PAYANAK AS A MYTHICAL ANIMAL AND AS THE LIVING SPECIES REGALECUS GLESNE (OARFISH, REGALECIDAE, LAMPRIDIFORMES)

Tyson R. Roberts¹

ABSTRACT

The mythical animal payanak is represented in roofing ornaments, statuary and paintings in Buddhist temples throughout Cambodia, Thailand and Laos. It usually has a single dragon-like head, with a horn on the snout and a beard-like projection from the chin, and a long, limbless snake- or fish-like body covered with scales. Although often referred to as a naga, it is derived from the "elephant-lion" or gajasimha of the Khmer king Suryavarrnan II (reigned 1113-ca 1150). The payanak is associated with numerous popular accounts and legends of Thailand and Laos and is frequently portrayed in the popular as well as temple art of these countries.

A photograph bearing the false label "Payanak. Queen of the Nagas, seized by American Army at Mekong River, Laos Military Base on June 27, 1973" has been widely distributed in Laos, Thailand, and elsewhere. The photo in question actually is of a freshly dead oarfish, Regalecus glesne, stranded on Coronado Island, California, on September 19, 1996.

Key words: ichthyolatry; fish worshipping; ophiolatry; snake worshipping; bang fai payanak (naga fireballs); Phimeanakas naga cult; "Terrace of the Leper King"; gajasimha

INTRODUCTION

During their morning run on September 19, 1996, two SEAL instructors from the US Naval Special Warfare Base on Coronado Island, southern California, came across a freshly beached silvery fish about 7.3 m long. Scientists from Scripps Institution of Oceanography in nearby La Jolla examined the fish on the island. The head and tail were detached and are preserved in the Scripps collection of marine vertebrates (catalog no. SIO 96–82). Dr. Richard H. Rosenblatt of Scripps identified the species as the oarfish Regalecus glesne.

A photograph of the fish, held up by 30 members of the base's first year class of SEALS, was taken by Scripps's Leo W. Smith and appeared in the San Diego Union Tribune on 27 September 1996. The same photo was published subsequently in many other newspapers and magazines in the US and Europe. It was also printed on a postcard sold by the Stephen Birch Aquarium of Scripps Institution of Oceanography.

¹Associate, Smithsonian Tropical Research Institute Received 9 July 2002; accepted 23 September 2002.

212 Tyson R. Roberts

Shortly thereafter, unauthorized prints of this photograph started showing up in hotels, restaurants, bars, and shops in Vientiane, Chiengmai, Isan, and Bangkok, and even in a Chinese restaurant in Hawaii (Leo W. Smith, in lit., 13 Aug. 2001). They were labelled in Lao language and in English "Payanak"; "Queen of Nagas seized by American Army at Mekhong River, Laos Military Base on June 27, 1973 with the length of 7.80 meters" (Fig. 1). The photograph thus labeled has been reproduced in Thai and English language newspapers in Bangkok. Regalecus glesne is widely distributed in the Atlantic and Pacific Oceans but has never been found in the Mekong or in any other river. The members of the family and order to which it belongs, Regalecidae and Lampriformes, are exclusively marine. A better idea of the appearance of the species can be gained from Fig. 2.

MYTHOLOGICAL ORIGIN OF THE PAYANAK

Suryavarman II (reigned 1113—ca 1150) is one of the greatest kings in Khmer history. He united the Khmer kingdom. fought the Chams for over thirty years, built Angkor Wat, and paved the way for the reign of the *Buddharaja* Jayavarman VII (1181–1218). One of the most powerful and certainly most enduring symbols of Suryavarman II's reign is the *gajasimha* or "elephant-lion." The *gajasimha* of Suryavarman II gave rise to the distinctive chofa or apical finial characteristic of modern Buddhist temples in Thailand, Laos and Cambodia (ROBERTS, 2002) and to modern versions of the Burmese *panca-rupa* or *pinca-yupa*. It also gave rise to the *payanak*.

