

**UNDERSTANDING ANCESTRAL LAND AS A DEFINER OF INDIGENEITY: THE EVIDENCE
OF TOPONYMS FROM THE SEMAI AND TL'AZT'EN CULTURAL CONTEXTS**

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Abstract

Investigated in this thesis is an important but largely ignored component of indigenous oral traditions: place-names. Building on toponymic research conducted with TI'azt'en Nation, the thesis retains a deeper focus on Semai Orang Asli toponyms and place narratives.

Argumentation for the importance of documenting indigenous toponyms for reasons of cultural posterity, particularly the use of place-names in curriculum, was presented in the TI'azt'en study.

The Semai study derives its justification from this argumentation and provides a broader meditation on the connection between place-names, land rights and indigenous continuity. Over 600 Semai toponyms were documented through carrying out ethnographic fieldwork with four Semai communities. Data analysis reveals that Semai toponyms fall into two broad categories: archetypal and altered. Ritter's (1976) aboriginal toponymic categories, used initially to describe Semai toponyms, may be regarded sub-categories under these two main categories. Archetypal toponyms have a single hermeneutic character. Most Semai toponyms serve the practical purpose of describing flora. Specifically, trees—endemic as well as cultivated— have the highest frequency of all plant species referents. This notion of archetypal forms can be proved by investigating the pedigree of taboo- or incident-related toponyms: in cases where the original names of places are remembered, the referents have been discovered to be straightforward, commonly denoting species of trees. Altered toponyms, in contrast, have a double hermeneutic character. Recent past events, especially, seem to justify the overwriting of older names or the naming of hitherto unnamed places (rare). An interesting feature of altered toponyms seems to be their almost exclusive reference to people, domesticated animals and tree pairs. The latter are crucial given their territorial and tenorial implications. In certain Semai territories, tree pair toponyms indicate the strategic use of trees growing abreast of each other as a way of claiming exclusive rights to a piece of land. This has occurred to establish individual- or family-owned forest groves, either through 'purposeful' planting and the renaming of an area along with the

geographical features in its vicinity with the names of the trees; or through the continued use of already established *se/aay* (swiddens) as groves, where the names of tree pair landmarks become toponyms associated with private ownership of such sites. Thus, also explored in this thesis are the new senses of indigenous territoriality that have emerged in response to colonialism and development. This research confirms Dentan's (2008) and Gomes' (2004) findings on the nature of Semai cultural continuity amidst change. Extant toponymic knowledge demonstrates an ongoing relationship with the forest, even though Semai land use is to a diminishing degree concentrated on swiddening. The findings of this thesis suggest that indigenous toponyms have a place in the present, particularly to indigenous communities who are still able to access their customary territories, use their lands to make a living and communicate their dependence on land through their place-names.

Tiivistelmä

Väitöskirjassa tutkitaan paikannimiä, jotka edustavat vähälle huomiolle jääneitä alkuperäiskansojen kielellisiä perinteitä. Työ perustuu toponymien tutkimusperinteeseen, jota on tehty TI'azt'en parissa. Väitöskirja keskittyy syvällisesti Semai Orang Asli toponymeihin ja paikkannarratiiveihin. TI'azt'en tutkimus osoittaa alkuperäistoponymien dokumentaation tärkeyden erityisesti jälkipolvien kulttuuriperintönä. Tämä ilmenee myös paikannimien käyttötarpeena opetuksessa. Semaihin kohdistuva tutkimus juontuu tästä tarpeesta tarjoten laajan näkökulman paikannimien, maa-alueiden ja alkuperäiskansojen vuorovaikutuksiin. Tutkimusaineisto käsittää yli 600 Semai toponymia, jotka dokumentoitiin etnografisessa kenttätöössä neljässä Semai yhteisössä. Aineistanalyysi paljastaa, että Semai toponymit voidaan jakaa kahteen laajaan pääluokkaan: arkkityypiseen ja muunneltuun. Ritterin (1976) alkuperäiskategorisointia, jota alun perin on käytetty Semai toponymien kuvaamiseen, voidaan pitää näiden kahden pääkategorian alaluokkina. Arkkityypisillä paikannimillä on yksi hermeneuttinen ominaisuus. Useimmat Semai toponymit kuvaavat kasvustoa käytännön tarkoituksiin. Erityisesti puustolla, niin endeemisesti kuin kasvatettuna, on suurin kasvustoa kuvaava esiintymistiheys aineistossa. Arkkityyppisten ilmaisujen esiintyminen voidaan todentaa tutkimalla tabu- tai tapahtumaperusteisia sukutauluja. Sellaisissa tapauksissa, joissa paikkojen alkuperäisnimet muistetaan, nämä kielelliset tarkoitteet ovat suoraviivaisesti löydettävissä ja ne useimmiten merkitsevät eri puulajeja. Muunnellut toponymit puolestaan omaavat kaksoishermeneuttisen ominaisuuden. Esimerkiksi viimeaikaiset merkittävät tapahtumat voivat oikeuttaa vanhojen paikkojen uudelleen nimeämisen tai johtaa harvinaiseen tilanteeseen, jossa tapahtumaan asti nimeämätön paikka saa nimensä. Muunneltujen toponymien kiinnostava ominaispiirre on niiden lähes kokonaisvaltainen liityntä ihmisiin, kotieläimiin ja puupareihin. Näistä puuparit ovat keskeisiä niiden alueellisista ja hallinnollista kytkennöistä johtuen. Tietyillä Semai alueilla puuparitoponymit viittaavat puiden strategiseen käyttöön, jotka osoittavat maa-

alueiden käyttöoikeuksia. Tällä tavoin pystytään osoittamaan yksilöiden tai perheiden omistamat metsiköt. Tämä tapahtuu joko tarkoituksenmukaisella istuttamisella ja alueen uudelleen nimeämisellä sen maantieteellisten ominaispiirteiden mukaan (yhdistettynä puiden nimiin) tai aiemmin perustetun *se/aa*yn (kiertävä metsäkäyttö) jatkuvan käytön perusteella. Tällöin puupareihin perustuvat maamerkit synnyttävät alueiden yksityistä omistamista kuvaavia toponymiejä. Täten väitöskirjassa tutkitaan alkuperäisalueellisuuden uusia merkityksiä, jotka ovat syntyneet vastareaktiona kolonialismiin ja yleiseen kehitykseen. Tutkimus vahvistaa Dentanin (2008) ja Gomesin (2004) löydökset Semai-kulttuurin jatkumosta muutoksen keskellä. Vielä olemassa oleva toponyminen tieto osoittaa jatkuvan yhteyden metsään, vaikkakin Semai maankäyttö keskittyy vähenevässä määrin kiertävään metsätalouteen. Väitöskirjan tulokset osoittavat myös, että alkuperäistoponyymeillä on merkitystä nykyajassa erityisesti alkuperäisyhteisöille, joille on vielä mahdollisuus käyttää tavanomaisia alueitaan elannon hankintaan sekä kertoa aluesuhteestaan paikannimien avulla.

List of Original Publications

This thesis is based on the following publications:

- I. HEIKKILÄ, K. and FONDAHL, G., 2010. Indigenous Toponyms as Pedagogical Tools: Reflections from Research with Tl'azt'en Nation, British Columbia. *Fennia*, 188(1), pp. 105–22
- II. HEIKKILÄ, K. and FONDAHL, G., 2012. Co-managed Research: Non-Indigenous Thoughts on an Indigenous Toponymy Project in Northern British Columbia. *Journal of Cultural Geography*, 29(1), pp. 61–86
- III. HEIKKILÄ, K., 2014. 'The Forest is Our Inheritance': An Introduction to Semai Orang Asli Place-Naming and Belonging in the Bukit Tapah Forest Reserve. *Singapore Journal of Tropical Geography*, 35(3), pp. 362–381
- IV. HEIKKILÄ, K., 2016. In Situ Testimonies: The Witness of Whetstones and Semai Orang Asli Toponyms to the Rawa Malay Slave Raids. *Erdkunde*, 70(4), pp. 341–353
- V. HEIKKILÄ, K. and WILLIAMS-HUNT, A., 2016. Spaces of Self-Determination: Divining Contemporary Expressions of Indigeneity from Orang Asli Blogs. In: K. ENDICOTT, ed, *Malaysia's Original People: Past, Present and Future of the Orang Asli*. Singapore: National University of Singapore Press, pp. 469–492

The publications are referred to in the text by their roman numerals.

* All articles were originally conceived of by Karen Heikkilä. The writing of Articles I and II were largely performed by Karen Heikkilä. Gail Fondahl assisted with the restructuring of arguments and content for both articles and performed the writing of the account of thesis supervisor in Article II. Karen Heikkilä performed the writing of Article V; Anthony Williams-Hunt assisted with research for the paper and provided information throughout the writing of the paper.

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Notes

Note on orthography

In this thesis, Semai terms and toponyms are transcribed according to the Romanized writing system developed by a Summer Institute of Linguistics dictionary project carried out from 2005 to 2006 (see Ngah Aching & Bah Yit 2007 and Phillips 2012). The compilation of the dictionary relied on consultations with Semai communities from the states of Perak and Pahang, including several from the Gòòl–War area where this research was conducted.

Glossary and abbreviations

Aslian	Austroasiatic, Mon-Khmer languages spoken in Peninsular Malaysia
<i>Belakiq</i>	mature secondary forest; similar to <i>libòòy</i>
<i>Bicaraaq</i>	community deliberation to adjudicate miscellaneous grievances, including land encroachments
<i>Caaq samaaq</i>	‘eat together’; refers to the notion of continuous sharing that upholds peaceability and egalitarianism in Semai communities
<i>Cermòòr</i>	distant past narratives
COAC	Centre for Orang Asli Concerns
Dakelh	Athapaskan or Dene language spoken by indigenous communities in north-central British Columbia, Canada
<i>Dusut</i>	a borrowing from the Malay <i>dusun</i> or ‘orchard’; the Semai variant signifies groves of fruit trees in the forest
<i>Gawar</i>	sacred site; the Semai term for <i>keramat</i>
<i>Gunik</i>	spirit familiar
<i>Halaak</i>	shaman
<i>Hòòl</i>	‘mark’ or ‘prints’; also functions as a toponymic referent
JAKOA	Jabatan Kemajuan Orang Asli (Department of Orang Asli Development); a federal agency
<i>Jehuuq sakaaq</i>	‘heritage tree’; mostly petai and durian trees bequeathed to one’s children
<i>Jeres</i>	virgin, uphill forest

<i>Kampuk</i>	a borrowing from the Malay <i>kampung</i> or 'village'; the Semai variant is used interchangeably with <i>dusut</i> to mean 'forest grove'
<i>Kampung</i>	see above
<i>Kebun</i>	'plantation', 'estate' or 'garden', a borrowing from the Malay; used by Semai to specifically denote more recent-time cash crops such as rubber and palm oil
<i>Kebut</i>	Semai traditional healing ritual
<i>Keramat</i>	a Malay term for 'sacred site'; used in certain Semai areas in place of <i>gawar</i>
<i>Keyoh</i>	a Dakelh term meaning 'trapline' or a family's hunting and trapping area
<i>Lengriiq</i>	also <i>nengriiq</i> ; a borrowing from the Malay <i>negeri</i> or 'country'; in Semai usage refers to ancestral territory or homeland
<i>Libòòy</i>	see <i>belakiq</i>
<i>Maay pasak</i>	'ramage', the original people of an area
<i>Orang Asli</i>	Malay for 'original people'; a collective term for the nineteen indigenous peoples of Peninsular Malaysia
<i>Pabel</i>	fallow land transitioning into secondary growth forest
<i>Pasaal (penasaa)</i>	recent past narratives
<i>Penaliiq</i>	taboo on the mixing of different categories of food
<i>Punan</i>	ritual defilement; suffering misfortune as a result of having been deprived of something, especially food
Regroupment	the grouping together of various communities in a specific area either within or adjacent to their original territories; regroupment is usually accompanied by some type of community development scheme
Resettlement	uprooting communities from their original territories and resettling them in areas unknown to them
Residential school	government-funded boarding schools that were established in the 1930s to assimilate indigenous children into mainstream Canadian society
RPS	Rancangan Pengumpulan Semula or 'Regroupment Scheme'; see above
<i>Sakaaq</i>	a borrowing from the Malay <i>pusaka</i> or 'heritage'; in Semai usage, refers to anything under one's personal use
<i>Selaay</i>	'swidden'

Semai	an indigenous, farming people inhabiting the Peninsular Malaysian states of Perak and Pahang; also the name of this community's language; Semai is likely a corruption of <i>sengòòy</i> or 'we people'
<i>Semeey</i>	akin to <i>teñhaad</i> ; suffering misfortune as a result of breaking a taboo
<i>Seraaq</i>	forest realm or hinterland
<i>Serenlook</i>	taboo on reneged promises
<i>Sook</i>	'umbilical cord'; also functions as a toponymic referent
<i>Tarook (tercòòk)</i>	taboo on harvesting certain plant species
TCPS	Tri-Council Policy Statement
TEK	Traditional Ecological Knowledge
<i>Teñhaad</i>	akin to <i>semeey</i> ; suffering misfortune as a result of breaking a taboo
<i>Terlaac</i>	taboo on ridiculing animals
<i>Tiq</i>	'land'
<i>Tiq sakaaq</i>	'heritage land'
Tl'azt'enne	Dakelh-speaking, indigenous people of the Stuart-Trembleur watershed of north-central British Columbia, Canada; Tl'azt'en is the adjectival form
<i>Tok batin</i>	JAKOA-appointed, salaried village headman
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples

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To
the Desire of the Eternal Hills,
Name above all Names

1. Introduction

Fraught with complexity and tension, naming and re-naming the landscape are deeply intertwined with the politics of identity and belonging (see Berg and Kearns 1996; Kearns and Berg 1999). Concerning indigenous minorities, the politics of cultural and linguistic identity and their expression in physical space require specific attention. Many settler nations have afforded civil liberties to indigenous minority groups residing within their borders and there is an obligation on states to honour indigenous sui generis rights to land and subsistence-based lifestyles. Further, with the signing of indigenous land claims accords and state acknowledgement of past injustices against indigenous people, there has been an effort towards reviving the cultures and languages of these groups. One aspect of indigenous cultural revival, particularly in the North American, Australasian and northern European contexts, is the documentation of indigenous ancestral place-names. Homeland and exile underlie the reinstatement of indigenous toponyms in settler nations. Reflecting a reclamation of native or indigenous names of localities that were displaced at the time of conquest, there arise questions of wrongful exile and rightful belonging, of who can genuinely make the claim of being indigenous to the territories that presently make up these nation states. Toponymic changes can raise awareness of indigenous rights in society; they render indigenous people visible and reinforce an indigenous ethos in discourses about nationhood. Restoration of indigenous toponyms symbolize the pre-dating of indigenous existence over that of settler cultures and point to the contentious subject of land as a continuing definer of indigeneity. Consequently, there exists an expansive and rich literature on indigenous place-names from these regions of the world (see Canadian Permanent Committee on Geographical Names 1997).

My thesis, comprising five published articles, represents a replication as well as a refinement of an indigenous toponymy project on Dakelh—the language of the Tl'azt'en people inhabiting the Stuart–Trembleur region of central British Columbia, Canada—place-names that furnished the data for the initial phase of the research (see Heikkilä 2007). Working with a different linguistic group, in a different

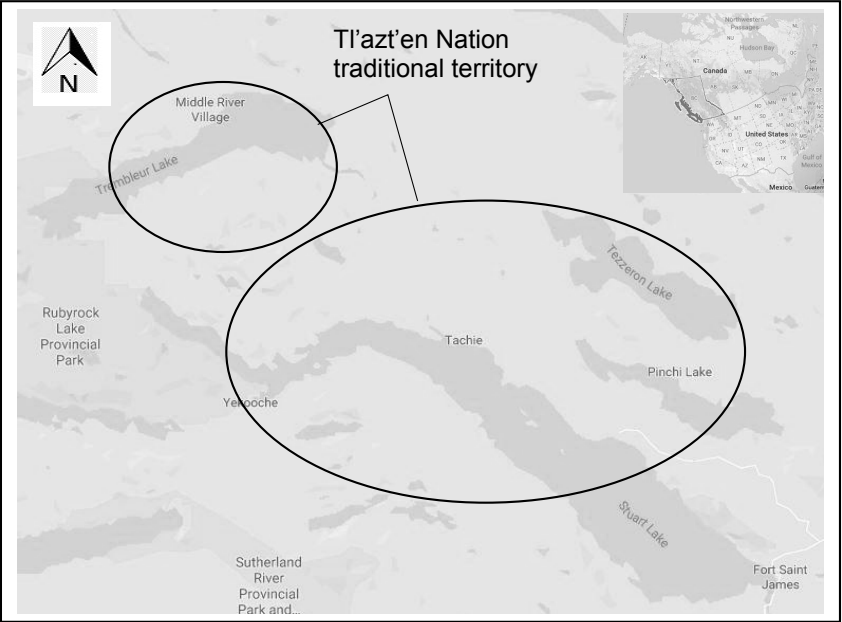
geographical and sociocultural context, and on a larger toponym dataset has enabled a more detailed conception, in the latter phase of the research, of the role of toponymy in constructions of indigenous knowledge of and identity in, place. The overarching discussion of place-naming in the thesis will focus primarily on Semai—the language of the Semai Orang Asli people inhabiting the states of Perak and Pahang, Peninsular Malaysia— toponymy, the documentation of which spanned eighteen months of fieldwork. Discussion of Dakelh toponymy, by comparison, will be incidental, providing the basis or justification for undertaking further research on indigenous toponymy. My findings on Dakelh toponymy (Articles I & II) provide context for gauging the importance of indigenous place-names as key indigenous knowledge resources, and underscore that the documentation and study of ancestral language toponyms are crucial for indigenous communities to undertake (on their own or in partnership with academics) as a way of demonstrating the links between indigenous oral tradition, territoriality and place attachment. Additionally, my Dakelh toponymy project serves as justification for the methodological approach employed in my Semai toponymy project as well as for asserting the cultural heritage value of indigenous toponymy. It is upon these bases that my research on Semai toponymy has been constructed.

2. The Tl'azt'en and Semai Indigenous Contexts

Tl'azt'enne and Semai are First Peoples, indigenous to territories that fall within the borders of Canada and Malaysia, respectively. Tl'azt'enne, a northern Athapaskan-speaking people, lay claim to the boreal forest territory of the Stuart–Trembleur watershed in north-central British Columbia, Canada (fig. 1).

Similar to other Athapaskan groups distributed in northern Canada and Alaska, hunting, fishing and to an extent, barter, characterized the mainstay of the Tl'azt'en economy prior to European settlement in the area. Traditional subsistence continues today in the forms of hunting and fishing performed alongside seasonal or regular employment in the mainstream job sector. Prior to contact with Europeans, Tl'azt'en land use was controlled locally through the clan system. Each village or 'local group family' (see Hudson 1983: 179, 183) retained ownership of its own lands and there was intra- and inter-village exchange of resources in accordance with clan customs. In the 1800s, the fur trade catalyzed contact between Europeans and Tl'azt'enne. No longer hunting and trapping primarily for subsistence, Tl'azt'enne began to function as producers and the main suppliers of pelts to Europeans. A contractual relationship was thus established between the two groups, with Europeans having monopoly of the fur trade and Tl'azt'enne assuming the role of fur trappers and consumers of European goods. Although fur-trapping itself did not disrupt Tl'azt'en social relations, government imposition of the registered trapline system in 1926 (ibid.: 135) subsequently encouraged individual claims to parcels of land. Communally-shared forestland came to be apportioned into trapping territories (*keyohs*) registered under the names of individuals, thus 'provid[ing] a baseline for subsequent inheritance and control of traplines' (ibid.: 179). The practice of bequeathing traplines (i.e., trapping territories) to one's own children signified a fundamental shift in Tl'azt'en society; it replaced the uxori-local (i.e., maternal uncle–nephew) inheritance system that ensured the horizontal distribution of resources (ibid.: 188).

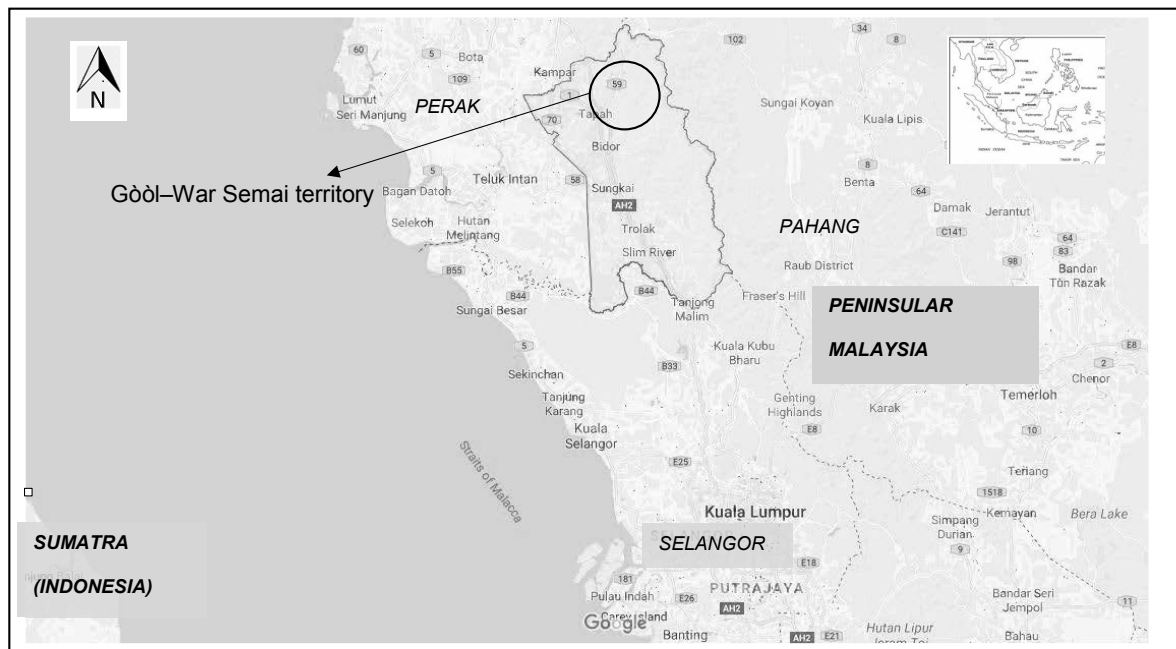
Fig. 1 Tl'azt'en Nation traditional territory in the Stuart-Trembleur watershed, north-central British Columbia, Canada



Semai, also forest-dependent, speak a language that belongs to the Central Aslian branch of the Mon-Khmer (Austroasiatic) language family—there are over 40 dialects of the Semai language, each geographically unique (see Phillips 2012). Living predominantly in the states of Perak and Pahang, Semai have a total population of 45,000 and are the largest of the nineteen Peninsular Malaysian aboriginal or Orang Asli (lit. ‘original people’) communities. A number of Semai groups can be found, for instance, in the Gòdòl–War watershed of southeastern Perak (fig. 2), where I conducted my fieldwork. The dictates of a tropical rainforest environment are met in the Semai traditional way of life, which consists of hunting, fishing, foraging and small-scale agriculture. Still generally involved in hunting and gathering (and to a diminishing degree swiddening or shifting cultivation), modern-day Semai are most actively engaged in arboriculture. This practice emerged some generations ago in response to the demands of exchange with non-Semai. Eaglewood (*Aquilaria malaccensis*), petai (‘stink bean’, *Parkia speciosa*), durian (*Durio spp.*) and other fruit trees are still cultivated in the forest either as individual tree stands (*jehuuq sakaag*) or in groves (*kampuk* or *dusut*) surrounded by undomesticated tree species. Rubber, and to a lesser extent oil palm, are also planted and tended in the forest; the use of the Malay term *kebun* (‘plantation’, ‘estate’ or ‘garden’) seems to distinguish clumps of rubber and oil palm stands in the forest as more recently-introduced cash crops than those mentioned earlier.

Historical reconstructions of early maritime trade in Southeast Asia point to the exchange of forest products along the Straits of Malacca, dating to at least the first millennium (Gomes 2004: 2). It is reasoned that forest-dwelling peoples such as Semai were involved in this trade as harvesters of rattan, bamboo, resins and aromatic wood. According to early anthropological sources (e.g., Skeat and Blagden 1906; Cerruti 1904, 1908; Evans 1915), Malay–Semai contact had already been long established before the British arrived on the Malay Peninsula. The exchange of tools, cloth, salt

Fig. 2 Gòl–War (Batang Padang–Woh river) Semai traditional territory, Batang Padang district, southeastern Perak, Peninsular Malaysia



and forest products, for instance, characterized the tradition of trading between Malays and Semai. Trade remained localized and small-scale until the fourteenth century (Dunn 1975 in Gomes 2004: 3). During this period, it is believed that exclusively coastal Orang Asli groups, having access to both forest and sea, supplied forest raw materials for exchange; hinterland groups, on the other hand, were either totally isolated from or minimally involved in trade at this time. Slave-raiding likely entrenched the idea of Malay dominance; as the literature (see Article IV) points out, to avoid being hunted down and enslaved by Malays, the ancestors of present-day Semai and other Orang Asli fled deep into the hinterland, established their communities in interior areas and maintained only minimal contact with outsiders. In the fifteenth century, with Malacca emerging as a thriving entrepot, trade intensified and drew more distant areas of the Malay Peninsula into the exchange network. Gomes (2004: 4) proposes that this extended network would have been patterned along water routes, given the impenetrability of hilly and jungle-clad interior areas. The system would have reflected a hierarchy: forest products would have been harvested by small, isolated indigenous bands in the interior and transported midway to secondary middlemen and onwards to tertiary middlemen at downstream collection points in the vicinity of Malay villages.

The practice of arboriculture intensified when Semai were absorbed into a monetized economy, namely in the decades following 1889 when British rule over Perak commenced (see Gomes 2004: 150–151; Edo 2001: 142). Gomes (2004: 10) notes that 'the process of commoditization (and monetization) of the economy of most Semai villages was well under way by the 1930s. Fruit, resin and rubber harvests continue to play a key role in the Semai economy, especially as they represent a source of cash income for individuals and families. These products are typically sold to non-Semai and have a more stable marketability today compared to bamboo and rattan, which were collected by Semai in the past century when there was considerable demand for these materials in the construction and furniture industries.

