

The Significance of Forest to the Emergence of Batek Knowledge in Pahang, Malaysia

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Abstract

This paper argues that the landscape is an important source of knowledge and continuity. The case material is from the Batek, who are mobile forest-dwellers of Pahang, Malaysia. They are a good example of an egalitarian society that does not need political leadership to reproduce its sense of cultural distinctiveness. The question is how do they do it? What, if any, are the mechanisms? The Batek, when they talk about their identity, emphasize the forest. The forest has many salient characteristics, among them the network of camps and pathways (which includes both walking trails and rivers). Pathways, I argue, are where a lot of environmental and social knowledge develops. But they are not only trails to knowledge. They are also routes to remembrance. When people walk along these pathways, they can keep in touch with their history and also learn much that is new about the world. Movement is therefore an integral part of knowledge development and communication. This paper fleshes out these claims and offers a way to look at the landscape from the point of view of mobile peoples. It also rejects the classic anthropological bias towards declarative knowledge (knowledge that can be expressed in language). Ultimately, it examines how cultural persistence depends on people having continued access to and interactions with their landscape and why hunter-gatherer studies need to give more attention to the role of landscapes in knowledge production.

Keywords: hunter-gatherers, local knowledge, tropical forests, landscape, cultural continuity

Introduction

The persistence of hunter-gatherer societies has not, until recently, been an orthodox topic of discussion. Under the influence of world system and political economy approaches [for example, Wolf 1982], the general trend in scholarship was to look at how assimilation into nation states and commoditisation would expand the conditions of exploitation [Eder 1988] and exacerbate, among other processes, impoverishment, dependence, and ethnic degradation. There were always alternative (and dissenting)

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approaches but it was not until the late 1980s that the role of “internal dynamics” in shaping the directions of social change became fully established as a program of inquiry [see Bender and Morris 1988 for a review]. Attention has shifted towards the many mechanisms — social, ideological, and practical — that hunter-gatherers themselves might use in order to maintain society. There is recognition, in short, that capitalist or nation-state penetration do not necessarily lead to the “collapse” or “disappearance” of hunter-gatherer societies. Though there is probably no society that is isolated from the world system, or retains sole control over large tracts of territories, much of traditional culture may persist.¹⁾

Among Southeast Asian hunter-gatherer societies, we have found patterns of resilience and persistence in, among others, Agta kinship and social practices [Griffin 1996; Griffin and Griffin 1997], Penan Benalui transmission of hunting knowledge [Puri 1997] as well as in more general socio-cultural dynamics [Sellato 1994]. My study, on the mobility and knowledge of the Batek of Pahang, Peninsular Malaysia, is a contribution to this genre [Lye 1997].²⁾ These approaches reiterate a now common position that the mechanisms of social reproduction have not necessarily been “invented” [*sensu* Hobsbawm and Ranger 1983] for contemporary purposes but may be deeply embedded in hunter-gatherer political histories. For instance, Benjamin has argued for Peninsular Malaysia’s Semang³⁾ that these hunter-gatherers’ “portability” and “simplicity” of culture and technology are not due to a primitive inability to develop complexity but, rather, a conscious choice to maintain the kind of social form that would permit maximum freedom of movement and the hunter-gatherer way of life [Benjamin 1973]. Thus attention has shifted to the “how” rather than the “what” of cultural persistence.

In this paper, I discuss the importance of the landscape as a source of cultural knowledge and continuity. I will argue that hunter-gatherer studies have not paid enough attention to the *context* wherein knowledge emerges. There has been a long-standing tendency to privilege the social mechanisms of knowledge transmission and continuity. A common puzzle is how these egalitarian societies, that value symmetrical (non-hierarchical) political relations, have few authoritative repositories of knowledge, and relatively unformalized bodies of tradition can reproduce their sense of distinctiveness [Woodburn 1980: 107]. The extreme examples appear to come from the South Indian material. As Gardner famously noted of the Paliyan: “there were no formalized bodies of knowledge; greater respect was not accorded those who had accumulated lore

1) For an early recognition of hunter-gatherer cultural persistence, see Bennett [1969].

2) Internal evidence aside, Batek continuity can be assessed by comparing how fundamentally alike are the accounts of myself and those of my predecessors, Kirk and Karen Endicott, who worked primarily with the Kelantan Batek in the 1970s and 1980s.

3) Semang is the ethnolinguistic term for the half dozen or so northern Peninsular Malaysian peoples who are classically associated with the hunting-and-gathering way of life. The Batek belong in this group.

with age... formal teaching did not exist; and traditional usages and concern with precedents were subordinated to individual, ad hoc, rational decision making" [1966: 398]. Hence, Paliyan knowledge was defined firstly by what it lacked (the etic definition) rather than by what it was (the emic perspective). Gardner used the term "memorate knowledge" [*ibid.*: 390] to describe it: knowledge that "is held on the idiosyncratic level, the result of personal experience and individual analysis, rather than being derived from group opinion or tradition." However, to associate the hunter-gatherer type of social organization with memorate knowledge does not necessarily solve the problem of how people like the Paliyan can agree on who they are, if all knowledge is held on the idiosyncratic level.

