud, and that Shiva is not depicted.

A particularly relevant comparison here is with the pre-Angkorean (ca. seventh century) *navagraha* lintel of Sambor Prei Kuk (MALLERET, 1960: 207, fig. 1; for a better photograph of this lintel and further discussion of it see BHATTACHARYA, 1961, fig. on p. 94). This is thought to be the earliest Cambodian representation of the *navagraha*. It is the only other instance in which the *navagraha* are depicted standing (i.e., not mounted on their respective *vahana*. Other relevant comparisons are to be made with Angkorean reliefs of the Nine Planetary Divinities, representing a fusion of concepts involving the *navagraha* and *dikpala* or "guardians of space." Once these connections are recognized, the celestial figures in the Prasat Kravan bas-relief are readily identifiable. This follows from the standardized order in which the *navagraha* and later the Nine Divinities are invariably presented.

Starting on the left, the first two figures invariably are the Sun and then the Moon (Surya and Chandra). The central figures, usually five, represent the "visible" planets (i.e., those visible to the naked eyes) Mercury, Venus, Mars, Jupiter and Saturn, although not necessarily in the same order. Finally the last two figures represent Ketu and then Rahu. These are the so-called "fictitious planets", representing the ascending and descending nodes of the lunar orbit (STUTLEY & STUTLEY, 1977: 103). It is their presence, previously unremarked, that incontestably identifies the group as *navagraha*.

The first figure on the left is of exceptional interest. It is done at a much larger scale than the others. This presumably represents Surya, the Sun-god. Noteworthy is the elaborate coiffeur or *jatamukuta* of ropy hair (suggestive of Shiva). Only the head, part of the chest, and one upraised arm are shown, and this is obviously intentional. The face is featureless, presumably due to wear. The central six standing male figures (all are wearing a *sampot*) are all standing in identical attitudes, performing the *anjali mudra* with the hands in front of their chest. They have no individual attributes and no *vahana* or mounts. The only other Cambodian *navagraha* relief known with standing figures I have seen is that of the Preangkorean Sambor Prei Kuk but these at least come with attributes in their hands. The impression given

by the Prasat Kravan *navagraha* figures is that they have just been created, and therefore their individual differences have not yet developed.

The last two figures that confirm the overall identification of this group with the *navagraha* are also performing *anjali*, are represented only from the waist up. They are also represented as a pair, closer to each other than are the other figures. They can only represent Ketu and Rahu. While Rahu usually is depicted with a whole body (whether he is depicted sitting or standing), Ketu invariably is depicted only from the waist up—the place where the rest of the body would be usually is occupied by clouds. Here they are both shown only from the waist up, perhaps to emphasize their identity. There are no clouds in this version, presumably because they have not been created yet.

OTHER ANTHROPOMOPHIC FIGURES IN THE PRASAT KRAVAN BAS-RELIEF

The disproportionately large lower compartment, whether representing celestial realms or the earthly or "real" world, still retains much of its mystery. Here are represented 88 standing two-armed figures, all basically anthropomorphic, all but two of them entirely human in fact, and all with hands clasped in *anjali*, in adoration of Vishnu. These are disposed in six horizontal registers or levels extending on either side of the central figure of Vishnu.

These figures and their peculiar placement and numerical arrangements and so on surely merit intensive and detailed study. This, however, is beyond the scope of the present paper and also beyond the competence of the present author to provide. A few particularly intriguing points may be noted.

Two of the six figures on the right side of register 3 have animal rather than human heads, as noted by BHATTACHARYA (1961: 109). The animal heads, shown in profile (i.e., turned to their right) rather than in frontal view, evidently are horse-heads. Thus the two figures represent *vajimukha* or divinities with human bodies and horse heads. This can be seen clearly in the detail of the Ionescu photograph reproduced here (Fig. 7). It is also clear from differences in the development of their breast and in their dress that one is male and the other female. The female *vajimukha*, so far as I am aware, is not found anywhere else in ancient Khmer iconography.

Another noteworthy departure in figures in the six lower registers is that all but one of the 88 figures has the hands clasped in *anjali* in front of the chest. The exception is the innermost figure on the left side of register 4. This has the hands in *anjali* raised above the head, indicating an extreme state of exaltation and gratitude (Fig. 7).