The tenor of Tl'azt'en and Semai relations with government and wider society has been one of resistance and negotiation. The settlement and development of British Columbia and Perak caused the subsequent commodification of land. This has undermined Tl'azt'en and Semai rights to their ancestral territories and augured the tactics of dispossession and acculturation. Concretized in legislation, state control of Tl'azt'enne and Semai lives has played out on the basis of land. In the case of Tl'azt'enne, ancestral territory has been apportioned into provincially-owned Crown Land, privately-owned lots or federally-administered Indian Reservation land. However, a measure of indigenous control over land and resource use has been negotiated in recent decades through co-management arrangements. The John Prince Research Forest (JPRF) (see Heikkila 2007) serves as an example of such an arrangement: a working or production forest conjointly stewarded by the University of Northern British Columbia and Tl'azt'en Nation, the JPRF signifies 13,000 hectares of indigenous customary territory on which Tl'azt'enne have control over timber and other natural resources, and generally a role in steering the future of the land base. Although the JPRF was not accorded fee simple or freehold status by the government, it nevertheless speaks to the wider issues of indigenous land rights and sovereignty which Tl'azt'en Nation is currently pursuing with the Government of British Columbia through the treaty negotiations process.

In the case of the Gòòl-War Semai, while abiding within the Bukit Tapah Forest Reserve (see section 7) is still possible, a legally guaranteed land base for each community to thrive remains unfulfilled. Similar to Tl'azt'en Nation, Semai have appealed for acknowledgement of their right to subsist in forests to the Malaysian state and federal governments. However, unlike Tl'azt'enne, Semai (as well as other Orang Asli) do not possess a treaty (cf. existing models in Canada and New Zealand) or a historic or prototype covenant of their status as First Peoples. Thus, they lack de jure acknowledgement to base their claims to rights as indigenous persons and furthermore to exercise those rights in conjunction with land entitlement. Historic treaties—agreements forged between First Nations and the first European colonizers that saw the exchange of lands for guarantees such as

reserves, special hunting and fishing rights and annual payments— have created the space for modern treaties to either settle outstanding indigenous land claims or redress unfulfilled treaty or statutory obligations. Arguably, treaties offer the indigenous peoples of Canada a basis to effectively challenge the state on the grounds of unextinguished indigenous rights and self-determination. The Orang Asli, in contrast, are currently at the stage Canadian First Nations were in the late 1970s when, for instance, extensive community mapping was being undertaken especially in the northern regions to prove indigenous habitation and use of Crown (state) lands (see Freeman 1976; Article III). Although three major Orang Asli land rights cases have been won to date (see Sharom 2006; Subramaniam 2013), there is still much uncertainty concerning the issue of indigenous land security.

Finally, much has been documented on the prehistory, kinship structures and customs of the Tl'azt'en and Semai peoples, yet little exists on their 'spatial knowledge' (see Tsai and Lo 2013). An ethnogeographical approach is adopted in this research to examine the importance and utility of indigenous toponymy. It is argued, for instance, that a study of place-names and geographical nomenclature provides insight into the workings of indigenous environmental conceptions, specifically the role played by geography in the memorization of routes and past events. In brief, toponyms portray the nature of the landscape and describe the human ties that have formed over time with places. Following Kolars (2012), an ethnogeographical approach would also incorporate mapping the local character of territoriality and knowledge onto the global character of land and food security crises (see Panelli & Tipa 2009). This is discussed at length below.

3. Focus of the Research

The aim of this thesis is to gauge the contemporary relevance of indigenous place-names, based on an in-depth ethnographic study of Semai toponymy. The practical and symbolic value of indigenous place-names are considered against a backdrop of what it means to identify as indigenous. This is critical in an era of globalization, where places are gradually losing their individuality and localness (see Zoomers 2010; see also 'frontier capitalism' [Tsing 2005] and 'developmentalist configuration' [de Sardan 2005]). Globalization, translating into the reality of land grabbing in almost half of the world's low- and middle-income countries, is a considerable force in the potential loss of subsistence-based livelihoods, food security, knowledge systems and environmental stewardship particularly where vulnerable and local community groups are concerned (Dell'Angelo et al. 2017: 1, 8).

While the benefits of globalization to indigenous communities may be observed in the channeling of international attention to their collective plight, the facilitation of greater social and political cooperation between Fourth World peoples, and the creation of economic networks independent from state involvement (O'Sullivan 2012), the threats of land and cultural loss remain especially acute for rural-based, small-scale indigenous farmers (see Zoomers 2010; Dell'Angelo et al. 2017) like Semai. State actors are no longer solely culpable for the problems caused by large-scale land development because the magnitude of land expropriation wavers between the local and the global. Foreign land acquisitions and investments are now the norm, often conducted in collusion with state authorities (see Zoomers 2010; Aiken & Leigh 2011; Dell'Angelo et al. 2017). Indigenous communities who subsist on the land via customary tenure arrangements are typically reduced to penury in such a scenario. Despite an upsurge of capital from foreign landownership, such communities face the threat of dispossession without the security of formal land deeds or titles.

The 'foreignization of space and land' (Zoomers 2010: 440,442) caused by the interacting forces of globalization, neoliberalism and foreign direct investment could, in other words, hamper indigenous

groups from pursuing their own 'life projects' in the very places that have intergenerational value and meaning to them (Blaser 2004; Aiken and Leigh 2011). If being indigenous means to adhere to a way of life that is place-bound or land-dependent, the following lines of inquiry deserve consideration in view of the universalizing consequences of globalization. They draw attention to the issue of indigenous land rights and test the veracity of the proposition that the right to land is a fundamental human right for indigenous people (see Taiaiake & Cornthassel 2005: 599–601):

- 1) How is a land base vital to being indigenous? What do toponyms communicate about the role of landscape in defining as indigenous? How does the concept of cultural landscape reflect this idea?
- 2) What does the geography of indigenous toponyms suggest about indigenous land use and territoriality?
- 3) What can indigenous toponymy adduce on the new senses of indigenous territoriality that have emerged in response to land use changes spearheaded by colonialism and development?
- 4) What is the role of indigenous toponyms in indigenous heritage preservation?

A summary of each article comprising this thesis and its connection to the above questions follows:

Article I addresses the application of indigenous cultural research in educating children and youth about Traditional Ecological Knowledge (TEK) or their community's ancestral geographical knowledge. The paper is based on research conducted with Tl'azt'en Nation. It responds to Question 4 by considering the incorporation of toponymy in curricula as a facet of indigenous cultural maintenance, and by outlining the possibilities for place-name use in teaching about indigenous land tenure, ecological and navigational concepts. It is argued in the paper that scientific knowledge ('Western science') and its inherent values are privileged over other systems of thought in school curricula. This occurs through the concept of scientism (Sayer 2000: 3), the reductive, naïve positivism that rejects or abstracts the metaphysical to offer theory-determined, value-neutral explanations about the world. The reminder to put science in its proper social context, as a form of social knowledge that is both theory and value

laden, is implied in the call for culturally-sensitive curriculum. Given a growing disengagement from their communities' oral traditions and life on the land (Chandler 2013; Chandler & Lalonde 2008), indigenous children and youth are at risk of losing a sense of cultural belonging. School, where a significant proportion of their lives is spent, emerges as the natural venue to introduce TEK and inculcate in them a sense of connection to community and ancestral language. The pedagogical use of indigenous toponymy is advanced as a means of teaching TEK in the context of concrete references to the physical landscape. While indigenous place-names may be described as generally possessing a straightforward, denotative function (e.g., as vivid descriptors of sites), there is nevertheless a metaphysical aspect to the habitus of the indigenous subsistence way of life that is also suggested in the names of places. This might be attributed to communal histories, and overall, to an ideology based on animism, which provide the necessary frames of reference to negotiate and perceive the world. Implied here is the notion that interactions with the world—practice and knowledge—are not dictated exclusively by empiricism itself but by belief in the supernatural, providential character of nature.

Article II focusses on the value of cross-cultural research and its contributions to knowledge. Based on the experience of an academically-funded 'co-managed' indigenous toponymy project conducted with Tl'azt'en Nation, the article addresses Questions 2 and 4 by unfolding the significance of cultural artefacts in postcolonial assertions of indigenous territoriality. Indigenous artefacts, including nonmaterial cultural elements such as music, stories and toponyms, play an important role in justifying indigenous claims to land and resources. This is particularly applicable to Tl'azt'en Nation, which has undergone generational estrangement from its native territories and languages because of the Indian Reserve and residential schooling systems. Place-names, collected from community elders, thus, hold immense worth as sources of cultural heritage. Rather than only serving as evidence of generational land use and occupancy in land claim negotiations with the state, place-names and oral narratives exist as conduits for the development of a sense of place and Tl'azt'en territoriality among younger people unaccustomed to the Tl'azt'en traditional subsistence lifestyle. As a result, indigenous cultural

information has come to occupy a much cherished, iconic position in contemporary indigenous life; hence, the inevitability of the sensitivities and restrictions surrounding access to such information. However, as argued in the paper indigenous geographic and historical understandings gain status as knowledge via their utilization in forest stewardship arrangements or educational initiatives. Operating on the principle of 'indigenous knowledge preservation through use', these avenues ultimately lead to the issue of linguistic and cultural heritage preservation. Given that knowledge is expressed and transmitted through the practices of language and custom (Sayer 2010; Unwin 1992), there is a pressing need to restore and maintain various linguistic and cultural forms that delineate knowledge through use rather than as secreted records. Methodologically, the paper problematizes the documentation of indigenous knowledge. Describing the on-the-ground reality of conducting collaborative research with an indigenous community, the paper poses the political implications of reaching an agreement with the community about topics to research, gaining access to primary cultural data collected by the community and satisfactorily representing community perspectives in research products.

Article III provides an overview of Semai toponyms and discusses how they reflect the importance of the forest as both a source of material and spiritual sustenance. Toponymic knowledge is possessed by young and old alike, demonstrating that although subsistence activities have transformed to suit present needs (e.g., a greater emphasis on the collection of forest products to sell as opposed to the growing of food crops for household consumption), the forest remains a central facet of Semai life. As descriptors of flora, fauna and physiography, Semai toponyms give matter-of-fact descriptions of plant and animal species and their habitats as well as a literal, perceptual rendering of geographical features and places. A utilitarian function is operative in how the landscape serves as a mnemonic, especially in relation to places that carry sensory associations. Aspects of Semai material culture and the appearance of ancestors' names in toponyms suggest the generationally lived-in nature of the forest. The paper addresses Questions 1, 2, 3, and 4 by: reasoning that the use of Semai toponyms is

an indicator of a continuing personal relationship with the forest for identity and domicile; providing an explanation of toponym meanings; deliberating linguistic borrowings and non-typical (e.g., tree name) determinants in Semai toponyms as indicative of territorial differentiation; arguing that toponyms are critical cultural resources that should be preserved towards the continuance of indigenous geographic knowledge; and proposing Ritter's place-name typology as a practical starting point to investigating indigenous toponyms. The paper connects the discussion of toponyms and indigenous forest knowledge to the wider question of indigeneity in Malaysia.

Article IV takes up in detail an important subsection of Semai toponyms introduced in Article III, namely those recounting the buried history of the Rawa Malay slave raids (*Prak Sangkiil*). Malaysia's official history is devoid of references to the slave raids but they nevertheless live on in Orang Asli oral traditions. Semai recall the slave raids through toponyms and relict sites: settlements that fell under Rawa attack as well as sites where the Rawa stopped to whet their blades and where they were finally overcome by Semai are concretely remembered through extant material remains (i.e., whetstone relicts), toponym determinants (e.g., weapons, ethnic origin of slave raiders, mass death or burial) and toponymic narratives (e.g., eyewitness accounts linked to the names of places). The paper addresses Questions 1, 2 and 4 by examining the overarching role of toponyms as markers of cultural memory and territoriality. Inherent in this idea is the argument that land use is never alone extractive; rather it is a relational praxis that intersects with the spatiality and temporality of the past. The paper links memory of the Rawa raids to the current struggles of indigenous displacement and landlessness: the mediating role of toponyms is analyzed here, as a site of collective reckoning to evaluate and respond to such threats. Finally, the paper reflects on the heritage value of toponyms in the context of conserving indigenous customary lands. Other than on the basis of safeguarding indigenous livelihoods, customary lands should be protected as cultural or memorial landscapes given that indigenous cosmogonic, genealogical and historical accounts are encoded geographically.

Article V addresses Question 1. Although not tackling indigenous toponymy directly, the paper provides context for understanding the importance of traditional toponymy to contemporary indigenous peoples. The writing of this paper was motivated by routine internet searches, performed in Malay, for news and information updates on the Orang Asli, which revealed the existence of indigenous weblogs ('blogs'). It was discovered that Orang Asli individuals utilize blogs and social media sites such as Facebook to exchange information and views on a number of topics, including the loss of indigenous customary lands. The revisionist content of these media suggests a unique expression of indigenous self-definition, helping to place the examination of Orang Asli toponymy within the wider contexts of territoriality, sense of place and indigenous heritage preservation. Online media demonstrate the potential of making indigenous environmental knowledge visible and transmittable to different groups of people and across generations. Importantly, online media as currently used by the Orang Asli stand as: a means of indigenous political organization and solidarity; a corrective to the ethnocentric views of indigenous groups expressed in formal news outlets; and a counterpoise to mainstream perspectives on issues of development, nationhood, and citizens' rights.

This thesis supplements Aslian and geographic scholarship by presenting a morphology of Semai toponyms, their semantic references and geographic implications. I contribute to place-name studies by compiling a corpus of hitherto unrecorded Central Aslian Orang Asli toponyms, and provide an understanding of Semai geographical knowledge, collective memory and heritage as perpetuated in place-names. With respect to the anthropologist Robert Knox Dentan's monumental research on the Semai (e.g., 1968, 1972, 1991, 1995, 1999, 2000, 2001, 2003, 2008), this thesis contributes to his analysis of the Semai taboo complex, by detailing the role of the forest as manifested in toponyms. Alberto Gomes' (1990, 1991, 2004) research findings on the mixed nature of Semai subsistence, particularly the success of Gòòl-War Semai at supplementing forest subsistence with small-scale commodity production and wage work, are explored in this research by querying if these factors incentivize Semai indigeneity and forest-dwelling; correspondingly, the meaning of land to

contemporary Semai, as expressed through their toponyms, is examined. The work of Carole Robarchek (1980) and Juli Edo (1998) on Semai territoriality and Semai landholding transformations and land rights, respectively, is also furthered in this thesis through an analysis of the phenomenon of tree toponyms. Such toponyms indicate the transformation from Semai hereditary claims to fruit trees to proprietary claims to land.

In the remaining sections of this summary, the question of land will be specifically addressed with reference to the Semai cultural context and through the lens of place-naming. On the basis of having documented approximately 600 Semai toponyms, I offer that indigenous toponyms: 1) demonstrate the role of land as a definer of indigeneity; 2) assist in more clearly delineating indigenous cultural landscapes for heritage preservation purposes, and 3) contain concrete, localized examples of indigenous knowledge of geography and ecology that are critical for utilization in educational and other indigenous language and cultural maintenance projects.

4. Lines of Reasoning Employed in the Research

The practice of assigning names to geographical features and places is universal, lending credence to the idea of geographical labelling as a means, first and foremost, of distinguishing the spatial and physical uniqueness of one place from another. Kripke (1981) argued that toponyms have the primary role of denoting, that is, of conveying location as well as orientation and only secondarily, of connoting or associating a name with a cluster of meanings. These meanings transfigure the determinants of place-names into mnemonic tools, whereupon it then becomes reasonable to talk about the symbolic or metaphorical qualities of toponyms. A realist perspective (see Bhaskar 1989; Dickens 1996; Yeung 1997; Sayer 2000, 2010) shapes the arguments put forth in this research. Undergirded by ontological realism and epistemic relativism (fallibility), a realist perspective distinguishes between a pre-existing material reality and constructivist accounts or theories about that reality. Belief in the world existing independently of social constructions of it does not render realism foundationalist; instead, realism 'is necessarily a fallibilist philosophy' (Sayer 2000: 2). Neither 'nomothetic (that is, law-seeking)' nor 'idiographic (concerned with documenting the unique)', realism 'proposes a way of combining a modified naturalism with a recognition of the necessity of interpretive understanding of meaning in social life' (Sayer 2000: 3).

The materiality of the landscape is an essential aspect of life to indigenous peoples who are able to still access their ancestral lands and who rely on land to subsist. Land, in other words, is a condition for their communities' thriving or flourishing into the future (see Castree 2004; Li 2007; Aiken & Leigh 2011; Sayer 2011). Indigenous toponyms speak to the necessity of land in indigenous ways of being and knowing. Place-naming contexts are hence fundamentally realist in nature, denoting the concrete 'structure and content of the physical environment'; however, symbolism or associational thinking often shapes the names' socio-cultural connotations, providing insight into 'how people perceive, conceptualize, classify and utilize [their ancestral lands]' (Thornton 1997a: 209).

Language, thought and land are invested in toponyms (Tuan 1991). Referencing the 'settings of material commitments and meaning' (Sayer 2000, 2010), indigenous toponyms demonstrate the workings of the two 'practical contexts of knowledge—work and communicative interaction' (Sayer 2000: 14; see also Ingold 2000: 191). To be practically adequate, knowledge 'must generate expectations about the world and about the results of our actions which are actually realized' (Sayer 2000: 69). From a realist standpoint, despite their arbitrary, prosaic nature, place-names are practically adequate objects of knowledge (thought objects) because they successfully designate and define the objects of material reality (real objects). Although unremarkable perhaps due to their commonplaceness across languages and cultures, toponyms are nonetheless governed by particular conventions that make them 'usable in practice' (ibid.). Their intersubjective quality, linking language and landscape, enables the expression of knowledge about the world. As to how effectively place-names can achieve this is dependent on how they operate, that is the extent to which they can usefully mediate their practical context or reality.

Employing the concept of *verstehen*, Sayer (2000: 37) discusses the hermeneutic character of all knowledge, 'both of nature (where it is restricted to a single hermeneutic...) and of society (where it is situated in a double hermeneutic...).' In terms of deriving a livelihood from land, firsthand personal experience of engaging with nature through dwelling and work is observable in the single hermeneutic or synchronic (Helleland 2009: 27-28) character of toponyms and geographical terms; these provide a literal or straightforward reckoning of the physical or ecological aspects of places. Dwelling and work are also perceivable in the double hermeneutic or diachronic (ibid.) character of toponyms having an 'extra-descriptive' function. Such names point to the etiologies (Koch 2009: 117) of indigenous ancestral lands, where the complexity of inter-subjective interpretation manifests in local histories and other communally-significant narratives that imbed particular concepts.

Renaming places, as in the contexts of colonialism or nationalism, is part of a foreign or new landscape hermeneutic (see Carter 1987; Livingstone 2002; Berg & Vuolteenaho 2009; Hercus et al

2009.; Hercus & Koch 2009) that has imposed not only a domineering logic and system of values but impacted the 'actual practices' (e.g., land takeovers, expulsions, laws, policing) and 'material structures' (e.g., borders, resettlement and regroupment schemes, reserves, plantations, private land-holdings) that 'confirm, legitimate and are legitimated' by that very same logic and value system (Sayer 2000:40). Such a hermeneutic has played a role in alienating society from nature and in estranging individuals from one another. Employing Marx's (1975) arguments, Dickens (1996: 57–58) explains that the underlying issue of these estrangements is the failure of people to understand themselves and their relationships to the world: non-creative work, the alienation of workers from the fruits of their labour and the competition that modern capitalism encourages among people, especially at the workplace, result in denying meaningful connections between people and between people and nature. Like work, nature has become 'merely a set of inputs into a production process [and] is not regarded as a worthwhile thing in itself...[hence] the sense of loss or absence of something which is essential to humans' wellbeing' (ibid.). Nature has therefore become an ideal for most contemporary people, in contradistinction to the reality it is to indigenous people and others whose daily lives are intimately attuned to its 'giving' (see Bird-David 1990).

The availability of ancestral land to indigenous communities anticipates a personal relationship to nature. It is due to the materially-real character of indigenous ancestral lands that the transmission of place-names remains unbroken and indigenous language, place and historical knowledge still remembered (see Larsen 2006; Heikkilä 2007; Burenhult 2008; Burenhult & Levinson 2008; Hercus et al. 2009; Sutton 2009; McConvell 2009). The idea of work as engagement with land is an important consideration as it points to the co-constitutive character of indigenous culture and ancestral land. As Sayer (2010: 18) argues, 'the (re)produc[tion] of the means of life' is enabled through practical interaction with the landscape, namely through work, 'the most transformative relationship between people and nature'. It is work—the livelihood pursuits of hunting, foraging, farming and fishing (see Riboli & Tacey 2013; Lye 2008), and the sociality of work through 'using shared resources, especially a

common language' (Sayer 2010: 14)—that facilitates sustained interactions between people and nature.

To elaborate on why and how land is important to being indigenous, the idea of ethnogeographic communities is presented below. It is reasoned that an ethnogeographic community is one that has a sustained, living connection to its ancestral lands. Community place-names and geographical vocabulary exist as expressions of this connection, projected onto the landscape through dwelling in and having a direct, personal engagement with ancestral land. A community's ideas of itself, its knowledge base and sense of wellbeing are represented in the spiritual, social and subsistence links forged with its ancestral lands (see Nicholas 2001: 124). Place-names underscore these human-place connections, outlining a heritage or cultural landscape that is personal to an indigenous community.

4.1 Ethnogeography and ethnogeographic communities

'Ethnogeographic community' is derived from Blaut's (1979) use of 'ethnogeography' (see Kolers n.d.: 21), which was intended as a counterweight to the emphasis on mentalistic understandings of knowledge in behaviourist geography (see e.g., Gould and White 1974). Acknowledging the tacit or non-ideational character of knowledge, Blaut (1979) argued for an ethnogeographical approach, consisting of firsthand field experience and the documentation of everyday language. These were reasoned to be more effectual strategies for examining the role of human engagement with the world in constructions of knowledge.

Although under-theorized as a concept, ethnogeography serves as a 'referential frame' in miscellaneous studies concentrating on indigenous or non-Western geographical or ecological knowledges (Duvall 2008). Such studies are typically empirical in focus, producing documentations of indigenous taxonomic, subsistence and settlement systems. Some poignant work on toponymies and geographical nomenclature have been performed under each of these streams (e.g., Huber 1979; McCarthy 1986; Rivers & Jones 1993; Bonnemaïson 1994; Kari 1996; Jett 1997, 2014; Simmons et al.

1997; Barrera-Bassols & Toledo 2005; Collignon 2006; Albert & Le Tourneau 2007; Heikkilä 2007; Duvall 2008; Burenhult 2008; Johnson 2010). Due to their focus on obtaining emic or cultural insider perspectives on indigenous territories and lifeways, the approach of these ethnogeographical studies could perhaps be summarized as ‘thick descriptions of collective dwelling’ (Boogaart 2001: 43) or ‘vernacular knowledge’ accounts of local environments (Collignon 2004: 377–378). Expressed differently, place-names are a candid, unstudied way of expressing the land-specific ties indigenous people have with their environments.

A more nuanced conception of ethnogeography is offered by Kolers (2009; 2012; n.d.) in his political philosophy writings on territorial rights. Arguing from the premise of place attachment, he defines ethnogeographic communities as those possessing a specific social ontology to land as well as a distinctive pattern of land use. Land is acknowledged as a basic necessity for dwelling and subsistence, albeit in a nonarbitrary sense. Kolers (2009; 2012; n.d.) argues that to determine a group’s eligibility for territorial rights, the bases of autochthonous status and occupancy alone are insufficient; alternatively, territorial rights would have to be a matter of ‘achievement’, through the meeting of certain conditions. These points are especially pertinent in an era where land is regarded as a means of global capitalist production and where the rights of impoverished groups to land are threatened by trans-scalar corporate investments of land and other resources (see e.g., Castree 2004; Li 2007; Zoomers 2010; Aiken & Leigh 2011, 2015). In other words, in view of securing rights for their communities, it is vital, even advantageous, for indigenous groups to exemplify and interpret the links between themselves and their territories, over and beyond their appropriation of cultural claims of autochthony (see Castree 2004; Aiken & Leigh 2011). Evidence of ties, quotidian as well as ceremonial or ritualistic, to the impetus of indigenous self-determination—land—is required to successfully defend the right to indigenous jurisdictional control of their ancestral lands.

4.2 The criterion of plenitude: indigenous toponyms, territoriality and cultural landscapes

In Koler's (2009, 2012, n.d.) view, to be considered an ethnogeographic community and be entitled to land, a group must fulfill the criterion of 'plenitude' or 'fullness' by proving: internal diversity (existence of different 'niches', e.g., culturally, ecologically and resource important places); external distinctiveness (a firm sense of place and boundaries in the community that distinguishes it from other communities); and feasible plans for maintaining the first two conditions into the future (engaging in sustainable practices that ensure the community's ongoing relationships with land). Kolars (n.d.: 21) remarks that these social-ontological requirements are 'metaphysical commitments about the nature of land and our relationship to it rather than a mere description of what is around us; and second, that [they are] culturally specific' (Kolars n.d.: 21). The notions of territoriality and cultural landscape, as explained through the functionality of indigenous toponyms, serve to demonstrate the fulfillment of the criterion of plenitude by indigenous communities.