Part of the problem, as I argue elsewhere [Lye 1997], is in a narrowly constricted definition of knowledge and the forms that knowledge transmission might take [see Puri 1997 for a more extensive discussion]. More recent developments in theories of knowledge and cognition throw into doubt positions like Gardner's. As Bloch [1990] shows, knowledge is not easily expressed, whether by Paliyan or anyone else, because we do not think in "logic-sentential and language-like" ways, and everyday thought also integrates "visual imagery, other sensory cognition, the cognitive aspects of learned practices, evaluations, memories of sensations, and memories of typical examples" [*ibid.*: 195]. Thus, failure to find cultural consensus [see, for example, Rambo 1980], "formalized bodies of knowledge," "teaching," or "precedents" may not have much to do with the social organization of the group. When we focus exclusively on such indicators, we lose sight of the diversity of human cognitive processes. Hutchins succinctly criticizes the conventional approach: "knowledge expressed or expressible in language tends to be declarative knowledge. It is what people can say about what they know" [1995: xii]. In other words, it is only one kind of knowledge and perhaps not the most important at that. Bloch warns that, wherever we find people actually talking about their practices, our guard should be up: "we should be suspicious and ask what kind of *peculiar* knowledge is this which can take such an explicit, linguistic form? Indeed, we should treat all explicit knowledge as problematic, as a type of knowledge probably remote from that employed in practical activities under normal circumstances" [1990: 195; italics in original].

At any rate, my studies of the Batek⁴⁾ suggest that an egalitarian social structure is not necessarily inimical to having a shared sense of culture and identity.⁵⁾ For example, their rich narrative tradition [Lye 1994] shows little sign of dying out [Lye 1997: 350]. The Batek have a strong sense of cultural continuity and of seeing their past in the present

4) I have conducted several field studies from 1993 to 2001, for a total study period of just under two years. Fieldwork durations have ranged from four days (2001) to 15 months (1995 to 1996).

5) For more discussion of the egalitarian basis of Batek society, see Karen Endicott [for example, 1979; 1981].

[*ibid.*: 27]. Telling stories, as I will show, is one route to remembrance. Most crucially for this discussion, they tell stories about their landscape, the forest (*həp*). They have a general understanding that they are *batek həp* ‘people of the forest’. Furthermore, that being forest peoples entails certain roles and responsibilities, of which one is the necessity of maintaining society inside the forest. Another central conviction is that the *batek həp* are the people who *jaga⁹ həp* ‘look after the forest’. The Batek’s emphasis invites us to examine more closely what is the link between landscape and society and how the continuance of this connection is important to the persistence of the hunting-and-gathering way of life.

Batek, Knowledge, and Landscape

Ethnographic Introduction

The Batek are one of the 20 or so indigenous ethnic minorities of Peninsular Malaysia, the Orang Asli (Malay for “original people”— the official administrative label). They live in lowland forests in the states of Kelantan, Pahang, and Terengganu. All have experienced the many changes and pressures commonly affecting forest communities everywhere. Government policy on Orang Asli is premised on the need for assimilation, by which is meant assimilation into (Muslim) Malay society [Carey 1970]. State intervention in Orang Asli lives usually begins by shaping the mode of food procurement; i. e., by promoting cash crop farming [Zahid 1990]. This is inextricable from the policy not to encourage the continuance of mobile ways of life [JHEOA 1961].⁶⁾ With natural resource exploitation and plantation agriculture fueling the process of national development, little lowland forest in the Peninsula remains “untouched” and land security is now recognized as probably the Orang Asli’s most pressing need [Nicholas 2000]. In Batek experience, large-scale logging and land transformation began in the early 1970s in Kelantan; Endicott [2000: 210] estimates that roughly two-thirds of the Batek area is now lost beyond regeneration. Currently, the landscape in Pahang ranges from advanced climax to recently logged-over forest. As long as some forest cover remains, the Batek continue to regard logged-over areas as home [Lye 2000].

The total Batek population is not determined (due to some unreliability in the government census) but is not likely to exceed 800–900. My May 2001 census for Pahang showed a total population of around 450, of whom just over half (about 200–300) spend a majority of time in the 4,343 sq. km national park, Taman Negara (which was enacted in 1938/39). However, no one is restricted by administrative boundaries and all the groups

6) Coerced sedentarization is not part of this policy. The usual practice with the Batek of Pahang seems to be “gentle persuasion,” which the Batek consider to be unwanted interference in their lives.

can freely travel in and out of the park.⁷⁾ Most of it straddles the Batek's historical territory and it remains the largest unbroken tract of forest still available to them. Most of the people in Kelantan and Terengganu are now semi-sedentary cash crop farmers. As with other Orang Asli, the Batek of Pahang regard Islamic conversion with great suspicion. Mobility remains a fundamental characteristic of social life. Inter-group boundaries barely exist. Groups materialize in the setting of the camp (*hayā*?). These camp groups (average population 36.2; standard deviation 14.73; range 6 to 72⁸⁾) are not political entities but, rather, associations of people who are united by kinship bonds, friendship, and shared interests; membership is open and fluid [Endicott and Endicott 1986]. A camp group may average two weeks per encampment; the distance between successive camps is about one to two walking hours or roughly 5–10 km. After three or four months, camp groups disband and splinter groups may disperse to other river valleys, joining and forming groups anew. On a daily basis, individuals might move in and out as social, economic, ecological, and political conditions change.