Distribution of males and females in the six registers also is particular. Males are readily recognizable by their short *sampot*. These are uniformly cut off at the same level well above the knee in all of the males. Females are all depicted wearing an ankle-length sarong. In the lowermost or first register all five figures on the viewer's left half are male, but on the right the second figure is female. In the second register all five figures on the left are female, all five on the right male. In the third register all human figures are male, but the two theriomorphic horse-headed figures on the right are a male and a female. In the fourth register all of the figures are male. In the fifth register all of the figures are male (including the unique figure with its hands forming the *anjali mudra* above its head). In the uppermost or sixth register all of the figures are male.

What is the significance of these 88 anthropomorphic figures in six registers and the particularities they exhibit? Inclusion of the two horse-headed figures indicates they are divine or semi-divine rather than human. The different numbers of the figures and their sexes in the registers indicates that they may represent different groups or groupings of *deva* and *devi* and *asura*. Various significant numbers might be involved. Suggestions as to their identities are left to other investigators.

PRASAT NEANG KHMAU (Figures 8–10)

Having gone into the topic of Prasat Kravan in some detail, mention must be made also of Prasat Neang Khmau, a closely contemporary early tenth century Khmer Hindu temple sometimes referred to as the "twin" of Prasat Kravan. It is located at Tonle Bati, Takeo province, some 60 km south of Phnom Penh and 280 km south of Angkor Wat and Prasat Kravan. Inscriptions associated with this *prasat* indicate it was constructed at about the same time as Prasat Kravan. In its original condition, presumably all five of its towers had paintings on their walls. Now only two towers remain, and only one has a few traces of paintings. During a visit in March 2006 I could see portions of rows of small figures comparable to those in the Vishnu *Trailokyanatha* bas-relief in the central tower of Prasat Kravan. There were also some brush strokes that might have been part of the central Vishnu *Trailokyanatha* figure. There was, however, no sign of the supposed animal or crocodile just above the Vishnu figure: the upper part of the painting has been totally effaced. Neither was there any sign of feminine anthromorphic figures or of *vajimukha*.

Three finely crafted standing statues of dark brown sandstone have been found at Prasat Neang Khmau. These are now in the National Museum of Phnom Penh, where I examined them in April 2006. The similar size, color of the sandstone, and workmanship of the statues indicates that they were made at the same time and by the same artisan or artisans. One is a female statue, unfortunately with the head missing, the "neang khmau" or "black lady" (basis for the modern Khmer name of the temple). One is a male statue that also has lost its head. The third has a male human body and a horse head³. These statues pose several questions. Do they correspond with the figures in the Vishnu *Trailokyanatha* scene? That this is so seems likely since one of them is a horse theriomorph. Were there only three statues at Prasat Neang Khmau, or were they originally much more numerous?

Were similar statues associated with Prasat Kravan? Were there any female theriomorphic statues with a horse head at Prasat Kravan or Prasat Neang Khmau? So far as I am aware, no such statues have ever been found in Cambodia; but then, the bas-relief of a female theriomorphic horse at Prasat Kravan, apparently unique, definitely exists. Could the missing head of the *neang khmau* statue be that of a horse?

³The three Prasat Neang Khmau statues at the National Museum of Cambodia in Phnom Penh are the "neang khmau" or headless female, height (without head) 107 cm, NMPP 1653 (KHUN SAMEN, 2005: 88, fig. 22); headless male, height (without head) 137 cm, NMPP 1805; and male body and limbs with horse head, height 126 cm, NMPP 1656 (KHUN SAMEN, 2006: 72, fig. 76).

PRASAT NEANG KHMAU LINTEL BAS-RELIEF Figures 10–11

The tower at Prasat Neang Khmau in which the remnants of the supposed Vishnu *Trailoky*anatha scene occurs is not the central tower, as at Prasat Kravan, but the innermost of the two smaller towers immediately to the South of where it formerly stood. Of the two towers still standing, only this one has an intact lintel over its doorway. Fortunately the bas-relief on this lintel is in superb condition (Figs. 10–11). Its uppermost register depicts thirteen male figures with the hands displaying anjali mudra in front of the chest. Then there is a register of eight figures (4+4, possibly female) with the hands in anjali mudra raised above the head. Figures with the hands in anjali mudra raised above the head are seldom present in ancient Khmer bas-reliefs. These eight figures call to mind the single male figure with the hands raised above the head in anjali mudra in the Prasat Kravan Vishnu *Trailokyanatha* bas-relief.