Indigenous customary land is perhaps nowhere more recollected and referred to than in indigenous toponyms. The presupposition of a tangible geography in place-names, which indigenous societies have utilized to secure their remembrances, can be taken as one of the most fundamental structures underpinning collective life. Toponyms point to areas, sites, pathways and bodies of water considered significant for reasons of subsistence, territoriality, journeying and spirituality. Often, indigenous place-names offer literal descriptions of the environment, either as a way of reproducing to the senses the character of a place or physiographic feature, or as a marker of plant or animal resources in a given area (see Articles I & III; Cruikshank 1981, 1990, 2000; Brosius 1986; Afable & Beeler 1996; Basso 1996; Kari 1996; Fair 1997; Jett 1997, 2014; Thornton 1997a, 1997b, 2008, 2012; Burenhult 2005, 2008; Fox 2006; Hercus et al. 2009; Hercus & Koch 2009; Raper 2010; Boillat 2013; Cogos et al. 2017). Other toponyms hold habitat information, such as spawning, birthing, over-wintering and nesting sites (Articles I & III; Cruikshank 1981, 1990; Kritsch & Andre 1993; Andrews & Zoe 1997;

Si & Agnihorthi 2014; Cogos et al. 2017). The ecological determinants of some toponyms can also point to various implements or materials used in subsistence activities, including dibbles, traps, arrows, darts, spears, sinew, bone and flint (Article III; Huber 1979; Kritsch & Andre 1993; Andrews & Zoe 1997; Collignon 2006; Heikkilä 2007; Si & Agnihorthi 2014; Cogos et al. 2017). Analogy is not unusual in names, as in the anthropomorphization of landscape features (e.g., mother/child streams or husband/wife hills; see Article III; Burenhult 2005, 2008; Hercus et al. 2009) or the comparison of the outline of physiography to elements of material culture (e.g., the shapes of geographical features resembling cooking or hunting implements or habitation structures; see Article III; Cruikshank 1981, 1990; Fair 1997; Jett 1997; Hercus et al. 2009).

Other than indicating various subsistence and ecological niches, indigenous toponyms show that the materiality of places is a condition for remembering community history as well as serving as a stimulus for moral reflection (e.g., Articles I, III & IV; Harwood 1979; Rosaldo 1980; Cruikshank 1981, 1990, 2000; Bonnemaïson 1994; Basso 1996; Fox 2006; Hedquist et al. 2014). Indigenous cosmogonies, past narratives, and other oral traditions are therefore generally found to be associated with landscape features. Indeed, the physicality of indigenous customary territory provides the needed context for oral traditions, their ritualistic, moral and symbolic significance gaining in meaning through personal encounter with places in the landscape. An environmental or subsistence priority in indigenous place-naming shows that at least ancestrally, subsistence livelihoods were carried out in an area. Nonetheless, knowledge and use of indigenous toponyms in the present indicates a continuance of engagement with land and the essence of customary territory in indigenous cultural forms, languages and selfhoods. In order to know and use ancestral toponyms, a deeply-rooted sense of territorial affiliation must be present in an indigenous community.

Within the bounds of territory, the customs of land tenure prevail (see section 6). Territorial identity and sense of place form from living and working on customary land; place-names demonstrate the material and emotional attachments to places as well as suggest a community's linguistic, cultural

and territorial distinctiveness from mainstream communities. Indeed, a key aspect of territoriality—the spatial organization of people and things into territories—is the notion of boundaries, breaches to which, as in the case of non-indigenous contact, have transformed native territories into landscapes of domination. These have emerged through the regimes of surveys, official mapping and place-naming, and subsequently, land development and settlement. Resistance to these forms of indigenous disempowerment is found in indigenous social power, deployed through the resilience of indigenous territorialities, livelihoods, cultures and languages. The landscapes of domination on indigenous territories are counteracted by the landscapes of memory and morality—memoryscapes (Nuttall 2001) and moralscapes (Article III). The production of these landscapes involves the ‘mnemonic means [of dwelling, work and perception] by which customary law is memorized in the substance of the land...’ (Olwig 1996: 634; see also Merleau-Ponty 1962 and Heidegger 1962 as discussed in Casey 2001 and Ingold 2000). The role of ancestral place-names here as ‘conduits’ of specific worldviews, histories and ‘narrations of identity into the landscape’ (Alderman 2008:205) draw on the materiality of indigenous customary land and its cultural meaning. The existence of ancestral place-names and their continued use by indigenous communities suggests the possession of a distinct, viable place and group identity as well as a unique land base for this identity to flourish.

By addressing the imprint of indigenous custom on the landscape and the influence of place on identity formation, the concept of cultural landscape suggests that indigenous customary lands are a precondition for indigenous cultural and generational continuity. The concept is especially amenable to indigenous socio-cultural contexts as it covers culturally-significant geographical features, material culture (tangible heritage) and oral traditions (intangible heritage) (Article III; Jones 2003). Place-making, ‘the way in which the physical surroundings, whether of natural or human provenance, are structured and shaped in people’s minds begin[ning] with the naming of landscape features and places’ (Jones 2003: 32), is useful in comprehending how the notion of cultural landscape complements indigenous reckonings of territory, belonging and history. In their roles of labelling and locating places in

the physical landscape as well as encapsulating and communicating cultural meaning, toponyms reproduce the nodes and networks of indigenous emplacement. The notion of holism in indigenous worldviews is borne out in place-names: the unity of humans with the earth and non-human beings (Povinelli 1995; Nadasdy 2007; Gomes 2016) is reflected in the names of places (Article 1, III & IV). This vision entails ontological, epistemological and metaphysical understandings, articulating a multivalent interest in land that continues to be valid and real for indigenous peoples in present times (Jacobs 1988).

5. Methodology

This qualitative study began with a collaborative investigation of a minor sample of previously-documented Dakelh place-names and advanced to a solo field documentation project on Semai place-names. The progression has been one of orientation and immersion in a research topic that I initially regarded as esoteric and uncanny, to forming a grasp of the utility of indigenous toponyms, especially their pedagogical potential, to gaining the experience of documenting toponyms firsthand. Interviews and an analysis of the ethnographic literature were conducted in both place-naming frameworks to provide as composite a picture as possible of the toponyms' etymological and etiological contexts. My Semai study provides a more considered look at the role of place-names in reconstructing or piecing together indigenous communal histories, including continuities and changes in territoriality. The focus has been on understanding indigenous toponyms as evidence of ongoing indigenous connections to customary territory.

5.1 Rationale

In my Dakelh place-name research with TI'azt'en Nation, I was interested in the idea of a correspondence between the intactness of natural habitats and the continued use of indigenous place-names (Article I; Heikkilä 2007). The questions of interest to me dealt with examining toponyms as a means of documenting Semai knowledge of the forest. From working on Dakelh place-names and being familiar with the literature on indigenous place-naming, there was naturally the assumption of the names containing meanings or associated narratives linked to indigenous notions of wayfinding and resource utilization. Additionally, I was interested in investigating place-name bestowal conventions, that is, how knowledge of place-names is acquired and passed down to the younger generation, existing indigenous cartographic traditions, and if place-names somehow suggest values linked to safeguarding the health and longevity of forests. Notably, the latter focus reflects a claim in the human

ecology literature of the existence of indigenous ethnoscientific knowledges, and environmental stewardship and conservation ideals or practices (see e.g., Berkes 1999; Grenier 2000; Johnson 2010; Boillat et al. 2013).

These questions were subsequently recast against the broader, pressing issues of the progressive loss of natural habitat in Malaysia as well as the attendant state policies that gravely impact Semai and other Orang Asli groups. As underscored by Riboli and Tacey (2013: 12), ethnographers shoulder the critical responsibility of reflecting on ‘the complex webs of power within and across the communities [they] work with, between minority ethnic groups and their more powerful neighbours, and between these communities and State actors’. Although my interests were primarily vested in the specific and intricate task of documenting toponyms and their meanings, I began to understand my toponymic research as a means to grapple with the problem of indigenous land, particularly its meaning to contemporary indigenous peoples who seem to have the option of becoming part of mainstream, non-indigenous society. Thus, while my place-name investigations would bind me to ‘the micro-level of... villages’ (ibid.), my overall analysis of Semai toponyms had to take into account the contentious issue of indigenous customary territory and the meaning of being indigenous in the present century.

Over time, the idea of a robust knowledge of traditional toponymy reflecting the intact, uncompromised nature of indigenous customary territories developed into a new but related focus. The issue of access to customary land was important, I reasoned, from following Tl’azt’en Nation’s land claims negotiations with the Government of British Columbia. The idea of unimpeded access to land which enable indigenous people the option of relying on forests for subsistence, spiritual and cultural purposes was thus appealing, as was the connection between indigenous occupancy, use and knowledge of land. Albeit indigenous land claim negotiations strategize on ‘politiciz[ing] an enduring but evolving connection with the land in such a way that resonates with environmentalist and advocacy movements’, the underlying message of these negotiations is one of unwavering insistence on the totality or ‘absolute space’ of indigenous customary territory for the continuance of ‘direct experience

and knowledge in place' (Larsen 2006: 319). Access to land, and not only an undisturbed, pristine physical land base, is therefore necessary as a condition for keeping intact a community's geographical knowledge and place-names.

I first made inquiries about conducting research with the Orang Asli while planning my project with TI'azt'en Nation. Due to a much cherished memory from childhood of having travelled through their territories en route to the Cameron Highlands, the Orang Asli communities of Peninsular Malaysia have always held a particular fascination for me. My initial point of contact was Colin Nicholas, who heads COAC (Centre for Orang Asli Concerns), an NGO involved in advocating for and disseminating information on the various indigenous groups of Peninsular Malaysia. Nicholas' correspondence revealed a pressing need for toponymic research to be carried out with the Orang Asli. As with the urgency of mapping indigenous customary lands, the documentation of indigenous toponyms was reasoned to be critical for the purposes of asserting a group's rights to land as well as protecting places of material and spiritual importance. Toponymic documentation was understood as a means to 'ground-truth' indigenous oral tradition accounts and land occupancy claims (Nicholas, pers. comm., 10/02/2003).

In a forceful paper addressing Orang Asli oral traditions, Nicholas (2004: 5–6) describes how Orang Asli toponyms fall into disuse when translated into Malay, the national language of Malaysia. Replaced by their translated Malay forms, the indigenous names of places eventually become redundant and forgotten. He (ibid.) argues that 'in the absence of documented versions of the Orang Asli place-names, it becomes increasingly more difficult for the Orang Asli to assert their primal presence in...places'. The need for Orang Asli place-names to be documented for reasons of cultural posterity has been additionally raised by Bah Tony, my principal informant (pers. comm., 04/04/2012): not only are the names of places important from a land entitlement perspective but their value as linguistic and indigenous knowledge resources make them worthy of preservation as elements of

Semai cultural heritage. Therefore, notwithstanding the present study's academic orientation, there is a need at the grassroots level for performing the field collection of Semai and other Orang Asli toponyms.

In contrast with TI'azt'en Nation's Traditional Use and Place-Name Studies (see Articles I and II) project, no concerted documentation of Semai toponyms has ever been undertaken by the communities themselves or by outside researchers. This generally seems to be the case for place-names in other Aslian languages too, except Burenhult's (2005, 2008) linguistic research on Jahai (northern Aslian) toponyms and geographical terms. There are sporadic references to Semai place-names, for example, in Evans' (1915) and Edo's (1998, 2001) ethnographic descriptions but not to the analytical extent that Dentan's (2000b) and Nicholas' (2004) papers treat the subject of Semai toponyms. The latter two papers, although not treatises on place-names as such, consider the value of toponyms in reconstructions of Semai history (see Article IV) and 'being in place' (Aiken & Leigh 2011: 871). While useful in forming an initial conception of Semai toponyms (and indeed of affirming the existence of native language place-names among the Semai), Dentan and Nicholas' papers only discuss a small number of place-names. Furthermore, the toponyms raised in each paper are remarkable or atypical, discretely referring to the Rawa slave raids and to supernatural events. Also, three out of the four communities involved in this research have participated in community mapping exercises organized by NGOs such as COAC (Centre for Orang Asli Concerns), Pusat Komas and JKOASM (Jaringan Perkampungan Orang Asli Semenanjung Malaysia or the Peninsular Malaysia Orang Asli Village Community Network) (see Aiken & Leigh 2011: 482–488 for more information on community advocacy groups in Malaysia). However, the maps generated from these exercises only show the extents of land claimed as customary, and not the communities' place-names. Altogether, these circumstances justified the carrying out of toponymic field research.

Berleant-Schiller (1991: 92–93) emphasizes that empirical data collection in toponymic research strengthens the reliability of evidence used to make inferences about indigenous orderings and classifications of the physical environment. When working with TI'azt'en Nation, I employed an

approach aimed at examining secondary source information on a limited number of toponyms, addressing gaps and inconsistencies in the information with speakers of Dakelh, and constructing a set of guidelines for the application of Dakelh toponymy in Tl'azt'en Nation's science camp curriculum (Article I; Heikkilä 2007). The opportunity to conduct primary data collection in the latter phase of the research, thus, compensated for its nonrealization in my Dakelh place-names project (see Article II). Planning the field collection of Semai toponyms from the ground up afforded a greater degree of control over the consistency and quality of the resulting place-name documentation and analysis. The challenge of having to work with a negligible sample of toponyms and related oral tradition accounts (see Article II), for instance, were offset in my Semai project through engagement in more extensive ethnographic fieldwork.

5.2 Research setting: Bukit Tapah Forest Reserve

My toponymy research was conducted in three periods from 2010 to 2014, for a total of eighteen months, with four Gòòl-War Semai communities residing in the Bukit Tapah Forest Reserve (also known as the Tapah Hills Forest Reserve): Kampung Batu Empat Belas, Kampung Pos Woh, Kampung Ampang Woh and Kampung Woh Inték (figs. 3 & 4). The establishment of Tapah in 1889 as the colonial administrative centre of the Batang Padang district propelled the surveying and mapping of at least the forested foothill areas adjacent to the town. These areas were within the traditional foraging territories of the Gòòl-War Semai and were, in time, settled permanently by their communities due to the opportunity to benefit from trade, tin-mining, rubber cultivation, and wage work (as day labourers, porters and guides).

Forty years later, in 1929, the mainly untouched forest lands northwards of the town were designated as a forest reserve. Until today, the Bukit Tapah Forest Reserve includes much of Semai customary territory. Harper (1997) describes the machinations of the British colonial government involving the said forest reserve. Under the control of the Conservator of Forests, hundreds of hectares

Fig.3 Bukit Tapah Forest Reserve (Tapah Hills Forest Reserve), Batang Padang District, Perak

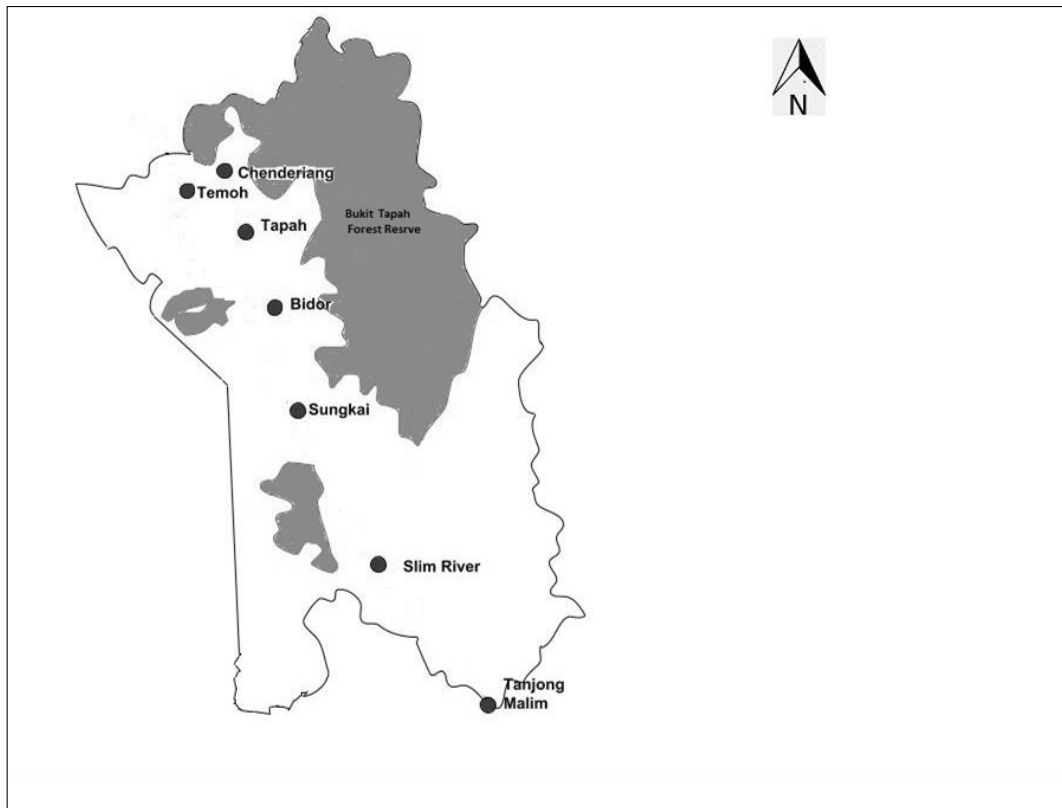
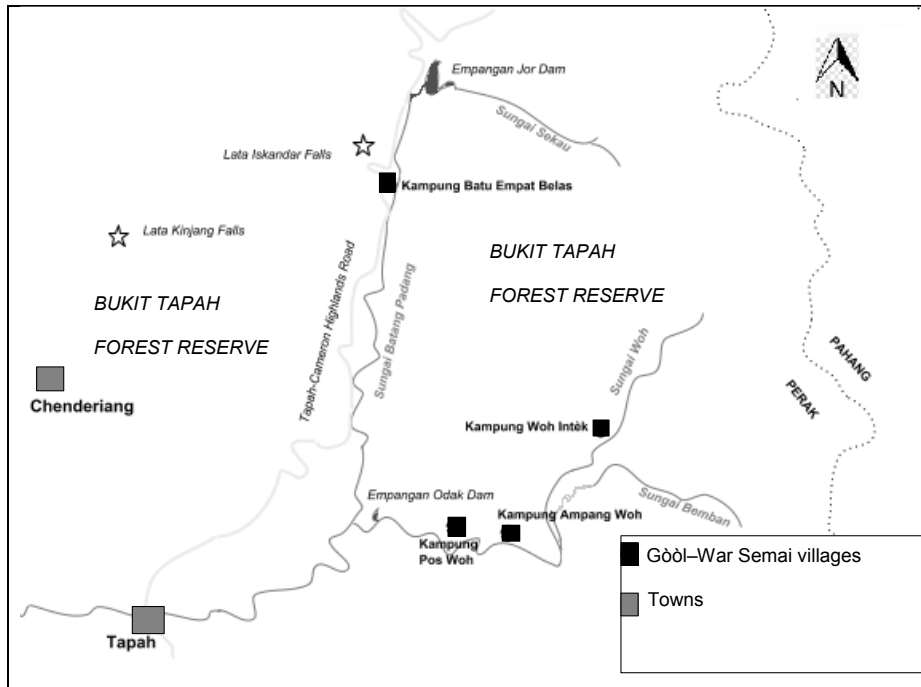


Fig. 4 Gòl–War Semai villages that participated in the research



of the Semai forest homeland was policed to guard against soil erosion and the loss of valuable tree species caused by illegal felling and mining activities. This spelled the beginnings of systemic economic and ideological control of the Semai.

In reality, the Bukit Tapah Forest Reserve has never been a conservation forest as such, and over the years, miscellaneous land development has occurred within its confines. It is a 'reserved' forest, set aside for the production of timber, commercial crops, energy and recreational opportunities (see Article III). Semai living within the forest reserve seem to be 'naturalized' and alienated at the same time; they have no title to reserve lands and similar to other Orang Asli, have no guaranteed tenure of land despite their autochthonous status. They seem a natural, taken-for-granted feature of the reserve but the underlying politics of access and rights to the reserve suggests the contrary.

The Forestry Department's (*Jabatan Perhutanan*) policy of curtailing the Semai traditional practices of shifting cultivation and arboriculture places the Semai in the ambiguous position of being simultaneously 'a people of the forest' and tenants-at-will (squatters) at the mercy of the Forestry Department's edicts (Edo1998). While legally protected by government legislation—the National Forestry Act [1984], Protection of Wildlife Act [1972] and the Aboriginal Peoples Act [1954, revised 1974] (Gill et al. 2009)—which enables them to hunt, trap, fish, collect forest produce and farm for subsistence in forest reserves and parks, these rights can be extinguished de facto when state or private sector development occurs in these areas (see Edo 1998; Aiken & Leigh 2011; Aiken & Leigh 2015). For instance, at the time of fieldwork, interviewees voiced concern about increasing Forestry Department surveillance in the War river portion of the forest reserve. In 2012, signage threatening fines for the removal of forest resources were placed intermittently along trails leading to Semai swidden and tree stand sites in the forest. These ad hoc type restrictions, accompanied by land surveys, cause much trepidation in the communities. In 2014, the Department of Orang Asli Development (JAKOA or *Jabatan Kemajuan Orang Asli*; formerly, Department of Orang Asli Affairs or

Jabatan Hal-Ehwal Orang Asli) delivered a land use questionnaire to Semai headmen, asking for estimations of land required for farming and foraging. Not only was the time span of a week to complete the questionnaire unreasonable but the questions themselves, which presumed a fixed and quantifiable quality to Semai land use practices (not unlike that associated with commercial agriculture).

It is estimated that roughly 70 Semai villages are located within the 100,000-hectare forest reserve. According to the Department of Orang Asli Development census data (2011), the populations of these villages are as follows: 1) Kampung Batu Empat Belas: 387 individuals or 85 households; 2) Kampung Pos Woh: 222 individuals or 50 households; 3) Kampung Ampang Woh: 237 individuals or 51 households; and Kampung Woh Inték: 97 individuals or 20 households. Two major drainages, Tééw Gòl (Sungai Batang Padang) and Tééw War (Sungai Woh), bisect village lands. Apart from Kampung Batu Empat Belas, which belongs in the Tééw Gòl system, Kampung Pos Woh, Kampung Ampang Woh and Kampung Woh Inték belong in the Tééw War system, their inhabitants speaking a similar dialect of Semai. Although the dialect of Semai spoken in Batu Empat Belas differs from that spoken in the War river area, there is mutual intelligibility among speakers due to the rule of cross-village marriages among Perak Semai (see Phillips 2012). It is not uncommon, for instance, for people of different village affiliations to reside in their spouses' villages for a time or even permanently. Cross-village marriages also create the situation where in-laws and other cross-kin change residence from time to time. Such fluid residential patterns result in the learning of other dialects and about other territories (Robarcheck 1980a).

The word *kampung* or 'village' in the official names of Semai settlements is Malay, and each so-called village in effect comprises a number of hamlets (figs. 5, 6 & 7). In the first field site, Kampung Batu Empat Belas, most villagers perform a combination of wage work and agroforestry for a living. These activities are supplemented with hunting, fishing and the gathering of wild plants. Only a few households still engage in swidden agriculture but yields are generally insufficient to maintain their families.

