URGED TO INTERDISCIPLINARY APPROACHES:
THE ICONOGRAPHY OF MUSIC ON THE RELIEFS OF ANGKOR WAT

MARTIN KNUST

Stockholms universitet

I. HISTORICAL BACKGROUND—SOURCES ABOUT MUSIC IN ANGKOR. Angkor was the capital of the med­
dieval Khmer empire, which reached the peak of its power in the centuries between AD 800 and 1200. It con­
tained the areas of what is nowadays Cambodia, Laos, parts of Thailand, southern Vietnam, and various small colonies on the Malaysian peninsula. King Jayavarman II, who reigned from 802 to 850, is widely regarded as the founder of the ancient Khmer empire, since a dynasty established under his power continued to rule the country for two centuries.1 A new dynasty was established around 1080, at the time of permanent development and territorial enlargement until the reign of Jayavarman VII (1181–1220?). His rule was followed by a period of continual decay. Angkor then became gradually threatened by its neighbours, and the capital was finally abandoned in 1431 for strategic reasons. The king’s court moved to Basan and later on to Phnom Penh in 1434. The former capital disappeared in the jungle until the late nineteenth century, when archaeological research and excavations started. The modern city of Seam Reap, whose former dimensions are still not completely reconstructed, became the center of touristic and scientific excursions into the large area of the city.

Angkor’s culture grew out and received various influences over the centuries. In the first place, Indian religion, literature, and music had a strong and lasting impact on Southeast Asian culture. Chinese and Javanese influences can also be traced in the centuries around AD 1000.2 In addition to influences from its powerful neighbours, there was also an intensive exchange of the practices of music and dance between the predecessors of the latter Siamese empire, the Khmer, the Cham, and the many native tribes living between the Vietnamese kingdom and the Malaysian coast. Thus, it is hardly surprising that the traditional music and dance of what is nowadays Cambodia, Laos, and Thailand display many similarities,3 even though many national characteristics can be differentiated. As with its linguistics, the traditional music of Cambodia is relatively homogenous today.4 Besides the minorities of Chinese and Vietnamese inhabitants and other ethnic minorities in remote areas of the extreme northeastern region of the country, more than 90 percent of Cambodia’s population is Khmer.

Around one millennium ago, the capital of the Khmer empire, Angkor, was one of the three cities in the world that could have been home to over one million inhabitants. According to recent archaeological research, it covered about 1000 square kilometres and was thus apparently the largest city of the preindustrial era.5 Today, there are only ruins left, since the former capital has been abandoned for about 600 years.6 But the temple ruins—more than 50 of which have been discovered in the Cambodian rain forests within the last 150 years—can still give us an impression of the former times.

Of special interest for the musical iconographer are the stone carvings on the buildings. Moreover, these reliefs are the main key to understanding the daily life in ancient Angkor, because there are no literary sources left, with only one exception: the contemporary report of a Chinese ambassador, Zhou Daguan, which was written in the beginning of the fourteenth century, and describes his eleven-month long stay in Angkor.
During the years 1296–1297, Zhou Daguan was writing from what was, in his eyes, a superior and more civilized perspective, similar to that of the Europeans in the nineteenth century. On many occasions Zhou Daguan expresses openly that the customs and culture of Angkor and its people are completely alien to him, and it has to be taken into account that some of his descriptions could be the result of misinterpretations on his side. As a foreigner he was excluded from many important religious ceremonies, and provides us thus with second-hand information. Furthermore, he sometimes refers to reports from local people, which in fact could have been nothing but rumours or tales.

Reasons for the lack of written sources about Cambodian history are attributed to the extreme climate, which makes it impossible to conserve materials like paper or palm-leaves, and the historical incidents after the fall of Angkor: firstly, the fall itself, and secondly, the genocide and civil war caused by the Khmer rouge regime. This in particular did incalculable damage to the traditions of music and artistic knowledge, because both are art forms that in Cambodia, until recently, were nearly always handed down through oral traditions.

Within the short but excessively brutal era of the Khmer rouge under the leadership of Pol Pot (1928–1998), in the years between 1975 and 1979, a large part of the Cambodian population was killed. To this day, the exact range of the more or less systematic mass executions is not known—a tribunal was started as late...
2. The battle of Kurukshetra in the south wing of the west gallery of Angkor Wat. This picture can give an impression of the dimensions of the large bas-reliefs, especially their overall length.

