Landscape knowledge in Cambodia: Notes Towards a Methodology

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At 6:44 am on November 10, 2005, I was on-board a boat pulling away from Kampong Chheuteal Southⁱ on the banks of the Stueng Saen (Saen River) in Kampong Thom province, Cambodia. We were taking two racing boats to Phnom Penh for the Water Festival, which commenced five days ago. Meanwhile, crowds of villagers were streaming into Kampong Chheuteal North from near and far. The object of their fascination was not us but the long awaited visit of Thailand's Princess Maha Chakri Sirindhorn. The Princess, together with Prime Minister Hun Sen, was to officially open Kampong Chheuteal High School which she had founded several years earlier.

Four days later, our boat-racing group finally arrived in Phnom Penh after a journey fraught with technical and political problems. ii

And three days after that, I was watching television broadcasts of King Norodom Sihamoni attending the Water Festival, bestowing the royal blessing on an event that officially marked the reversal of the Tonle Sap River and the end of the rainy season. ⁱⁱⁱ

When my assistant and I arrived back in Kampong Chheuteal North, our host family's house was locked, and no one was about. It was mid-afternoon, traditionally siesta time in Cambodia. Still, the absence of people was suspicious. This was already November 23rd, nearly two weeks after I had set off in the boat. Sat, my host father, had promised that when we got back the rice would be ready for harvest. And that's what people were doing, harvesting the first of the wet season ricefields, accruing the first yields of the year.

This series of events introduces some complexities of environmental knowledge in Cambodia. First we must note the linkages between local and global. Kampong Chheuteal North villagers likely see themselves as peripheral to Phnom Penh society, yet through a multitude of political, economic, and social forces, they have caught the attention of the centers of power. Prime Minister Hun Sen's gift to the village, indeed, was the construction of a permanent bridge across the Stueng Saen (connecting Kampong Chheuteal North and South), which was becoming a reality even as I rushed back to the village after the Water Festival.

But how did the Thai Princess get involved in Kampong Chheuteal affairs? Apparently, her interest was germinated by a visit to the nearby ruins of Sambor Prei Kuk, which is perhaps the

third largest ancient monument site in Southeast Asia (it dates back to the 7th to 9th centuries). ^{iv} Kampong Chheuteal North is three kilometers away from the centre of the complex, and receives economic benefits through the tourism there. Although not the most popular of the Cambodian temple sites (most times site headquarters has a "sleepy hollow" feel about it), Sambor Prei Kuk (henceforth SPK) is the most notable cultural feature of this local landscape. It is not only the site of much local lore, it has attracted the attention of teams of conservationists, archaeologists, and tourism promoters, both domestic and foreign. Vand like all sites in Cambodia (and elsewhere), it is a locus of debate over the appropriate future of ancient remains: whether they should be preserved and/or developed, and how plans and policies should be operationalized.

There is much more to say about Kampong Chheuteul's external linkages, but for this paper, I just want to note the significance of the Water Festival. It is a milestone in the ritual calendar which also signifies the start of the harvest season. As with all major festivals in any society, anywhere, its regular occurrence can be used in scheduling – the rice harvest in this case. However, the involvement of royalty and politicians gives it status as a symbol of nation; racing in the Water Festival symbolically marks the villagers' participation in the project of nationhood. Kampong Chheuteal may be far from Phnom Penh but for those brief moments when the racers are winning and the King is calling out his approval, centre and periphery are joined as one.

Introduction

My original focus was on local environmental knowledge (hereafter LEK^{vi}) in the context of landscape change. Countless studies confirm that LEK is complementary to global scientific knowledge and often surpasses it in holism and understanding of local environmental dynamics (Fairhead and Leach 1996). Applications of LEK in conservation and development projects tend to be underpinned by a romanticist or distorted notion of what that knowledge is. Scholars have argued that LEK is not really "traditional" in the sense of being "not modern" (Hobart 1993). Local peoples tend to mix and match bodies of knowledge depending on context and use (Brodt 1998). They may be flexible, adaptable, and risk-averse (Dove 1996) and in their opportunism not concerned to preserve tradition as in a museum. Attempts to apply LEK in natural resource management may reduce its complexity by giving undue emphasis to bits of knowledge that just happen to be "sexy" when a community comes to the attention of planners or conservationists (Brosius 1997). None of this is an argument for rejecting LEK's relevance.