Economically, hunting and gathering has been the production base, but the Batek also undertake a variety of other activities. The main source of cash income is commercial extraction of forest products: primarily rattan (Batek *ʔawey*, mainly *Calamus* spp.) and aromatic woods or gaharu (Batek *baŋkol*; *Aquilaria* spp.).⁹⁾ When opportunities arise, men may do some day laboring, and occasionally there is some casual planting of fast-growing vegetables [Endicott 1984; Lye 1997: 69–76]. Full-blown agriculture, however, is the least favored of these activities; the Batek dislike the monotony of the work. Those living close to the headquarters of Taman Negara are also heavily involved in tourism, both in hosting the visits of tour groups to their camps and settlement (Kuala Yong) and in guiding tourists to the summit of Gunung Tahan (the highest mountain in the Peninsula). The former is an image-selling enterprise that involves whoever is present when tourists come; this is supplemented by the manufacture and sale of bamboo wares (blowpipes, quivers, darts, combs, etc.). The latter attracts primarily young and middle-aged men, who may come in from other parts of Pahang to take advantage of opportunities. Throughout the daily, seasonal, and annual changes in production activities, the core of the economy remains subsistence-based hunting-and-gathering.¹⁰⁾

7) Official policy (which is not a statutory provision) is to permit the Batek to continue living in the park, but not to harvest forest products, including fauna, for sale [DWNP 1987].

8) Statistics based on day-to-day population counts over a total of 226 days in 1993, 1995, and 1996.

9) I have identified three styles of commercial extraction: organized and scheduled collection of designated products for regular traders; one-off collection of limited products on order; and opportunistic collection of commercially viable products only when encountered. Rattan and gaharu collection fall into the first group. In all cases, payment is in cash rather than kind and participation is open to all with the interest and physical skill.

10) Kirk Endicott [1984] has argued that the mix of activities has an economic logic in being biased towards those activities that give the highest returns for labor expended.

Leadership is situational and activity-oriented rather than ascribed. Decisions are made at the level of individuals; group decisions tend to be the best possible (though not infallible) compromise between blissful consensus and anarchic dissension. “Bossing” occurs but is frowned upon; even children have the power to object and refuse compliance. As with hunter-gatherers the world over, conflict and tension can be resolved through physical withdrawal. There are also some beliefs and practices that protect individual autonomy. For example, forcing another person to do something he does not want to could cause that person to fall sick. The primary unit of production and consumption is the nuclear household. Inter-household sharing of food is the primary idiom of social life and an intricate display of social performance. The larger wild game, the most “public” of all procured foods, is shared among the members of the hunter’s household, their closest kin (usually the primary kin of the parents), and, if any portions remain, to other members of camp. Wild tubers, fish, and forest fruits are shared less, though are never withheld from anyone who asks for them. It is better to give than to ask, and social life is a dance between making things available to others and retaining control of the products of one’s labor.

Knowledge and Society

The position of this paper is that knowledge *emerges* from the forest. Before fleshing out the argument, let me be very clear about my position. I do not imply that there is no individual agency. Indeed, Batek individuals themselves constantly express interest in going out to seek different kinds of knowledge. These may include practical knowledge of processes and procedures associated with activities like hunting, gathering, tracking, campsite selection, midwifery, healing, and shamanism; ideational knowledge of norms, beliefs, and prohibitions; lexical knowledge of the myths and folklore that rationalize behavior, and names of objects and their properties; and experiential knowledge of what is happening in the world [Lye 1997: 98–142]. Further, there is a lot of evidence that the Batek as a whole have a well-developed understanding of what knowledge is, what forms knowledge might take, and how one would go about acquiring these kinds of knowledge. My own attempts to become a knowledgeable participant observer and the corresponding efforts of mentors to guide these efforts are a good source of evidence. Knowledge may be acquired through observation, imitation, one-to-one learning from a specific mentor, and, of great importance, through direct “hands-on” participation in social, religious, and political-economic life.¹¹⁾

11) The Batek language seems to have no word that corresponds to English “to learn”; they use the Malay words *ʔajeh* ‘Malay *ajar*’ and *bələjeh* ‘Malay *belajar*’ for “teaching” and “learning.” However, it is not clear to me under what circumstances these words are used. For instance, a man would deny that he had *bələjeh* hunting from this or that person. More precisely, they say, one should follow the mentor on trips to the forest, observe (*tət*), and practice doing any activity over and over again until skilled at it. In practical terms, to ↗

Nor would I suggest that the social context — inter-individual and intra-community relations — is not important to the development of knowledge. As noted earlier, the sexually and politically egalitarian basis of Batek society may not *a priori* determine the forms that knowledge take but it does affect how knowledge is distributed. Much knowledge is shared in open (camp-wide) settings, with news and insights swapped liberally across lean-tos, and practical activities easily observed by anyone in the vicinity. Deliberate steps are taken to ensure that everybody knows a little bit of something. Knowledgeability and expertise, in any domain of knowledge and skill, can be a source of personal pride and social prestige. Development of a class of “authoritative experts” and leaders is, however, mitigated by the equally strong values placed on being “humble” (self-effacing) before one’s fellows and on individual autonomy. Ritual adepts, especially shamans (*halaʔ*), have the strongest moral authority. Even here, however, the egalitarian ethos prevails, for ritual knowledge is often acquired through individual “relevation” (i. e., through dreams and trances) and anyone with the interest can choose to study with an established expert [Kirk Endicott 1979].¹²⁾