As November 2007, i.e., 30 years after the incidents — but it is taken for granted that at least a fifth of the entire populations was killed within these four years. One important aim of the Khmer rouge was to extinguish any sort of "intellectuality", a category to which musicians as well as dancers belonged. Only few of them survived this time of horror and started to reconstruct the highly skilled traditional arts of the Khmer dance and music traditions of the ancient days, after 1979. Some of these dancers and musicians tried firstly to create a larger group of competent teachers by educating their own children. These children were then to conserve and hand down the ancient traditions to the next generation. This ongoing process is mainly directed from the Royal University of Fine Arts in Phnom Penh. It is the most important institution for music and dance in the country, as it has been in existence before the war. To become a professional dancer or musician here requires twelve years of education.  

The incidents above are the two main "bottle necks" through which the Angkorian culture had to pass. In ancient Angkor there was no writing technique in existence that lasted permanently, apart from the inscriptions carved in stone, the most important source for the history of Angkor. Unfortunately, these do not give us information about musical life in Angkor, because they consist, more or less, only of praises and panegyrics (prāsati) for the Khmer kings or some of their high officials, or of lists of names of workers, servants, and even musicians — players of the lute and other string instruments — and dancers. Apart from their names, however, hardly any information about an individual is given. Because of the almost total lack of "classical" written sources, the stone-carvings of musicians, which are to be found quite often in Angkor, can only be interpreted in a productive manner if results of other disciplines are taken into consideration, for example those of (musical) ethnology and archaeology, which I would like to exemplify in the following.
Martin Knust, *The Iconography of Music on the Reliefs of Angkor Wat*

3. Angkor Wat, west gallery, south wing. The battle of Kurukshetra. In the lower part are represented military musicians performing on, among others, a portable gong, carried by two persons and played by the third, and the wind instrument [sralai?] most commonly represented on older bas-reliefs of Angkor Wat.

II. THE BAS-RELIEFS OF ANGKOR WAT. The main building in Angkor, which appears in the national flag of Cambodia today, is Angkor Wat. Both its size and construction are exceptional. The former function of the building is not entirely clear, which can be owed to the fact that the function itself may have changed during the Angkor period. However, since only religious buildings were made of stone—even the king’s palace was made of perishable materials like wood—it must have been a place of religious worship, i.e., some kind of temple. Angkor Wat seems to have been constructed as a temple for the god Vishnu, but, as the Khmer kings changed their religion—and, thus, the religion of the people whom they governed—to become Buddhists, the function of Angkor Wat obviously changed, too. It has over the centuries been used as part of a monastery, a place for the most important religious celebrations, and as a royal tomb. It was not uncommon in ancient Angkor to dedicate temples to a person to serve “as funerary monuments for their builders.” The architectural plan of Angkor Wat—the main entrance is located in the western part of the building—and its arrangement of the large bas-reliefs are typical for tombs, and untypical for the other temples of Angkor. The question of whether this building was more or less closely connected to the king, or whether it was a place of religious worship, is, however, not a question of two alternatives which strictly exclude each other, because the kings of Angkor had held a god-like status. They were, for instance, depicted as bodhisattvas, or as the god Vishnu.
Angkor Wat, west gallery, south wing. The battle of Kurukshetra. A typical military ensemble, consisting of from left to right, a portable gong, a pair of small cymbals [ching], a wind instrument [sralai?], and a small horizontal drum. The dancing-like attitude of the gong player is characteristic for many of the musicians depicted in Angkor Wat.

Angkor Wat had been build in the years between ca. 1113 and 1150, which, with regard to the huge dimensions of this building – the biggest religious building of mankind ever built – is a relatively short time. Angkor Wat contains more than 2000 square metres of bas-reliefs. The lion’s share of these comprises eight large reliefs on the gallery surrounding the first level of the temple [fig. 1].

These reliefs measure two metres in height, are two to three centimetres deep, cover 1200 square metres, have a length of more than 500 metres in total, and are thus considered to be the longest bas-reliefs on earth. An adequate recording and reproduction of them has been a challenge for photographers for a long time. The reliefs are divided into eight sections, with two panels on each side of the gallery, and mostly show episodes of the Ramayana, the favourite epic in Cambodia. It became assimilated later on in a Khmer version known as the Reamker, which was created in the sixteenth and seventeenth centuries; this version was to be recited to accompany the classical dance. Besides the Hindu myths, historical persons and events are also depicted, for example, a representation of King Suryavarman II himself and his court on the West wing of the southern grand relief.