Cambodia offers a challenge to this scenario. As we understand knowledge conventionally, LEK is most recognizable when a community is long rooted in a place and has developed sophisticated understanding of it. Knowledge would develop inter-generationally, and distributed through a social network. The social context includes the landscape (Lye 2004). Local peoples manipulate their environments in many ways (Rambo 1979): from casual foraging to modifying entire habitats (e.g. field cutting). They affect environmental dynamics ecologically, recognize

territorial bounds politically, and derive meaning experientially. Knowledge develops within this broader context of interaction underpinned by a wealth of local history. The problem with Cambodia is that, before we can even address what knowledge is, we have to factor in the long history of war and revolution. On the one hand, this has decimated the population. Tracing how knowledge develops within such a context is a major challenge. On the other, people have developed a lot of survival skills, necessitating much creativity and innovation. Those skills are still relevant in the postwar era, with natural resources heavily exploited and environments degraded. This is the framework within which we have to understand local environmental knowledge in Cambodia. Just as the villages are a mix of long-term residents and new migrants, so is the environment a mosaic of land and water features that has been heavily altered through time.

How, then, do we "enter" this landscape and try to make sense of it? Rather than conclude with a premature generalization about knowledge, landscape, and resource management, it would be more useful to reflect on the methodological problems facing anyone trying to make sense of landscape knowledge at this point. The practical objective is to formulate research guidance, in view of the need to promote more in-depth human-environmental research by young Cambodians (I will return to this point in the conclusion). This paper is based on my experiences along the Stueng Saen from October 2005 to June 2006, where I conducted anthropological research with the help of young Cambodians, and also organized a field training workshop for students from the Royal University of Fine Arts. By outlining some general characteristics of my findings, I may provide a framework for more in-depth studies of how these communities have dealt with the ravages of war and the uncertainties of a degrading and changing postwar environment.

The Landscape

The landscape in question is located along the lower reaches of the Stueng Saen, an area some 25 km in length, and about 40 km driving distance from the provincial capital of Kampong Thom. As mentioned earlier, the best known feature of the area is the Sambor Prei Kuk (SPK) complex. Seven villages are found around the complex; among these, Kampong Chheuteal North and Sambor villages are the largest. Kampong Chheuteul is the only market centre in that part of the Stueng Saen so it is visited daily by traders, some coming from far north in Preah Vihear province, but mostly from Kampong Thom and farther downriver. For neighbours, e.g. those from Kampong Chheuteal South and Sambor villages, Kampong Chheuteal North is where the money is.

The primary source of subsistence is rice agriculture, as with most villages in Cambodia. Rice is not a good source of income; most of it is consumed domestically, with smaller portions reserved for seed, inter-family exchanges, and ritual offerings (Nesbitt 1997). Along the banks of the Stueng Saen, wherever topography and soils are suitable, villagers grow vegetables, which are

sold locally or to external traders. Fish, cashew, and maize were other sources of cash. In the relatively affluent village of Kampong Chheuteal North, villagers practiced a diverse resource portfolio: three seasons of rice (deepwater, rainfed, and dry season) alternating with commercial crops of maize and cashew, and small-scale vegetable farming along riverbanks. This complex mix of agricultural strategies was supplemented with cash from day labouring (e.g. hiring out as transplanting and harvesting labour), manufacture (e.g., boat and tool making), raising livestock (pigs, cows, chickens, etc., with pigs being the main source of cash), and providing a variety of services (food, rice milling, rice threshing, store-keeping, etc.). This portfolio minimized risks by spreading investments across a range of activities and environments.

The landscape, then, comprises settlement sites with villages clustered tightly in a central area. The sites are linked by pathways and roads, nestled in an environment dominated by ricefields, tree crop plantations, field-edge trees, lakes, ponds, canals, and innumerable other water features (natural and anthropogenic). Land boundaries are fuzzy; land might be inherited or purchased from neighbours.