ANGKOR WAT AND BAYON SHIVA BHIKSHATANAMURTI

In the western arm of the southwestern corner pavilion of Angkor Wat is a splendid basrelief of Shiva surrounded by the admiring wives of brahmins or rishi who are off meditating in the forest. Here Shiva appears in the guise of an ascetic or as *Bhikshatanamurti*. The episode portrayed, sometimes called "Shiva in the pine forest", is to be found in the Linga Purana, I, chap. 7). An account of this bas-relief, accompanied by photographs, is provided in a recent work by Vittorio Roveda (ROVEDA, 2002: 100–104, figs. 86–87). Sexually excited by the divine Shiva, the wives are offering themselves to him. The story-line, including the reasons for Shiva appearing in the form of a Bhikshu or beggar, is provided by Roveda and need not concern us. The important point here is that the portal framing Shiva is surmounted by a crocodile, an element that is not explained. It is not part of the story of "Shiva in the Pine Forest" related in the *Linga Purana* or other Indian sources.

To quote Roveda, "the crocodile over the door where the god appears is the relief's most curious element, the true meaning of which has eluded modern scholars In Khmer representations of the myth of Shiva *Bhikshatanamurti* the crocodile, usually of comparatively small size, is depicted on top of a door, as in the relief under consideration. It appears also in the rock sculptures of the Kbal Spean in the Kulen Mountains, in one medallion of the Western Gopura of Angkor Wat, and in one of the Bayon's interior galleries (south of the eastern entrance)."

Roveda then relates the narrative from the *Brahma Purana* in which Shiva takes the form of a brahmin boy taken by a crocodile while bathing. The boy's cries bring Parvati to the scene, and she asks the crocodile to release the boy in return for her penances or *tapas*. This is followed with an interpretation of the Corner Pavilion reptile not as a crocodile but as a lizard or gecko. According to this account the central figure represents not Shiva but Ravana, who appears to the ladies of Krishna's palace which he has surreptitiously entered as a gecko. Probably neither of these myths is relevant to our search for the originally intended meaning of the reptile, which is surely a crocodile and not a gecko or other kind of lizard. The story of Ravana turning into a lizard is probably not an old story but rather a relatively recent one invented to fit the bas-reliefs featuring a reptile over the doorway. As suggested by Roveda, the unexplained crocodile in the bas-relief probably inspired a new interpretation (*op cit*.: 104). Identification of the central image in this Angkor Wat bas-relief with Shiva in the Pine Forest or Shiva *Bhikshatanamurti* seems to be correct.

It turns out that there are at least three bas-reliefs of Shiva *Bhikshatanamurti* in a doorway or portal surmounted by a crocodile in the Bayon. Two reliefs have been recently documented by Bruno Dagens and one more by Michael Coe. These are: 1) a lintel in Tower 34 with Shiva standing (DAGENS, 1969: fig. 3). The crocodile image is in poor condition but evidently is present, mentioned as "saurian" in the figure legend. The figures on either side of Shiva are sitting with their hands in *anjali mudra*; 2) Another lintel, no longer in place, with Shiva sitting in *yogasana* (*op cit.* fig. 19) has the crocodile image in excellent condition. The standing personages to either side of the god appear to be passing a length of rope from hand to hand through the portal in which he is sitting; 3) in the third image, a standing Shiva has his right arm upraised to the transverse beam of the portal (this calls to mind the upraised left arm of the standing Shiva at Kbal Spean) (COE, 2003: 190, fig. 91). Over-all, this image and the entire scene of which it is a part, is in much better condition than the preceding two. Although not very realistically portrayed here, the crocodile is clearly evident. The brahmins are eagerly poring over religious literature, presumably the Shiva Purana, unaware that the god is watching them.