The quality of execution of the reliefs is unequalled. While the western, northwestern, southern and southeastern carvings – which were probably made during the erection of the building or shortly thereafter – are, artistically, and by their craftsmanship, of the finest standard, the two reliefs in the northeastern corner are more roughly constructed [compare figs. 4 & 5 with figs. 10 & 11]. As contemporary inscriptions reveal, these two reliefs were carved in stone in the middle of the sixteenth century, i.e., more than 300 years after the six older ones, and thus more than a century after Angkor was abandoned. At this time the sculptural techniques were in a state of decline compared to those of the twelfth century, and, as Thomas S. Maxwell points out, “the original concept and specific meaning of the iconographic programme [of the older carvings] had undoubtedly been forgotten”, although the “16th-century reliefs broadly follow the same
compositional principles and iconographic symbolism". The pictorial composition of all the grand reliefs is organized in two ways. The four eastern and western bas-reliefs are symmetrically structured around one central point, while the four northern and southern reliefs are procession-like in form, and are to be read from the left to the right. This means that the grand reliefs as a whole were intended to be viewed via a counter-clockwise circuit. Even though this fact is beyond doubt, "a satisfactory explanation of the logic behind the order in which the Angkor Wat reliefs are presented in the course of this circular movement has not yet been found". The question of whether the galleries could have perhaps served as a place for circular processions, has recently been raised by Hedwige Multzer O’Naghten:

Si nous connaissons mal aujourd’hui le rituel et la liturgie du culte exercés dans l’enceinte du sanctuaire khmer, nous pouvons nous référer aux pratiques religieuses indiennes qui les ont très certainement inspirées. Comme en Inde, la circumambulation fait partie du rituel et ne s’effectue jamais dans la cella. Même si les galeries de bas-reliefs d’Angkor Wat et du Bayon ne sont pas conçues selon un enchaînement logique, elles incitent les dévots à faire le tour du monument.

III. INSTRUMENTS ON THE RELIEFS OF ANGKOR WAT. Many musical instruments and ensembles seen on the reliefs are still in use in Cambodia today. For example, chordophones like the tror and the memm — two string instruments which are to be played upright — can be found on the reliefs of the north gallery as well as on the Bayon temple. The memm, a monochord instrument without a resonator, is depicted on a stone carving on the Bayon temple and has been in use since the time of ancient Angkor. Today it is not found among the standard instruments of Khmer traditional music, but is still played by the Kroeung and Tumpuan minorities in the Rattanakiri province, as a solo instrument as well as in ensembles. Eight types of the tror can be found in Cambodia today. They differ in size, tuning, and number of strings. Sam Ang-Sam classifies this family of fiddles organologically as being a type of bowed lute. All of them have a resonator and are played upright.
with a bow. Only one of them, the tror Khmer, has three strings tuned in perfect fourths. The seven other types have two strings, tuned a perfect fifth apart, and are played with the bow placed between both strings. Thus both sides of the hair of the bow are used by pressing it—sometimes alternatively—on one of the strings. The range of the two-stringed trors is one octave when played in the first position. The tror is widely thought of as being of Chinese origin and to have been used as a Southeast Asian musical instrument relatively late. Beside the tror, many instruments and instrumental ensembles—not to mention the classical Apsara dance— are very similar to contemporary instruments, ensembles, and performance practices. To quote Sam Ang-Sam: “Consequently, we have every reason to believe that the present Khmer musically [sic!] forms are the living continuation of the musically [sic!] tradition of the ancient Khmer”.

What I would like to focus on, however, are instruments and ensembles that are not in use anymore. This does apply in the first place to the military bands that can be found on the large bas-reliefs of Angkor Wat, taking part in the fierce battles with demons and foreign armies. Only in this context are musicians and instruments to be found here; a musician is never depicted alone, but always within an ensemble of three to thirteen instrumentalists, playing percussion and often brass and/or woodwind instruments. We know from Zhou Daguan that royal processions or celebrations of important events in the rich families of the city—he gives a report about the feast of ritual deflowering of young girls—were accompanied by a very loud music. Certainly such bands, consisting mostly of loud percussion instruments like drums, gongs, and cymbals, played in royal processions and also took part in the battles of ancient Angkor. The fact that the same type of bands played both in the royal processions and on the battlefields proves one grand bas-reliefs of Angkor Wat showing a procession with a group of musicians, playing exactly the same instruments as the military ensembles found on the other reliefs: portable gongs and drums as well as different sorts of wind instruments [figs. 3–5].