Fig. 5 Kampung Batu Empat Belas hamlets

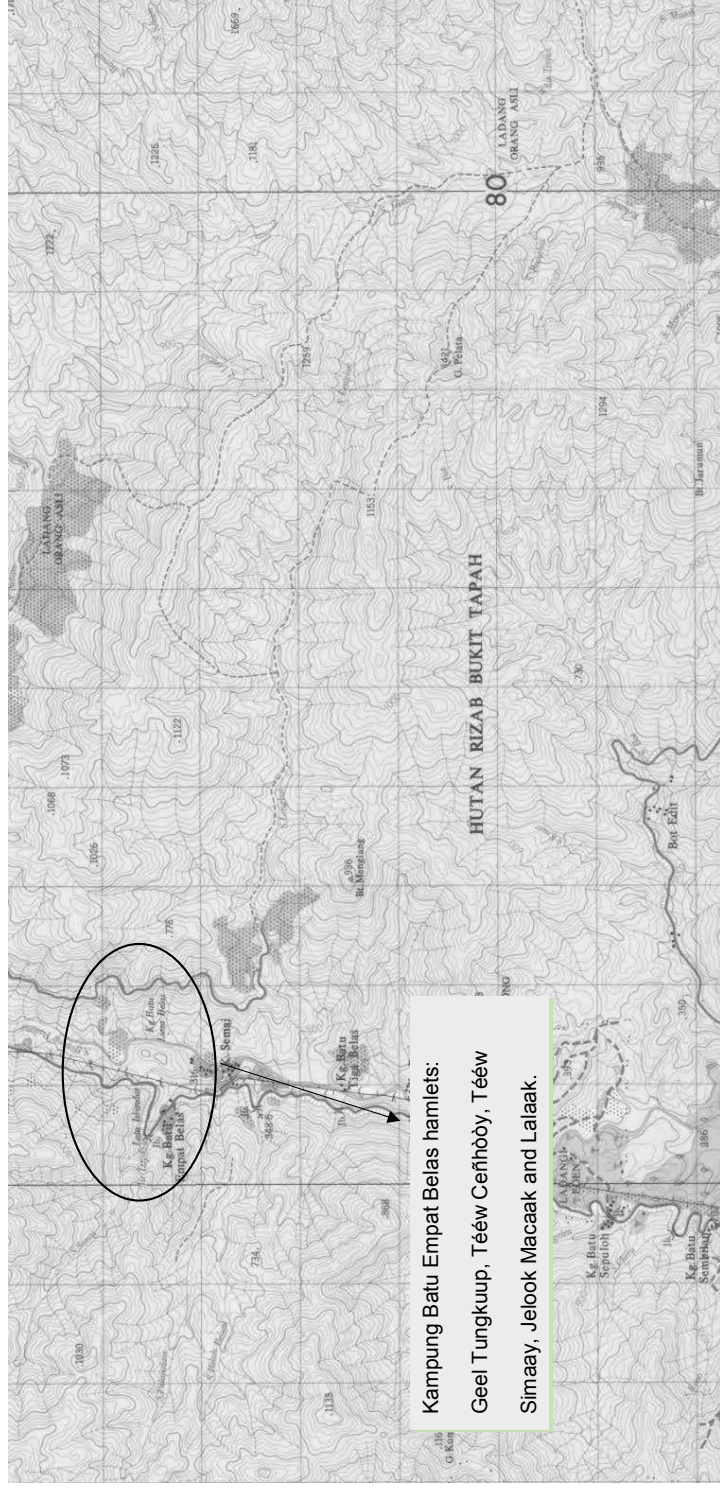
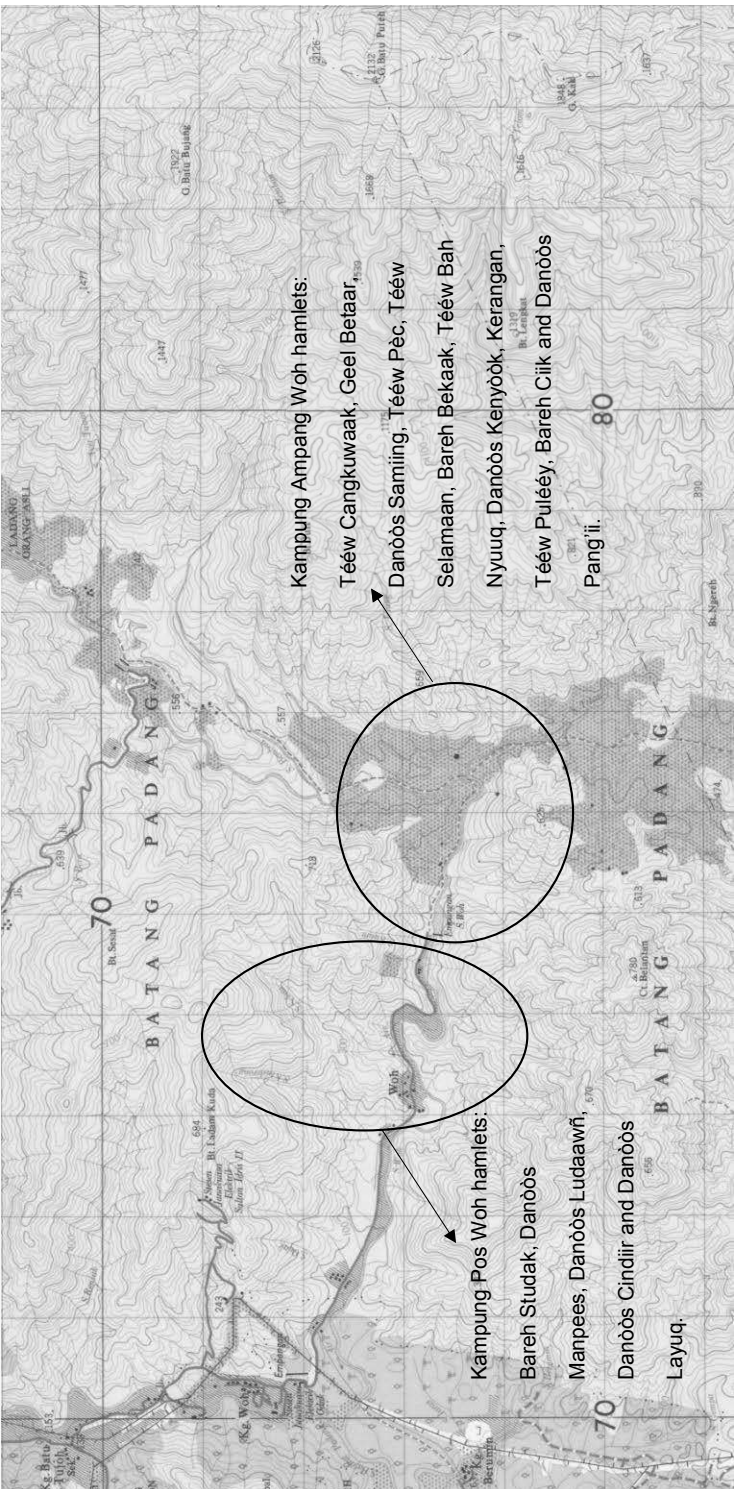


Fig. 6 Kampung Woh and Kampung Ampang Woh hamlets



[illegible]

To survive, these households engage in occasional wage labour and the marketing of handicrafts and non-timber forest products (e.g., orchids, mushrooms, herbs, honey, butterflies, frogs). Traditionally too, the Semai economy has been highly diversified in character, a major reason being to mitigate the constraints of crop failure (see Gomes 2004). Most villagers have lived in Batu Empat Belas their entire lives, although some trace their lineage to other river valleys. Notwithstanding the residential flux that results from cross-territory marriages, the Malayan Emergency (1948–1960; also ‘Communist Insurgency’ or ‘Communist Insurrection’) was a major reason for the mix of different dialect groups in certain villages (Edo 1998). Batu Empat Belas was one of three villages in the greater Tapah area to have become an Orang Asli internment camp (Robarchek 1977; Gomes 2004).

Set up by colonial security forces, internment camps were established to prevent the Orang Asli from abetting communist insurgents whose hideouts strewed the forest. Some Orang Asli voluntarily moved to these camps, while others were forced to resettle in them. Gomes (2004: 66) describes the camps as cramped and disease-stricken places that held up to a thousand people (more than ten times the population of a large Orang Asli village); the wretched conditions of the camps psychologically scarred the Orang Asli and ‘left an indelible mark on [their] perceptions of government intervention in general and re-settlement in particular’. The village’s sense of history, its communal memory, was disrupted in this state of unrest. It was observed in this research that villagers could effortlessly provide itineraries— the place-names encountered from point of origin to point of destination— but were generally ignorant of place histories and toponym meanings. This was also true of people considered *maay pasak* (‘ramage’ or descendants of the original people or landholders of the village); the internment process, lasting at least for the duration of the Malayan Emergency, clearly effected changes in the village’s makeup and routines. Donaldson (2009: 228) observes that place-names become lost to memory during periods of upheaval, when people are faced with the reorganization of their lives by outsiders. During such periods, there exists the possibility of significant changes to travel routes, subsistence areas and the means of survival along with the numbers and

kinds of people who inhabit a given region. Adhering to this argument, it may be possible that toponyms known and used in Kampung Batu Empat Belas are of more recent coinage (see section 6.2).

Further changes to the village's population occurred in the 1970s, with Tééw Lengkeek Semai relocating downstream; some families established themselves in Geel Tungkuup and Tééw Simaay, while others went on to reside near Empangan Jor, part of the Jor river hydroelectricity impoundment facility, located approximately five kilometres upstream from Kampung Batu Empat Belas (Bah Tony, pers. comm., 11/05/2014). Several families in Kampung Batu Empat Belas, thus, trace their ancestry to other river valleys (Robarchek 1980a).

Kampung Pos Woh, the second field site, was originally a jungle fort, established by the colonial authorities to assuage Orang Asli fears stemming from the desperate conditions of the internment camps. The intention behind the creation of forts or posts (*pos*) was to regain Orang Asli trust through the provision of health care and education (Gomes 2004: 66). The vernacular place-name, Pos Klinik ('clinic'), still in use by Semai living in Pos Woh, links the village to its historical role of medical centre that once administered to surrounding Semai settlements. The jungle fort also drew Semai from remote uphill areas; besides the benefits of health and education, residing downriver made trading convenient, especially the direct marketing of forest produce to buyers in other villages and towns (see Gomes 2004: 9). Today, Pos Woh villagers engage in a mixed economy of occasional wage work, swiddening, animal husbandry and agroforestry.

Upstream of Pos Woh lie the villages of Kampung Ampang Woh and Kampung Woh Inték, the third and fourth field sites. Both village names hearken back to the beginnings of Malaysia's nationhood. Kampung Ampang Woh (lit. 'village dam Woh'), is located near the initial site of a reservoir built by the British to supply potable water to the Batang Padang area. After Malaysia gained independence in 1957, an intake dam was constructed further upstream of the Woh river, in the environs of Kampung Woh Inték (lit. 'village Woh intake dam') to meet the water supply needs of the town of Tapah and lower Perak. Perhaps owing to their remoteness from the urban centres of Tapah

and Cameron Highlands, the practice of subsistence farming is still carried out in both Kampung Ampang Woh and Kampung Woh Inték. The proviso of relative location from roads applies, all the same, in the sense that hamlets such as Cangkuwaak, Geel Betaar, Danòòs Samiing and Geel Galuuq are located closer to roads than the more interior-based hamlets. Thus, in these four hamlets a mixed economy dominates, the difference to Pos Woh being a lesser reliance on store-bought food and a continuation of swiddening (hill rice, tapioca, maize, and miscellaneous vegetables) alongside arboriculture. Hunting, trapping and fishing are carried out opportunistically, in tandem with farming. As in other villages, these activities are performed during trips to swidden or tree stand sites in the forest.

The livelihoods of the above four villages are, to a greater or lesser extent, driven by the informal forest products economy. It was observed in all four villages that cash income was never spent on fertilizer or seed. Oil palm, is an exception, in that seedlings are supplied to villagers by the state rural development agency, FELDA (*Jabatan Kemajuan Tanah Persekutuan* or the Federal Land Development Authority). Otherwise, seeds and cuttings (see Dentan 1972) are shared and exchanged among Semai settlements, and cultivation performed organically. *Baaq* or hill rice¹, which is becoming a rare crop in many Semai territories, is nonetheless still grown by communities such as Cangkuwaak and Bareh Ciik. Comparable to wild food and medicinal plants that have a strong local provenance, *baaq* is preferred to store-bought rice and has come to signify a traditional Semai food (see Gomes 2004: 77).

¹ Historically, hill rice came to replace *peey* or fox-tailed millet (*Setaria italica*) as a staple; Dentan (1968: 47) notes that Pahang Semai communities, for instance, began planting hill rice relatively recently, that is, sometime in the early twentieth century.

5.3 Ethnographic fieldwork

The use of ethnographic methods in this research enabled insight into the functioning of geographical nomenclature and toponyms within the wider context of Semai sociocultural and spiritual ties with the forest. By living and journeying with Semai, it was possible to obtain a characterization of the etymologies and etiologies of Semai toponyms. Over 900 hours of conversation were held with villagers and occurred during forest treks, visits to households and formal sit-down interviews.

The key informants of this project were a group of ten men over the age of 50: Apak Jijah, Cikgu Ali, Bah Ayub, Tok Duni, Bek Terus, Bek Nuar, Tok Kenyan, Tok Baluuq, Bah Tebu and Bah Tony. All, except the latter, are involved in agriculture as well as subsistence harvesting in the forest reserve. Bah Tony (Anthony Williams-Hunt), the son of P.D.R. Williams-Hunt, a British anthropologist, and Waq Draman, a Tééw Samiing Semai, is a practising lawyer and erstwhile president of POASM (*Persatuan Orang Asli Semenanjung Malaysia* or Orang Asli Association of Peninsular Malaysia), the umbrella organization representing the interests of the peninsular indigenous groups. Raised among his mother's people, Bah Tony speaks Semai as a mother tongue, learned to hunt and fish from his grandfather and spent his early childhood and school holidays in the deep jungle settlement of Bareh Ciik.

A revered community leader, Bah Tony's involvement in and enthusiasm for the research vouchsafed the cooperation and support this project received from the Semai communities. Bah Tony assumed the role of gatekeeper and key informant in this research. Upon receipt of a Malaysian Research Permit to conduct my study in the state of Perak, he also assisted with selecting my first research location. Recommending that I begin work in an easily reachable, forest-fringe community, he placed me in the care of his sister, Waq Zaini, and her family, in Kampung Batu Empat Belas. This was meant as a lenient and gradual immersion into the overall exceedingly basic living conditions in Semai villages. One of few formally educated Semai, Bah Tony has acted as my co-author (Article V) as well as reviewed and commented on drafts of publications and conference papers for this research. His

comments and suggestions have helped to ensure an accurate representation of the Semai language and cultural concepts in the research products.

Through this group of ten men, other informants were recruited to participate in the project; individuals with extensive harvesting experience were prioritized as research participants due to the specific task of documenting the names of places in each customary territory. In total, 40 individuals, both men and women, ranging in age from 20–80 made up my informant base. In all research sites, time was devoted to accompanying individuals or families to their subsistence areas and to participating in household and communal activities.

The three months at the first research site, Kampung Batu Empat Belas, served as a pilot phase; in this village, the interview guide as well as place-name retrieval methods were trialled and refined. This phase of the research importantly served as an orientation to the Semai language and customs, in particular the use of Semai geographical nomenclature and landscape terms. A functional geographic vocabulary was developed by eliciting the names of physiographic phenomena, forest ecotopes (e.g., primary and secondary forest and bamboo-dominated niches) and culturally-modified sites (e.g., swiddens and groves). Floral and faunal species names were also learned from their frequent appearances in toponyms.

The opportunity to work in the remaining research sites— Kampung Pos Woh, Kampung Ampang Woh and Kampung Woh Inték— arose out of practical considerations. Firstly, several Batu Empat Belas elders concerned about the lack of translations obtained for toponyms in their customary territory, suggested that the assistance of War river Semai be sought to ascertain the meanings of these names. There was a strong belief in the authority of War river environmental knowledge, based on the continuance of swiddening and the practice of *kebut*² in the area. War river toponymic

² Held in the dark, this animistic healing ritual involves trancing and is performed to cure serious illnesses. The Malay word *sewang* is sometimes used to describe such ceremonies. Another term in use is *be'aséq*, although this specifically refers to the dancing that accompanies *kebuts* or that performed during fruit harvests.

knowledge was therefore reasoned to be vaster than that of Batu Empat Belas Semai (Bah Ayub, pers. comm., 22/11/2010).

Secondly, because the process of seeking the assistance of Pos Woh Semai subsequently led to the opportunity of documenting toponyms in their customary territory, the idea emerged of extending the project to cover other Semai territories in the War watershed; this was to obtain as complete a record as possible of toponyms for this particular dialect group (Bah Tony, pers. comm., 05/04/2014). Of the five War Semai villages, three—Kampung Woh, Kampung Ampang Woh and Kampung Woh Inték—agreed to participate in the project. With the assistance of a main informant, Tok Duni, the downstream War villages of Kampung Kendrong (Geel Pèt) and Kampung Sungai Odak (Tééw Udaaq) were invited to take part in the project. Both communities, however, declined, due to the Forestry Department's sudden decision to survey their subsistence areas in the forest. There was concern that involvement in the place-names project would put the communities in an invidious position, viz. as conspirators of indigenous land rights.

5.3.1 Interview and data analysis

During interviews, informants were asked about the names of places known through the course of carrying out subsistence activities and travelling to other villages. The focus was on documenting the etymologies and etiologies of toponym determinants as well as the geographical referents contained in the names. Initial attempts to document the names of places where the activities of arboriculture, hunting, gathering and fishing were carried out proved somewhat restrictive in terms of the number and type of toponyms obtained from informants. A problem with recall was also noted when informants were asked to provide place-names linked to past events or appearing in folklore. These approaches were modified to one that focused on obtaining place-name itineraries and subsequently working through the meanings as well as discussing other topics of relevance to interviewees (e.g., fruit or rubber tree holdings and the uses of wild plants).

Sketch maps proved a useful means to stimulate discussion about toponyms. Informants were provided with art block paper and pencils to prepare maps of forest areas routinely traversed. The maps, typically depicting harvesting areas, trails, streams and landmarks, functioned as a prop in interviews and facilitated the listing of places passed en route to harvesting areas or neighbouring villages. The method of documenting toponyms by itinerary resulted in a systematic, spontaneous recall of toponyms and their origins and meanings; the map-like character of memorized routes was revealed, suggesting how places and the sensory associations vested in them serve as points of bearing when travelling through the forest. Importantly, data triangulation was accomplished in the course of documenting place-name itineraries; active utilization of the forest, rooted in the observance of the *caaq samaaq* or continuous sharing (see section 6) principle, has ensured a confident and practised communal knowledge of various places in the village territories, evidenced by the general concordance between informant accounts.

Official maps were at hand during interviews for informants to peruse; this not only assisted in determining the general orientation of the areas under discussion but prompted recall of place histories. The origins of several official toponyms, for example, were discovered to be corruptions or Malay translations of the original Semai names of places (see Article III). Asking informants for their knowledge and understanding of narratives behind names provided the etiological context of toponyms. A handwritten list of toponyms and their meanings was maintained during each interview. Additionally, a field diary was kept for recording insights gained from the data, additional or follow-up questions, and general reflections of the fieldwork context.

Malay, which Semai speak as a second language, was used in all my communications with the informant communities. Being conversant in the language was an overall advantage. As Bah Tony (pers. comm., 15/01/2012) remarked, it enabled immediate and direct access to my informants without first having to acquire a working proficiency of Semai. Nonetheless, older people, it was discovered, generally speak a form of rudimentary Malay and needed to hear and respond to questions in Semai. In

instances where informants were over 70 years of age, Waq Ladi, my research assistant, translated interview questions into Semai and subsequently, informant responses into Malay.

Where possible, follow-up treks were undertaken to sites mentioned in interviews, to supplement interview data with a GPS and photo record. Additional names, such as those of distant hills or old settlement sites, not shown on sketch maps, were obtained during the treks. Likewise, data verification, performed in 2014, presented the opportunity to not only clarify the locations, spellings, etymologies and etiologies of already documented toponyms, but augment the existing corpus with the recording of miscellaneous interlinked or cognate sites and their names. For instance, the attempt to complete the listing of the headwaters and terminuses of streams as well as the oronymic or hydronymic systems to which ledges, hillside grooves, and gorges belong, boosted the existing sample of place-names. Part of the verification phase was spent visiting Semai villages in other areas of Perak and to the regroupment scheme of RPS (*Rancangan Pengumpulan Semula* or Regroupment Scheme) Pos Betau in Pahang, to obtain a general idea of toponyms from these areas.

Approximately 600 Semai toponyms were documented during this research. It should be emphasized that a collection of samples of—rather than all— existing toponyms in each of the four Semai communities was achieved. Rivulets, branching off larger streams and leading to places further into the forest interior, were not consistently discussed in interviews, unless such areas were under current use. Given the sheer abundance of streams in Semai country, it is estimated that the total number of toponyms in existence is at least double the number of toponyms collected in this research. From the standpoint of informants, the toponyms documented in this research represent places of *sakaaq* (hereditary) importance, that is, in the senses of subsistence, historic and cultural value. Additional time than that afforded by this research, would have been necessary to delve into the tangential or minor stream areas that are, all the same, a part of the fabric of each customary territory. All interviews were audio-recorded and subsequently translated into English and transcribed. The toponyms themselves currently exist in the form of a numerically coded Excel spreadsheet, each row

containing: a Semai name transcribed according to the orthography developed by a Summer Institute of Linguistics dictionary project (see Ngah Aching & Bah Yit 2007); variant names (official or otherwise); geographic referent; translation or gloss; and narratives connected to the name and/or place. Interview transcripts contain analytical insights in the form of annotations and cross-references between interviews (Himmelman 2006: 23). This system of 'open coding' led to the construction of a set of 'theoretical memos' that contained salient themes for deeper reflection and conceptualization (Crang 2005: 222–223).

The documentation and analysis of the data are inherently an amalgamation of emic and etic perspectives (Brodt 2001: 105; Crang 2005: 225). The semi-structured character of interviews allowed informants to speak freely and redirect the course of the interviews, as needed. The use of Semai terms and expressions was encouraged in interviews and transcribed verbatim to retain their emic character. The eventual production of meaning was achieved when the copious pieces of individual interview datum were cohered into a comprehensive form from an etic perspective. In terms of the toponyms themselves, the focus on the meanings rather than on the structural properties of Semai place-names was justification for employing Ritter's pragmatic place-name semantic classification, as an initial system for categorizing the toponyms (Article III). Through subsequent analysis, the use of 'etic codes', namely 'those assigned by the analyst to describe events and attribute meanings and theories' (Crang 2005: 225), has necessitated a reorganization of Ritter's original ten categories under two main categories, archetypal and altered toponyms. This restructuring has also involved 'axial coding' (Crang 2005: 223) or the refinement of a larger category; for instance, the category of 'names referring to flora' has been restructured to include the discrete subcategories of trees and tree pairs (see section 6). Guided by a hermeneutic interpretation framework (Aitken 2005: 245), this typology is emergent; supplemental refinement is expected when the current sample of documented toponyms is augmented through further research.

5.4 Ethical issues

In the spirit of the UNDRIP (2007, United Nations Declaration on the Rights of Indigenous Peoples) and section VI of the TCPS (2010, Tri-Council Policy Statement) (see also Drugge 2016; Hardison & Bannister 2011), the ideal of minimizing risks and enhancing the benefits of research to informants was upheld throughout this study. It is standard praxis, and one mandated by university ethics review boards, for Canadian academics working with human subjects to abide by the Tri-Council Policy Statement. Section VI of the TCPS outlines best practices and recommendations for carrying out responsible, sensitive and respectful research with indigenous peoples. In the context of researching with the Orang Asli communities, Nambiar and Govindasamy (2010), while not directly referencing the UNDRIP, also stress the importance of fulfilling the obligations of informed consent, privacy and compensation to protect the rights of research participants.

As ethical review is not a formalized institutional process at Finnish universities, and since at the time of fieldwork there was no established protocol for researchers at Finnish institutions to follow when planning and conducting social science research on human subjects, I made the decision to abide by the UNDRIP and Tri-Council Policy guidelines. I reasoned that the former were important to consult given that the terms of the declaration have gained purchase on the consciousness or value system of Orang Asli community groups and NGOs (Nicholas et al. 2010). The latter were instructive when I planned and conducted my toponymic research with TI'azt'en Nation; the guidelines offered the same degree of mindfulness in planning and carrying out my toponymic research with Semai. For instance, the 'good practices' (TCPS section VI: 6.3–6.4; see also Smith 1999) of: treating the research as a partnership rather than only a data-gathering exercise; shaping the research to address the needs and concerns of the community; providing the community with opportunities to participate in the research not only as informants but as co-researchers, research assistants and in reviewing the findings of the research prior to publication; acknowledging the community in research products; and depositing a

copy of the data and research products with the community, are crucial issues for researchers working with indigenous communities to reflect on and incorporate into their research projects.

The aims of the research, expectations of participants, and uses of interview data were explained to all research participants in plain language terms, in both Malay and Semai. After obtaining their agreement to being interviewed and for their interviews to be audio-recorded, informants were asked if they had any questions about the research and were encouraged to seek clarification from the investigator or research assistant at any time should prospective queries emerge. Informants were paid an honorarium for their participation in the research and also assured of their right to terminate their participation at any stage of the research, without negative repercussions to them or their families. Consent to associate their names with quotes from their interviews was also obtained from each informant; all, except two informants, chose to attribute their names to the information they provided in interviews.

There was consensus on attribution being a crucial means for vouching the truthfulness of the information provided in interviews. For instance, it was communicated during interviews that not agreeing to have one's name associated with the information one provided would be tantamount to nullifying one's words or making them seem fictitious or concocted (Bah Ayur, interview, 9/11/2010; Apak Jijah, interview, 12/11/2010; Bah Pagaar, interview, 30/03/2012; Bah Tebu, interview, 18/05/2014). This sense of testifying to tradition, to collective knowledge claims, is shared by other indigenous societies, particularly in instances requiring the communication of indigenous understandings to non-indigenous audiences (see Castellano 2004; Janovicek 2006; Miller 2011). Ownership, in the sense of older people being the bearers and transmitters of oral tradition (see Cruikshank 1994: 414), thus requires that knowledge of their identities be linked to the information provided about territory and customs (Waq Zaini & Waq Ladi, pers. comm., 09/11/2010). Therefore, contrary to past research undertaken with Semai in which the names and village affiliations of informants were kept anonymous, this project— with the express, informed consent of its research

participants—makes available such information, adhering to the notion that ‘anonymizing interviews conflicts with [indigenous] tradition...[where] not identify[ing] speakers renders [narratives] meaningless’ (Janovicek 2006: 163).

Moreover, elders interviewed in this research expressed a desire for toponyms and oral narratives (*cermòòr* and *pasaal*) to be recorded as a bequeathal to their descendants. The wish to transmit knowledge of their customary territories via the media of books and maps arose during conversations (Tok Duni, pers. comm., 27/10/2012; Bek Terus, pers. comm., 16/04/2012; Bah Tebu, pers. comm., 23/05/2014), identifying a need for Semai oral tradition to be documented in writing. This will be honoured through the popularization of the results of this research. All research participants will be provided with a plain language report, accompanied by maps and a list of all toponyms documented in this research. Copies of interview recordings, maps, photographs, this thesis and any future publications emerging from it will also be deposited with Bah Tony for community use.

Making the research data public through academic publication channels also deserves some attention. The five articles that comprise this thesis were subject to two levels of review: indigenous community review, via particular research gatekeepers; and standard academic peer review. The importance of including indigenous communities in reviewing the products of research prior to publication has been discussed in detail in the literature (see e.g., Article II; Bishop 1998; Smith 1999; Battiste & Henderson 2000; Brown & Strega 2005). However, the issue of publishing as an ethical responsibility of researchers who work with indigenous people, merits some thought.

Particularly in the case of indigenous peoples who have no title to their ancestral lands, publishing the results of indigenous cultural research potentially stands as a means of producing ‘court proof’ or evidential records of contemporary indigenous links to customary territory. Moreover, the importance of publishing in reputable journals is a prerequisite as is ensuring that the data are represented accurately. In indigenous toponymy research, the latter would refer to such aspects as properly verifying documented place-name spellings, meanings and locations with key informants,

using an orthography that the community favours or whose younger generation can easily understand, and acknowledging the linguistic and cultural expertise of informants in publications.

Doing indigenous cultural research as a form of resistance, of talking or 'researching back' (Smith 1999: 7) or to address the 'great and pressing need [for knowledge] on contemporary affairs and conditions of [indigenous people]' (Deloria 1991: 461) is fulfilled when the research is published and subsequently utilized to promote and protect indigenous lifeways (Articles I & II). Specific to toponymy research with indigenous communities who still dwell in their traditional territories and speak their ancestral languages, publishing on their indigenous names of places could increase confidence in oral traditions as concrete evidence (rather than inconclusive or unsubstantiated hearsay accounts) of existing indigenous connections to ancestral territory (see Miller 2011). It bears reminding that such original source accounts can no longer be obtained where indigenous cultures have been annihilated or where, ironically, the locations and meanings of indigenous toponyms are salvaged and reconstructed from the written records of colonizers (see e.g., Australian cases in Hercus et al. [2009] and Hercus & Koch [2009]).