That the Shiva with a crocodile portrayed at Kbal Spean also is Shiva *Bhikshatanamurti*, as stated by BOULBET & DAGENS (1973) and reiterated by ROVEDA, does not necessarily follow, however. It may well have been inspired in large part by other images that are *Bhikshatanamurti*. The ancient Khmer had relatively few ways of visualizing Shiva anthropomorphically. Also popular was the image of Shiva as mendicant. The presence of small seated figures of Vishnu and Brahma at the feet of Shiva at Kbal Spean may indicate some other concept of Shiva, as also might the two small groups of sitting personages further apart at the base of the statue.

The base of a pilaster at Beng Mealea has a bas-relief with a personage standing between two women beneath a portico surmounted by a crocodile (GITEAU, 1965: 133). This might also be a representation of *Bhikshatanamurti*. There do not seem to be any published reproductions of this relief. I have not seen the original. This presumably is the Beng Mealea image with a lizard mentioned by George Coedès (COEDÈS, 1913).

NAVAGRAHA LINTELS OF PRASAT NEANG KHMAU AND LOLEI Figures 12–13

A navagraha lintel found at Prasat Neang Khmau is now in the Cambodian National Museum in Phnom Penh. It was described and figured by Louis Malleret (MALLERET, 1960: 213–214, fig. 6). Its distinctive style, in which the vahana of most of the graha are shown in full profile view (rather than all in frontal view, i.e., head-on), is found in only a few other early Angkorean navagraha lintels, all perhaps from the first half or so of the tenth century, found at Lolei, Prah Ko, and Prasat An Khna (op cit., 215). Here we shall consider only the Prasat Neang Khmau and Lolei lintels.

First, the Prasat Neang Khmau lintel. It is hardly possible to point to a depiction of the *navagraha* differing more radically from that found in the upper register of the Prasat Kravan Vishnu *Trailokyanatha* bas-relief (Fig. 12; see discussion above). Yet the two were presumably done, if not by the same artisans, at least by contemporary ones, early in the tenth century

near the time when Prasat Kravan was constructed. This may serve as a useful reminder that artifacts of very different style could arise during the same period.

Except for Ketu, depicted with a massive head, glaring face, and distinctive coiffeur, all of the *graha* in the Prasat Neang Khmau lintel apparently have similar faces, coiffeur, and dress (in some of the figures these features are damaged). They might represent portraits of Harsharvarman I, monarch at the time the temple was built. MALLERET (*op cit.*, p. 215) particularly compared them to the Harihara statue of Trapeang Phong. Might this statue be a portrait of Harsharvarman I?

From the viewer's left, then, Malleret has identified the *navagraha* and their *vahana* as: 1) the Sun, Surya, on a chariot with a lotus bud seat drawn by a single horse that may represent a multitude of horses; 2) the Moon, Chandra, mounted on a lotus pad throne; 3) Skanda? on what appears to be a *gajasimha*; 4) Brahma on a *hamsa* or goose; 5) Indra on an elephant; 6) Kubera on a horse; 7) Agni on a ram?; 8) Ketu, with the lower half of his body enveloped in clouds; and 9) Rahu, mounted on a *simha* or lion. The presence of a *gajasimha* (mythical animal with the head of an elephant and the body of a lion) as *vahana* in a *navagraha* lintel is unusual and perhaps unique. It is noteworthy that the supposed Brahma, usually portrayed with four heads, and also Indra's elephant (presumably the three-headed white elephant Airvata) are both represented with only a single head. This is usual for ancient Khmer *navagraha* depictions of Brahma. In addition to being mounted on a *hamsa*, Brahma is identified by holding a *lacet* or noose in one hand.

Now for the Lolei lintel: here the *navagraha* and their mounts benefit perhaps from superior craftsmanship. The *vahana* also are proportionately larger, and the lintel overall in an even better state of preservation. Here again, similarity in the faces, head-dress, and vestments of the *graha* suggests that they might portray a particular king. From left to right, the deities and their *vahana* are identifiable as: 1) Surya, mounted on a lotus-pad throne on a chariot drawn by a group of at least seven horses; 2) Chandra mounted on a lotus-pad throne; 3) Vaju mounted on a *mrga* or cerf; 4) Brahma mounted on a goose; 5) Indra mounted on a one-headed kneeling elephant; 6) Kubera on a horse; 7) Agni on a ram; 8) Rahu, partly hidden in clouds; and 9) Ketu on a lion. Most of these figures and their mounts are similar to those in the same position in the albeit more crudely done Prasat Neang Khmau *navagraha* lintel. The details in their Ketu, including the depiction of the clouds, are very similar.