Some of these instruments are still in use in Buddhist monasteries. For instance, the double-headed barrel drums called skor chey are played in Luang Prabang, the former capital of Laos, on important religious
occasions like the celebration of the birthday of Buddha. I had the opportunity to see and listen to an ensemble there in the spring of 2002, which was comprised of barrel drums and gongs. From a European perspective the sound of such an ensemble is quite martial.

These bands had various functions in the Angkorian army: they "were to signal the troop, i.e., when to march, rest, retreat, assault, and even to encourage them". Playing them was a dangerous job, not only because of the battle itself, but also because of the fact that musicians as well as dancers were booties of high esteem and were thus often captured or robbed during the wars of the medieval Southeast Asian kingdoms. As can be seen on the reliefs, they were also attacked directly by their enemies, probably for their strategic function [fig. 6].

On all the five reliefs showing battles, as well as the one showing a royal procession on the first gallery of Angkor Wat, I have counted 23 military ensembles altogether. The majority of them, as well as the largest ensembles, are to be found on both sides of the north gallery: on the younger wing in the east as well as on the older one in the west. The ensembles consist of between three and seven players on average; the largest one is to be found on the west panel of the north gallery, consisting of thirteen players altogether. Also seen here is an unusual ensemble of seven players which includes a large bell. This is the only bell of that size on all the bas-reliefs of Angkor Wat. It can thus be presumed that the military bands in Angkor did normally play without such bells. The reason why they were not often used in the battles is quite obvious: it is clearly due to their heavy weight. One of these bells would need five men to carry it, and thus, with a bell, the band could obviously only move in a very clumsy manner [fig. 7].

One instrument can be found on all of the six large reliefs in Angkor Wat which show musicians. It has been identified by Sam Ang-Sam as a sralai, i.e., a reed instrument similar to an oboe. However, I am not sure if this can always be taken for granted, because the instrument on the carvings often displays neither the form nor the length of the instruments nowadays called sralais. The modern sralai has a cylindrical form, sometimes with a flare, and is mostly used in the pin peat, which is the most common type of instrumental
ensemble to perform traditional Khmer music today; besides that the modern sralai appears as accompaniment of the traditional Khmer boxing fights as well as in the shadow theatre. The ancient instrument on the reliefs is much shorter, and its funnel-like form more closely resembles a bottle or vase than a cylinder. The mouthpiece cannot be seen clearly on all bas-reliefs, but it often appears dissimilar to the oboe-like one which is used with the modern sralai. Furthermore, the ancient instrument always has a flare, while the modern sralai does not necessarily possess one [fig. 8].

All of these differences in shape make Sam’s generalizing presumption questionable on the one hand. On the other hand, this Angkorian instrument could certainly have been a reed instrument, as it would have been suited very well for military use because of its penetrating sound. The reliefs show that the playing of that instrument needed a lot of physical effort. The cheeks of the players are fully inflated and their bodies are under tension. The mouthpiece sometimes looks like that of a trumpet; Gretel Schwörer-Kohl has taken a photograph of a Laotian priest of the Yao who is playing an instrument with a similar mouthpiece. Sometimes it seems to be fixed around the neck of the player, and would thus be equal in shape to the mouthpiece of an ancient Greek aulos. The so-called phorbeia, a piece of cloth fixed to the instrument, helped to generate maximum pressure. The characteristics of the sound of an aulos are described as very sharp and powerful by contemporary ancient authors [fig. 9].

Thus, it is not necessarily the modern Cambodian sralai which we see on these carvings, although this instrument could have been its predecessor. Moreover, there are other instruments that cannot be found at all today in Cambodia. An example for this is the angular harp (pin) that is engraved on reliefs of the temple Banteay Samré: it has disappeared from musical life in Cambodia almost completely already in the time before the civil war. It is not used anymore in the Khmer music ensemble which even bears its name: the pin peat. Recently the pin was rediscovered at the indigenous tribe of the Tumpuan, which is located in the remote Rattanakiri province of Cambodia. Other military instruments depicted in Angkor Wat have, as far as we know, disappeared completely without yet being rediscovered. Some ensembles consist of instruments
9. North gallery, east wing. The battle of Shonitapura. The relief is more than 300 years younger than the other bas-reliefs of Angkor Wat. It includes representations of a chime of bulbous gongs (khong vong?) which are shown only on younger reliefs, and a big horizontal drum (sampho?) on the right-hand side. Instruments like these are in use in the modern Cambodian pin peat ensemble. The mouthpiece of the wind instrument in the middle (sralai?) is different from the those on the older reliefs of Angkor Wat.