Fig. 8a Women preparing to weave roof *atap*, Tééw Ceñhòòy, Kampung Batu Empat Belas



Fig. 8b Selaay (swidden) at Bareh Daar, Kampung Batu Empat Belas



Fig. 9a Taking a break from petai harvesting, Bareh Penep, Kampung Pos Woh



Fig. 9b Harvesting rattan at the base of Lon Tumbòk, Kampung Pos Woh

Fig. 10a Historic Cebaaq Tenlòòp, Kampung Ampang Woh



Fig. 10b Roasting porcupine, Tééw Cangkuwaak, Kampung Ampang Woh



Fig. 11a A newly slashed and burned *selaay*, Geel Galuuq, Kampung Woh Inték



Fig. 11b Houses and gardens, Penooos Jòk, Kampung Woh Inték



6. Research Findings

As context for understanding the motivations behind Semai place-naming, particularly toponymic changes, this section begins with a discussion of Semai territoriality. In the case of T'lazt'en Nation and other Canadian First Nations, the legitimacy of indigenous claims to lands and resources has been demonstrated through systematic spatial and ethnographic accountings of traditional land use and settlement. In the Semai case, where such accountings are emergent (e.g., through community mapping), toponyms serve as a systematic means for understanding individual, familial and collective reliance on ancestral territories for physical and spiritual sustenance. As a whole, place-names demonstrate how land is actively utilized in the present for livelihood purposes due to the intricate place-name knowledge that Semai possess. My findings on Semai toponymy, discussed in the latter half of this section, exemplify this. Two foci are relevant to the idea of land as a definer of contemporary indigeneity: the extent to which tree toponyms could be said to reflect new senses of indigenous territoriality; and more generally, the types of patterns that are evident in such altered or recently-coined toponyms vs. archetypal toponyms.

6.1 Semai identity in land

The lives of contemporary Semai and other Orang Asli are undoubtedly influenced by their participation in the market economy as wage earners and consumers. The trend is widespread globally. In the T'lazt'en case, for example, European settlement in the 1880s, followed by logging and infrastructure development into the twentieth century not only led to a diminished land base for indigenous subsistence but a greater incorporation of T'lazt'enne in wage work. Nevertheless, similar to the Gòòl-War Semai communities, T'lazt'enne have a lingering sense of attachment to the forested landscapes of their traditional territories. Worthy of consideration is Hudson's (1984: 203) argument that indigenous participation in income-producing activities rarely results in an outright abandonment of traditional

subsistence activities. For Tl'azt'enne, wage employment resulted in the ironic effect of sustaining the bush economy (Hudson 1983: 223); cash was used as a means to 'maintain the means of [subsistence] production (rifles, snowmobiles, trucks)'. More fundamentally, the availability of land itself may be understood to be a sort of intrinsic means of production in that it has facilitated the continuance of hunting, fishing and trapping (Morris & Fondahl 2002: 13). Thus, family *keyohs* in Tl'azt'en Nation's territory may be said to 'represent a concrete expression of aboriginal territoriality' (Hudson 1984: 227). Importantly, this seems to be extant despite a transformed Tl'azt'en spatiality resulting from progressive bureaucratic curtailments to forest resources. This is also true of Semai, in that involvement in the cash economy, either through selling forest produce or performing wage labour, supplements forest subsistence and makes possible an indigenous, forest-dwelling lifestyle (see Gomes 1990, 1991; Avé 1988).

Semai, in general, favour living in or close to the forest even though their day-to-day activities largely revolve around acquiring goods and services from, and working and attending school in, nearby towns. For instance, in Kampung Batu Empat Belas, the most accessible research site by road, villagers work or go to school in Tapah. There is, all the same, a keen interest among people of different ages to continue living in proximity to the forest. Waq Ladi, who worked as a research assistant in this project, and her husband Bah Ayur, both in their mid-twenties, explained that living in the forest means being able to live a healthier, freer and more peaceful life than living in town (Bah Ayur & Waq Ladi, interview, 04/11/2010; Waq Ladi, pers. comm., 05/06/2014). They claimed that although villagers commute twenty kilometres per way daily to Tapah on treacherously narrow and winding roads, it was deemed a risk worth taking compared to living in town. Generally, villagers seemed unanimous in their belief that living in or close to the forest was synonymous to living well. A similar observation about Semai attachment to their forest territories was made by the Robarcheks (see e.g., Robarchek 1980b) in the 1970s and early 1980s when they conducted fieldwork in Kampung Batu

Empat Belas. To understand the desire among Semai to continue living in their forest territories, it is necessary to look at the meaning of land to Semai through their notions of territoriality.

6.1.1 Semai territoriality, social mores and wellbeing

A look at the values underpinning Semai land tenure assists in understanding how and why places are named. Shifting cultivation, including the planting and tending of trees in the forest, is an age-old practice and an integral part of Semai life (see Skeat and Blagden 1906; Robarchek 1980a; Dentan 1991; Gomes 2004). Dentan and Ong (1995: 59) remark that the forest has always been a 'tree farm' to Semai, suggesting that people planted trees wherever they wished in forests and that they could do so because communal land tenure prevailed. Thus, while people planted trees for themselves and their descendants, forestland as such remained communally-owned (Robarchek 1980a; Williams-Hunt n.d.). This arrangement still abides, at least in principle, in Semai communities.

Land profoundly encapsulates social meanings, as observed in Semai social relationships to place, defined through kinship and descent, which constitute Semai conceptions of territoriality and land tenure. The forest animates relationships to place, as seen in the way Semai place-names 'situate the particulars of the landscape in the whole of the forest realm...[fixing] geographical features, swiddens, [groves], graves, villages, people and events at specific locations within the forest' (Article III: 375). The forest is associated with specific ancestors, either long-since or recently deceased. A certain authority is exacted by the forest realm on social life (see Bird-David 1990; Gomes 2016). Individuals or families intending to open a swidden or plant trees often do so in areas that were once used by their parents or grandparents. Semai born in a particular territory are free to swidden, hunt, gather and fish anywhere within the bounds of their territories of origin. Nonetheless, the prevailing rule over time has been for people to revert to the sites formerly used by their forebears, which reveals the intention to subsist in areas where one's family has genealogical links.

Secondly, the authority of the forest manifests itself in the sharing of resources. The ideal of continuous sharing expresses Semai reliance on the forest for survival and group harmony. A figurative means of conveying simultaneously the ideas of equity, reciprocity and justice, *caaq samaaq* (lit. 'eat together') or continuous sharing is thus explained by Dentan (2008: 123): 'Eating together is a main Semai metaphor for sharing in general and caring in particular...when you share...you are not sharing your own property but giving fellow band members their share of the resources to which they are entitled as band members.' Robarchek (1980a) notes that while the use of territory is controlled by the *maay pasak* or ramage, the work of planting and harvesting is shared by all band members. Newcomers to a village without a territory to subsist or trees from which they could harvest fruit to sell, or a family with a poor or failed harvest, as a rule are asked to share in the work of planting and harvesting as well as in partaking of the harvest (or selling it and keeping the proceeds).

In this light, Semai forest interactions are based on socially-sanctioned practices and behaviours, propelled by an egalitarian ethos, which Woodburn (1982) defines as consisting of group consensus and individual freedom. Characteristic of hunter-gatherers and small-scale agricultural communities, these traits ensure a flexible sense of political authority that maximizes personal freedom (see Edo 1998; Scott 2000; Memmoot & Long 2002; Li 2007). Observed in the Semai understanding of *lengriiq* (ancestral or customary territory) (Dentan 1968; Robarchek 1980a; Gomes 2004; Williams-Hunt n.d.), freedom is at once conditional upon and a consequence of, group consensus. As the physical terrain under the tenure and usufruct of a particular river valley community, *lengriiq* is defined by Williams-Hunt (n.d.: 1) as follows:

Semai hold a holistic view of their land, looking at it in terms of [*lengriiq*], a "territory," in the geographical, ecological and political sense of the word. A [*lengriiq*] comprises, *inter alia*, hamlet localities, cultivated areas, fishing and hunting grounds, places of worship, burial grounds, streams and rivers, and forested areas where resources are found and exploited for cultural, medicinal, construction, and economic purposes.

Personal autonomy is guaranteed through group consensus as reflected in the notion of land held in common. Each person in a *lengriiq* has the right to access, and move freely through, land. Furthermore, the concept of *lengriiq* identifies the forest with territory, history and crucially, cultural identity (Williams-Hunt n.d.: 2). It serves the roles of: binding together individuals to form a local community; defining social relations on which the roles individuals play in their community is dependent; and perpetuating the Semai religion which is based on a firsthand, 'harmonious relationship with the ecological space in which [Semai] live' (Williams-Hunt n.d.: 2).

Breaches to Semai customary land use rules are therefore viewed as a grievous injustice. Encroachments of the *lengriiq* by outsiders to occupy and extract resources as well as encroachments on land already being worked on by others violate the ideal of *caaq samaaq* and the sense of distributive justice it engenders (see Williams-Hunt n.d.: 5-6). The notion of deprivation underlies such grievances; to use land within the *lengriiq* without the permission of the *maay pasak* or villagers currently farming it, is to insinuate the selfishness of the *lengriiq*'s inhabitants (i.e., as if land had to be encroached upon due to the impossibility of gaining permission to use it licitly). There is a moral element to this custom.

Comparable to *punan* or the misfortune that can result from being deprived of something, or *teñhaad*, the liability that is incurred from not sharing or depriving someone of something (Gomes 2004: 160; Dentan 2008: 127-128), land encroachments can result in ritual danger, namely the failure to obtain, or the onset of illness from consuming, food from the land (see Nicholas 1993 in Dentan 2008: 127). The authority of the forest is implicated here, too, as the forest is regarded as a supernatural realm, where taboos, or rather their consequences, are personified as spirits that bring illness or death when the moral order is disturbed (Dentan 2008: 4). As redress, a *bicaraaq* or community court is convened to adjudicate the grievance of land encroachments (Williams-Hunt n.d.: 5, 9); during the hearings, in which the *tok batin* or village headman assumes the role of judge, 'Semai talk freely about the benefits of the [*caaq samaaq*] system....to restore peaceability [in the event of] actions [that] have

disrupted *slamaad* (from the Malay *selamat* or safety), [the] public [good] and peaceableness' (Dentan 2008: 123). Crucially, the focus is on restoring a sense of wellbeing to all parties concerned and this sense of security stems from the coherence of the forest realm itself, mirrored in the predictability, orderliness and mutual support that community life thrives.

6.1.2 Making sense of changes to Semai territoriality

Gomes (2004) traces the transitions that have occurred in Semai territoriality to their participation in the market economy: as the Semai went from bartering to selling forest products, there emerged a pattern of individuals and families claiming sites for their own agricultural use. Based on my own fieldwork, I understand this pattern to have been flexible and largely non-proprietary— for reasons of practicality, Semai involved in the market economy claimed forest sites close to roads, main paths and their settlements to grow crops and trees in the early days of British rule. At this stage, the use of such sites was fluid and it was not uncommon for friends, in-laws and other 'non-kin' to plant in an area held by a specific individual or family. With the passing of time, however, it became necessary to have a formal system of governance, which was in part instigated by the colonial government's (and subsequently by the independent Malaysian state's) administration of the Orang Asli (Edo 1998). Williams-Hunt's (n.d.) argument that Semai customary land laws must be understood in connection with the concepts of *lengriiq* and *maay pasak* is important to remember here since these concepts may have arisen in response to two factors related to Semai security of tenure, namely defending territory from outsiders and regulating territory among Semai themselves.

The first factor relates to the mounting exploitation of Semai lands by surrounding communities of Malays and Chinese; in fact, such pressures forced people to reuse *pabel*³ (i.e., fallow land transitioning into secondary growth forest), which ultimately led to the disruption of the Semai system of rotational farming (Dentan 1968: 45). Uncultivated and overgrown with weeds, *pabel* was difficult to clear properly for planting. Furthermore, this problem caused nuclear families to reduce the size of their swiddens to one or two acres, which had the effect of decreasing the size of their yields (ibid.). Ostensibly, such disturbances to the Semai subsistence way of life necessitated the concept of *lengriiq*, which Dentan (2001) remarks is a borrowing from the Malay *negeri*, meaning ‘the living space under the occupation of a particular people’. Also, during the colonial period, a correspondence between tree and land ownership began to emerge: similar to the transformation of Tl’azt’en *keyohs* into inheritable entities, the introduction of *Hevea* rubber to Malaya by the British, seems to have spiked arboricultural activity on Semai lands (see Dentan and Ong 1995: 64–66; Gomes 2004: 10). As a result, available land, especially in the immediate vicinity of Semai settlements, became highly sought after for rubber as well as fruit tree cultivation. Thus, proprietary claims to land intensified, too. Introduced to the Batang Padang district in 1900 (Nathan 1970: 32), rubber was even the motivating force behind the establishment of permanent Semai villages. Edo (2001:142) remarks that rubber cultivation began to spread among the Gòl–War Semai after it was first planted by Bah Busu and his kin in 1914; at the Sultan of Perak’s behest, Bah Busu and his people settled permanently near their rubber plantation, their village becoming known as Sungai Bot (Tééw Bòòt).

The second factor concerns land tenure arrangements between Semai, which was an inevitable issue due to the scarcity of forestland around village sites – there was a need for a system to arbitrate

3 Libòòy or belaiq, mature secondary forest transitioning into primary forest, are mentioned in Dentan (1968) and Gomes (2004) as a category of Semai land use. Nonetheless, in this research, informants only used the terms *jeres* and *pabel* to indicate primary, virgin and secondary forests, respectively. Due to continuous clearance for farming, *pabel* hardly ever transitions into mature secondary forest or primary forest. *Jeres*, located at higher elevations, is rarely cleared for farming but traversed, all the same, for hunting and the gathering of medicinal plants.

disputes concerning the right to plant and harvest and this may have unwittingly brought about the notion of private ownership among Semai. In accord with the *caaq samaaq* or continuous sharing principle, land ownership has been regarded as communal rather than individual, despite individual or familial claims to trees in various locations in the forest. Williams-Hunt (n.d.: 3) emphasizes that *maay pasak*, the original people of a given major watershed, are the owners of land with the right to regulate land use; this group decides on the siting of swiddens, hamlets, tree stand sites as well as the reallocation of land if the person or family who cultivated the piece of land can no longer use it. The notion of communal ownership is important as it has ensured, on the principle of usufruct, the freedoms of making a living from the forest and movement within the territory to forage. Through communal ownership of land via the *maay pasak* system of governance, it also became possible to hold land in perpetuity, for instance, through the establishment of fruit groves and rubber plantations. Williams-Hunt (n.d.: 5) warns of the implications of long-term land use by pointing out that while Semai inheritance rules restrict people to owning only 'fruit trees, rubber trees, long-term commercial crops, fish ponds, dwelling structures, etc.', the idea has come to 'misleadingly resemble inheritance of the land itself'. As Semai have become increasingly reliant on the market economy to earn a living, tree and cash crop tenure and economic ventures such as fish farming and goat rearing have become ways for individuals and families to claim land for their exclusive use. Williams-Hunt (n.d.: 7) asserts that:

One change that has affected Semai tremendously involves economic life. Enticed by consumerism, sometimes with the connivance of the State, many Semai, especially those living near Malay villages and towns, are increasingly dependent on the market for daily necessities. Sustaining this dependence requires a steady income, which Semai usually supply by commodifying their economy. Predictably, this development makes land a crucial factor of production. In fact, land is fast taking on the same character of private property as found in mainstream Malaysian societies. In these Semai

communities, land is usually parcelled into family-controlled units known as [*tiq*]. On these lands are groves of fruit trees, rubber-holdings, oil-palm holdings, fish ponds or other developments that provide income for members of the family who control the land. These individuals normally claim exclusive rights over the land, sometimes even ownership. Indeed, in an attempt to assert these rights, some of them have even gone to the extent of applying for individual title to the land from the government. Under such title, they could in principle alienate the land, even to non-Semai.

Moreover, to ensure the just distribution of land and resources among groups of Semai, the formalization of boundaries materialized. Gomes (1990), for instance, remarks that it has been since the 1920s that Semai living in the Bukit Tapah Forest Reserve have been categorizing themselves according to the major streams running through their village lands. It could be surmised from this observation that the lack of available land in lowland areas, especially adjacent to Tapah, caused people to label themselves thus, as a sign of possessing birthright privileges to reside and harvest in particular areas. The Malayan Emergency may have also caused the entrenchment of the idea of river valley groups when the government introduced the idea of 'river valley pacts' (Gomes 2004: 37). Specificity via stream names is still operative today to distinguish between Semai dialect groups, for instance, *maay* Ngensòq (river Ngensòq [Pos Musoh] people), *maay* Kelundoor (river Kelundoor [Sungai Kelundor] people) and *maay* Rentiig (river Rentiig [Sungai Bemban] people).

As streams and inclines lend contrast to the prevailing forestscapes of Semai country, they serve as natural partitions (Bah Bout, interview, 30/11/2010) and are part of people's place knowledge, as are the limits of territorial boundaries. Semai interviewees for this research demonstrated a clear understanding of territorial boundaries: toponymic knowledge indicates knowledge of territory, meaning that the original people of an area would know the geographical intricacies thereof. For instance, while neighbouring peoples may know the macrotoponymy or names of more prominent landforms in an area, people originally from an area would additionally know its microtoponymy or the names of

landforms shrouded in dense forest, such as gorges, streamlets, gravesites, heritage tree sites and the locations of old settlements. The fact that boundary disputes are practically nonexistent shows that territorial limits were explicitly determined and agreed between people from neighbouring *lengriiq* so much so that they continue to be honoured today. Nonetheless, because of the freedom to reside in other villages and the rule of cross-village marriages, confusion arises on occasion about the limits of territory; Williams-Hunt (n.d.: 9) cites the instance of a *bicaraaq* or communal deliberation held in Bareh Penep in recent times to determine the borders between the *lengriiq* or customary territories of the Tenlòòp and Studaaq Semai. Such negotiations are important to safeguard a sufficient land base for *lengriiq* residents to subsist on, and upholds the principle of continuous sharing which promotes the equal distribution of land and resources. This way, Semai *lengriiq* or customary forestlands are an inheritance for all Semai.

6.1.3 Semai as an ethnogeographic community in a specific cultural landscape

The notion of land as heritage or inheritance deserves some contemplation given its presence in Semai everyday speech and land rights articulations. The word used to express heritage is *sakaaq*, a borrowing from the Malay *pusaka*. In Gòòl-War Semai usage, the term is used as it is in Malay to indicate something bequeathed but with the added understanding that anything under one's personal use is also *sakaaq* (see Robarcheck 1980: 92; Gomes 2004: 44) This is likely connected to the dominance of the continuous sharing principle in Semai life, where instances of private ownership have been exceptional until the latter half of last century. Heritage seems to be used in two ways: to denote the necessity of possessing a land base to thrive and bequeath to future generations of Semai, and to emphasize the specific importance that the land base must be customary territory for the reasons of preserving and prolonging the Semai identity and worldview. This two-pronged understanding of heritage is reflected in the concept of *lengriiq* (or *tiiq sakaaq*, lit. 'heritage land'), thereby supporting the

argument that Semai are an ethnogeographic community. Furthermore, the notion of cultural landscape best exemplifies the relationship between Semai and their customary lands because it is a prevailing, living one.

To speak of a Semai cultural landscape is to appreciate the tangible and intangible generational continuities of the Semai lifeworld. Air photographs taken by P.D.R. Williams-Hunt (1949) during colonial rule, for instance, depict Semai tangible heritage: jungle clearings, the sites where shifting cultivation was carried out and subsequently left to lie fallow for a period of time, are culturally-modified areas in the surrounding vast tropical rainforest and visible signs of Semai imprints on the landscape. Trails leading into the forest and connecting settlements and other areas are also tangible traces of long-term occupancy. Speckling the forest landscape are Semai dwellings, which remain largely archetypal to this day. Constructed from bamboo, rattan and thatch, they are a commonplace but important material representation of the Semai culture. Not unlike the blowpipe—which continues to be used by contemporary Semai as a hunting implement despite its reduction by mainstream society to a symbol of Orang Asli aboriginality—these dwellings, as well as the implements produced from such traditional technologies as basketry and weaving, are not merely ornamental but serve a utilitarian function in daily life.

Cultivated trees, especially *durian* and *petai*, have protracted life spans and are another aspect of Semai tangible heritage on the landscape. Known as *jehuuq sakaag* (lit. 'heritage tree'), these trees are not only cherished as heirlooms, promising future economic security, but become part of the toponymic signification system due to their role as place markers (see below). Tree toponyms, carrying the names of cultivated tree species, point to existing or once extant heritage trees that families planted in swidden areas preceding fallow periods. They, thereby, not only denote past or present stands of economically viable species, but refer to the longstanding Semai cultural practice of swiddening as well as to the spatiality of shifting cultivation.

Semai intangible heritage, on the other hand, are those living traditions passed down from generation to generation, including oral narratives, rituals, social practices, material culture and knowledge and skills related to nature (UNESCO n.d.). Semai oral traditions suggest that history is profoundly linked to the forest environment, with Semai having lived in this area since the Great Flood subsided (see section 6.3.1.1). *Cermòòr* (distant past) and *pasaal* (recent past) narratives demonstrate conservancy with *seraaq* or the forest realm (Dentan 2003): time becomes a question of geography and these stories based in the geography of Semai territory offer the timeless truths of Semai being in place particularly because they are concretized in places that can be still visited today. To return to their functioning as signs within the greater referential system of labelling and locating places, toponyms indicate both the concrete and notional or metaphysical aspects of the Semai culture. However, in the sense of encapsulating and communicating cultural meaning, toponyms themselves may be argued to constitute intangible heritage, together with the narratives that animate and complete them. Toponyms and geographical nomenclature together form the geographical lexicon of the Semai language, imparting concepts specific to the biophysical dipterocarp forest environment of Semai territory.

The general decline of swiddening among Semai in the Bukit Tapah Forest Reserve has not caused people to move away from the forest. Gomes' (1990: 26) observations still apply today, in that simple commodity production continues to be an economic mainstay for Bukit Tapah Forest Reserve Semai. Coinciding with the Semai traditional egalitarian way of life, the informal forest products economy has been resilient due to the independence it affords households. Unlike in capitalist commodity production, simple commodity production allows individuals control over the means of production, namely their land and labour. Simple commodity production, in other words, is diversified and flexible, allowing the production of goods for a market alongside producing food and other basic materials (e.g., thatch, timber for housing, hunting and fishing implements) for direct consumption (Gomes 1990: 13). With the production unit being the household, it has also been possible for people to engage in trade directly with buyers or consumers, thereby avoiding state intervention in their affairs

(see Gomes 2004: 190). If arboriculture yields are poor in a given year, households retain the option of switching to wage work or subsistence farming, or combining these activities with fruit collection in other inherited (*sakaag*) territories (see Robarchek 1980a). This freedom is only possible, as Gomes (1990, 2004) emphasizes, when villagers have access to their customary lands. In the forest reserve, this is still the case; while Semai living here may not have de jure land rights, they are free to cultivate land and harvest within its bounds. This freedom of access, in turn, may be argued to correlate with their knowledge of ancestral language place-names, which has been found to be proficient and extant. This is true for all research sites, including Kampung Batu Empat Belas. While there was generally less confidence in interpreting the etymological and etiological meanings of toponyms than was the case in Kampung Pos Woh, Kampung Ampang Woh and Kampung Woh Inték, Batu Empat Belas residents could nevertheless recount the names of places and provide detailed itineraries. The former three villages have had a longer existence on the territories now occupied, their residents thus possessing a firm command of communal histories. Not only are toponyms known in detail in these three villages but the *cermòòr* and *pasaal* narratives that illuminate the names. In the following section, I provide a detailed profile of Semai toponyms.

6.2 The structure of Semai toponyms

Semai toponymy and geographical nomenclature render an empiricist view of the forest world, where names reflect the sensually perceived externalities of places and in some cases, the anthropomorphization of places. The former concerns an essential, 'as is' depiction of places in the forest, while the latter, the form of the human body and past remembrances embossed on places learned and recalled from personally journeying in the forest. Based on firsthand observations of six different dialect groups⁴ and of toponyms appearing in Dentan and Ong (1995), Dentan (2000), Gomes

4 Batu Empat Belas, War, Batu Enam, Ayer Denak, Kenoh, Bidor, and Betaaw.

(2004) and Edo (1998, 2002), the structure of Semai place-names may be described as consisting of two parts: 1) a geographical term, generic or referent, indicating the topographic root of the name; and 2) a determinant, usually, but not restricted to, nouns, which serves to distinguish between topographical features and sites. It may be said that Semai toponyms display the pattern REFERENT + DETERMINANT in that the names generally have a clear root and are translatable.

6.2.1 Toponym referents

Overall, toponym referents express the idiosyncratic workings of a tropical foothills forest system. Geographical terms are highly specific, suggesting the primacy of physiography in navigating dense jungle. References are made to: 1) terrain type (i.e., water-logged patches in the forest); 2) the feel of the rise and fall of terrain beneath one's feet (i.e., the steepness of hills and banks, flatness of valleys, gradual rise of ridges, sheer drop of hillsides); 3) streams and stream sections (i.e., river pools, narrows, rapids, dead waters, detours, branches); and 4) natural features that act as landmarks (boulders, rocks, peaks, glades), shelters (caves, overhanging rocks, caverns) and shortcuts (grooves or hillside depressions, passes, old fairways of streams) [see Article III; appendix 1]. As long-range visibility is obstructed by a thick canopy and undergrowth, negotiating the interior maze of forested ridges and valleys without recourse to distinguishable landmarks would prove unworkable. Furthermore, in an unvariegated, foliage-condensed environment, sight is oftentimes compensated by touch, smell and sound, which bring into relief the topographical particulars of the landscape when these sensory means become a part of toponyms (Article III). In some circumstances, more precise topographical descriptions are called for. For instance, despite the use of the generic *tééw* ('water') to indicate streams, the specialized character of *nyenliit*, an underground stream, or *triip* (also *senglaap*), a stream that suddenly disappears and reappears elsewhere, are distinctively attributed.