Depending on the kind of knowledge that concerns one, the spatial context of knowledge acquisition as well as the sources of knowledge would also vary. For young children, there is no lack of opportunities to listen to, observe, and learn from adults other than their parents [Karen Endicott 1992: 291]. However, the major sources of cultural knowledge are the parents, whose talk, behavior, and activities they often imitate, from whom myths, folklore, family histories, and statements about proper behavior can be expected (or demanded), and whose inter-camp movements they are expected to follow.¹³⁾ As Woodburn has pointed out for the Hadza and hunter-gatherers more

↘ show how an action is done is to *pəhinək* while to imitate that action is to *hinək*; most of childhood “learning” is from imitation. To seek ritual knowledge (for example, of spells and healing practices) is, literally, to *cam ʔalmu* ‘seek knowledge’. Provisionally, I would say the Batek reserve the Malay loan words for the kind of formal teaching and learning that they associate with the school context.

12) There are two categories of shamans: *halaʔ pəncət* obtains knowledge directly, and apparently without formal training, through dreams and trances and *halaʔ sənalin* trains through apprenticeship to an established shaman (*sənalin* being the infixal derivative of the Malay *salin* ‘change of outward form’). Of course, these are not mutually exclusive modes of knowledge acquisition, since the *halaʔ sənalin*’s training includes learning how to dream and trance. The knowledge received by the *halaʔ pəncət* is recognized to be distinctive to himself or herself, thus leading to a certain individuation (or “trademarking”) in the general shamanistic repertoire. If the *pəncət* route fosters innovation and creativity, the *sənalin* route leads to genealogical continuity, with the *halaʔ pəncət* being founts of original knowledge and *halaʔ sənalin* in turn becoming the “carriers” of that knowledge.

13) The South Indian material provides us with an extreme contrary example. According to Morris [1982], Hill Pandaram children may attach themselves to any favored adult and follow that adult without any apparent opposition from their birth parents. This is hard to imagine for the Batek or, indeed, any Southeast Asian hunter-gatherer society known to me.

generally [1980; 1982], peer group learning (horizontal transmission of knowledge) is also significant, with children often picking up skills and knowledge from siblings and agetates in the course of play. As these children roam in the forest, however, the information they pick up from each other may also be shared with their parents; for parents, attending to children's chat is an easy way to hear gossip about other people in camp, or to supplement knowledge of what is out there in the forest. As such, knowledge does not flow in any single direction, whether vertical (parent to child) or horizontal (child to child) but reciprocally in all directions [Lye 1997: 327].

For adult apprentices of particular skills and arts, mentors may well be dispersed around the forest. As such, one has to physically move around to acquire knowledge from such persons. The high degree of everyday flux means that the social composition of knowledgeable persons in camps may be constantly changing and one cannot depend on always having access to the expertise that one needs. There is therefore an intricate relationship between knowledge and movement, a point to which I return below.¹⁴⁾ On the inter-societal level, knowledge flux and experimentation also form an important characteristic. Historically, there has been a great deal of knowledge exchanged between societies in Malaysia [see, for example, Laderman 1992] and this process continues today [Lye 2002]. Following the lead of Kirk Endicott [1979: 221], I have argued that the Batek regard external society much like they would a secondary range, which is always "out there"—one can forage there for ideas, food, and material items [Lye 1997]. But the Batek seem always to want to return to the forest and able to mix and mingle elements from their own and the broader world without losing their sense of cultural continuity.

So what I want to do here is not to reduce the richness of the Batek knowledge world, or to obscure the social and political processes involved in the knowing process but rather, to highlight the importance of the forest, the *place* itself, as an enabling mechanism for the continuous production of knowledge.

Landscape

The Batek *həp* or forest can be understood on many levels and through overlapping systems of value, whether these be political, utilitarian, experiential, or cognitive [see also Hood 1993]. The forest is, the Batek say, *təmpət 'ipah gəs* 'place where we dwell': it is resource base, shelter, refuge,¹⁵⁾ a source of intellectual sustenance. As we saw above, the

14) I do not want to give the impression, however, that people are always dashing around the forest in search of knowledge. Any desire to move anywhere has to be weighed against the reasons for staying put. For example, one man I knew had to decide between staying close to his father and moving away to join a shaman mentor. He took three years to make this move.

15) The role of the forest as a refuge from external threat, both now and historically (in the context of slave-raiding) has been examined in a number of studies [see, for example, Dentan 1992; Endicott 1997; Endicott and Endicott 1986].

pursuit and gathering of knowledge is a deeply satisfying source of meaning [Lye 1997; see also Dunn 1975, esp. Chapter 6]. As Kirk Endicott aptly expresses it, the Batek “identify closely” with the forest, regard it “as their true home,” and “consider their living in the forest to be part of the natural order of things as established by the superhuman beings” [1979: 53]. The forest, as I discussed elsewhere [Lye 2000], also harbors a number of entities, human and non-human, that have the power to unleash danger, malevolence, and take human life. The most dramatic of these is the thunder-god, Gubar [see Kirk Endicott 1979; Lye 1994]. Gubar’s wrath (thunderstorms) is often interpreted as a comment on moral conditions in camp, and an immediate supernatural response to human commission of proscribed behavior.¹⁶⁾ Batek philosophy strongly emphasizes the maintenance of proper relations in the social world (the social here incorporating the non-human persons as well) so as to avert the disorder and destruction wrought by these sources of malevolence [Kirk Endicott 1979].