and portable gongs which are totally out of use in Cambodia today [figs. 10 & 11]. Wind instruments were used similar to trumpets or horns. They were also played in ensembles during the battles [fig. 5]. In his already-mentioned organology of Cambodian traditional instruments — the first of its kind — Sam Ang-Sam does not mention any instrument that could be identified with these horns, neither in respect to their construction nor their playing technique. In Musique du Cambodge, a brochure published before the civil war, this instrument is referred to as a sâng, which has been replaced in modern times by reed instruments “pour manifester à l’occasion quelques vieux instincts belliqueux”. Unfortunately, the author does not give us further information about his claim. Are instruments like this maybe still in use in the very northeastern parts of Cambodia or Laos? This question requires further investigation in order to be answered, for the reason that Laos — which used to be part of the Khmer empire — hosts much more than thirty ethnic groups; however, only very little is known about them so far.

IV. DESIDERATA — TOWARDS AN ICONOGRAPHY OF MUSIC IN ANGKOR. Archaeology and ethnology are thus the disciplines which can perhaps give us the information needed to answer questions like these. The work of archaeologists in Angkor and ethnologists in Laos and Cambodia has, however, only just begun. For instance, there are no findings of ancient instruments known so far. And even if some are to be found one day, many questions about the exact tuning, and playing techniques, would presumably remain unanswered, as is the case with the few preserved instruments from Roman and Greek antiquity respectively. A general problem in this context is that the contemporary practice of music in Cambodia — which is definitely different from what it was before the war — is not documented very well. For instance, there is no common position in musicology yet concerning the question of whether the tuning of Southeast Asian instruments is isotonic — i.e., whether one octave consists of seven equidistant tones — or not. But what is the consequence, if even archaeology and ethnology fail to give us information about the music in ancient Angkor? In this case there is nothing left but iconography itself. Can the age of the reliefs be differentiated and thus, too, the age of the instruments depicted on them? Are there patterns of the composition of the pictures that could indicate to us the place of music in ancient Khmer society? What do the reliefs reveal about the social status of the musicians? Were they slaves, like they were in the pre-Angkor period at the beginning of the seventh century? Does perhaps the fact that all musicians in Angkor Wat are, without exception, depicted on the lower margins of the grand reliefs [figs. 3, 6, 10 & 11] — which are always divided into three
10. Angkor Wat, north gallery, east wing. The battle of Shonitapura. Three musicians play wind instruments which look like a flute. Flutes are not used in nowadays traditional Cambodian music ensembles. Quite astounding is the instrument beside them on the right which seems to be some kind of tör. A tör is by far too low to be used as a military instrument.

horizontal layers—tell us something about their social status? Or what other implications could this have for the interpretation of the carvings?

What do the reliefs tell us about the performing practice of music in ancient days? The military musicians seem to have played in a very physical manner because they often show stylized dance-like and even ecstatic gestures [figs. 4, 8 & 12], especially on the bas-relief on the west wing of the north gallery. But this is also often the case with the warriors, so the reliefs do not necessarily show “realistic” battle scenes. This does lead to the question of, what do we see on the reliefs? What have the artists of Angkor carved in stone there if it is not some kind of photographic shot of a war as it looked at that time? Could it be possible that the reliefs more likely show us—or at least give us the impression of—some kind of theatrical or ballet-like performances of the Hindu myths in ancient Angkor as they are popular in Cambodia today, rather than documenting the practice of warfare in the days of the Khmer empire? Or do they in some parts show a stylized kind of fighting technique? Today a specific fighting technique is in use in Southeast Asia, known as Thai- or Khmer-boxing, which is incidentally always accompanied by music, principally the srulat. Finally, can different ethnic groups among the players be distinguished? This question is posed for the reason that musical instruments are a criterion by which ethnic influences and identities are distinguished—a criterion as reliable as the language of a certain ethnic group. Attempting to answer this last question means looking for results, which are of relevance for ethnology as well.

Let me give two short examples for the kind of iconographical analysis I am aiming for. The army of Hanuman is quite a popular feature in Khmer mythology. Hanuman, the king of the monkeys, is a mythological figure of the Ramayana with entirely positive attributes, and was also a popular figure in Hindu fairy tales. He is of half-divine decent, a scholar as well as a fighter, and is strong, helpful, and always on the side of the gods, for instance, in their fight against the demons. The famous bas-relief in the north wing of the west
Martin Knust, *The Iconography of Music on the Reliefs of Angkor Wat*

11. Angkor Wat, north gallery, east wing. The battle of Shonitapura. An instrument appearing exclusively on the younger reliefs is this portable set of gongs.

gallery of Angkor Wat shows the battle of Lanka. It is located at a prominent place, since, if in ancient Angkor ritual circumambulations took place on the first gallery, they may have ended here. Hanuman's monkey army is fighting with the demons of Ravana. The monkeys are depicted as ape-headed human beings with athletic bodies, heroically attacking their enemies [fig. 12].