Most authors have confused the gajasimha and payanak with naga. Naga is an ancient Hindu mythological hooded snake with multiple heads based upon the cobra Naia naia (Fig. 3). Gajasimha or "elephant lions" also orignated in India. They played a relatively minor role in Khmer art until the reign of Suryavarman II, who adopted the gajasimha as his personal symbol. The original conception of Suryavarman II's gajasimha is a tetrapod (four-legged) beast (Fig. 4). Most of its characters are mammalian. Its head is rather lionlike with lion-like mane and jaws but with an elephant-like trunk. Elephant-like tusks may also be present but usually are reduced in size. The body including legs, paws and tail is lion-like but bears snake-like scales on its sides and belly. The scales on the belly are broad like the abdominal scales or gastrosteges of snakes. Numerous examples are present in the bas-relief of the Churning of the Sea of Milk on the southern wall of Angkor Wat, Suryavarman II is depicted as the Hindu god Vishnu in this bas-relief. Gajasimha (alternative spelling gajasinha) is a Sanskrit word composed of gaja (elephant) and simha (or sinha) (lion). In Thailand, where it is the emblem of the Ministry of Defense, gajasimha is known as kochasi, a term derived directly from gajasimha. It is also referred to in Thai as kulen and mangkorn.

The greatest iconographic innovation in Khmer history is replacement of the naga Ananta or Sesha (the Infinite or Endless One) by a gajasimha in bas-reliefs and statues of Vishnu reclining on the Sea of Milk (Fig. 5; ROBERTS, 2002a). The gajasimha in bas-reliefs on numerous lintels depicting this scene differs from other gajasimha of Suryavarman II only in that it has a more elongate body to accommodate the reclining Vishnu. The Vishnu mounted on a gajasimha in ancient Khmer bas-reliefs, almost invariably on lintels over temple portals or doorways, apparently always represents Suryavarman II.

Suryavarman II also figures prominently in a substantial body of Buddhist iconography



Fig. 1. Photograph of Coronado Island Regalecus glesne or oarfish labelled "Payanak" and "Queen of Nagas." Copyright Leo William Smith.

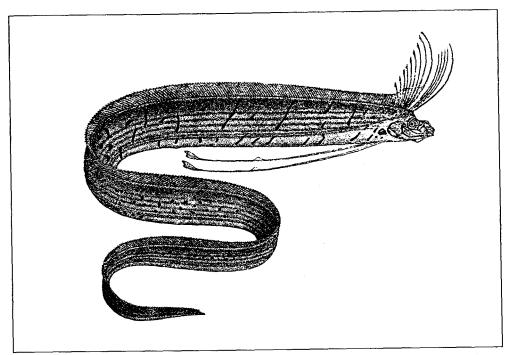


Fig. 2. Regalecus glesne (drawing by Carl Erdmann in Smitt, 1892: 3232, fig. 87). Like in most large specimens the caudal fin is missing.

that probably was done during his lifetime (ROBERTS, in press). This includes statues of Buddha, *Avalokiteshvara*, and *Maitreya* (the future Buddha) tentatively identified as Suryavarman II. There is also a lintel with a bas-relief depicting Buddha (Suryavarman II) subduing Mara in which the underworld of Mara is inhabited by *gajasimha*. Suryavarman II's dual role as Vishnu and as Buddha, although unusual, is not illogical or surprising. It should be recalled that Hindus have long regarded Buddha as the ninth *avatar* or incarnation of Vishnu, and also that ancient Khmer religion tended to be highly syncretic (BRIGGS, 1951; BOISSELIER, 1970). For further discussion of Suryavarman II and his *gajasimha* see ROBERTS, 2002a; 2002b.

Gajasimha mentioned in the preceding paragraph differ considerably from payanak. All have an elephant-like trunk and a relatively short body with four legs. There is now a break in the recorded history of the gajasimha of about one century, from Angkorean Khmer temples of the middle thirteenth century to the late fourteenth century Jinaraja Buddha of Mahatat Temple in Phitsanulok, Thailand (Fig. 6). This beautiful statue with its pair of gajasimha has had a substantial impact on Southeast Asian art history. It probably was made near the end of the fourteenth century, most likely in the years 1363–1369 (WOODWARD, 1997: 148). The Buddha is lodged within a makara-mouth arcade formed by the arching bodies of a pair of outwards-facing gajasimha. The gajasimha are in most respects very similar to the gajasimha of Suryavarman II. The main difference is that the posterior part of their body is much more elongate and that it arches strongly upward in