To examine how the forest enables knowledge reproduction, we need a preliminary view of the landscape. This is obtained by identifying what the Batek consider salient in that landscape. For analytical purposes, salience can be assessed according to three overlapping sets of criteria: those objective features recognized as identity markers and cultural symbols, which therefore can be used also to mark territory; those geographical features which are ecologically salient but not considered to be cultural symbols; and, within either of the above categories, those features which have (for lack of a better term) ritual or supernatural salience.

The forest camps (*hayāʔ*), network of trails (*harbow*, *halbəw*), and rivers (*təm*) must rank as the most important cultural symbols. They are critical to the Batek’s understanding of who and what they are. I discuss them further below. We could say that these trails, rivers, and campsites mark out the basic geography of the landscape, and that they form the spatial framework around which the Batek organize their environmental knowledge [cf. Brosius 1992: Chap. 4].

In the second category, the ecologically salient features are taken into account in movement and foraging decisions and are part of the conceptual map of the forest. At a highly abstract level, there are forest types defined by topography and vegetation: *həp ləy* ‘standard lowland forest’; *teʔ tərən* ‘hill forest’; *teʔ barəs* ‘limestone soil forest’; *bəluker* ‘secondary forest’; *teʔ laŋeh* ‘mountain or high ridge forest’. *Həp ləy* is “the general, unmarked category with which the others are compared” [Endicott and Bellwood 1991: 160–161]. More often mentioned in conversation are those parts of the landscape that “stand out”; they have mnemonic functions, being good landmarks that one can use

16) Gubar is also a folkloric character with a Trickster-like persona and is often the target of mockery [Lye 1994: 110–152]. The Gubar phenomena is part of the famed “thunder complex” found throughout the Peninsula and the broader Southeast Asian region [see, for example, Blust 1981; Needham 1964].

to orientate movement and give directions. Examples are: *ray* ‘lightning scar in a forest patch’, *batu² cənel* ‘rock formation’, and *padaŋ* ‘forest stand dominated by a single species’.¹⁷⁾ Then there are the different parts and characteristics of a watercourse, such as *moh²ɔŋ* ‘the point where rivulets first emerge from the ground’, *was* ‘confluence’, *hənuil*¹⁸⁾ ‘the section of a riverbank wall that is exposed when the water level goes down’, etc. The terrain is also represented through terms like *papar* ‘slope; small ridge’, *hnadaŋ* ‘mountain spur; high ridge’, *bənəm* ‘very tall mountain’, *cəba²* ‘hill’, *cəniwəh* ‘uphill trail’, *pənisar* ‘downhill trail’, *pənitər* ‘switchback, or a trail that meanders around the contour of the land’.

Any bit of the forest might be marked out for its ritual or supernatural properties. Some degree of supernatural salience is determined on a categorical level: for example, *ray* ‘lightning scar on a forest patch’ is also referred to as *kənom Gubar* ‘Gubar’s urine’; it is believed that lightning is the urine of the thunder-god as shot down with his arrows. The fork of a river, *jəniŋwaŋ*, may be termed a *lidah hantu²* ‘literally tongue of ghost’ when two rivers branch off a third, thus creating habitat for bloodsucker spirits (*sənəŋpaŋ*) who attach themselves to humans. But this kind of salience can also be deictic, meaning that salience depends on the context which people create or find themselves in; the supernatural properties of the place will need to be determined. For example, to test whether a campsite is suitable for habitation, a small fire is made and the direction of the smoke recorded. If the smoke swirls around the site rather than blows straight up, it is “afraid”; this is a sign that tigers are afoot and the camp is abandoned.¹⁹⁾

If soon after setting up camp, someone dreams of Malays, then the campsite is also considered unsuitable since Malays symbolize ghosts and the dream means that the site is ghost-inhabited. It is tempting to consider these sets of ideas and practices as a way to encode people’s experiences of the landscape, ecological knowledge, and maintain the implicit functions of protection and dispersing populations around the forest.

In the rest of this section, I discuss further the central features of camps, trails, and rivers.

17) *Padaŋ* appears to be a Malay loan-word. Note, however, that the Batek and Malay definitions of *padaŋ* (Malay *padang*) differ. The Malay word generally refers to a playing field or open meeting ground and is therefore characterized by grass cover. Perhaps what unites the Batek and Malay definitions is the premise that a botanically homogenous ecological unit is an anomaly in the Malaysian landscape.

18) I am unable to assess this word on linguistic grounds. However, it looks rather suspicious and may be a compound word formed from *hən*, meaning “to drown or become submerged,” and *uil*, meaning “old or abandoned.” If my speculation is correct, *hənuil* literally means “formerly under water.”

19) From an ecological perspective, this practice tests the airflow in the proposed camp; presumably, it helps people to avoid camping in air pockets (which might be more favorable to the transmission of diseases) and minimizes the risk of camping in areas where the smells of the campsite have a stronger chance of blowing in the direction of ground-level predators.

The forest camp is the locus of social interaction. Encampments are either fresh ones (set up as new resource zones are discovered) or pre-established sites. Thus one is always following on the efforts of the past as well as opening up new sites for occupation. These campsites in turn are linked up by the pathways, which include the walking trails and the waterways.