Another relief showing Hanuman's monkeys is located not far away in a pavilion at the southwestern corner of the galleries. This could have been the most appropriate part of the building for ceremonies if ritual circumambulations took place in the galleries [fig. 13]. This carving explains why Hanuman's monkeys were so in favour in Angkor, because the monkeys show the ethnic attributes characteristic of the Khmer people of this time: their hair is worn bound up as a knot on the head and all of them wear a small apron around their hips. This was, according to Zhou Daguan, the common dress of men as well as women in Angkor, and contemporary depictions give us an idea of how alike they looked [figs. 7 & 13]. And even if these parallels should be regarded as insufficient, the musical instruments played by the monkeys are precisely the same as the Khmer instruments of that era. Thus, the relief in the pavilion makes it clear that the Khmer of the Angkor period identified themselves with Hanuman's monkeys. This identification is still in existence in Cambodia. Thus the folkloristic rural dance of monkeys, which is quite popular today, is definitely related to an authentic Angkorian tradition. This burlesque dance is executed by young men wearing ape-masks and moving in a monkey-like manner.

The second example I would like to give is a more speculative one and refers to the status of music in ancient Khmer society in general. Whether striking or not, on the east panel of the southern bas-relief showing 37 Hindu heavens and 32 hells, no instruments or musicians are depicted at all. Perhaps it is not too farfetched to presume that in ancient Angkor music did not have the ethical dimension that it had held in Europe since Pythagoras, a dimension which becomes manifest in Plato's texts. Today religious music is
regarded to be of divine origin in Southeast Asia. In contrast to this, music—at least that which was performed by the military bands—seems to have been neither a heavenly nor a hellish phenomenon in medieval Angkor. This presumption is confirmed by the fact that on all the reliefs showing battles on both sides, the victorious “good” and the defeated “bad” forces use the same instruments, all of which—as far as the pictures allow us to judge—are played in the same manner. The armies of gods and demons have exactly the same military bands. In this context music is just a part of the fight and is, on its own, as morally neutral as the weapons and strategies used in war. This leads to the question of how people in Cambodia were (and are) listening to music; i.e., it leads us to the field of aesthetics. An aesthetic of the traditional music in Cambodia has not, however, yet been written.

V. CONCLUSION AND PROSPECTS. To describe the musical life of ancient Angkor as well as the traditional music in Cambodia today means to struggle with some specific problems. Among others it is a crucial fact that traditional music is not written down but taught through oral tradition only and that a large part of this oral tradition was destroyed at least two times, i.e., in the fifteenth and the twentieth century. As I have tried to outline, we should therefore be careful when comparing current performance practice of traditional Khmer music with the music of the medieval past. Moreover, there is hardly any research about the modern musical life in Cambodia. To avoid misinterpretations in this area—and because it is doubtful whether archaeological research will provide us with new information about music in Angkor soon—I would suggest that a new type of music-iconographic analysis needs to be developed, one which strives for being methodologically immanent; that is, based entirely around the iconographic object itself. A few examples have been given in this study to illustrate how such an analysis could work. Only after a detailed evaluation of this kind parallels to modern musical life should be drawn critically.
An iconographic analysis as I would like to outline it here has to evaluate the engraved sources of Angkor in their entirety. Angkor contains a very large number of such sources—there are still temples and ruins yet to be excavated and reconstructed like the Baphuon temple—which were carved during one coherent historical period, and since there is an almost total lack of written sources, the reliefs of Angkor could serve as an outstanding example of an immanent iconographic analysis of the depiction of music, musicians, and dancers, using results of other disciplines such as archaeology and ethnology. The results of this analysis would then likewise be of importance for these disciplines.
NOTES

All photographs of the bas-reliefs were taken by the author in February 2002.


2 Although Higham doubts that, as held by other historians, Jayavarman II did dwell in Java before conquering and founding the empire of Angkor (ibid., 56), Javanese musical influences are obvious; for example, if one takes into consideration the similarity between the instrumental ensembles of the Southeast Asian peninsula and the Javanese gamelan orchestra.

