## Some observations on the presence of one-horned rhinos in the bas reliefs of the Angkor Wat temple complex, Cambodia

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During a visit to the Angkor Wat temple complex near Siem Reap in central Cambodia, 2–6 December 2004, the first two authors observed the presence of one-horned rhinos in the bas reliefs of the northern and southern galleries of the temple. The Angkor Wat temple complex (fig. 1) was built under the reign of the Khmer-Hindu 'king god' Suryavarman II, who reigned from 1113 to 1150 C.E. (Common Era) (Roveda 2003).

In the North Gallery (west wing) in a bas relief representing 'the battle of Devas and Assuras' we identified a one-horned rhino mounted by one of the gods (fig. 2). In the North Gallery (east wing) in a bas relief representing 'the victory of Vishnu over Bana' we also identified a one-horned rhino in front of a war chariot with one of the gods in the driving seat, bow spanned, ready to shoot and with one foot on the chariot the other on the rhino (fig. 3).

In the South Gallery (east wing) in the representation of 'heavens and hell' we identified another one-horned rhino, which is attacking the damned people who are in hell (fig. 4).

We believe that all three of the one-horned rhinos on these bas reliefs most probably represent Javan



Figure 1. The Angkor Wat temple.

rhinos (*Rhinoceros sondaicus*) and not Indian rhinos (*R. unicornis*).

Both rhino species have similar skinfolds and a pattern of skin warts, although in the Javan rhino they are less pronounced. A clear distinction between the Indian and Javan rhino is the skinfold on the shoulder, which for the Javan rhino continues along the back and gives the frontal part of the back and neck a saddle-like appearance. This saddle is present in the rhinos of the North Gallery (west wing) (fig. 2) and the South Gallery (fig. 4). Also the shape of the Javan rhino's body and head is different from that of the Indian rhino, the latter carrying its head higher, having a more concave back and forehead. Contrary to our interpretation are the large round warts on the rhino of the South Gallery and the skinfold on the shoulder (fig. 4), which resemble those of an Indian rhino. Also the skinfolds of the 'Javan rhino', particularly in the South Gallery (fig. 4) are not completely accurate, since the horizontal abdominal skinfold continues on the belly, which is not the case in R. sondaicus.

During our investigation in Angkor Wat, we did not encounter any rhino resembling the two-horned Sumatran rhino (*Dicerorhinus sumatrensis*). This is not surprising. Although there are records of rhinos occurring in most parts of Cambodia except the northern regions, none of these refer to an animal with two horns. Even though the posterior horn of the Sumatran rhino is often small and difficult to notice when seen in the jungle, it has been asserted that only the one-horned Javan rhino has ever been known in Cambodia (Rookmaaker 1980; Foose and Strien 1997).

It is remarkable that the rhinoceros, despite its impressive size and power, has always played a relatively minor role in Hindu art and lore in India.

Although a large number of animals, even those confined to a limited range in northern India, were associated with the Hindu gods as *vahanas* or sacred mounts, the rhinoceros never reached this status in Hindu mythology and iconography (Bautze 1985). In Nepal, the kings are obliged to perform the *Tarpan* ceremony once in their lifetime, in which rhino blood libations are offered to Hindu gods. Rhino hide plays a role in the *Shradda*, an elaborate religious ceremony performed by both Hindus and Buddhists in Nepal to commemorate parents or grandparents on the anniversary of their deaths (Martin 1984:417; 1985).

It is unusual, and apparently confined to Khmer art, to find the rhino employed as a *vahana* for one of



Figure 2. Detail of a bas relief in the North Gallery (west wing) of Angkor Wat, showing a one-horned mounted by the god Agni.



Figure 3. One-horned rhino shown in a bas relief in the North Gallery (east wing) at Angkor Wat.



Figure 4. A rhinoceros without rider in the South Gallery (east wing) of Angkor Wat.

the gods in these reliefs. This explains why archaeologists have difficulty to decide which god is seen riding on the rhino in this instance. Lohuizen-de Leeuw (1955) suggested that it was Kartthikeya, the god of war, partly because one of his attributes is a sword, khadga in Sanskrit, which is also the name for the rhinoceros. Moens (1948) explained that it may have been Skanda, the god associated with forest fires. But here we become entangled in the complicated genealogies and hierarchies of the Hindu pantheon. It is best, therefore, to follow the convincing argument by Stönner (1925) that the presence of flames around the representation of the god suggests that he was Agni, the god of fire. In Hindu iconography, Agni is usually depicted with two heads and sometimes four arms riding a goat. According to the Agni Purana his attributes are the rosary, a jar of water, the javelin, and what looks like a garland of flames. It is generally accepted at present that the rhino here depicted is carrying the god Agni (Brentjes 1978; Roveda 1997, 2003).

Although there is no evidence identifying the architects of the temple, Roveda (2003) states that it is likely that Divakarapandita, the Brahman under service to Suryavarman, contributed to the concept and planning. This Brahman priest, who came from India, was born in 1040 and died in 1120 (C.E.). One of a long line of illustrious Brahmans who served the Khmer kings, Divarkarapandita also served under Suryavarman's predecessors—kings Jayavarman VI and Dharanindravarman I. He died 30 years before the construction of Angkor Wat was completed, but he was most likely the temple's architect. We believe that this Brahman architect was likely to have influenced aspects of the design of the one-horned rhinos depicted on the bas reliefs, such as the larger Indian rhino-like warts on the skin. The Brahman priests however, used local Khmer artisans for final work on the designs, and this may explain the predominant similarities with one-horned Javan rhinos in the bas reliefs of the Northern Gallery. The Javan rhino is known to have occurred in Cambodia until recent times (Rookmaker 1983). Therefore, it is likely that

local knowledge of the Javan rhino influenced the design and execution of these particular bas reliefs.

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