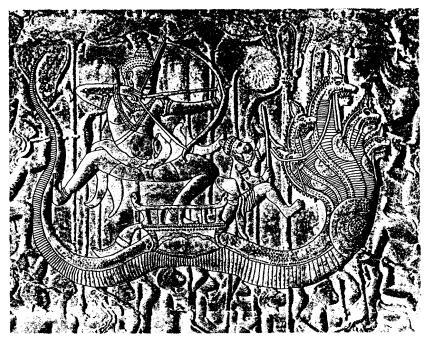


Fig. 3. Twelfth century classical Khmer naga depicted as vehicle of the Hindu god Varuna (Angkor Wat).

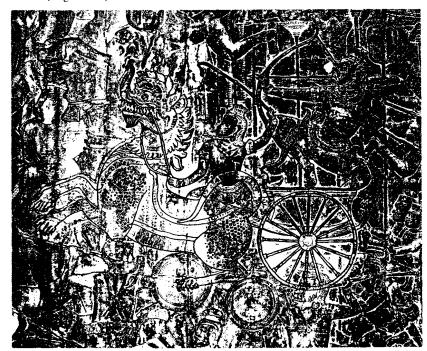


Fig. 4. Twelfth century gajasimha of Suryavarman II drawing chariot in battle scene (Angkor Wat).

order to extend over the Buddha figure. Significantly the hind pair of legs are missing. All that is needed for these *gajasimha* to become *payanak* is for the elephant-like trunk to be transformed into a horn and for the front pair of legs to be lost. This is clearly evident in numerous depictions of *payanak*, as for example the pair issuing from the mouth of Rahu in a modern temple painting from Wat Neua, Khemerat, on the Mekong River in northeast Thailand (Fig. 7) and in various forms of Thai "pop art" (Figs. 8–9).

Subsequent representations of payanak may have been consciously or subconsciously modified in an effort to revert to the older concept of the multi-headed ophidian nagas. It is perhaps unnecessary to seek profound mythological or historical explanations for the conversion of the gajasimha elephant-like trunk to the payanak horn. Ceramic and other sculptures of gajasimha often have the slender projecting trunk broken off at or near the base. In numerous instances gajasimha have had their trunk inappropriately restored as a horn, presumably because the person restoring it did not know the original form.

NAGA AND PAYANAK FOLKLORE AND LEGENDS

Lao and Thai people, including Buddhist monks who are the main culture bearers of payanak mythology, usually equate payanak with the better-known nagas even though historically they are entirely distinct. Classical Hindu and Khmer nagas, which go back in time way before the payanak and the gajasimha of Suryavarman II, are multi-headed supernatural cobras attaining immense size. Their morphological characters are exclusively reptilian and snake-like. This kind of naga, usually with an odd number of from 3 to 9 heads, with the central head largest, is the only mythological snake-like naga in India up to the present. It was the only kind of naga in the ancient Khmer kingdom in Cambodia, which ended around 1431.

The payanak is now the more usual concept of naga in Thailand and Laos. Some of the many stories and legends about it may be summarized here. Such accounts, often considerably elaborated, are related by monks to their followers and printed in numerous Lao and Thai language pamphlets and booklets. Origin of the name payanak is uncertain. It is perhaps formed from phraya or phaya, a northern Thai and Laotian term for king or royalty, and nak, for naga. In modern Khmer or Cambodian payanak is known as niya.

In Thailand and Laos beliefs concerning the older naga have been transferred to payanak. The relationship between payanak and Buddha is manifold. Before being born in human form as the Gautama or the Enlightened One, Buddha had many previous non-human lives or incarnations. One of these was as a naga king named Puritat. This is one reason he has always held such sway over the nagas. Somewhere in northern Laos there is a mountain that looks like a huge sculpture of a naga with seven heads and seven coils. The mountain actually is Puritat who turned into stone when his meditation succeeded and he was reborn as Buddha. Two naga kings, Nanda and Upananda, lovingly bathed the infant Buddha immediately after his birth, first with warm water and then with cool water.