Considering ancient Khmer *navagraha* generally, the graham in positions 1, 2, 5, and 8, 9 invariably are the Sun, the Moon, Indra, Rahu, and Ketu. Variation occurs mainly at positions 3–4 and 6–7. Some of the variation, particularly at positions 6-7, arising from difficulties in identifying the graham and may be more apparent than real. For positions 3-4, however, significant variations undoubtedly were intentional. Thus in the Prasat Neang Khmau lintel position 3 is occupied by Skanda (?) on what appears to be a *gajasimha*, while the same position ion the Prasat Neang Khmau lintel is occupied by Vaju (if correctly identified) mounted on a cerf or stag. Other examples in variation in the *navagraha* are to be found in the papers by Bhattacharya and Malleret cited here.

Presence of a *navagraha* lintel at Prasat Neang Khmau indicates that a *navagraha* lintel, presumably in the same style, once adorned Prasat Kravan.

ANCIENT KHMER ASTROLOGY?

In the entire gamut of ancient Khmer bas-reliefs there is nothing else like the Prasat Kravan Vishnu *Trailokyanatha* bas-relief. Comparison of its multiple rows of small unlike figures with the more numerous rows of equal numbers of identical small figures on artifacts such as the stelae of Suryavarman II (ROBERTS, 2002) quickly reveals that any similarity is superficial. The latter have been interpreted as commemorating the birth year of Suryavarman II. According to this hypothesis, each of the tiny identical Vishnu images represents one year since the beginning of the Saka era in 79 AD.

Given the boon-giving qualities of this form of Vishnu, people presumably went to the chapel with priests or other appropriate intermediaries in order to request boons. The crocodile or *makara*, the central Vishnu *Trailokyanatha*, and the *navagraha* all indicate that the Prasat Kravan eight-armed *Trailokyanatha* bas-relief has cosmological significance. Perhaps it is a kind of astrological chart utilized for making prophecies or horoscopes.

It is likely that astrology played a substantial role in ancient Khmer life and that important decisions often were based upon it. Little, however, is known about the actual astrologers and their activities. The index to Lawrence P. Briggs's 1951 monograph on "The Ancient Khmer Empire" includes only two entries under "astrologers." Both refer to a single astrologer and a single event, and to the single inscription in which they are recorded. This inscription, found in re-employ in the Phimeanakas and dated 910, relates that the Astrologer-Minister of Yashovarman I [reigned 889–ca. 910], named Satyasraya or Satyadhipativarman, erected an image of Madhava or Vishnu-Krishna, under the vocable *Trailokyanatha*, in the year 910 (BRIGGS, 1951: 105, 115). This may provide a link to the only slightly later Prasat Kravan bas-relief of Vishnu *Trailokyanatha* of 921. In the absence of information regarding any other Khmer astrologer at this time, I am inclined to associate these shrines with the astrologer Sayasraya, and to suppose that he or one or more of his followers or members of his family served during the reign of Harsharvarman I (ca. 915–928), who succeeded his father Yashovarman I.

"BUDDHA IN THE FOREST WITH A FROG ON ITS SHOULDER"

In 1930 André Malraux published a semi-autobiographical novel "La Voie Royale" based on a youthful adventure in Cambodia. In a brief account of the novel, it is stated that "Malraux described the buried temples, the stone Buddhas covered in moss, and one Buddha with a tree frog sitting on its shoulder" (ISHIZAWA & TAMURA, 1999: 177). I would like to know more about this frog. Apparently no museum collection has such a statue, and I have not found any other account of one. The statement just quoted does not occur in the text of the editions of "La Voie Royale" consulted by me.