3 Concerning the cultural exchange between Thailand, Cambodia, and Laos in the twentieth century, see: Gretel Schwärer-Kohl, "Thailand, Laos, Kambodscha", Die Musik in Geschichte und Gegenwart, Ed. by Ludwig Finscher (Kassel: Bärenreiter-Verlag; Stuttgart: Metzler-Verlag, 1998), Sachteil 9, 495.


5 Markus Becker, "Cambodian Jungle Metropolis. Ruins of Giant City Found around Angkor Temples", <www.spiegel.de/international/world/0,1518,499844,00.html> (accessed 14 August 2007).

6 Angkor was never depopulated completely, as reports of Spanish and Portuguese missionaries and traders from the sixteenth and seventeenth centuries prove; see Bernard P. Groslier, Angkor and Cambodia in the Sixteenth Century According to Portuguese and Spanish Sources, Trans. by Michael Smiththies (Paris: Preses Universitaires de France, 1958), 16-17. However, it had almost nothing to do with the former capital, and the largest part of the city disappeared in the jungle over the years.

7 For example, the report about the collectors of human gull seems to be a veritable horror tale, which he took seriously. Zhou Daguan, The Customs of Cambodia, Trans. by J. Gilman d’Arcy Paul (Bangkok: Siam Society, 1992), 66.


9 It was no earlier than the nineteenth century that historical knowledge about the time of Angkor, which had been preserved until then only by oral tradition, started to be written down. Only a single document from the eighteenth century has survived; see Groslier, Angkor and Cambodia, 3; 125. The technique of how to manufacture and play musical instruments as well as to learn the repertoire of compositions is still widely oral; see Sam, Instruments of Cambodia, 12; and Hans Oesch, Außereuropäische Musik, Ed. by Carl Dahlhaus and Hermann Danuser (Darmstadt: Wissenschaftliche Buchgesellschaft, 1997), 158-164. Just for didactic purposes, some musicians have, according to Giovanni Giurati, recently started to use a special form of notation: "Solo da pochi anni alcuni musicisti utilizzano forme di notazione musicale (la notazione cifrata ed il pentagramma) come supporto mnemonico prevalentemente a fini didattici". Giovanni Giurati, Musica tradizionale Khmer (Modena: mucchi editore, 1993), 31, fn. 5.


11 The same applies, for example, to classical antiquity in Europe and in the Middle East. Here two "bottle necks" had to be passed: the burning down of the library in Alexandria, and the selection of classical literature and authors chosen by the medieval monasteries, as Umberto Eco has illustrated it impressively in The Name of the Rose. Trans. by William Weaver (London: Secker & Warburg, 1983).

12 One did, in those days, write on leather with a removable paste. Daguan, Customs of Cambodia, 27.


14 An appropriate English translation for this Khmer name would be "the city which is a temple".

15 The architecture of the building has been documented thoroughly in the years before the civil war in Cambodia by GUY Nafliyan, who drafts the location as well as the dimensions of any part of the building that is graphically recorded. Additionally, some decorative details are documented but not the grand bas-reliefs. GUY Nafliyan, Angkor Wat: Description graphique du temple (Paris: École française d’extrême-orient, 1969), draft no. 104-113.

16 Higham, Civilization of Angkor, 84.


18 Andreas Neuhauser, Kambodscha (Bielefeld: Reise Know-How Verlag Peter Rump GmbH, 2001), 284.

19 Ori Keat Gin, Southeast Asia: A Historical Encyclopaedia from Angkor Wat to East Timor (Santa Barbara; Denver; Oxford: ABC-CLIO, 2004, 151-152.


21 Dawn F. Rooney, Angkor: An Introduction to the Temples (Hong Kong; Odyssey Publications, 2000), 125-126. As Maxwell points out, according to ancient Javanese belief some temples in Southeast Asia can be found which show the same westward facing plan. This applies, however, only to temples and shrines outside Angkor. See Poncar and Maxwell, Gods, Kings, and Men, 7.

22 This hypothesis has been recently argued by Héline Legendre De Koninck on the basis of an evaluation of the architectural plan of Angkor Wat. Héline Legendre De Koninck, Angkor Wat: A Royal Temple (Weimar: Verlag und Datenbank für Geisteswissenschaften, 2001), 15.

23 For example, the famous statue of Jayavarman VII, now in the National Museum in Phnom Penh, shows him as a meditating bodhisattva.


25 How it was erected technically is not known. It is a fact that the stones of Angkor Wat were transported over a distance of about 50 kilometres, presumably by boat; the recently discovered vast system of artificial channels makes this likely.