Certain geographical terms communicate walkability. The Semai terms for 'slope' and 'ridge', for example, are expressed as the nominalizations (verbal nouns) *cenan* (from *cetnaat* or *cat*, meaning 'to

climb') and *danòòs* (from *dòòs*, meaning 'to balance'). Agility and the skill of recalling the feel of terrain underfoot are preconditions for travelling through the forest and are also expressed, for instance, in the terms for 'rise in a trail' and 'ledge': the former, *jeng'oooh*, is an expressive⁵ denoting the action of nimbly hopping up a trail as it slopes, while the latter, *tembiir*, signifies the action of deftly skirting a hill. Indirect but less taxing routes are preferred over sharp ascents, generally. This may include walking through a valley, up a series of depressions in the sides of hills or skirting the ledges of hills and subsequently cutting across a series of ridges to reach uphill areas. The peaks, crooks and troughs of trails are revealed in toponymic itineraries, including the surefooted crossings from one hill system to another, unavoidable energy-expending ascents, and shortcuts. The latter are particularly important and do include steep slopes and banks, which become easier to manoeuvre on the downstream; a change from *cenan* to *cenreet* or *t'raab* in toponyms cues such descents (see Article III; appendix 1). On occasion, rather than—or in addition to—physiographic features, toponym referents consist of trees (living, felled or fallen), birthplaces, gravesites, old or abandoned settlements, burrows, caches, footbridges and trapping sites (see Article III; appendix 2). In relation to shortcuts, for instance, hardwoods that naturally topple in storms are utilized as log crossings, providing instantaneous access through undergrowth or across water. Place-names with *dendook* and *penòòs*, for example, indicate the use of fallen trees and preserve memory of alternative routes taken through dense forest.

6.2.2 Toponym determinants

On the whole, the determinants in Semai toponyms generally refer to: 1) flora, especially bamboo/rattan and tree species; 2) fauna, including birds and insects, and animal habitat; 3) environmental attributes, including physiographic descriptions, and indications of natural disturbances and the fecundity or

⁵ Also found in other Austroasiatic languages, expressives are word length impressions of various phenomena based on their sensate peculiarities (see Diffloth 1977, 1979; Tufvesson 2011, 2012; Phillips 2012).

barrenness of places; 4) material culture, technology and subsistence activities; 5) ancestors, especially those associated with an area through farming; 6) mythological, historical, supernatural and quotidian incidents, including accidents and taboo violations; and 7) objects out of place in a forest setting, such as bottles, beads and cooking pots (see Articles III & IV; appendix 3). In a few instances, verbs, adjectives and expressives, rather than nouns, form place-name determinants, as in the case of Tééw Gerenhèm ('stream—to choke') and Tééw Kariit ('stream—stingy'); and Wòòk Grgeeb ('stream—the impression or sense of 'resting on one's haunches'). In the latter example, *grgeeb* captures the sensation of calves rubbing against the rump when dropping to one's haunches.

Nonetheless, this list of determinant types is neither exhaustive nor the categories it implies, exclusive. For instance, some Semai toponyms consist of double tree species names, reflecting fruit grove, tree stand or *selaay manah* (old swidden) sites that have likely come under the ownership or exclusive use of certain families. Rather than suggesting habitat or the endemic presence of these trees in the area, such names point to the cultivated nature of at least one of the species appearing in toponyms (see below). A name might also refer to an actual animal species but not necessarily indicate its presence or abundance in a given place. For example, in the case of toponyms containing species names such as the *tadiit* (sandpiper, *Arctitis hypoleucos*) and *tereq* (rhinoceros hornbill, *Buceros rhinoceros*), birds which Semai eschew maiming or killing, there may instead be reference to taboo violations. This is also true for certain toponyms reflecting the names of individuals who died prematurely as a result of breached taboos (see Article III).

6.3 Place-naming motivations

To further understand the nature of Semai toponym determinants, the motivations for place-naming must be examined. Several indigenous place-name studies converge on the idea that toponyms serve the function of structuring landscapes and that the meanings of toponyms play a mnemonic role in facilitating travel through territories (see the treatment of indigenous toponymic systems in such expansive works as Afable and Beeler 1996; Thornton 1997a; Fox 2006; Hercus et al. 2009; and Hercus & Koch 2009). This is generally true of Semai toponyms, where the name of a central geographical feature is normatively echoed in the names of adjacent features. Exceptions do exist, nevertheless, showing that the motivation to name also extends into the domains of belief and historical memory. It is interesting to note that the phenomenon of more recently coined toponyms in other indigenous place-naming contexts seem to also refer to humans, for reasons of memorializing the deceased or asserting private property claims (see e.g., McConvell 2009; Jett 1997; Basso 1996; Fair 1997).

6.3.1 The archetype of hill–stream complexes

Hills and streams, as landmarks that can be seen from afar or passed in sequence, seem to inspire the naming of miscellaneous proximate geographical features. There is thus a certain predictability about the relative proximity of geographical features based on shared determinants in their names. Lood Seliq–Danòòs Lood Seliq; Lood Bah Basuuk–Danòòs Bah Basuuk; and Lood Cah Ragaaq–Danòòs Cah Ragaaq are examples of hill names that have been replicated in the names of ridges that ascend to or bridge these inclines. The names of streams, too, are replicated in the names of valleys and inclines they cut through or flow past, as in the instances of Teew Cangkuwaaq–Bareh Cangkuwaaq; Teew Studaaq–Bareh Studaaq; Teew Ceñhòòy–Bandaar Ceñhòòy; Tééw Óódaat–Bareh Óódaat; Teew Bah Mèèt–Danòòs Bah Mèèt; Tééw S'kaaw–Danòòs S'kaaw; and Tééw Badòòk–Danòòs Badòòk–Lood Badòòk. While

it is possible from these cases to infer the basic principle governing the naming of places, there are exceptions.

The tendency for names to cluster when a geographical feature seems to occupy a focal position in the place-signifying system, is one such exception. In such a case, determinants can include previous roots that have become determinants themselves via the addition of a new root. For instance, Geel Betaar, the name of a river pool in Tééw War, is the focal feature for the naming of other geographical features in its vicinity, for instance, the ridge Danòòs Geel Betaar; the slope Cenán Geel Betaar; the ledge Tembiir Geel Betaar; and the gap or pass Peñhaad Wòòk Geel Betaar. Such a pattern of clustering differs from the norm of hill or stream clusters discussed above and may indicate the sociocultural significance of the central feature or its linearity or alignment in relation to other sites of significance. Another exception are major streams (e.g., Tééw Gòòl and Tééw War) and inclines (e.g., Sirééy and Jenajaak); these features generally do not lend their names to adjacent features, perhaps functioning as protrusive, highly visible landmarks and therefore remain outside common associational or areal place-naming complexes (Article III).

6.3.1.1 Further exceptions

The 'sphere of influence' (cf. McConvell 2009) a landscape feature exerts over the naming of surrounding features is not solely environmental, however. Beliefs regarding the genesis of landforms can also motivate the naming of features according to a central feature. All along Tééw War, for example, are rocks and boulders with cavities or indentations believed to have been imprinted by Ngkuuq, the thunder deity, who walked along the river while the landscape was in the making. Typically, toponyms embodying *cermòòr* are of the Ngkuuq and *yèèq* kinds, and mark especially stone formations evidencing distant past happenings. In turn, such formations may influence the naming of the greater geographical features on which they are

located. One instance is Gesung Mengkah, a rock found on the hill Lood Gesung Mengkah. Regarded as a sacred site or *gawar* (also *k'ramaat*, after the Malay *keramat*) this unusually round rock is the site where a *halaak* encountered his spirit familiar or *gunik*. In a show of power, the *gunik* summoned the magical rock from out of the ground and it sprouted up like a mushroom (Tok Baluuq & Tok Kenyan, interview, 27/03/2012). Another instance are the twin boulders carrying the single appellation, Gesung Senòòl. Located atop Lood Gesung Senòòl, the boulders are linked to a narrative about the *yèèq* or ogre who flung rocks out of Tééw Gòòl into Tééw War, as he waded inland from Teluk Intan. Gesung Senòòl ('rock–staunch') recalls how a hunter, and the wild boar carcass slung over his shoulder, petrified into stone when the *yèèq* spied him from afar. The tree growing in between the two boulders is believed to have sprouted from the broad leaf that was used to staunch the spear wound on the carcass (Tok Duni & Ajok Duni, interview, 29/12/2011; Tok Isap, Ajok Lama & Ajok Còy, interview, 13/01–16/01/2012).

On the other hand, certain rocks retain their names, having no influence on the naming of areas in which they are found. At the summit of Lood S'liiq lies Batuuq Jekjak, a rock believed to have been one of the few surfaces in Semai country to have remained above water at the time of the Great Flood (see Edo 1999). The rock, still soft at that stage, was where a sister and brother and their dog perched until the floodwaters subsided; as a result, the rock was imprinted with their feet (Tok Atòòr, Ajok Atòòr & Ajok Guni, interview, 18/01–19/01/2012; Tok Bulun, interview, 14/02/2012). Although the separate designations of Batuuq Jekjaak and Lood S'liiq are currently upheld by villagers, a change is foreseeable based on Batuuq Jekjak's more recent significance as a sacred site. This may be glimpsed in the occasional references to Lood S'liiq as Lood Jekjak, presumably owing to the incline's importance as the host of Batuuq Jekjak and consequently part of its sacral sphere.

From the exceptions noted above, it is apparent that the hill–stream prototype of Semai place-naming has not been consistently adhered to. A break from this archetypal or normative pattern may be attributed to other motivations than naming for the practicality of bundling places that are positioned along or on the same stream or hill. A further distinction is to be made between toponyms coined for the ordinary reasons of recollection and description and those coined as a result of magic. Toponyms related to distant and recent past narratives, those carrying the names of plant and animal species or those referring to habitat and subsistence activities are generally believed to have been coined by ordinary people. However, toponyms associated with magic, whose meanings are usually abstruse, are thought to have been coined by *halaak* (shamans) or tigers (either actual or *guniks* [spirit familiars]). Similar to receiving particular songs in dreams from their spirit familiars to use in curing ceremonies, shamans of long ago received the names of places in dreams which they then taught to ordinary people. Because tigers are the quintessential mark of supernatural prowess, shamans themselves coined certain toponyms based on their observations of the behaviour of tigers in the wild or by transforming into tigers themselves. It should be noted, though, that the demarcation between ordinary, tiger spirit familiars and were-tigers is often blurred in informant explanations of tiger-given toponyms.

6.3.2 Place-name changes and supplements

The memorialization of recent past events (*pasaa*) is a primary motivation for the overwriting of older Semai toponyms or the naming of hitherto unnamed places (rare). An interesting feature of these ‘newer’ toponyms seems to be their almost exclusive reference to people, domesticated animals and tree pairs. Dentan (1968) and Edo (1998) describe Semai place attachment as the desire to live and die where one’s kin are born and buried. With respect to the commemoration of individuals in Semai toponyms, the names of ancestors— either *maay pasak*

or long-term inhabitants of an area— are given to places where these individuals farmed, were born or raised. For instance, birthplaces of individuals are marked by the place-name generic *sook* or ‘umbilical cord’ followed by the individual’s name (see appendix 2). Dentan (1968: 98) remarks that Perak Semai follow the Malay custom of ‘fencing in the area of ground below the place where the baby will be born with pieces of roofing and a piece of iron in the centre’ to collect the afterbirth. It is possible that *sook* toponyms specifically indicate such structures. Likewise, *hòòl*, also a place-name generic meaning ‘mark’ or ‘prints’, has been used to refer to the actual spots where people perished while working or travelling in interior forest areas. However, since the majority of Semai live in permanent settlements today, such toponyms suggest earlier times when people still performed shifting cultivation and dwelled in more interior areas.

Over time, *hòòl* and *sook* names (appendix 2) have become the names of the inclines, streams, valleys and other places where umbilical cord sites and graves are located. Becoming toponyms in their own right, such names have typically either displaced or supplemented the original or older names of the general places on which they lie. In supplementing the older or original toponymic landscape, these new names represent the microtoponymy of an area. The case differs, nevertheless, for *nyep* (‘to vanish’) or the sites where the remains of shamans were laid to rest on *penasaar* (burial platforms). It is believed that the bodies of such individuals vanish rather than decay, transforming into guardian spirits or were-tigers to protect the inhabitants of a particular place (Bah Tony, interview, 24/08/2012). *Nyep*, functioning as a place-name generic, is observed in the celebrated War territory toponym *Nyep Semenaak*. Marking the burial platform site of the shaman who singlehandedly killed scores of Rawa slave raiders, *Nyep Semenaak* carries the name of the ridge, *Danòòs Semenaak*, on which shaman’s burial platform was sited, rather than the name of the shaman himself (Articles III and IV).

6.3.2.1 Incident-related toponyms

The recording of incidents is another motivation for Semai toponymic changes: unprecedented events, especially, such as the untimely or uncanny nature of human and animal deaths have warranted changes in original toponyms as have quarrels, accidents and the presence of outsiders in Semai country (see Articles III & IV; appendix 3). Rawa Malays constitute the most violent of the latter and several toponyms attest to the unconscionable brutality of the slave raids (Article IV). Name changes here serve the purpose of memorializing the victims or circumstances surrounding unnatural or untimely deaths; more broadly, these instances of renaming bear witness to events that punctuated the uniformity of daily life.

The taboo complex, which penetrates all aspects of Semai life and acts as a conceptual framework to explain the unpredictable, seems to provide a logical basis for such instances of renaming. Toponyms relaying the effects of taboo violations memorialize and substantiate events for the edification of contemporary individuals (Article III). Accidents and premature deaths, for example, may be interpreted as the consequences of the breach of *serenlook*, putting at risk the lives of individuals to whom promises were made and broken (Article III). Their memorialization in toponyms seems to prolong or iconize a sense of pining (*riyaak*) for the victims as well as a sense of guardedness with respect to the circumstances that gave rise to the calamity in question.

In some cases, the settings of mishaps resulting from taboo violations are signalled by toponyms, allegorically revealing the full narrative and its moral significance. To illustrate, hot springs, exclusively named Tééw Tebekèèt, are associated with the breach of *terlaac* (Tok Duni, interview, 03/08/2012; Bah Kasing & Bah Kanaa, pers. comm., 06/05/2014; Edo 1998). Their presence in different parts of Semai country signify the destruction of entire settlements in flash floods in consequence of irresponsible or callous behaviour towards animals (see also Dentan 2002). It should be remarked that *tééw tebekèèt* seems to function as both the place-name for

hot spring locales and the geographical term for 'hot springs' (see Hercus 2009 for a discussion of generics vs. actual place-names). The conflation of toponym with geographical term here seems to emphasize that hot springs are exclusively the consequence of the breaking of *terlaac*; thus, they carry no other name than that substantially represented, namely pools of rank-smelling, hot water that hold in their subterranean depths human remains. Other toponyms, such as Bareh Mentòòk and Danòòs Penaliiq Tereq, illustrate the penalty of breaching *penaliiq*, the taboo on mixing different categories of food, which is death by pestilence (Tok Bulun, interview, 14/02/2012; Bah Semat, interview, 10/03/2012). Dentan (1968; 2008) explains that *penaliiq*—as well those prohibiting *punan* (the hoarding of food), *serenlook* (the breaking of promises), *terlaac* (the ridiculing of animals) and *tarook* or *tercòòk* (the harvesting of certain plant species)—prevents 'mixing up the natural order', catastrophes at the individual, group and cosmic levels due to such 'impious violation[s] of the nature of the world' (Dentan 1968: 36).

It is important to recognize the interplay of animism and egalitarianism in the Semai taboo complex. Animals and plants are thought to be sentient and this gives rise to the meticulous precautions taken during harvesting, food preparation and consumption. Upholding the natural state of animals and plants is a central concern, reasoned in terms of their possessing souls or more precisely, their existence as embodiments of demons. Dentan (2008: 117), quoting Bah Tony, asserts that Semai 'walk a narrow path', fearing aberration from order and predictability. The sense of 'spirits everywhere on the lookout for offenders to punish' (Bah Tony, interview, 24/08/2012) pervades Semai interactions with humans and non-humans alike. It seems to walk the narrow path of cosmic accountability requires constant introspection of one's actions. Affixed to the quotidian landscapes of Semai life, examples of wrongful action present themselves through names of places that people encounter to and from their subsistence areas in the forest.

With reference to reprehensible behaviour towards animals, the toponyms Danòòs Bah Awòng and Tééw Jòòl Cooq ['stream–hang–dog'] bring to mind the merciless killing of dogs because of their incessant barking. These killings are regarded as especially grave because they were committed by the owners of the dogs, using violent means and for negligible reasons (Bek Nuar, interview, 29/03/2012). Much affection is shown to reared animals; they are addressed as 'children' (see Dentan 1968: 38), carrying the honorific *bah* in their names. The memorialization of the dog Bah Awòng that was beaten to death and in the latter instance, a pack of dogs that was hanged remind of the consequences of the loss of self-control (in both cases, rage). Guilty of *teñhaad* ('the bad that one has done' or sin), the owners of the dogs themselves soon perished. In other instances, dogs have also been remembered in place-names out of yearning. For instance, Tééw Bah Móót, a stream, memorializes a dog that was mauled by a tiger. Another stream, Tééw Tawaaq, and a cave located close by, Gepgeeb Tawaaq, memorialize an especially able hunting dog, Bah Tawaaq, that was killed in a trap (Tok Baluuq & Tok Kenyan, interview, 27/03/2012). The cave was apparently unnamed and would have gone unremarked, except for the dog's burial in its vicinity. The stream, too, was given the dog's name as it flows nearby and functions as a landmark to reach the cave.

An interesting phenomenon is the recent time coinage of taboo-related toponyms such as Tééw Sòq Gòp ['stream–corpse–Malay'] and Geel Sòq Gòp ['river pool– corpse–Malay'], the new names for Tééw Jerem Plaang and Geel Ayoo. These names memorialize a Malay teacher who drowned approximately a decade ago when a sudden downpour caused Tééw War to surge. The drowning is attributed to a breach of *terlaac*: accessing certain sites in the forest without first placating their guardian spirits is interpreted as blatant disregard for the supernatural order in which physical places also figure (Tok Duni, interview, 14/05/2014).

While research informants are agreed on the possibility of the names of places changing, there is firm avowal about the antiquity of Semai toponyms, particularly those bearing

tiger spirit familiar and other distant past accounts. These types of toponyms are expressly believed to have remained unchanged over time. In view of the migrations and resettlements that have taken place throughout Semai history (see above), name changes are a fact due to settling in and adapting to new areas. Thus, the patterns of learning routes and toponyms in new territories, renaming places and applying individualized names to fruit tree and other sites, which still take place today, may have also served in the past to define Semai territoriality. Notwithstanding the age of toponyms, a realistic assumption is one of the constancy of certain names or geographical terms in the wake of name changes through time. Constancy as a matter of antiquity is perhaps most clearly observed in toponym referents and determinants retaining archaic features, namely Mon-Khmer derivations such as *bahuuq*, *bnuum*, and *gesuk* (Bah Tony, pers. comm., 19/02/2014); certainly, Mon-Khmer elements are anyhow retained in the majority of Semai geographical terms but when these terms function as toponym referents, they do not automatically suggest the ancientness of the toponyms themselves. Perhaps the issue has more to do with the viability of the Semai language (through which toponyms are still communicated immaterial of their antiquity or recentness) than with toponymic or nomenclatural persistence through time.

6.3.2.2 Tree and tree pair toponyms

A cursory look at Semai toponyms would show that most names serve the practical purpose of describing flora. Specifically, trees—endemic as well as cultivated— have the highest frequency of all plant species referents. This is perhaps unsurprising given the important place arboriculture occupies in the Semai economy and the significance of trees in Semai perceptions of the landscape (see below; see also Dentan 1972; Dentan & Ong 1995).

To understand the value of trees to Semai and why places are at times designated with the names of trees, the ritual avoidance of certain plants needs to be considered. The taboo of

tarook or *tercòòk* (see Dentan 2008), for instance, applies to herb, mushroom and fruit species that are altogether avoided or harvested only under certain conditions, followed by strict cooking and eating rituals. Violating the taboo is believed to cause severe ailments, madness or thunder squalls (Tok Duni, interview, 26/08/2012; Bah Tony, pers. comm., 11/04/2014; see also Dentan 2000, 2008). The role of toponyms in mediating the consequences of taboo violations is observed here too, most straightforwardly when toponyms bear the name of the taboo, as in Tééw Tercòòk⁶, or when the name of the taboo is reproduced in the name of plant species, as in the seasonally-occurring herb *tarook bere'nyèèl*.

In the instance of tree pair toponyms, however, the reference to *tercòòk* is implied. Two different species of trees growing abreast are thought to be close friends and thus, felling one or both is taboo as it would cause an end to the affinity. Hence, these pairs of trees are generally circumvented to the extent that taking shelter under them or even eating their fruit is taboo; such trees are spared when a swidden is opened, and as the only remaining tree stands in a slashed-and-burned area, tree pairs often serve as landmarks. It is hypothesized that tree pair names in the War area are of older origin than those in the Batu Empat Belas area. Such names occur less frequently in the former area and seem to serve the purpose of underscoring the effects of infringing *tercòòk*. In contrast, they are common in the latter area and are not, from the outset, communicators of taboos; rather, when viewed in the context of the village's history (see above), they indicate the strategic use of tree pairs as a way of claiming exclusive rights to a piece of land. This would have taken place for the reason of establishing individual- or family-owned forest groves, either through 'purposeful' planting and the renaming of an area and the geographical features in its vicinity with the names of the trees, or through the continued use of

6 Or indeed the earlier mentioned Danòòs Penaliq Tereq.

already established swiddens as groves, where the names of tree pair landmarks become toponyms associated with private ownership of such sites.

A further consideration is the distinguishing of tree toponyms on the basis of their determinants, which allude to species of wild or cultivated trees. Generally, tree toponyms bearing wild tree species names seem to be the archetypal or original names of places, denoting the species abundance or land cover of a particular niche. At times, these toponyms mark singular tree stand sites— for instance, the locations of *upas* or *ipoh* trees, whose sap is used as blowpipe dart poison, or giant hardwood species such as *meranti* (appendix 2). In contrast, cultivated tree toponyms refer to *jehuuq sakaaq* (heritage tree) stands, indicating historic or contemporary arboricultural activity in the forest. As markers of tree stand sites or groves in the War and Batu Empat Belas areas, cultivated tree toponyms typically contain either: exclusively cultivated tree species, or a combination of cultivated and wild tree species names; or a cultivated tree species name in combination with a miscellaneous animal or plant species name (appendix 2). Tree appendage toponyms, carrying the generics *jelook* or *centEEP* ('base') and *caak* ('branch'), are also an interesting phenomenon in Semai place-naming (appendix 2). They possibly came about as a way to mark the very first family-owned fruit groves in an area and their subsequent outgrowths. This pattern of naming appears to be Malay-originated, where *pangkal* or 'base' points to the notion of origins or beginnings (cf. Dentan 2003: 25).

As tree toponyms engender proprietary notions, the social and political implications surrounding their coinage and use deserve contemplation. Given the mounting scarcity of accessible forestland around Semai villages, there is a likelihood that the trend of individual or family claims to plots of land will continue on an even wider scale (see Edo 1998). The renaming of such sites according to tree names will in turn likely follow given that these names perpetuate their hereditary, ritualistic or in brief, ancestral associations. It may be argued that

such transformations are already underway, not only with the naming of sites or areas after the names of trees but the naming or renaming of proximal geographical features after such sites or areas (e.g., T'rembòòt Dendook Kéés, Tééw Sempaaq Jaguk and Tééw Sempaaq Cupuuq). The influential nature of tree pair toponyms is thus worthy of attention as they seem to not only justify the protection of an area's heritage trees and tree pairs, but anticipate an area's transformation into a privately-owned grove.

A sample of previously undocumented indigenous toponyms from Semai native speakers has been presented and examined in this section. The names have been interpreted in relation to their contemporary usefulness to Semai and in terms of their importance in inferring about indigenous classifications of the physical environment and territoriality, at large. The following section will consider these issues in greater depth and in light of Semai claims to sui generis rights to land.

7. Discussion and Conclusion

Through a consideration of indigenous toponymy, I have put forth arguments in support of Kolers' (2009, 2012, n.d.) idea of ethnogeographic communities and the plenitude criterion, which provide justification for indigenous land entitlement discrete from the condition of their autochthony. I have argued that a study of place-names brings to the fore the importance of a secure land base as a condition of indigenous survival and continuity. Two key ideas support this: forest dependence and conceptions of territoriality, which outline a Semai cultural landscape. Accordingly, the five articles of my thesis have as their unifying theme, the importance of customary land as a definer of indigeneity: the reasoning that land is a prerequisite for indigenous wellbeing and cultural survival into the future reinforces the arguments made in each article. The remainder of this section will discuss the results of this research according to the lines of inquiry posed above.

7.1 Cultural landscape: a culturally-specific land base perceptible through place-names and containing a people's ideas, sentiments, history and aspirations

As emphasized in this thesis, indigenous toponyms convey the subsistence importance of land as well as its emplacing function (Articles I & III). Through the mediums of place and language, toponyms bear witness to indigenous histories and the affective ties that exist between indigenous societies and their territories through the concrete particulars of geography (Articles I, III & IV). Because toponyms mark places that are navigationally, ecologically, historically and spiritually significant, they may be argued to be troves of indigenous knowledge as well as of archaisms and changes in a language (Article III). The latter conjures up the question of continuity and change in relation to cultural contact and conquest, which have impacted on the territorialities of Semai, Tl'azt'enne and other indigenous peoples. In the case of Semai, socio-

economic stability, habitation in contiguous forest, and remoteness seem to account for uninterrupted residence in an area. In such areas, too, toponymic knowledge is proficient and more consummate than in areas subject to recurring periods of residential flux (Article III). A significant finding is the function assumed by indigenous toponyms as markers of past events. Bodily memory, formed by routine practices and the mental association of sensation and collective recollections to the physicality of places, provides the impetus for Semai toponyms. Semai toponyms that recount the buried history of the Rawa Malay slave raids (Prak Sangkiil) demonstrate that proof of the past manifests geographically (Article IV; Dentan 1999). The plunder of Orang Asli settlements for the purpose of capturing women and children for the slave trade is non-existent in Malaysia's official history but continues to be kept alive in indigenous oral traditions. Semai, especially, recall the actual places that fell under Rawa attack as well as the sites where they were observed whetting their blades and where they were overcome and killed by Semai. Memory of such places and sites is achieved through the aid of toponyms and whetstone relicts, demonstrating the importance of geography in indigenous historical reckonings. It is also in and through geography that the Prak Sangkiil continues to influence contemporary Semai interactions with the wider world. The everyday nature of their forest-reliant lifestyle enjoins a personal, somatic connection with places in the forest, including those that evoke remembrance of the slave raids. Thus, an ever-present reality, the Prak Sangkiil stands as a metaphor for current struggles to secure legal ownership of their customary lands and recognition of their indigenous way of life.