As for temple sites, the authorities had instituted a zoning system with a core area being totally protected. However, archeological sites could be found in village zones far from the main complex. The temple and the infrastructure supporting them such as irrigation and drainage canals, roadways, bridges, kiln sites, habitation mounds, rest houses, etc. are truly integrated into village landscapes today and therefore demand to be understood. The past is in the present but how does the present relate to the past?

The Stueng Saen plays a key role in the lives of the villagers. Historically, before the advent of roads and permanent bridges, it was a transport network. It rises near the border with Laos and meanders towards the Tonle Sap in a south and southwesterly direction. Broad and sinuous in places (the average width in the Sambor Prey Kuk area is 100-150 m), shallow in the dry season, and deep in the rainy season, it is eminently navigable, and probably an important trade route in ancient times up to the present. Even today forest products are often shipped downriver towards the Kampong Thom provincial capital. For riverine villages (among them Kampong Chheuteal), the river provides fish and other aquatic products, water for irrigation, a channel for drainage during the rice-growing season, a means of transport and communication, and other livelihood needs.

The challenge in fieldwork is to make sense of this landscape, both as an ecological unit (analyzing the interactions between people and environments, and connections between different micro-environments) and as a physical reality (recognizing its objective features and how they originated).

Analysing environmental knowledge

For purposes of this paper, I will focus on the landscape. As sketched out above, the landscape betrays traces of past and present, old and new, natural and anthropogenic. The "old" part is easily understood. Archaeological research suggests continuous or at least intermittent human occupation since the 7th century. Some of the villages along this part of the Stueng Saen moved in after the war, but a core population is descended from the original residents. Thus there is a great deal of social continuity, and this is shown in the strength of communal bonds and ongoing valuing of reciprocities in social relationships.

The first time I saw Lake Chi-kay was early in my fieldwork, mid-October 2005. As I first saw it, this was a huge body of water situated on the west side of Kampong Chheuteal North, between the main cluster of houses, and the Sambor Prei Kuk temple complexes beyond. Received lore has it that the name Chi-Kay commemorates the origins of this lake: kay means "quarrying", and "chi" refers to "old people" or "ancestors". In other words, villagers believe that the lake was caused by quarrying the soil for SPK temple bricks. If borne out by archaeological investigations, we can interpret the lake as a direct legacy from ancient to modern. The point here is the importance of understanding local placenames, which encode social memory and lore that never enters the textbooks or scientific writings.

The water was high, glistening in the sun, and around the edges of the lake were scenic looking ricefields. The plants were already standing tall in the water but had not begun to droop yet they would be harvested in less than two months. A village path – big enough for motor vehicles and trucks to pass – lay on the south of the lake, and a row of houses stood between the path and the Stueng Saen. Along the shore, a few shallow canoes were beached. At the time, this was no more than a wetland ecology to me, but this first visit to the western edge of Kampong Chheuteal was intriguing and raised the possibility of studying uses of the lake. Coming from an ecological anthropology background, I studied such issues concerning foraging for fish and useful aquatic plants, the decline of aquatic faunal populations, and the villagers' sculpting of the lake environment to create their ricefields.

From my young guide Yon, I sought to understand the location of things as viewed from the houses, and began to learn local terms for various topographic features (mounds, banks, dykes, etc.,) and their placenames. Later, talking to villagers from that side of the village, I learnt that there was not one, but three adjoining lakes: Boeng Chi-kay, Boeng Ta: Tueng, and Boeng Bak Lueng. Boeng Chi-kay, confusingly, was also called Boeng Ko-kay. My main cognitive problem was: How to tell one lake from another? This is a perennial problem in landscape anthropology: learning how locals recognize discontinuities in their environment, the markers and indicators that they use, and the possible scientific correlates of these local observations. To my untutored eye, we were looking at a vast sheet of water with no discernible boundaries within it. Was there

perhaps some local way of understanding landscape that could be investigated further for an anthropology of lakeside perception? At this time, of course, I sorely felt the need for a good map but the only map available to us (colloquially known as the JICA maps) indicated only one small body of water in that location! Detailed placenames were, suffice it to say, absent.