The quote by Ishizawa occurs in a section of his book on Banteay Chhmar, a part of Cambodia not visited by Malraux. The French author did visit Banteay Srei, however, which is quite close to Kbal Spean. On his first attempt to reach Banteay Srei, his guide took him too far and they got lost before turning back to Banteay Srei. So he presumably came quite close to Kbal Spean, even if he did not actually reach its "River of a Thousand Linga." At the time (1923) the river was much less accessible and overgrown by forest, but the intrepid adventurer bent on fortune might have reached it. Perhaps in this area he at least heard from local residents of "the Buddha with a frog on its shoulder." We know from BOULBET & DA-

GENS (1973) that the locals knew about the frog of Kbal Spean Perhaps they identified the near-by Shiva bas-relief as an image of the Buddha. The frog on the edge of the waterfall and the bas-relief of a standing Shiva or Buddha could easily be conflated. Based on present knowledge, this seems a plausible explanation of the story recounted by Ishizawa. But is it the true explanation? Perhaps there is a stone statue of the Buddha with a frog on its shoulder still waiting to be found near Banteay Chhmar or somewhere else in the forests of Cambodia.

THOMMANON CROCODILE Figure 14

The Thommanon, a small temple built during the reign of Suryavarman II (first half of twelfth century) on the road between Angkor Thom and the East Baray, has a bas-relief with Indra mounted on his three-headed white elephant Airavata on top of a crocodile. The Indra could be a portrait of Suryavarman II⁴, in which case the bas-relief probably dates from the first half of the twelfth century. The crocodile is shown in full profile view. Its only non-crocodilian feature is what appears to be a short tusk originating just below its eye (similar to the short tusks on the heads of Airavata just above it). That it represents a cosmological *makara* is indicated by the cosmic or omic (i.e., symbolic of *om*) spirals issuing from its mouth and from the posterior part of its body as well as its dominant role in the composition of the bas-relief.

ETYMOLOGY OF MAKARA

Makara, muggar, and *Crocodylus palustris* are, respectively, the ancient Sanskrit, modern Indian, and latinized scientific names of the common Indian crocodile:

Makara m. a kind of sea-monster (sometimes confounded with the crocodile, shark, dolphin &c.; regarded as the emblem of Kalma-deva [cf. %{mokara-ketana} &c. below] or as a symbol of the 9th Arhat of the present Avasarpin2il; represented as an ornament on gates or on head-dresses) VS. &c. &c.; a partic. species of insect or other small animal Sus3r.; N. of the 10th sign of the zodiac (Capricornus) Sulryas. Var. &c.; the 10th arc of 30 degrees in any circle L. ; an army of troops in the form of a MñMa4kara Mn. vii, 187; an ear-ring shaped like a MñMa4kara BhP. (cf. %{makara-kuNDala}); the hands folded in the form of a MñMa4kara Cat.; one of the 9 treasures of Kubera L.; one of the 8 magical treasures called Padmini1 Ma1rkP. ; a partic. magical spell recited over weapons R.; N. of a mountain BhP; (%{I}) f. the female of the sea-monster MñMa4kara Pan5cat.; N. of a river MBh (Monier-Williams' "Sanskrit-English Dictionary", 1898, Cologne University Digital Version)

Mugger \Mug"ger\, n. Also Muggar \Mug"gar\, Muggur \Mug"gur\ [Hind. magar, fr. Skr. makara sea monster.]. The common crocodile (*Crocodilus palustris*) of India, the East Indies, etc. It becomes twelve feet or more long (Webster's Revised Unabridged Dictionary, 1913)

⁴Based upon the author's ongoing study of the portrait statues of this king (see ROBERTS, 2004).

There are only two crocodilians living in the Indian subcontinent that are large, dangerous, and awesome enough to serve as inspiration for the vehicle of cosmic destruction and creation⁵ represented by the Sanskrit term *makara*. These are *Crocodylus palustris* Lesson 1830 and *Crocodylus porosus* Schneider 1801. *Crocodylus palustris*, sometimes known as the Indian freshwater crocodile, historically had a nearly continuous range nearly everywhere in India up to the Himalayan Mountains. It also occurred in the southeast corner of Iran, in Pakistan, Bangladesh, and Burma or Myanmar along the Indian border. Perhaps its range included Thailand and parts of Indo-China but records of its occurrence there are indefinite. *C. porosus*, generally known as the estuarine crocodile, has a much broader range, not so far to the west as *C. palustris*, but extending from the eastern coast of India continuously all the way across Southeast Asia and on to the Philippines, Palau, Solomons, New Guinea, and tropical Australia (Gulf of Carpinteria). The ranges of these and all other crocodiles are greatly diminished, due mainly to habitat loss and direct elimination by humans. The availability of dynamite even in the most inaccessible places inhabited by crocodiles is in large measure directly responsible for their widespread disappearance.