The dynamics of violence against the Orang Asli come to light in the strategies of 'othering' and defilement (Article V). Malay–Orang Asli relations have long been defined by repugnance, fear and distrust. Orang Asli oral traditions (see Article IV) state that even before the Prak Sangkiil occurred, local Peninsular Malays had attacked and enslaved the forest-dwelling peoples. That the Orang Asli are regarded from an Islamic perspective as pagan,

uncivilized and unclean, the attacks were justified on the grounds of taming and acculturating them. In contemporary times, divesting the Orang Asli of their indigenesness occurs chiefly through dispossession. The toponyms, whetstones and sites related to the Prak Sangkiil are the result of a collective will to remember the brutality of the slave raids. In fact, toponyms and relict sites are in themselves sufficient for recalling the raids, serving as living memorials to past as well as present violence against the Orang Asli. Specific events of violence against the Semai are tacitly known but hardly verbalized, except in connection with toponyms and sites marking the Prak Sangkiil. Hence, narratives emerging from conversations about these memorials contain historic as well as contemporary era recollections of violence perpetrated against the Semai as an indigenous people.

It may also be argued that the Semai taboo complex, a powerful deterrent against aggression, gains in significance through toponyms; through place-names, the consequences of breaking taboos are made concrete (Article III), a reminder to stay on the path of moderation in interactions with human and non-human beings alike (see Dentan 2008:117-118). Enabling the re-enactment of bygone events, whether linked to the breach of taboos, or episodes from *cermòòr* (distant past) or *pasaal* (recent past), the places marked by toponyms stand as in situ evidence of Semai history (Articles III & IV).

The value of designating indigenous lands as cultural landscapes lies in its potential as a guaranteed space for the continuance of indigenous lifeways and ecological agencies. Because a strong environmental ethic underpins indigenous worldviews, placing lands under the direct stewardship of indigenous communities through their conservation as cultural landscapes suggests the prioritization of sustainable land uses in such an arrangement. Other than sustainability in the sense of responsible land use, a cultural landscape holds the promise of cultural sustainability; it signifies a land base on which indigenous children and youth can experience life on the land and learn subsistence skills and techniques as well as specialized

vocabulary and concepts that typically cannot be acquired outside the context of indigenous ancestral land (Article I; Andrews; Greer & Strand 2012). Furthermore, as Castree (2004: 163) argues, 'strong boundaries around [indigenous] places'— or a 'closed system', as a cultural landscape is envisaged in terms of how it is to be managed and deployed— would not only be an opportunity to advance indigenous values in formal land management regimes but serve as a means of securing tenure to their ancestral lands. Sustainable land use practices carried out within a cultural landscape could translate into the related advantage of securing a self-sustaining economy that communities could build on to further their 'rights to redistribution of economically valuable resources and assets' (Castree 2004: 160) and realize their aspirations through proprietary control. As Castree (ibid.) emphasizes, 'property rights are among the most legally secure and materially effective rights that individuals and groups can possess'. The specificity of cultural landscapes shows the contemporaneous significance of these lands: as 'living landscapes' (see Greer & Strand 2012: 142), indigenous ancestral lands continue to stand as sources of indigenous sustenance and wellbeing. As gateways to the ancestral past, these lands represent an inheritance to future generations to make a living, to be knowledgeable about their indigenous ancestry and to safeguard their indigenous identity, language and communal ties.

7.2 The emplacing role of indigenous toponyms in indigenous heritage preservation projects

From the points raised above, it is apparent that indigenous toponymy has a crucial role to play in securing against landlessness and cultural loss. An obvious application of place-names is in indigenous counter-mapping initiatives, through which the projection of indigenous land use and place histories takes precedence over official spatial representations (Article II & III). However, if the proprietary and classified status of community maps is extended to toponymic information,

to guard it from misuse by cultural outsiders, there is the prospect of important cultural information becoming concealed from the very people who should have the right to access it, namely ordinary community members (Article II). If treated as valued relics rather than as valuable resources to be utilized in educational and other cultural preservation projects, the dynamism of toponyms could cease, resulting in a gradual forgetting of the historical and ecological specificities of places (Articles I & II).

The importance of documenting indigenous place-names warrants a discussion of ethnogeography not only as a 'meta-criterion' or 'root metaphor' (see Bird-David 1990 and Buttner 1993) but a methodological approach. Ethnogeographical studies stand as evidence-based records of extant indigenous ties to land. As such, they return the topographical or material character of geography to discussions of human relationships with places. This is key in two ways. Firstly, ethnogeographical studies reassert the importance of documenting non-academic, 'differential' geographies (Castree 2004; Aiken & Leigh 2011). Geographical and other types of formal knowledge have a lay or tacit dimension that is altogether left out of or at best superficially addressed in scientific narratives (Article I). Despite its exclusion from formal knowledge systems, lay knowledge all the same informs the philosophical commitments that operate in the background of everyday life (ibid.). As argued by Johnson (2010: 19), the ethnogeography of indigenous communities must be investigated, recorded and shared to exemplify the 'working relationships between people and the land' as well as to 'counter the globalizing and generalizing rhetoric... [by presenting] the perspectives of peoples who have been...in a much more sustainable relationship with their homelands'.

Secondly, ethnogeographical studies provide human geographers with the opportunity to engage in more inductive forms of inquiry through the conduct of fieldwork, especially in rural settings. Berleant-Schiller's (1991) argument still holds today regarding place-name research belonging mainly to the realm of armchair research (see also Riboli & Tacey 2013: 2 and

Sultana 2007: 375 for a similar argument about fieldwork with indigenous and rural-based communities). The influence of social constructivism in geography and other related fields has entrenched the view of what Dickens (1996: 12) argues to be 'the self-evident fact that people use language to describe how the world works and that this language is socially constructed'. An inordinate amount of time is spent trying to prove that 'all knowledge is a social construction' and 'theory is only a product of language and power-play' (Dickens 1996: 11). Such preoccupations detract from the liberative goals of critical geography to perform collaborative research with marginalized groups, learn about (and from) other knowledges, and in so doing, work towards more equitable relationships.

The novel forms of indigenous articulations of territory, indigeneity and rights expressed on digital and social media convey a sense of expectancy; the lay avenues of social-networking are being used by indigenous communities to bring attention to the progressive dismantling for their lifeways. Dissimilar to the formal or structural avenues of resistance used by indigenous leadership (Article II), online media gives voice to individuals and local groups, affording them grass roots empowerment (Article V). Through online venues, indigenous youth, especially, have a role in putting into writing their own ancestral languages and community histories; this may prove a more expeditious and intersubjective means of generating written versions of languages and histories that have been customarily recited. Such undertakings would necessarily involve the generation of lists of place-names, in supplying the geographic context for particular concepts, idioms and narratives (Article I). Indigenous online discourses, therefore, require attention as opinions and first-hand accounts of indigenous lived experience are presented in them, including individual and local group efforts to revive native language and culture (Article V).

An important aspect of Orang Asli indigeneity as expressed in blogs is the eagerness to participate in a global society as indigenous peoples rooted in an actual homeland. As Memmott

and Long (2002: 49–50) argue, there is a correlation between a lack of place-specific attachment to customary territory (i.e., via 'place-specific behaviours' such as hunting, gathering, swiddening and arboriculture) and socio-cultural disenfranchisement. In Malaysia, where indigenous rights can only be realized through the winning of title to indigenous customary lands, indigeneity cannot be sustained on the level of symbolism and performativity alone (Article V). For Semai, indigeneity is synonymous with their lived reality, practised in the context of customary land, in the habitus of the forest (see Nicholas 2001: 124–125). Symbolic enactments and commemorations of culture are therefore presently unnecessary for Semai to assert their indigeneity, given the possibility of access to their customary territories and a desire to lead a forest-dependent lifestyle. In Memmott and Long's (2002: 49–50) estimation these territories are 'complete places' that guard against placelessness and encourage the continuation of customary place-specific behaviours.

7.3 Weathering the impacts of colonialism and development: the evidence of place-names in understanding Semai territorial adaptations

Given the ever-expanding rate of land development in Malaysia, the option of pursuing a forest-dependent lifestyle is unstable. Although the Bukit Tapah Forest Reserve has thus far served as an environment for the Semai culture to flourish, it offers no assurance of long-term indigenous land security. The designation of 'forest reserve' while rendering the sense of a protected forest, is deceptive and in actuality refers to a 'production forest' or a forest reserved for its future forestry, mining and cash cropping potential. Since outside interests are permitted to lease or buy parcels of forest reserve land for the purposes of agriculture and other types of land use, Semai reason that their communities should be afforded the right to subsist in the forest instead of being censured by state officials for encroaching and poaching on lands they have customarily depended on to survive. Naturally, the loss of access to land augurs utter destitution

for Semai, particularly if outside pressures are exacerbated by the situation of Semai proprietary interests that favour private land ownership over traditional, communal-based land use arrangements (Edo 1998; Williams-Hunt n.d.).

As discovered in this research, the commensal, cooperative understanding of *lengriiq* is no longer the only perspective of Semai land tenure in contemporary times. Instead, more and more, the term *tiq sakaag* (from the Malay *tanah adat* or 'heritage land') is employed by people to denote their individual or family holdings of land. These holdings consist of the assemblages of gardens in the vicinity of settlements (*kampuk*), individual stands of heritage trees (*jehuuq sakaag*), groves of heritage and other trees (*dusut*) and rubber and oil-palm plots (*kebun*). The terms for each type of land use are borrowings from Malay, suggesting exclusivity and private ownership (in the sense also of 'landed endowment' as opposed to 'cultural birthright').

It has to be remembered that the terms *kampuk*, *dusut* and *kebun* were already in use when Gomes performed his fieldwork in this general area. Thus, it could be argued that while private-like claims to land have increased over the decades, communal land use remains an ideal to the Semai communities researched. Currently, even where land is under exclusive or individualized tenure, hunting, fishing, trapping and gathering can be pursued anywhere in a *lengriiq* with notice to the individuals or families carrying out agriculture in the area. This is due to the link between Semai land tenure and the obligation of *caaq samaaq* or continuous sharing, which may well prevent the exclusive control of land by individuals and families. This would thereby enable every *lengriiq* resident access to land. This point, however, is made on the assumption that Semai agricultural pursuits will continue to be small-scale and free of the monopoly of more financially successful farmers.

If it ever materialized, what would Semai private land ownership entail? Li (2007) presents the apposite instance of Lauje indigenous farmers in Sulawesi who opted to enter into

modernized agricultural schemes by planting tree crops.⁷ Where once their autonomy was based on communal land tenure and a substantial forest commons, the cultivation of tree crops resulted in private land ownership claims. Gradually, more successful farmers bought out those whose yields continually suffered, forcing the latter into landlessness and indenture. The pattern of expanding agriculture into the forest commons further led to the obsolescence of lifestyles based on primary production and forest subsistence. Unsuccessful farmers have thus become mired in poverty and subservience, having no access to available land and thus no opportunity to return to subsistence farming. These threatening outcomes may well be applicable to other geographical areas, especially the intensively developed tropical rainforest regions of the world (see Li 2007: 180). They not only point to an abandonment of the traditional values of communal land use and stewardship in pursuit of a better life (Li 2007: 181), but a breakdown of what Li terms 'relations of care' (see also related concepts, i.e., Tuan's [1974] 'fields of care' and Sayer's [2011] 'flourishing'). Akin to Semai, Lauje customs centre on the greater good, their social institutions focused on redistributing individual work and the fruits of labour across households and generations. However, with land steadily becoming a privately-owned entity, Lauje seem to be existing as Lauje in name only, isolated from their customary reciprocal obligations and ties to land.

7 A similar case to Li's is Carol Smith's work on social differentiation and simple commodity production in Guatemala during the 1980s. In her (Smith 1984 in Gomes 1990: 19) reckoning, the proletariat arose out of liberal policies that advantaged the interests of a local bourgeoisie, effectively displacing peasants from their holdings.

7.4 The geography of Semai toponyms: evidence of a thriving engagement with land

The existence and integrity of customary territory, especially intact, contiguous tracts of *pabel* and *jeres* forests in the Bukit Tapah Forest Reserve, is not only integral to earning a living but an integral part of being Semai. This may be argued to be the very juncture at which indigenous land security becomes a question of human rights: territorial attachment is an element of justice (Kolars 2012: 273). As Subramaniam (2013: 108) states: 'In addition to constitutional and statutory laws, the Malaysian superior courts have recognized the pre-existing rights of Orang Asli to their ancestral and customary lands at common law'. Sharom (2006), in his evaluation of the preparedness of Malaysia to live up to its obligations under Article 8(j) of the Convention on Biological Diversity, draws attention to the importance of formal recognition of the right of indigenous groups to practise their ways of life, which itself is dependent on the right to land. He (2006: 56) argues:

In order to protect the traditional knowledge, innovations and practices of indigenous groups, one must protect their right to land. The lifestyle[s] of indigenous communities in Malaysia are so intertwined with their relationship to the land, that to examine the matter in any other way would be folly. Without land, and by this it is meant land suitable for the traditional lifestyle of indigenous communities, there can be no indigenous practices and without these, then what is there to protect?

Toponyms demonstrate the role of the forest in guaranteeing the persistence of the Semai language and oral tradition and in emplacing Semai within a 'memoryscape' (see Nuttall 2001; Article III) that makes them indigenous to place. While the threat of future shortages of land in the forest reserve may have propelled the reaction of private-like claims, the activity of tending and cultivating plants in the forest is one that facilitates continuous engagement with the forest.

Of relevance here is Ibrahim's (2000:105) point that the 'diversity of economic pursuits that [Orang Asli groups] have managed to evolve, create and combine, and oftentimes efforts of genuinely trying to promote a viable self-sustaining agricultural community... do give some insights into ... the possibilities or potentialities of indigenous variants of "development"'.

As a rule, groves of cultivated trees are located in *selaay manah* or old swidden plots. In this sense, trees serve as markers of past as well as contemporary land use, enabling the tracing of swiddening, and more widely, Semai settlement and dispersal patterns in a particular territory. Forest dependence among Semai may be interpreted in terms of how arboriculture has increasingly been carried out in lieu of swiddening. Rather than being altogether replaced by arboriculture, the practice of swiddening has retained its essence in other agricultural practices that are amenable to the needs of contemporary Semai. If swiddening is, as Scott (2000) argues, a political decision, a means of ensuring personal freedom, of producing efficient yields per unit of labour when land is abundant, then arboriculture marks a response strategy to outside influences, namely trade and later, colonial management and surveillance of forest lands and 'other projects of state-making' (Scott 2000: 174). In contemporary times, arboriculture may be interpreted as a desire to maintain a forest-dependent lifestyle.

Living a forest-dependent life thus extends beyond subsistence to carrying on the legacy of the Semai ancestors who worked the land and whose remains lie everywhere in the forest (Edo 1998; Bah Bout, pers. comm., 17/11/2010; Tok Duni, pers. comm., 25/08/2012). Aptly stated by Sharom (2006: 60, 66), '...the value of [customary] land cannot be measured solely by monetary means...when a society's existence and identity are so closely linked to the land they inhabit, then the value goes beyond that of the payment of cash for the loss of property...the issue is not all about compensation, it is also about the right of a people to live according to their traditional lifestyles'. Working the land is viewed as a way of honouring the dead and ensuring

against social isolation; in short, Semai interactions with the forest have ideological and spiritual implications as their taboo complex illustrates (Dentan 2000, 2008).

7.5 The consequences of surrendering land

Perhaps the most tenacious issue is the awareness among Semai of the potential destruction of the forest and all it epitomizes should their forest homeland be abandoned (either voluntarily or forcefully). Their place-names describe a reality that is dependent on the forest for its order. Abandoning the forest is thus tantamount to being stripped of one's identity and place in the world, suggesting the chaos of losing one's humanity or moral direction, which the forest has a role in directing and inculcating (see Dentan 2000: 213). The quotidian, hereditary and cultural aspects of Semai customary territory are communicated in Semai toponyms and place narratives. Names applied to places and physiographic phenomena demonstrate the ontological and metaphysical implications of customary land on the Semai psyche (see Gomes 2016). Indeed, being able to live off the land is perceived by Semai, young and old alike, as the utmost indicator of wellbeing and freedom. There is a longing for pristine forests and rivers, wild or self-cultivated food and above all, the cool and tranquility of the forest (Bah Bout, interview, 28/10/2010; Keningsenan, interview, 12/11/2010; Tok Duni & Ajok Duni, pers. comm., 02/01/2012; Bek Terus, pers. comm., 20/04/2012).

Cultivated trees carry the expectation that future generations of Semai will continue to utilize the forest; the inherited nature of such trees suggests an anticipation that Semai ancestral lands will exist in perpetuity, a sign of the continuation of their ancestry in place (Article III). This research has confirmed Dentan's (2008) and Gomes' (2004) findings on the nature of Semai cultural continuity amidst change. Extant toponymic knowledge demonstrates an ongoing relationship with the forest. Place-names pose a record of life lived in the forest and the 'relations of care' (Li 2007) that it mediates. In short, the forest has been a constant in the

Semai world view, enforcing links between past and present generations of people, where people assume responsibility for the welfare of one another and other beings that make up the forest world. Land stands for the Semai way of life and symbolizes the cultural vitality and continuity of their community. It is a form of inalienable wealth, an inheritance which serves to define who one is historically and culturally.

The kind of impoverishment described by Li (2007) in the case of Lauje is not present among Semai communities in Perak. As discussed above, Semai rights to their customary lands within forest reserves have not been extinguished and the option of depending on the forest for subsistence and agroforestry is thus tenable. This research confirms that what Gomes termed simple commodity production is still a major facet of the Bukit Tapah Forest Reserve Semai economy. Even for villages distantly located from the main road Jalan Pahang, forest products such as durian, petai and occasionally rattan and eaglewood, are carried along forest trails to the nearest tarred or gravel roads to be sold to Malay and Chinese middlemen. In light of this, it could be argued that there is a correspondence between the thriving informal economy of the forest products market and the continuance of living and partaking of a lifestyle that is dependent on the forest. Unlike Lauje farmers who have lost access to land and thus, have no choice but to take on wage labour and indebtedness, Semai currently have a measure of control over their personal freedom and can engage in flexible subsistence strategies. The forest practices Semai engage in are reflected in their toponyms, which represent a record of their land use and more generally, their memory as a distinct people. Their involvement with the forest has implications on their indigeneity and its viability into the future.

Examples of such threats to indigenous autonomy can be observed around Peninsular Malaysia itself. Orang Asli blog content, a means to understanding contemporary land struggles, serves as a way to cross-check indigenous perspectives and values related to land on an individual level, as opposed to the 'representative' views provided by Orang Asli opinion

leaders, academics, NGOs or the Department of Orang Asli Development (Article V). Youth, especially, who are literate, communicate through blogs and other social media about their lives and the issues impacting their communities. For instance, the resumption of forest subsistence (or the desire thereof) by communities who either sold a portion of their traditional lands or whose lands were leased by state corporations to private enterprises, is covered in several Orang Asli blogs.

In the scenario of a regroupment scheme, several irremediable issues arise. For instance, during the Malayan Emergency, Semai who led a swiddening lifestyle in the Pahang interior were under suspicion of aiding and abetting communist guerillas. Hence, in the name of national security, the state began its programme of permanently hamletting dispersed Semai communities in areas accessible by road or river. National security was in fact a convenient label for the dual aim of mainstream (i.e., Malay Muslim) integration and land expropriation (see Nicholas 1990, 2000). The early 1980s saw the merging (or in Department of Orang Asli Development parlance, 'regroupment') of twenty Semai villages from the Betaaw (Betau) and Jelaay (Jelai) river systems in Pahang into a single settlement, RPS Pos Betau (see Talalla 1984). Originally distributed within a radius of fifteen kilometres, the communities' living spaces, under regroupment, shrunk at once to a radius of six kilometres. Nicholas (1990, 2000) notes that each village's subsistence base was severely reduced as was its subsistence potential; for instance, one of the villages that was re-grouped, Kampung Kuala Tual, received only roughly 100 hectares under the Betau Regroupment Scheme from its original 7, 000 hectares of customary territory.

7.6 Access to land and indigenous flourishing

Compared to Bukit Tapah Forest Reserve Semai, Semai living in RPS Pos Betau have less autonomy in deciding on their livelihood options. While still having access to a portion of their

customary lands, each family is directed by the Department of Orang Asli Development to plant its allocated two hectares with cash crops (see Aiken & Leigh 2015: 83–84 for a concise description of life in a resettlement scheme). The labour intensiveness of cash-cropping has resulted in a lack of time and space to expend on traditional subsistence activities. Furthermore, there is the problem of receiving dividends from the sale of cash crop produce. Cash crops, such as palm oil and rubber, take years to mature and while awaiting yields, farmers are forced to rely on cash payouts from the Department of Orang Asli Development to survive. This, in turn, places families in the bind of relying solely on store-bought food and other consumer items, on which the majority of the Department of Orang Asli Development cash subsidies is spent. Alien to the *caaq samaaq* or continuous sharing principle and the Semai taboo complex, the reliance on commodities and the individualistic nature of land ownership promoted in regroupment schemes have ‘sociocosmic’ level consequences (see Dentan 2008: 117); the moral obligation to share food and other resources, which in essence unites communities and ensures their existence into the future, is hampered in such arrangements. These instances are reminiscent of Li’s (2007) description of indigenous dispossession and entrapment in forms of bonded peasantry.

The Gòl-War Semai communities, in contrast to some of the Semai communities in the Pahang interior, have been exposed to outsiders for an extended period of time and stand as an example of a ‘monetized’ indigenous group that has weathered assimilative pressures. The reasons for retaining an indigenous identity and lifestyle could be understood as stemming primarily from a strong sense of social identity, attachment to place and consanguinity, which the forest environment upholds. Poorly planned and implemented government plans to ‘develop’ the Orang Asli, that is to proletarianize and acculturate them into the Malay culture, have left many communities to fend for themselves— the communities of Batu Empat Belas, Pos Woh, Ampang Woh and Geel Galuuq continue to thrive by engaging in a mixed economy of

subsistence, small commodity production and wage work. While people receive certain benefits from the Department of Orang Asli Development (e.g., medical aid, infrastructure, agricultural assistance and school fees), theirs is essentially still a hand-to-mouth existence, survived on innovativeness and opportunism.

Living in their ancestral territories has meant a continuing reliance on the forest for material as well as spiritual succour. In connection to 'transitioning' Orang Asli communities (see Kroes 2001), it cannot be denied that some Semai have adopted Malay cultural norms and also indulge in a consumerist lifestyle. This is accurate to a degree, particularly with regard to Semai who have moved out of the forest to settle in towns and cities. Notwithstanding, I argue based on my fieldwork observations, that given the choice the majority of Semai would opt to remain in their ancestral forest territories; it should be remembered that at present this is still a viable choice for the Gòl-War Semai whose territories lie within the Bukit Tapah Forest Reserve. Exist as it may a space of oblivion, where indigenous rights to land remain unresolved, the forest reserve as a 'set aside' entity has enabled the protection of the Semai ancestral forest domain (helped by the absence of large-scale extractive activities in the reserve). In the face of indomitable outside cultural influences in the villages in present times, facilitated by thoroughfares (e.g., the Tapah–Cameron Highlands road) and nearby towns, the abiding presence of the forest in village territories has had a role in mollifying such influences and stimulating the continuance of Semai indigeneity.

In sum, the findings of this thesis suggest that indigenous toponyms have a place in the present, particularly to indigenous communities who still have access to their customary territories, use their lands to make a living and communicate their dependence on land through their place-names. A realist framing of the research problem was necessary to show this. Studies carried out, for instance, in the Canadian context (see Article III) to prove indigenous generational land use and occupancy have largely utilized the 'place-names are ancestral'

narrative to assert indigenous belonging in place. However, as argued in this thesis, it is imperative that land be shown as a basic necessity of contemporary indigenous people for their communities to flourish; the ancestral toponyms they still know and use are to a large extent due to the utilization of their cultural landscapes to survive. This is a real and pressing concern, and one that points to the reality of the material and emblematic connections the majority of indigenous peoples still maintain with their ancestral lands. The issue of using oral history as evidence was also addressed in this thesis. Again, discussions of place-names or other facets of indigenous oral traditions must be posed as not solely ancestral history but a continuing narrative that presupposes an eternal connection with the physical environment. As such, there is a dire need for more ethnogeographic place-name research to exemplify contemporary indigenous capacities for knowing, dwelling, working and forming spiritual attachments to ancestral land.

8. Considerations for Future Research

As explored in this thesis, Semai toponyms stand as evidence of the authority of the forest in Semai daily life and are representative of the various dimensions of the Semai ancestral forest homeland. The 'forest' is still a non-commodity in the Gòòl-War Semai mindset and important to consider in seeking political redress and restorative justice for their communities. Place-names comprise a concrete articulation of the role of the forest in providing Semai with a subsistence, sociocultural, historical and spiritual basis to their existence as the autochthonous people of the Gòòl-War region. The documentation of their toponymy in this research points to a living relationship with a landscape that bears the Semai cultural imprint. Protection of this landscape and other Orang Asli cultural landscapes should form a priority because they contain such indigenous tangible heritage as trees, ancestral graves and sacred sites and particularly because these landscapes are the defining contexts of indigenous language, custom, being and dwelling.