Nagas generally are presented in Buddhist literature as devout worshippers of Buddha. Neither gods nor man nor animals can resist the holy influence of the Blessed One; the nagas too, who combine the nature of the three kinds of beings, are won over by his word (VOGEL, 1926: 93). Under his influence they become gentle, accept his doctrine, and cease

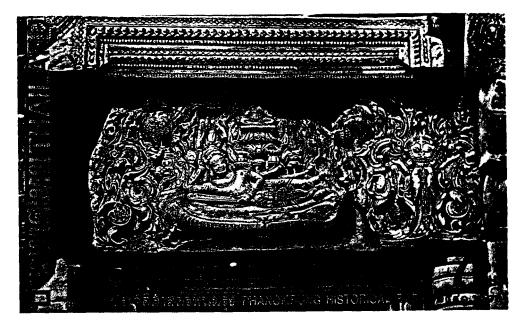




Fig. 5. Vishnu reclining on a gajasimha (Narai Taplong lintel, Phnom Rung, Thailand).

Fig. 6. Fourteenth century gajasimha (Jinaraja Buddha, Wat Mahatat, Phitsanulok, Thailand).

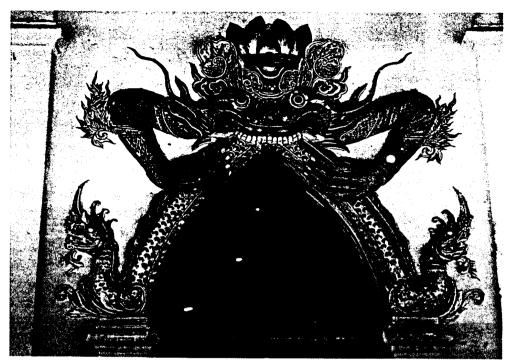


Fig. 7. Twentieth century *payanak* issuing from mouth of Raju; a sort of floral design has replaced the front pair of legs present in *gajasimha* (Wat Neua, Khemerat, northeast Thailand).

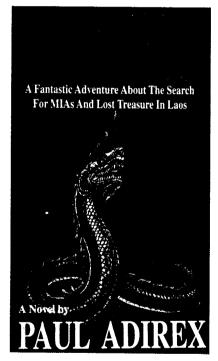




Fig. 9. Payanak on Thai match-box. Note fish-like tail.

Fig. 8. Payanak on cover of novel "Mekong" by Pongpol Adireksarn (pen name Paul Adirex). Although the payanak looks very snake-like and is referred to as "naga" by Adirex, it is derived from the mammalian gajasimha of Suryavarman II.

harming man and other creatures. Finding mankind unwilling to accept his doctrine of *Sunyata* or Void, Buddha gave it to the nagas to hold in trust until humans became receptive. Seeing Buddha's relicts neglected, the nagas saved some of his hairs to give to mankind later. After seven centuries the sage Nagarjuna appeared and brought the *Prajnaparamita Sutra* on *Sunyata* from the nagas to mankind. Nagas sometimes appear in human form to listen to the sermons of Buddhist monks. Nagas can understand all human languages. They also have their own language, *nagakrit* or *nak-kit*.

One of the most enduring Khmer Buddhist images is Buddha meditating in the forest while protected from storms by the naga king Mucilenda. In Lao and Thai statues of Buddha Mucilenda the naga usually has 5 or 7 heads. In Buddha Mucilenda in the Schwedogon Temple in Yangon and elsewhere in Myanmar Mucilenda is portrayed as a payanak. This Burmese payanak has a single head, forelimbs present or absent, body elongate, a horn on the snout, and a beard on the chin. The beard is divided in two; the two halves either diverge or wrap around each other like the tails of two nagas.

The king and queen of the nagas or payanaks and their entourages are living now. The subterranean palace where they stay most of the time extends beneath the Mekong River up- and down-stream from Vientiane. They can come to the surface by means of various secret holes or openings. These openings cannot be found by ordinary humans but are sometimes found by monks. One monk entered the underground palace from a hole on the Lao side of the Mekong and left it from a hole in Thailand. Payanak occasionally come out of the palace at night to sport in the Mekong River. At such times their snorts can be seen as flashes of light on the water surface. Many Thai and Lao people and foreign tourists have seen these lights, known as bang fai payanak.