Given its much wider and more inland distribution in India, it is more likely that the mythological *makara* was based on *Crocodylus palustris* rather than on *C. porosus*. This is supported strongly by etymological considerations. The name of *C. palustris* in Hindi, Marathi, and other Indian languages is "muggar", of which there is a variety of spellings ("mugger", etc.). This supposedly is derived from the Sanskrit term *makara* (Websters Dictionary, 13th ed.; Hobson-Jobson). The classical Sanskrit-English dictionary of Monier Monier-Williams (1898) provides definitions of *makara*, mostly related to mythology, such as "a mythical seamonster, based on crocodile, shark", and so forth. It is more plausible that a Sanskrit term for an actual species of crocodile gave its name to mythological concepts than *vice versa*, and that the word *makara* originally referred to *Crocodylus palustris*, now known in modern Indian languages as *mugger*, *muggar*, *maggur* (and other spelling variants).

CONCLUSIONS

The following observations, identifications and speculations or hypothesis are presented in this paper:

- 1. The reptile or saurian present at or near the top of bas-reliefs at Kbal Spean, Angkor Wat, the Bayon, and Prasat Kravan, variously referred to as a lizard, gecko, chameleon, or crocodile, is a crocodile.
- 2. It is suggested that this crocodile represents the primeval Chaos (or limitless and featureless Cosmic Sea) and the Unmanifest Shiva. It is also identifiable with the cosmic creationary and destructive device *makara*.
- 3. The living species that most likely served as the model for the ancient Khmer cosmic crocodile of Kbal Spean, Prasat Kravan and elsewhere is the Indian muggar, *Croco-dylus palustris*.

⁵It is deeply rooted in Hindu thinking that anything embodying concepts such as good, male, destructive, and so on, must simultaneous embody the opposite or contrasting concepts: evil, female, creative, etc.

- 4. A stone frog on the lip of the Kbal Spean Waterfall may represent the primeval frog Mahamanduka, from which the naga Ananta derives its strength while serving as Vishnu's couch on the Cosmic Sea. The frog cannot be identified with any living species.
- 5. The seven registers of the Vishnu *Trailokyanatha* bas-relief of Prasat Kravan might represent the seven realms of heaven above the earth. The upper register of nine figures of this bas-relief, immediately below the crocodile, is identified as the Nine Celestial Deities or *navagraha*. It differs from all other reported *navagraha* scenes in several respects and could represent the *navagraha* at the moment of their creation.
- 6. The Prasat Kravan Vishnu *Trailokyanatha* bas-relief could be an astrological chart, perhaps used in making horoscopes or prophecies.

Numerous detailed observations and suppositions or hypotheses are presented here. We may now say something about the grander scheme of things. The ancient Khmer kingdoms situated in the area to the immediate east of the Great Lake were more dependent for their water supply upon the rivers arising in Phnom Kulen and Mount Kbal Spean than they were upon the annual rise in water level of the Great Lake. While water level in the lake depends partly on the numerous smaller tributaries flowing into it from all sides, it depends mainly upon rises and falls of water level in the Mekong mainstream and connecting Tonle Sap canal. The waters of the Siem Reap River on the other hand, depend entirely upon local rainfall in Kbal Spean and Phnom Kulen.

As elsewhere in Asia, in ancient Cambodia the kings and their ministers had to do all they could to ensure that the rains came when they were needed. The large number of basreliefs of Vishnu reclining on Ananta and the thousand linga in the riverbeds of the two main branches of the Stung Siem Reap testify to this necessity. Further downriver, we find the site of Neak Pean, with its riverine linga, naga, water spouts, fountains, and ponds; Prasat Kravan with its Vishnu Trailokyanantha-crocodile bas-relief; the Thommanon with its Indra—god of thunder and rain—perched on a crocodile; and the spectacular bronze reclining Vishnu cum fountain on the West Mebon Island in the middle of the West Baray. Prominently arrayed in this ensemble of important sites is a variety of mythical aquatic animals associated with water, rainfall, and the gods. The water security of the ancient kingdoms depended upon them as well as on the large reservoirs or barays.

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