The word *halbaw* has a dual meaning, referring not just to the walking trail itself (the material essence), but the notional “way” or “route.” As such, I define it as “pathway” rather than “trail.” These pathways do not follow the course of rivers and streams so much as they meander around them, cutting through stretches of level land (*teʔ pamah*), seeking the quickest passageways over the hills and ridges, through a landscape marked by the alternation of land and water. These days, the pathways include logging and access roads that are cut through the Batek trail system. In the national park, the Batek helped to open the trail system for tourism purposes and therefore the tourist trails tend to mix with and overlap the Batek trails.

River systems are nested in hierarchical organization. The Batek will say that there are only two kinds of rivers: *tɔm naʔ* ‘mother river’ and *tɔm woŋ* ‘tributary’. However, these are relative terms: for example, the *tɔm naʔ* of one tributary system may be a *tɔm woŋ* of another tributary system which is in turn the tributary of a major river, etc. The major rivers are like positioning anchors; the Batek at all times reckon where they are in relation to these rivers but their general pattern is to move from one tributary system to another, exploring what each of these may offer. The tributaries, then, are the true waterways. The course of any river is an important compass. Thus, for example, the *mɔs tɔm*²⁰⁾ ‘upper reaches’ are avoided as camping grounds because they are associated with illness. No doubt, there is also a sound ecological reason: upper stretches of rivers are food-poor.

Specifically, knowledge of the pathways enables individuals and groups to plan their own movements as well as keep track of others’. Hence it is not critical to know precisely where someone is living right now so long as one knows where he or she generally is in relation to the pathways (particularly the rivers in that location). This knowledge — what we might call a conceptual map of the forest — has several dimensions to it: the spatial knowledge of the geography (with its complex set of referents) that, in turn, undergirds the social knowledge of everyone’s whereabouts. Knowledge of space and location further enables people to monitor the ongoing state of the ecology as well as of each other. Because of the high degree of flux and inter-camp visitation, new findings and discoveries about the social and ecological worlds are often shared across vast distances in the form of news and gossip exchange. Additionally, news and gossip serve not just to monitor the resource base, but also to maintain ongoing links between people who are far apart and hence to give everybody a sense of community and belonging.

20) *Mɔs* is from an old Austronesian, but not Malay, word that means “end.”

Given the critical importance of the trails, then, I will now examine their role as paths to knowledge.

Trails as Paths to Knowledge

What Happens on a Trail

Often overlooked in discussions of knowledge acquisition is the importance of a very fundamental human activity: that of walking or trekking in the forest. To give an indication, I will describe a prototypical movement.

The example here is a typical trek to look for food or some other material from the forest. A trek from camp to point of collection or harvest might last no more than an hour if there is no stopping *en route* for other purposes but, as this description will show, delays of one sort or another are to be expected. Commonly, such treks may begin without a specific destination in mind as the stated aim of the expedition is to “play” (*phəɲuh*); these may, and often do, end up with a cache of food. What I want to show here is that such movements, directed or not, are not simply a means to an end, but are an event in themselves — an active process of perceiving, discriminating, discussing, and teaching.

Contrary to the image of fleet-footed forest dwellers that is so pervasive in the ethnographic literature [for example, Puri 1997; Turnbull 1961], often the Batek sacrifice speed for the sake of moving leisurely. Sometimes they may adjust their walking speed to the level of the least competent member of the group — in many cases during my fieldwork, that person would have been the note-taking, foot-fumbling anthropologist in their midst! The order of the travelers to some degree mimics the order of competence, with children going in front and the men providing the rearguard, thus enabling them to keep a watchful eye over the others (tiny children are, of course, carried on their parents' bodies).

Sometimes the talk is muted while at other times it is raucous. Even as they move, they are discussing other, non-immediate issues; by the time an excursion is over, some kind of a resolution or decision might have been made. If those in front are unsure of the directions, a stream of instructions is called from the back. Children are discouraged from talking too loudly and warned that the tiger or other predators will hear. Ears are trained to hear noises from afar; if the noise is significant enough, this is discussed as well.

As they walk (in single file if the trail is narrow), they keep their eyes *biəy* ‘looking straight into the distance’. As one woman declared, the way she keeps herself from getting lost is to look right ahead, follow the tracks pointing to the main trail, and not be distracted by side-paths going here and there.

When they spot any material of interest (like game or plant foods), they either discuss

it casually or ponder aloud whether they should procure it. Sometimes the movement is halted when members try to persuade one of the group to extend that physical effort. When someone spots something at the path-edge, such as the trailing vine of a tuber (usually *Dioscorea* spp.), s/he will inspect it carefully and the whole pack might halt its movement to discuss this new finding. As new opportunities arise for culling things out of the forest, the order of travelers will change and some in the group might linger behind to follow through while the others precede them to an agreed place of collection or extraction.

If young children are in the group, the parents might point out things of interest to them and if the children demand to have something brought to them, the movement will be halted for this purpose.

What I'm indicating here is that the movement itself forms the setting for the development of a broad variety of knowledge about the material and social worlds. But expertise, both in knowing the world and in knowing how to move about the world, would not, of course, be possible without the medium of one's bodily engagement with the physical context itself, the forest.