Eye-witnesses who observed naga or payanak swimming in the Mekong in the vicinity of Salakoktan, on the outskirts of Vientiane were interviewed by Alan Davidson while he was the British Ambassador to Laos. They observed the creatures undulating about "on that day of the year when the water of the Mekong first begins to subside after the rainy season." One observer who saw this twice, once with binoculars, estimated the size of the creatures in relation to a canoe which was about the same distance away as 20–25 meters. He reported a red band on the neck about 40 cm down from the head, which looked precisely like that of a serpent (DAVIDSON, 1975: 100).

Bang fai payanak may be translated as "payanak fireballs." The English translation usually given is "naga fireballs." This is another instance of the prevalent conflation of the two mythological entities. According to some people the fireballs are the snorting of the payanak paying their respect to the Lord Buddha. Others suggest that they are produced by fireworks or tracer bullets, or from the spontaneous release of natural gas deposits in the bed of the Mekong River.

Payanak lived in Southeast Asia long before humans settled there and even before the Mekong River was formed. Two payanak kings living in the area now known as Yunnan fought a war. The losing king Srisattanak and his troops fled from Yunnan by going underground and burrowing all the way to the sea. Their meandering pathway became the Mekong River.

Naga maidens, known as *nagakanya* or *nagi*, also can assume human form. They are charming, gracious, beautiful and seductive. Amorous and matrimonial alliances between them and humans are part of the founding mythology of various kingdoms including the ancient Khmer kingdom of Cambodia. Numerous *nagi*, some mounted on *gajasimha* and

220 Tyson R. Roberts

other aquatic beasts of the underworld, may be seen in bas-reliefs lining the Hidden Passageway in the Terrace of the Leper King near Angkor Wat (Figs. 10–11) and on the wall enclosing the pond in the Royal Enclosure north of Phimeanakas.

Naga worship or ophiolatry (snake worship) apparently played a significant role in the lives of ancient Khmer kings. When the Chinese emissary Zhou Daguan visited the Khmer capital in 1296, he was told that a golden tower inside the palace (identified by modern scholars as the Phimeanakas) was the abode of the spirit of a nine-headed snake (nagaraja) that owned all of the land of the kingdom. Every night the nagaraja materialized as a woman (nagi) with whom the king slept during the first quarter of the night. If the king failed to come just one night calamity would befall him. If one night the spirit did not materialise as a nagi it meant the king would die (SMITHIES, 2001: 23).

The exterior wall of the royal pond adjacent to the Phimeanakas temple is decorated by bas-reliefs with the repeated motif of a central figure apparently representing a king, with a *nagi* and then a seven-headed naga on either side. The Hidden Passageway in the Terrace of the Leper King, lined for its entire length with bas-reliefs of *nagi* and large nine-headed nagas, presumably was related to the naga cult of the Phimeanakas. The *nagi* are recognizable as such due to their head-dress in the form of a multi-headed naga or *naka* (Fig. 10). That they are *nagi* is also indicated by their footless snake-like lower extremity. They are usually depicted in sitting position with the tail descretely folded beneath them. These bas-reliefs support the hear-say account of the Phimeanakas naga cult reported by Zhou Daguan.

Three *nagi* near one of the entrances to the Hidden Passageway are mounted on *gajasimha*-like animals. These animals have well-developed forelimbs but lack the hindlimbs. In one of them the body ends in a fish-like forked tail. In two of them the body ends in an elongated snake-like tail (Fig. 11). Both types may be considered as precursors to the *payanak*.

Like their snake-like naga predecessors, payanak are associated with rainfall, agricultural productivity, and fertility. They are the guardian spirits of the annual Songkhran festival in Laos and Thailand, propitiated for their power to bring the monsoon rains (Fig. 12). Payanak, like naga are equally at home in the sea. Varuna, the Buddhist as well as Hindu version of Neptune or King of the Sea is also a nagaraja, with a naga or payanak as his vahana or vehicle (Fig. 4).