About two weeks later, I returned with a new field assistant. As part of this project of making the lakes "visible" to me, I began collecting GPS (Geographical Positioning System) points. It would help in navigation and orientation studies, I thought. This was a different time of day than on my first visit (late afternoon), and more people were socializing outside their homes. We sat down to talk to a different group of people. Yong was our informant then. As he would tell us later, he was born in that village and had been paddling boats on the lakes since he was six years old. Clearly, he fitted the profile of the classical "native informant" – a local of the right age (40s to 50s), with a strong social network in the area, who had observed changes in landscape through time, and understood the rhythms and alternations of the seasons. To start, he clarified the locations of the three lakes. From looking at just a big sheet of water, I was now learning to orientate myself in the landscape.

Talking to him about rice growing in that location, we learnt about the problem of flooding. May to September is the rainy season in Cambodia. This is general knowledge. Yong added the tidbit that every four or five years the waters of the Stueng Saen will breach the banks, connect with the waters of the lakes and ponds, and sever road movement between the western and central part of the village. During these times, walking to market is impossible and travel by boat is necessary to reach one's neighbours! A bit more conversation, and Yong revealed that there was actually a long channel of water linking Lake Chi-kay (and by extension this part of the village) to O: Kru Kae (Kru Kae Stream), which runs right through Sambor Prei Kuk. The channel was shallow and consists of a series of ponds. When the waters are high enough, one can take a boat directly to the main temple complexes. In order, these water bodies are: Boeng Plew Tuk (lit. Boat Route Lake), B. Celey, Boeng O: Kentuet, B. Cng Bey, B. Ketiar, O: A-chak, B. Anlueng Tembok. These were all new names to me. In my mind, I was finally mapping out the landscape though the fundamental problem, telling one body of water from another, still remained. These placenames raised other cognitive questions. "Boeng" means "lake" - no confusion there. O: would always puzzle me. It also means "river" so how is it different from "stueng". The general understanding is that it is like a "stream", except that some o: are large and long enough to be full-scale rivers. There was some discussion later whether an o: might also be an outlet linking a lake to a larger river. But what was the meaning of such terms as "boeng o:" (lake river) and "anlueng". And why is it that some people use the term "boeng" for these smaller channels and some do not.

Thus two lines of investigation were opening up. The first was the need to collect as many local placenames as possible and the stories behind them as a way to understand the reproduction of social memory through time. The second line of investigation was cognitive and epistemological:

discovering categories of the environment (the standard approach in ethnobiology), the meanings and interpretations that people give to them, and the variations in perception.

From Yong, we learned much more than we had earlier about ecological conditions in the lake, the alternation of wet and dry seasons, uses of the lake for rice growing, risks and threats, changing landscape characteristics. On subsequent visits to the lake, I began to objectively document what I was learning from the villagers. Yong was the first to point out the existence of ancient kiln sites on the edges of the lake but it was not until the dry season, when most of the lakewaters had been drained off for rice harvesting, that such features became visible to the eye. I was now able to see discontinuities in the lakebed, and the indicators of lake boundaries. But it was not until February (with yet another field assistant) that I finally located all the water bodies discussed in December and could place these features on the map. By then, of course, my knowledge of landscape terms had grown immeasurably and now included knowledge of "neak ta:" sites. "Neak ta:" (lit. old people) are commonly translated as village spirits. Some spirits are named and all have different functions in local beliefs. Altars for worshipping these spirits are found in most Cambodian villages. On Lake Chi-kay, these sites have been documented by archaeologists as ancient remains as well. Thus, "neak ta:" sites are another point of intersection between the ancient and the present. It took many visits to the lake and its surroundings, visits done by boat and then by bicycle, but by the time I left the field in May, I was able to overlay religious sites onto the topographic maps, name different waterways and water features, and consider how the village is integrated with the SPK environment.

One result is Figure 4. The map was drawn up by archaeologist Shimoda Ichita (Waseda University, Japan) based on 1992 aerial photos. The Waseda research has yielded an impressive array of datasets concerning the temples, water control features, other archaeological sites, and overall layout of SPK. Figure 3 is an impressive map and gives a good summary of what is found in the landscape including, of course, locations of village sites and road networks. When Shimoda gave me the map, I found it a valuable resource for it gives a good bird's eye view of spatial relationships that had been puzzling me. However, as an archaeological map it superimposes external knowledge onto the landscape that villagers know. As an anthropologist I find the map necessarily lacking in cultural detail. I needed to emphasize another kind of knowledge—the local one—and thus impose a third level of understanding, mine. With time, more details might be elucidated, and the possibility of drawing up a local map (ethnocartography) might become stronger.