26 Poncar and Maxwell, Gods, Kings, and Men, 6. Poncar did use the scan-slit-technique to document the bas-reliefs in their entire length for the first time. Ibid., 172-173.

Martin Knust, The Iconography of Music on the Reliefs of Angkor Wat

38 For the exact location see fig. 1, relief nos. 1, 3, 4, 5, 9 and 11.
39 For the exact location see fig. 1, relief nos. 7 and 8.
40 Poncar and Maxwell, Gods, Kings, and Men, 34-35, 37, 50.
41 Ibid., 30.
42 Ibid., 37.
43 De Koninck, Angkor Wat, 47, 49-50. A summary of the iconographic content that can be surely identified is given on 53-76.
44 Poncar and Maxwell, Gods, Kings, and Men, 8.
47 For further information, see Sam, Instruments of Cambodia, 45-46, 128.
49 Ibid., 30-58.
50 The traditional Apsara-dance in Cambodia has a very long and honourable tradition. For example, “1000 danseuses étaient affectées au temple de Prab Khan”, in the twelfth century. Daguan, Les Khmers, 262. Depictions of these Hindu mythological figures from the twelfth century show attitudes and gestures that are very similar to the art of Apsara-dance today. See Phim and Thomson, Dance in Cambodia, 2. It can be taken for granted that this dance was performed with musical accompaniment, as traditional dance and dance were extremely related to each other until the time of the civil war in the 1970s. See Paul Collaer, Die Musikgeschichte in Bildung, I: Musikethnologie, III: Südostasien (Leipzig: VEB Deutscher Verlag für Musik, 1979), 50. It would stray too far from my issue to give more details about it, even though the Apsara-dance is a crucial part of Khmer culture.
51 Sam, Instruments of Cambdodia, 5.
52 Daguan, Customs of Cambodia, 18-19.
53 Sam, Instruments of Cambodia, 107.
54 Ibid., 104.
56 Photographs of the modern sralai are included in: Sam, Instruments of Cambodia, pictures nos. 10-12.
59 Ibid., 873.
61 Sam, Instruments of Cambodia, 43, 45.
62 Ibid., 19.
63 A prominent example for an archaeological finding of instruments is the Roman organ of Aquincum, build in the year AD 228 (or before), and found in Budapest in 1931. Even though the pipes of all four registers of the organ are preserved very well, and thus allow an approximate reconstruction of the tuning of this instrument, it is not known how well and how strongly air pressure was generated in order to play it. See Alfred Riehl-müller and Frieder Zaminer, Die Musik des Altertums (Darmstadt: Wissenschaftliche Buchgesellschaft, 1997), 303-308. Concerning archaeological findings of the aulos, and problems in reconstructing the instrument or the basis of these artefacts, see Annie Béla, “Aulos”, The New Grove Dictionary of Music and Musicians, Ed. by Stanley Sadie (London: Macmillan, 2001), vol. 2, 181.
65 Oesch, Aussereuropäische Musik, 172; and Schwörrer-Kohl, “Thailand, Laos, Kambodscha”, 506-507. Sam declares the isoto­nic tuning to be a music-theoretical construct without any impor­tance for musical practice. See Sam, Instruments of Cambodia, 7.
66 Dagens, Les Khmers, 262-263.
67 The traditional dance of Cambodia today is always a combina­tion of a narrative or even dramatic presentation of the myths and the art of highly skilled gestures, or—for our understanding—dance. This was the case even before the time of the civil war. See Collaer, Südostasien, 44.
68 Ibid., 56.
69 Daguan reports that people from the mountain tribes were captured to become slaves of the Khmer: Daguan, Customs of Cambodia, 19. On the reliefs of Angkor Wat and the Bayon temple different sorts of dresses and hairstyles can be distinguished, and from this some ethnic groups can be separated. See Higham, Civilization of Angkor, 116, 123.
71 For the exact location see figure 1, relief no. 2.
72 “Every man or woman, from the sovereign down, knots the hair and leaves the shoulders bare. Round the waist they wear a small strip of cloth, over which a larger piece is drawn when they leave their houses”, Daguan, Customs of Cambodia, 7. This used to be the common dress until Cambodia became a French colony (compare etching from the late nineteenth century in: Rooney, Introduction to the Temples, 50).
74 Concerning the Apsaras, or celestial dancers, this is another question. Reliefs of Apsaras cover a very large space in other parts of Angkor Wat. However, there is no Apsara to be found on the southern large bas-reliefs.