DISCUSSION AND CONCLUSION

Whereas gajasimha is displayed in Hindu as well as Buddhist iconography, payanak appears only in Buddhist iconography. By the time payanak evolved from gajasimha, Buddhism was rapidly expanding in mainland Southeast Asia while Hinduism had practically died out. Angkor Wat has numerous bas-reliefs depicting multi-headed nagas and gajasimha but none depicting payanak because it had not yet evolved from the gajasimha. The payanak as well as the Suryavarman II version of gajasimha reached Myanmar but apparently failed to reach India. In Myanmar, which apparently gained much of its Buddhist traditions from Southeast Asia, nagas (or naya) usually appear in the form of modified gajasimha or payanak (as in Schwedogon Temple in Yangon).

While nagas are almost invariably represented with mutltiple heads, gajasimha and by extension payanak may be represented either by single or multiple heads. Multiple-headed



Fig. 10. Nagi flanking nine-headed naga (Hidden Passageway in the Terrace of the Leper King).



Fig. 11. Nagi mounted on payanak-like gajasimha with snake-like tail (Hidden Passageway in the Terrace of the Leper King).



Fig. 12. Multi-headed payanak-like gajasimha on float in a Songkhran parade at Chiang Mai, northern Thailand. Note that the crown on the head of the person in the float represents a makara-mouth framing his face, and that sides of the makara-mouth have a decoration shaped like the head of a gajasimha.

gajasimha apparently first appeared in Cambodia during the reign of Suryavarman II, in the so-called "Garuda balustrades". The earliest of these feature a central Garuda figure standing atop a multi-headed naga, and with his arm-wings partially enveloping multi-headed gajasimha (ROBERTS, 2002a). These early multi-headed gajasimha show quite clearly the elephant-like trunk and beard of the gajasimha of Suryavarman II. Since only the head and neck are shown, the forelimbs are not evident.

Comparing the photograph of the Coronado Island Regalecus glesne with payanak as portrayed in Buddhist temples and in pop art of Laos and Thailand, it is easy to see how the two were conflated. The otherworldly appearance of the oarfish does bear a startling resemblance to that of the payanak. The mane of the payanak is of course represented by the spectacular crest or mane of the oarfish, consisting of a number of elongate dorsal fin rays, with bulbous tips when they are intact, and bright red in color. The mane of the payanak is sometimes also red in color. In some representations of payanak the mane, originally restricted to the head, extends along the body supported by fine projections superficially like the rays supporting the dorsal fin of R. glesne (Fig. 7).

The oarfish is an impressive animal worthy of comparison with the *payanak*. Attaining at least 8 m, and reportedly (if doubtfully) 15 m (HEDLEY, 1997: 204), it is the longest living species of Teleostei or bony fishes. Color in life is striking: head and body bright

silvery over-all, with oceanic blue tints and numerous oblique, slash-like black marks and spots; dorsal and pelvic fins pink, red or scarlet. Head and body highly compressed (narrow from side to side). The 7.3-m Coronado Island specimen appears to be the largest preserved specimen of the species (see HEDLEY, 1997: 204). It weighed only about 250–300 lbs (110–130 kg) (Leo W. Smith, pers. comm.).

Oarfish normally live in open oceanic waters, often where the depth exceeds 1000 m. They can descend to depths of 1000 m. Apart from man their mortal enemies apparently are few. Healthy adults evidently are quite capable of avoiding large would-be predators such as giant squid, sharks, and sperm whales by acute sensory perception and rapid avoidance reaction. They can move with astonishing speed, either horizontally or vertically. They have been observed suspended vertically with the head up, and then dropping downwards rapidly when startled. Usually single, they are occasionally observed in pairs. The name oarfish comes from the slow, sculling motion of the pelvic fins, each consisting of a single elongate bony ray. The pelvic fins bear numerous chemosensory organs and apparently are used for detecting food organisms (NISHIMURA, 1961; OELSHLAGER & SCHWERDTFEGER, 1979). Oarfish feed on euphausiids or krill. The tiny shrimp-like crustaceans are sucked into the oropharyngeal cavity by the protrusile jaws and filtered from the water by specialized gill rakers. Their mating and spawning behavior has not been observed.