Conclusion

The Water Festival anecdotes with which I began this paper lay out the general scene for understanding environmental knowledge along the Stueng Saen. The boundlessness of village society—as shown by these linkages with extra-local agencies and actors—affects what environmental knowledge is and how it is transmitted. Given the multistranded ties in which

villagers are embedded, any study of environmental knowledge is necessarily incomplete. Knowledge cannot be an organic entity that is independent of political and historical process. The problem is reconstructing what that process has been, and what it is leading to. We can focus on the knowledge of individuals (which then necessitates a biographical or life history approach), but in order to understand how that knowledge emerges, is transmitted, and affects the environment, we must place individuals in the communities of which they are a part. And communities in Cambodia do not have the boundedness one associates with remote peoples. Today's communities are hybrid, diffuse products of mass displacements and resettlements over the thirty years of civil war and are becoming ever more diffuse and scattered as people seek livelihood opportunities in other parts of Cambodia and neighbouring countries like Thailand and Malaysia. In other words, from a violent past we have entered a period of great social flux. And, as the Princess and the Prime Minister's involvement in village affairs shows, this area is becoming increasingly "legible" (Scott 1998) to the authorities—it was less than 15 years ago that pockets of the inland forests were still Khmer Rouge strongholds. And while flux does not mean that communities are unstable and lack cohesion (Ledgerwood 1998; Zucker 2006), it does pose a challenge to the study of local knowledge. For we must always ask: what is a local, what are localities, under these circumstances? I believe this is the theoretical starting point, and needs to be addressed.

On the other hand, I hope my inductive, narrative approach—telling stories about my fieldwork around the lakes—does stress that there is a strong sense of place here. At least for people like Yong and my host family, who are descended from original residents (rather than post-war immigrants), the landscape offers many memories, both personal and social. They are great repositories of local history. Working and traveling with them, one hears such stories, as well as beliefs about etiology (origins). While I was lucky to have knowledgeable villagers as hosts, guides, and informants, they could only point me to the places to look for *questions*. In other words, they helped me to clarify directions in which research could go. But conversations with a wide range of informants revealed that I was only scraping the bare surface of environmental knowledge in this area. I could elicit a picture of these water bodies and what they mean to the locals, but to get a real sense of place, to delve deeper into the historical ecology linking villagers to the lake and waterways, and to the temple environments, I needed at least another year of fieldwork to tease out the social context of knowledge, to understand patterns in intra-cultural and inter-village variations, and to get at the more philosophical issue of cognition in a rapidly changing world.

Until I took up residence in Kampong Chheuteal North in October, almost no ethnography had been done in the area (though a Japanese dissertation student was newly arrived in Sambor village when I left). The sole exception was an MA thesis on Sambor village by Chay Navuth, which is thin on details and specifics. This is a general problem in Cambodia and calls for more engaged fieldwork and advocacy.

In most discussions of Cambodian political and economic development, the vast peasant majority, living at subsistence level, is generally invisible and silent. While "the people" are frequently noted in the Khmer press as supporting certain politicians or parties, very little has been written about life in rural Cambodia, and scant data are available for making policy decisions (Ledgerwood 1998).

What I have discovered does lay the groundwork for further research. For example, I discussed placenames and local histories. These placenames apparently have not suffered disuse over the ravages of civil war, though stories tend to get dissipated and forgotten when large sections of entire generations, especially the old, die or are killed off. In short, collecting placenames and stories helps to reproduce social memories and record local histories. Such histories are never written up in textbooks, and tend to be subjugated or ignored under the tidal weight of archaeological findings. General writings on SPK aim to historicize the site and place it within the overall history of Cambodian states, past and present. They do not pay attention to the people living around the temples and any alternate histories that might exist. Cambodian society, as I hinted at earlier, is divided between Phnom Penh society and "the rest". It has a cognitive correlate: accepted definitions found in dictionaries, for example, may not get at the full range of meanings that we find outside Phnom Penh. Thus there is also a need to recover these meanings to stem the tide of homogenization. Given the fast pace of change (now faster with the building of a bridge encouraging greater access to this area), the high rate of mobility, and increasing number of children going to school, local lingos, terms, and definitions may be degraded or lost altogether.