Narratives and Remembrances

The foregoing was a fairly analytical description based on my many experiences of moving about with Batek companions. How would the Batek themselves tell this story? For one thing, their story would be laden with detail — detail that shows up in a fairly extensive and domain-specific lexicon: the topography over which one travels, the nature of the trail itself (say, whether it be clear or overgrown, how level or sloping, how straight or crooked), the fauna and flora encountered. Changes, both natural and anthropogenic, that have occurred since one's most recent experiences on the trail would be included. Strong emphasis would be given to the physical and intellectual challenges such as the ascents and descents, sidestepping around obstructions, climbs, river-crossings, search or pursuit, reckoning of location and direction. If any startling phenomenon occurs, or if one were temporarily disoriented, these would probably be highlighted, even exaggerated to a hilarious degree. Just as important, they would say why they had gone on that expedition in the first place, and who else was in the group. Any puzzling observations would emerge. Such narratives are common in post-excursion memory swapping sessions. These sessions bring the information from a day's walk into the setting of the camp, thus generating more fodder for thought and future planning. Much later, they will recount a particular expedition in remembering moments of togetherness and shared adventures with certain friends or relatives.

Landscape and Remembrance

I have suggested elsewhere that the ecological traces of the Batek's history can be discerned in the anthropogenic nature of the forest patchwork [Lye 1997: 191–196]. There is a sort of reciprocal process in which everyday actions both shape the biophysical reality of the landscape and in turn are shaped by it. Encampment and movement practices leave their traces in the vegetational patterns of the forest. In turn, the continuity of the forest generates further, habitual action and sets the context for similar action in the future. Such actions are linked to events and experiences and experiences to individuals, as evidenced in the common practice of naming places after people whose actions have left some imprint on others' minds. In such ways is a familiar environment produced.

And here is where my own analysis is leading. For the way that the Batek recount their expeditions reveals much about the sorts of cognitive and social activities involved in walking down trails.

Sometimes, like when they are headed for new resource zones and encampments, they are opening new pathways. As they walk, the Batek say, they actively assess and remember the characteristics of the trail, route, and topography. Being able to remember the route is a source of pride and people become visibly perturbed and puzzled if they had lost their way in the forest. This new fund of knowledge will eventually, either directly or over the course of many secondary tellings and re-tellings, become part of what Widlok [1997] calls "topographic gossip" which is then potentially available for everyone to use. For those who actually use the information to guide movement along a new trail, there is some computational process going on, as he or she complements the socially derived knowledge with personal observations of phenomenon observed or perceived during the journey.

The skill to discover new routes is not at all mysterious, because it is often a leader working in consultation with the group who decides a route. The leader would usually have discovered the suitability of the new resource zone while engaged in routine foraging and collecting activities. As happened a few times during my fieldwork, other camp group members, trusting in the leader's skills and experience, will follow him if there are no conflicting and alternative objectives and directions. (The leader's prestige will, however, plummet greatly if camp group members are disgruntled with where he has led them, thus curbing any desire to show off and take unwarranted risks.)

More commonly, the Batek are walking on trails that others have walked before them. Or they are returning to the scenes of earlier adventures and travels. And they are more often than not walking with companions who have their own slice of the topographic gossip, and their own memories and knowledge of that trail's history. Those

trails are not just pathways to get from one place to another. They are imbued with local history. Moving on a trail, knowledge is applied to practical ends and shared with others and new knowledge in the sense of new discoveries about the forest will emerge. The sharing of knowledge prior to, during, and after a walk is that process we are calling “transmission.”

But the implications go much deeper than this. As the Batek well appreciate, walking is also a means to remembrance. An anecdote from my own experience will illustrate the point. I was fishing with a couple, Ey Toh and Na[?] Toh. Ey Toh, the husband, pointed to an old trail and said to me, “If you really want to know, that is a trail of the old people. So when people feel *ha’ip* [the sentiment of longing] for the old people, they come back here and use the trail so they can remember the old people.” What are we to make of this? I cannot examine this in detail here. Suffice it to say that if the living can feel longing for the dead — the old people who laid down those trails long ago — so do the dead feel longing for the living. In fact, the Batek say that the deceased watch over this world and need assurance that their descendants are still living in the forest. So long as this remains true, there is connection between present and past, for not only have those old people left behind a vast store of cultural knowledge but, from their present habitations, they may choose to communicate further knowledge to well-loved relatives.

If they do not find their relatives living in the forest, the Batek say, the old people will feel such despair as to bring on the collapse of the world. In returning to those old trails, the Batek are, in a sense, affirming their bond with the old people. Metaphorically speaking, they are returning to their history while laying down the paths for the future movements of those coming after them. And so long as they do so, the trails will continue to have meaning and to draw the Batek back to times and places past. Trails, to put this another way, are not just paths to knowledge but routes to remembrance as well, and with remembrance lies the possibility for the ongoing emergence of knowledge, social, material, and historical.

What, then, are the analytical implications? As should be clear, I am not dismissing the role of human agency and cognitive processes in knowing the forest, identifying it as a familiar place, investing in and deriving meanings from it, remembering its qualities and particularities, figuring out how to live in it. As Hutchins puts it, “human cognition is always situated in a complex sociocultural world and cannot be unaffected by it” [1995: xiii]. Moreover, the social organization of environmental knowledge is what gives it its historical and political contingency.