The oarfish apparently is responsible for many ancient as well as modern sightings of sea serpents, especially those reported as having a horse-like head and scarlet mane.

The identity and the motives of the person or persons responsible for making the falsely labelled photograph of the Coronado Island *Regalecus* are unknown and, unless a perpetrator comes forward, probably will remain so. Whether intentional or not, it has served as a highly successful and self-propagating piece of anti-American propaganda. Photographs with the *Payanak*-Queen of Nagas label are still being actively distributed in Laos and Lao-speaking areas in Northeast Thailand, and undoubtedly have caused anti-American feelings. This is understandable given that Lao people regard the *payanak* as a national guardian protecting their country from foreign invaders.

While snake worshipping or ophiolatry is relatively well known in the New World as well as the Old, there are relatively few recorded instances of ichythyolatry or fishworshipping. Symbolic fish occur in various religions, including Christianity, and there are shark cults in various Pacific islands such as New Ireland. The payanak as *Regalecus* reverred in Laos and Thailand and the salmon worshipped by various Eskimo and other Indian tribes on the Northwest Pacific coast of America, are two of the more important examples.

ACKNOWLEDGMENTS

Warren Y. Brockelman kindly provided a print of the Coronado Island *Regalecus* labelled "*Payanak*, Queen of Nagas". David Catania sent a copy of the article with the photograph published in the San Diego Union Tribune. Leo W. Smith and H. J. Walker provided information about the history of the specimen and the photograph. Erik Åhlander provided a copy of the account of *Regalecus* from F. A. Smitt's A *History of Scandinavian Fishes*.

REFERENCES

- ADIREX, P. 1995. Mekong. Aries Books, Bangkok, 414 pp.
- BOISELLIER, J. 1970. Pouvoir royal et symbolisme architectural: Neak Pean et son importance pour la royauté angkorienne. Arts asiatiques, Paris, 21: 91-108.
- BRIGGS, L. P. 1951. The syncretism of religions in Southeast Asia, particularly in the Khmer empire. J. Amer. Or. Soc., New Haven, 71(4).
- DAVIDSON, ALAN. 1975. Fish and Fish Dishes of Laos. Imprimerie Nationale Vientiane, 203 pp.
- HEDLEY, J. 1997. Banks Ribbon-fish (Regalecus glesne Ascanius, 1772): a review of occurrences in British waters. Trans. Nat. Hist. Soc. Northumbria 57(4): 191-206.
- NISHIMURA, S. 1961. On the locomotion of the oarfish. J. Oceanogr. Soc. Japan 17: 215-221.
- OELSHLAGER, H. & W. K. Schwerdtfeger. 1979. Biologische Bedeutung der Bauchflosse von Regalecus glesne Ascanius (Pisces; Teleostei). Zool. Beitr. 25(2): 205-212.
- ROBERTS, T. R. 2002a. Fish scenes, symbolism, and kingship in the bas-reliefs of Angkor Wat and the Bayon. Nat. Hist. Bull. Siam Soc, 50: 133-191.
- ROBERTS, T. R. 2002b. Two vishnuite stelae commemorating Suryavarman II. Siksacakr, Newsletter of the Center for Khmer Studies, Siem Reap, no. 5: 14-16.
- ROBERTS, T. R. (in press). The statues of Suryavarman II. Siksacakr, Newsletter of the Center for Khmer Studies, Siem Reap, no. 7.
- SMITHIES, M. 2001. The Customs of Cambodia by Zhou Daguan (Chou Ta-kuan). The Siam Society, Bangkok, vii+147 pp.
- SMITT, F. A. 1892. A History of Scandinavian Fishes, by B. Fries, C. U. Ekstrom, and C. Sundevall, second edition revised and completed by F. A. Smitt. P. A. Norstedt & Söner, Stockholm, etc. vol. 1, 566+ viii pp.
- Vogel, J. P. 1926. Indian Serpent-lore or the Nagas in Hindu Legend and Art. Arthur Probsthain, London, xiv+318 pp, 30 pls.
- WOODWARD, H. W. 1997. The Sacred Sculpture of Thailand. River Books, Bangkok, 326 pp.