But there is a more practical problem, and it involves the conservation and development of Sambor Prei Kuk. Government policy is towards increasing tourist revenue (the lion's share of profits from tourist arrivals is taken up by the Ministry of Tourism). Villagers would like to know more about Sambor Prei Kuk itself. For them, these temples are sacred sites left behind by ancient peoples. They are aware of the archaeology and temple histories being done but not, I suspect, the controversies generated by recent findings (mostly rel¹ ating to chronology and site interpretation). Nevertheless, it is a body of knowledge that they feel excluded from and that excludes them. As a young Cambodian asked me last year, what are the findings from this archaeology and what can villagers learn from them? Without addressing the question head-on (after all, I am not qualified to discuss temple histories in any detail), I pointed out that there are two kinds of knowledges: scientific / archaeological / architectural knowledge, and local knowledge. Local knowledge is rich and vibrant and even young people like him know about it, learning at the feet of their elders. The long-term goal, I said, is not to absorb findings from outside at the expense of local knowledge but rather to look at ways in which they can intersect. In other words, local knowledge lacks legitimacy and tends to be dismissed by the "experts." It is a kind of subjugated discourse. Uncovering such histories, learning how the present relates to the

past, and learning what the past has left to the present, and improving the exchange of discourse, should be an important goal of the conservation of Sambor Prei Kuk.

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ⁱ Though commonly referred to as one, Kampong Chheuteal actually refers to two separate villages lying on opposite banks of the Stueng Saen. Following local practice, I refer to them as Kampong Chheuteal North (north bank) and Kampong Chheuteal South (south bank). Each village belongs to a different commune (Sambor commune on the north, and TangKrosang on the south), has its own Buddhist temple, headman, village committees, and other markers of village identity. The two villages do cooperate (for example, in training for the water festival) and there is some inter-marriage across the river. Politically, they are different administrative units. Kampong Chheuteal North is where the market centre is located and is considered the wealthier part. Most of my remarks in this paper refers to it.

ii The details of that journey are fascinating in their own right but need not detain us here.

During the monsoon season, the Mekong River swells with waters. By about mid-June, the flow of the Mekong and the Bassak River increases to a point where its outlets through the delta cannot handle the enormous volume of water, flooding extensive adjacent floodplains for 4-7 months. At this point, instead of overflowing its banks, its floodwaters reverse the flow of the Tonle Sap River (about 120 km in length), which then enters the Tonle Sap. The Water Festival thus marks the end of the reversal and the resumption of normal flow into the Tonle Sap.

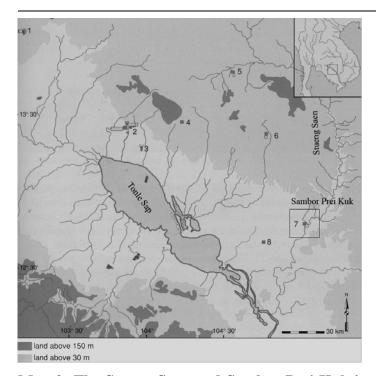
^{iv} The main complex includes over 200 hundred ancient towers, a wealth of inscriptions, statuary, water control features, and habitation sites.

^v The site is under the administrative jurisdiction of the Ministry of Culture, specifically the Kampong Thom department.

vi Knowledge here includes ideas (concepts and categories), practices (behaviour), and philosophies (norms and values), as well as the uses of knowledge in problem-solving. I am rejecting the more popular label "indigenous knowledge" (IK) as indigeneity is not an issue in Sambor Prei Kuk – all Khmers (the majority population in Cambodia) are indigenous, thus rendering the term meaningless in distinguishing one group from another.



Figure 1: Cambodia and its neighbours



Map 2: The Stueng Saen and Sambor Prei Kuk in relation to the Tonle Sap and its water systems (source: Charles Higham)

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