If there is a hint of reification in my analysis of the forest, this is due to the need to bring the landscape to the fore of analysis. However, I am not simply transferring the exercise of agency from society to landscape and therefore dismissing the significance of social dynamics underlying knowledge communication, usage, and production. What I do insist on is the need to expand our definition of the “social” and to reexamine conventional notions of the environment as simply a space which people know through

cultural lens. I have noted already that the Batek social relational network — through which so much of knowledge is filtered and enhanced — includes the nonhuman entities in the forest. We should follow the Batek's lead, and get away from conventional distinctions between what is social and what is natural, what is society and what is landscape [Dwyer 1996; Fairhead and Leach 1996; Ingold 1996]. As we saw earlier, there is a common tendency to discuss hunter-gatherer knowledge transmission in terms of the structural elements of kinship and social relations. But this is not the whole picture.

The picture must surely incorporate the landscape. Landscape cannot be marginalized as just a brute material environment whose existence is independent of the activities of people in it. It is those activities, whether performative or cognitive, that give the landscape its meaning — and in a political sense, its identity. To the Batek, the forest, marked as it is with some many salient and knowable features, is a place of history and community. And so long as the landscape remains, and the Batek continue to return to those pathways and campsites and tell stories about their experiences (exercising human agency, if you like), the possibility for developing their knowledge of the forest will persist.

Change

My argument here [following Ingold 1996] is that knowledge is not something that resides only in the mind, to be handed perfectly to another mind in a continuous flow of language-like thought. There is an intimate relationship between environment and cognition. In a now-outmoded approach to cognition, the precursor to cognitive anthropology, the mind “was viewed as a kind of sorting device for generating taxonomic order in various delimited domains like kinship, disease, color terms, and the like. . . . Unfortunately, ethnoscience also tended to squeeze the life out of culture by limiting cultural knowledge to abstract classificatory schemata divorced from human action” [Shore 1996: 35]. Thus it was always a *mind* rather than an entire person that engaged with the world, and engagement in turn was viewed merely as a process of turning the taxonomic key in the head.

I would argue that local knowledge is not an invariant “thing” that is shut out from the ongoing biophysical processes; it is emergent in those processes. As things change, and one perceives change, knowledge changes. The spread of new knowledge from person to person, group to group, along with an endless process of analysis, debate, reorganization, and interpretation, ensures a level of innovation, creativity, and variation in the knowledge. Knowledge does not consist of a set of received ideas that is faithful to tradition but divorced from the concerns of ongoing life. Rather, it is constantly undergoing experimentation, change, and evolution. And the basis for that change is, of course, the capacity of people to keep on returning to the environment, over and over

again — to observe, analyze, remember, and discuss.

Earlier, I noted that there are many ways to become a knowledgeable agent in society. The Batek themselves often lay the stress on participatory learning; removed, detached observation is frowned upon. For example, they say that a person who likes to sit alone in the lean-to — therefore one who eschews company — is mad. Lazy people are criticized and children are encouraged to go to the forest as much as possible (for more discussion, see Lye [1997]). Practically, not only is *doing* the true test of knowledge, much of what needs to be known is out there — say, for example, the indicators of ecological change, the acoustic and visible signals, the tracks and traces of persons going before one. We should also note how fast details of the forest could change. If one habitually returns to a place, minute changes are recorded and one adjusts movements (and thought) accordingly. But when one's pathways change, and one does not return for years to a spot, trails become overgrown, young saplings have become mature, trees have fallen and begun to rot, gaps are opened up, elephants and other animals have left new openings in the forest — the trail is unrecognizable. Much knowledge will consequently become “rusty” without continuous attempts to access and retrieve the finer details. This is one reason why the Batek are constantly monitoring not just where they have been, but where they have *not* been.

But change, of course, has a broader political dimension to it. And of this the Batek are perfectly aware too. In Pahang, they highly value their mobility and their need to live inside the forest. They say, among other things, that they are people who live under the trees. But trees, trails, and campsites are highly ephemeral things and do not carry the same meaning for those who do not dwell in the forest. Though the Batek are fortunate in that much of their traditional territory is protected in the national park, the predominant pattern in the Peninsula has been one of loss as more and more indigenous territories are taken up for development purposes [Dentan *et al.* 1997].

Moreover, Government agents regularly try to persuade the people to give up their mobility and move to settlement schemes [Lye 1997: 7–8, 250–251]. But this the Batek cannot do, for to do so, would be to disconnect themselves not just from their place of sustenance and shelter, but from their history, their knowledge, and their knowledge of themselves.

Acknowledgements

Research for this paper was mainly supported by the Wenner-Gren Foundation for Anthropological Research and the East-West Center, with supplementary funding from the John D. and Catherine T. MacArthur Foundation (1995–96). I thank these agencies and, for granting me permission to conduct fieldwork in Malaysia, the Economic Planning Unit in the Prime Minister's Department, Kuala Lumpur. This is a revision of a paper presented at the 8th International Conference on Hunting and Gathering Societies, National Museum of Ethnology, Osaka, Japan, 26–29 October, 1998. I thank the members of that original audience for their feedback and encouragement and, especially, co-

panelists Rajindra K. Puri and P. Bion Griffin. I also thank the Japan Society for Promotion of Science for the postdoctoral fellowship that enabled me to begin some of the initial re-writing of this paper while I was a member of the Center of Excellence project of Kyoto University's Center for Southeast Asian Studies (1998–2000). Thanks are also due to Edmond Dounias, Tom Gill, Terry Rambo, Shuichi Nagata, Khoo Kay Jin, and two anonymous reviewers for valuable responses to earlier drafts of this paper. Finally, I thank the Batek of Pahang, without whose patient guidance I would have perceived nothing of their forest landscape.

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