Of itself, there remains much to be accomplished in terms of raising the profile of indigenous toponyms as data. In contrast to early anthropological and geographical studies, observed for example in the work of Boas (1938) and Sauer (1925), there is a lack of detailed, methodical study of indigenous place-names as part of the conceptual repertory of indigenous societies. In fact, in the decades following Boas' and Sauer's scholarship, toponymy as an academic pursuit lulled, becoming instead the domain of amateur historians and genealogists (see Berleant-Schiller 1991). Even where resurrected interest in place-name study has occurred, for instance through the critical toponymy movement in geography, the focus has been chiefly on place-naming in the context of cities and on settler/indigenous/minority debates on the question of territoriality and justified belonging (see papers in Berg & Vuolteenaho 2009). Perhaps the focus here is less on documenting indigenous toponymy because of the 'unspoken

rule', especially in settler nation contexts, that the study of indigenous place-names, as with other areas of indigenous culture, should be undertaken by indigenous groups themselves. While discussions of power are undoubtedly crucial, they should not persist solely as intellectual reflection (see Boogaart 2001); should this occur, critical toponymy runs the risk of becoming 'complacent toponymy'. What is needed instead is a 'critical *realist* toponymy' that strikes a balance between understanding the causal powers of human reasons and social structures with forms of concrete action towards human emancipation (Yeung 1997).

Toponymic field research yields the opportunity to make sense of the conceptualizations or theoretical thinking of our indigenous informants, and their substantive and metaphysical appropriations of the landscape. As Berleant-Schiller (1991: 100) argues, 'Field research in toponymy is...key to ethnogeography, a people's own ordering of the land and their knowledge about it'. However, she (1991: 93) cautions that theoretical statements in the literature, regarding place-name forms and principles of naming, must be queried. As Yeung (1997: 63) argues researchers 'should not simply 'borrow' an existing theory and fit it into empirical data; nor should theory emerge solely from empirical data'. Rather the process should be more intersubjective and iterative, involving an analytical appreciation of how problems are generated and addressed in research, the usefulness of theories, and what is constructed and how. With reference to toponymy, such an approach would entail re-discovering the importance of categorization for understanding phenomena, where categories are used to articulate the evidential relevance of place-name data through an evaluation of the assumptions brought into research.

Specific to Semai toponymy, future work would benefit from investigations into the nature of toponymic borrowings and the presence of expressive and possessive forms as well as the identification and tracing of archaic Mon-Khmer and Malayic forms in place-names. The assistance of long-term fieldworkers such as linguists and ethnographers would prove

invaluable to proceed towards formulating the possible mechanisms governing the Semai tradition of place-naming. The mechanism of archetypal and altered toponyms has been suggested in the thesis, but needs to be tested against place-name and other ethnographic evidence from elsewhere in Semai country. Of urgency is the completion of toponymic documentation for the Batu Empat Belas and War villages so that the histories of these villages can be reconstructed more definitively, upon the authority of tangible places. Such undertakings would involve the considerations of dialect differences, access to areas of intact forest and the degree to which Semai communities have been subject to government sedentarization projects (e.g., regroupment, resettlement or other schemes). An interesting focus would be to compare place-name data from Semai communities living in forest reserves with those settled outside the forest or who work on limited (or indeed denuded, deforested) land bases as cash crop farmers.

Certainly, from an endangered languages documentation perspective, the recording (and if possible, mapping) of indigenous toponyms accompanied by translations, morphological and semantic analyses, and etiological associations should be a routine practice for fieldworkers (see Franchetto 2006: 189) regardless of whether they specialize in toponymic or land tenure research. This is due to the rich indigenous geographical lexicon and environmental descriptions that can be derived from toponyms (see Article III; Hedquist et al. 2014). As a matter of ethical practice, Orang Asli, especially literate youth, should be trained by fieldworkers to undertake their own oral tradition documentation; this is both a matter of acknowledging community ownership of the materials and supporting younger people in their efforts to learn their ancestral languages and customs, which are often not acquired because of formal schooling. Additionally, from the angle of land security, all Orang Asli groups should embark on documenting the toponyms of their respective ancestral territories. This is an issue that should be weighed seriously by NGOs working with the Orang Asli to map ancestral lands; other than the bounds of these lands, traditional place-names should figure on these maps to more

convincingly demonstrate indigenous habitation of these areas as well as the breadth of indigenous place knowledge that can only be acquired through generational occupancy of the forest.

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Appendix 1 A sample of Semai geographical terms and their incorporation in toponyms

Geographical terms	Gloss	Toponyms	Notes
<i>Payaaq</i>	Swampy, muddy patches in the forest	Payaaq Alaay (Batu 14) Payaaq Cenròòy (Pos Woh)	A borrowing from the Malay <i>paya</i> or 'swamp'
<i>Bareh</i> <i>Bandaar</i>	Flatland, valley	Bareh Mentòòk (Pos Woh) Bandaar Bahuuq (Batu 14)	A borrowing from the Malay <i>baruhi/bandar</i> or lowland/town
<i>Lood</i> <i>Lon</i> <i>Lun</i>	Incline, either hill or mountain	Lood Siliq (Pos Woh) Lon Siréy Lun Nyòòk (Pos Woh)	
<i>Nencòòl lood</i> <i>Tumpok lood</i>	Row of peaks	Tumpok Kelunas (Batu 14) Tumpok Gesung Balah (Batu 14)	
<i>Jelmòl lood</i>	Lone, pointed peak	Jelmòl Perlooh Guul (Ampang Woh) Jelmòl Terkeep (Ampang Woh)	Used as a boundary marker. Also pronounced <i>jemel</i> .
<i>T'rembòòt lood</i> <i>Tenabòòt lood</i>	'Just at the peak'; saddle; rise before reaching the highest point of an incline	T'rembòòt Dendook Késés (Batu 14) T'rembòòt Juruuq (Pos Woh)	
<i>Peñhaad lood</i>	Narrow, v-shaped opening between inclines or ridges	Peñhaad Wòòk Jak Kelap (Pos Woh) Peñhaad Wòòk Tantaas (Pos Woh)	

<i>Rengwòók lood</i> <i>Wòók lood</i> <i>Gantiig</i>	Groove, drain-like depression on slopes	Wòók Graaw (Woh Inték) Gantíng Lidéey (Ampang Woh)	
<i>Balah lood</i>	Gap, pass	Balah Wòók Jadliik (Batu 14) Balah Sanglaaw (Batu 14)	
<i>Danòós</i>	Ridge	Danòós Petangkòòl (Woh Inték) Danòós Beed Muniiq (Pos Woh)	Nominalization of <i>dòós</i> , or 'to balance' or 'to cross'
<i>Cenan</i>	Slope	Cenan Jelook Ke'uur (Pos Woh) Cenan Kep Kehuup (Pos Woh)	Indicates uphill movement. Nominalization of <i>ceṯnaat</i> or 'to climb'
<i>Cendreet</i> <i>Cenreet</i>	Slope	Cendreet Tok Muda (Woh Inték)	Indicates downhill movement. Nominalization of <i>cenareet</i> or 'to descend'
<i>T'raab</i>	Hillside depression; trough-like channel down a steep bank	T'raab Silan (Woh Inték) T'raab Berbiòòr (Pos Woh)	Indicates downhill movement
<i>Tembiir</i>	'To skirt'; ledge	Tembiir Danòós Luruut (Pos Woh) Tembiir Geel Betaar (Ampang Woh)	
<i>Huuk</i>	Cavern	Huuk Bah Duuy (Batu 14) Huuk Cerlòòk Gòp (Ampang Woh)	
<i>Gepgeeb</i>	Cave in the forest	Gepgeeb Dòòq Ròòt (Ampang Woh)	

		Gepgeeb Sirééy	
<i>Tungkuup</i> <i>T'raak</i> <i>Rongaaq</i>	Cave by a stream	Tungkuup Pròöl (Ampang Woh) Tungkuup (Batu 14)	<i>Tungkuup</i> is likely a borrowing from the Malay <i>tungku</i> or 'trivet of stones' or 'brazier'. These caves are in fact boulders leaning against each other under which people can shelter.
<i>Leeb</i>	Rock outcrop, usually covered by bracken	Leeb Ranwééy (Pos Woh) Leeb Terpuk (Pos Woh)	
<i>Batuuq</i> <i>Gesuk</i>	Rocks, free-standing boulders	Batuuq Babòòq (Ampang Woh) Gesung Mengkaah (Ampang Woh)	<i>Gesuk</i> is the original Semai term for 'rock'. <i>Batuuq</i> is a borrowing from the Malay <i>batu</i> and is commonly used in Semai. The original form seems to be retained in certain toponyms, as in the latter case.
<i>Pangguuq</i>	Rock or boulder with a hole through which a stream flows	Pangung Cebaaq Telaraah (Pos Woh)	
<i>Talaak</i> <i>Terlaar</i>	Cascade, also a vertical slab of rock	Talaak Ka'òòñ (Woh Inték) Terlaar Abad (Batu 14)	<i>Terlaar</i> is a species of screw pine that thrives in high, rocky areas; it is also synonymous with 'cascade'
<i>Jerep</i> <i>Cegaar</i> <i>Draay</i> <i>Jeròòq</i>	'Water splashes on rocks'; rapids; swift flow	Jerep Cermòòr (Ampang Woh)	<i>Jerep</i> is a borrowing from the Malay <i>jeram</i> or 'rapids'.
<i>Geel</i>	River pool	Geel Cermòòr (Ampang Woh)	

		Geel Kruuy (Batu 14)	
<i>Mensiik Menlaah</i>	River detour, bend in a stream	Mensiing Kenèèp (Ampang Woh) Tééw Menlaah (Pos Woh)	Not a branch as such but an alternate route taken by a stream; when the main river makes a cove or inlet before flowing back to the main stream
<i>Tééw</i>	Stream, any size	Tééw Seriiik Yòng Yòòc (Woh Inték) Tééw Selaruuq (Ampang Woh)	Literally 'water'
<i>Cebaaq</i>	Stream mouth or terminus	Cebaaq S'kaaw (Pos Woh) Cebaaq Menlaah (Pos Woh)	Used also for the confluence of streams
<i>Kacòh</i>	Stream headwaters	Kacòh Terpuk (Pos Woh) Kacòh Gel Gel (Batu 14)	
<i>Renees</i>	River crossing	Renees Cebaaq Tenlòòp (Ampang Woh)	

Appendix 2 A sample of non-physiographic toponymic referents

Non-physiographic referents	Toponyms	Gloss	Notes
<i>Deek raaq</i>	Dengraaq Betik (Batu 14) Dengraaq Menlaah (Pos Woh)	'Old house's papaya tree'* 'Old house's Menlaah'	Abandoned house sites located near swiddens. <i>Betik</i> is Malay for 'papaya'. <i>Menlaah</i> or 'stream detour' is both a geographical term and the name of a stream, Tééw Menlaah.
<i>Deek</i>	Deng Mergas (Batu 14) Deng Perook (Pos Woh)	'Den's tiger'* 'Burrow's porcupine'	Animal habitation sites. <i>Mergas</i> is a by-name for tigers.
<i>Perlooh</i>	Jelmel Perlooh Guul (Ampang Woh) Perlooh Lòòk (Ampang Woh)	'Peak-to set-mortar 'To set- <i>bertam</i> palm fruit'	Trapping sites. Mortars, either naturally-occurring granite depressions or hewn from timber, were used to pound hill rice. The <i>bertam</i> palm is <i>Eugeissona triste Griffiths</i> ** and its fruit is used as bait.
<i>Bakooq</i>	Tééw Bakooq Belak (Ampang Woh)	'Stream-trap-belak'	<i>Bakooq</i> is a treetop trap. <i>Belak</i> (or <i>jelak</i>) is the

				hardwood species, <i>Shorea platyclados</i> **.
<i>Dahnééq</i>	Tééw Dahnééq Balaang		'Stream-storage- long-necked bottle'	Toponym refers to liquor cached on a nearby hill by British surveyors.
<i>Sempaaq</i>	Sempaaq Been Kaliip (Ampang Woh) Sempaaq Lakuuq (Woh Inték)		'Durian-herbs for ritual use-fragrant' 'Durian-successful'	Durian (<i>Durio zibethinus</i>)** sakaag sites. The latter is also a hamlet name.
<i>Betaar</i>	Betaar Centeep (Batu 14) Tééw Betaar Ansa (Pos Woh)		'Petai-origin' 'Stream-petai-geese'	<i>Centeep</i> likely denotes the original cultivation site of petai (<i>Parkia speciosa</i>)** in the Batu 14 <i>lengriiq</i> . <i>Ansa</i> is a borrowing from the Malay <i>angsa</i> or 'goose'; toponym refers to the rearing of geese in this <i>sakaag</i> site.
<i>Balooh</i>	Baloong Bakuul (Pos Woh)		'Balooh's-basket'	<i>Balooh</i> is a type of fruit. <i>Bakuul</i> is Malay for 'basket' but used in the Semai context to refer to baskets made of <i>s'kiiq terlaar</i> , a screw pine species.

<i>Serliq</i>	Seriling Cetneet (Batu 14)	' <i>Serliq</i> 's—to plant**	<i>Serliq</i> is a type of fruit. <i>Cetneet</i> implies an orchard under the control of an individual or family.
<i>Bedook</i>	Bedoong Kelkòl (Ampang Woh)	' <i>Bedook</i> 's—knob**	Toponym describes a large burl on this <i>bedook</i> or <i>jelutong</i> (<i>Dyera consulata</i>)** tree.
<i>Cah</i>	Cah Cadék (Batu 14) Loot Cah Ragaaq (Pos Woh)	' <i>Cah</i> —small' 'Incline— <i>cah</i> —basket'	<i>Cah</i> (either <i>Eugenia</i> or <i>Shorea spp.</i>)** is a hardwood species.
<i>Dòòq</i>	Dòòq Serpéy (Ampang Woh) Gepgeeb Dòòq Ròòt (Ampang Woh)	' <i>Ipoh</i> tree— <i>serpéy</i> ' 'Cave— <i>ipoh</i> tree— <i>ròòt</i> '	Toponyms describe miscellaneous trees species— <i>serpéy</i> and <i>ròòt</i> —growing beside <i>ipoh</i> trees (<i>Antiaris toxicaria</i>)**, the source of blowpipe dart poison.
<i>Liaak</i>	Liaak Cebaaq Tenlòòp (Ampang Woh)	' <i>Liaak</i> —stream confluence—Tenlòòp'	<i>Liaak</i> is a rare bamboo species that was transplanted to this area. Toponym connected to the

				Prak Sangkiil (see Dentan 2000).
<i>Penòos</i>	Penòos Jòòk (Woh Inték) Penòos Sensòòd (Ampang Woh)		'Log-jòòk' 'Log-sensòòd'	Tree uprooted in a gale and that naturally serves as a bridge across water. <i>Jòòk</i> and <i>sensòòd</i> are miscellaneous tree species indicated as growing near the uprooted trunks. The former toponym is also the name of a hamlet.
<i>Dendook</i>	T'rembòòt Dendook Kéés (Batu 14) Dendoong Kerooq (Pos Woh)		'Almost at the peak– log– <i>kéés</i> ' 'Log's– rattan stem'*	Felled or naturally fallen tree. Toponyms indicate the presence of a <i>kéés</i> (<i>Quercus spp.</i>)** tree and a budding rattan, nearby. Logs possibly acted as swidden boundary markers (see Dentan 1968).
<i>Jehuuq</i>	Jehuuq Jelak (Batu 14)		'Tree– <i>jelak</i> '	<i>Jelak</i> (also <i>belak</i>) is the hardwood species, <i>Shorea platyclados</i> **. Toponym suggests the use of a living

				tree as a marker of a swidden.
<i>Jelook</i>	Jelook Macaak (Batu 14) Jelook Ramiy (Pos Woh)		'Stem-macaak' 'Stem-ramiyy'	Toponyms suggest the original cultivation sites of the fruit trees <i>macaak</i> (<i>Mangifera spp.</i>)** and <i>ramiyy</i> (<i>Baccaurea molleyana</i>)** in the Batu 14 and Pos Woh <i>lengriqs</i> . The former toponym is also the name of a hamlet.
<i>Caak</i>	Danòos Cang Serepaal (Ampang Woh) Tééw Cang Laay (Ampang Woh)		'Ridge-branch's-serepaal' 'Stream-branch's-laay'	In contrast to <i>jelook</i> toponyms, <i>caak</i> toponyms suggest transplanting, i.e., via the planting of saplings or stem cuttings and thus the spread of cultigens/cultivars.
<i>Tunggul</i>	Tééw Tunggul Wòòl (Ampang Woh)		'Stream-tree stump-wòòl'	<i>Tunggul</i> is Malay for 'tree stump'. Toponym marks the remnants of a wòòl (<i>Ochanostachys amentacea</i>) tree.

<i>Cuaay</i>	Téew Cuaay Beltöp (Ampang Woh)	'Stream-to grow- bertam palm'	Toponym refers to the introduction of <i>beltöp</i> (<i>Eugeissona triste Griffithi</i>) to this area. People who lived in a settlement nearby used to have to travel high up into <i>jerés</i> forest to collect palm fronds for roofing. Since it was tough work, they decided to plant <i>beltöp</i> in the area between their settlement and the upland <i>jerés</i>. The palms are still growing in situ.
<i>Pelook</i>	Peloong Langéh (Woh Inték) Danóós Peloong Papah (Woh Inték)	'Atap roof's—palm spp.* 'Ridge-atap roof's—inside-out**	<i>Langéh</i> resembles <i>Eugeissona triste Griffithi**</i>. The latter toponym refers to a man who lived by the ridge and who never learned to properly build a house; the roof of his house, for instance, was constructed inside out.

Sook	Sook Waq Apok (Pos Woh)	'Umbilical cord—Waq Apok'	Toponym marks the birthplace of a woman, Waq Apok.
<i>Hòl</i>	Hòl Bah Pantéy (Pos Woh) Hòl Ah-Chèn (Ampang Woh)	'Hole-Bah Pantéy' 'Hole-Ah-Chèn'	<i>Hòl</i> toponyms indicate the suddenness of interring the remains of people who died in the forest. The former indicates the grave of a Semai man and the latter, that of a Chinese Communist guerilla.
<i>Nyep</i>	Nyep Geel Arap (Ampang Woh) Nyep Balòg (Ampang Woh)	'To vanish—river pool—Arap' 'To vanish-Balòg'	Toponyms indicate the resting places of <i>halaaks</i> , whose remains were laid on a <i>penasaar</i> (burial platform) rather than interred.
<i>Dòt</i>	Dòt Kangkaak (Pos Woh)	'Ancestor-Kangkaak'	<i>Dòt</i> is the abbreviated form of <i>terendòt</i> ('ancestor'). Such toponyms may suggest a burgeoning influence of the Malay tradition of <i>keramat</i> in some Semai communities. The placation of ancestors to

Appendix 2 cont.

				gain special favours is part of this tradition.
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*Possessive form in toponymic constructions.

**Species names as in Browne (1932); Burkill (1966 [1933]); and Dentan (1972; 1991; 2003).

Appendix 3 A sample of toponym determinants

Toponym determinants	Examples	Gloss	Notes
Flora	Bandaar Bahuuq (Batu 14)	'Valley– <i>bahuuq</i> tree'	<i>Bahuuq</i> is an old Mon-Khmer word. Seedless, inedible fruit.
	Tumpok Téew Se' uq (Batu 14)	'Chain of peaks– <i>se' uq</i> tree'	<i>Artocarpus elastica</i> was an important source of bark-cloth.
	Danòòs Tòòc (Pos Woh)	'Ridge–bamboo spp.'	
	Loot Cong Yòòl (Pos Woh)	'Incline–rattan spp.'	
	Tééw Pahaaq (Ampang Woh)	'Stream–wild durian tree'	
	Tééw Tiwòh (Ampang Woh)	'Stream– <i>tiwòh</i> tree'	Branches and leaves of this tree are used to bait beetles.
	Tééw Bekòòt (Ampang Woh)	'Stream– <i>bekòòt</i> palm'	<i>Bekòòt</i> is the original Semai name for <i>Salacca edulis</i> . <i>Salak</i> , borrowed from Malay, has come to replace it in toponyms and daily speech. Toponym refers to a lone <i>bekòòt</i> stand growing in the vicinity of this highland stream.
	Geel Sergnuum (Ampang Woh)	'River pool– <i>sergnuum</i> tree'	<i>Sergnuum</i> is the original Semai name for <i>Scorodocarpus borneensis</i> . <i>Kulip</i> , borrowed from the Malay <i>kulim</i> , has come to replace it in toponyms and daily speech.

	Geel Panaan (Woh Inték)	'River pool-screw pine spp.'	Planted to serve as a boundary marker between the <i>Iengriiqs</i> of Geel Galuuq and Jelaay. Shrub has medicinal value but is no longer found in situ. The toponym is nevertheless still used.
	Danòs Penulééh (Woh Inték)	'Ridge-shrub'	
Fauna	Tééw Berikòòc (Batu 14)	'Stream-bamboo rat'	Habitat.
	Tumpok Berangsaaq (Batu 14)	'Chain of hills-wasp'	
	Tééw Kayèèt (Batu 14)	'Stream-flying fox'	
	Lon S'liiq (Pos Woh)	'Incline-cobra'	
	Tééw Tekuraaq (Ampang Woh)	'Stream-tortoise'	Habitat.
	Tééw Gerpaar (Ampang Woh)	'Stream-wood pigeon'	Where this pigeon species bathes.
	Leeb Jawiir (Ampang Woh)	'Rock outcrop-swift/swallow'	Nesting area.
	Tééw Kermòr (Ampang Woh)	'Stream-worm'	Worm species found in <i>selaays</i> . Feeds on paddy and tapioca stalks and leaves.
	Tééw Simòòy (Pos Betau)	'Stream-bat'	Species of miniature bat that nests in bamboo.

Environmental attributes	Terlaar Abad (Batu 14)	'Cascade-cloth'	Known officially as Lata Iskandar and by a newer name, Talaak Simaay. Toponym likens the cascade to a wave-like fall of cloth.
	Lood Kerungwèl (Batu 14)	'Incline-encircling left'	Implies the roundish shape of two adjoining hills said to be spouses (see Article III). A taboo place. Keriléng = around.
	Wòòk Bersusee (Ampang Woh)	'Groove-unkempt'	Refers to the overgrown, unkempt nature of the jungle around Kacòh Tééw Bersusee. It is difficult to cut one's way through this area.
	Batuq S'kuul (Ampang Woh)	'Boulder-dry'	S'kuul is an antiquated term for 'dry'. The boulder appears to be always dry even when it's rained on.
	Talaak Pereghèq (Ampang Woh)	'Cascade-hacking'	Onomatopoeic toponym (expressive). The falls pour down, making the sound 'hèq, hèq', as if being hacked or torn into tiny pieces.

	Tééw Kedéc (Ampang Woh)	'Stream-bitter'	Stream waters are unusually cold and bitter to the taste.
	Geel Kerenlak (Ampang Woh)	'River pool-to obstruct'	The biggest river pool in Tééw Se'òòy and the final reach for fish. A popular fishing, fish-trapping and fish-netting spot as fish are obstructed from exiting the river pool.
	Tééw Deng Garac (Ampang Woh)	'Stream-house landslide'	Area around stream is heavily eroded and susceptible to landslides, in and out of the rainy seasons.
	Tééw Wòók Teradéér (Ampang Woh)	'Stream-groove bright'	A good lookout point.
	Tééw Sèéq (Ampang Woh)	'Stream-come to naught'	Refers to the poor yield of <i>selaays</i> in the area of the stream.
	Tééw Sambòòng (Ampang Woh)	'Stream-come to naught'	The original name for Tééw Ah Lee. Refers to the failure of <i>selaays</i> in this area.
	Tééw Kariit (Ampang Woh)	'Stream-stingy'	The stream, plants and animals in this area are unyielding.

	Geel Nyuurl (Ampang Woh)	'River pool-lucky'	A prime fishing site.
	Loot Peneeq (Batu 6)	'Incline-bountiful'	A fertile swiddening and hunting area. The original name for Loot Yòc Dók.
Material culture, traditional technology and subsistence activities	Payaaq Roob (Batu 14)	'Muddy patch-p'raah paste'	Located near the stream, Tééw Tadeek. <i>P'raah</i> (<i>Elateriospermum tapos</i>) fruit was soaked in the stream, pounded into a paste and then wrapped in leaf and buried in Payaaq Roob for preservation.
	Tééw Studak (Pos Woh)	'Stream-spear'	<i>Studak</i> is a variant of <i>sudak</i> or 'to spear'. Sharpened bamboo rods were set around this stream to spring trap wild boar.
	Tééw Kliit	'Stream-tin'	Replaces the original toponym, Tééw Kenwèél. Where people used to congregate to wash tin. Sold or bartered, tin was a means to purchase goods from non-Semai.
	Tééw Kenalaaq (Ampang Woh)	'Stream-tree hut'	<i>Kenalaaq</i> is a variant of <i>kalaq</i> or 'tree hut'. It consists of a platform for trapping birds with resin and is built in the upper reaches of trees.

	Tééw B'laaw Lemaag (Ampang Woh)	Stream–blowpipe thicket'	Refers to <i>Bambusa wrayi</i> , a bamboo species utilized in the production of blowpipes. Said to grow plentifully at the stream's headwaters.
	Tééw B'laaw Seruniq (Ampang Woh)	'Stream–blowpipe <i>bambusa spp.</i> '	Tééw Kenyuq is this stream's original name. Considered a <i>sakaaq</i> location. Bamboo species was transplanted from the forest to the stream area.
	Tééw Pagaar (Ampang Woh)	'Stream– fence'	In the past, fences were ordinarily constructed from bamboo and wood around settlements or houses to protect against tigers.
Ancestors	Bandaar Waq Angguk (Batu 14)	'Valley–Waq Angguk'	<i>Bah/ bek/dóot</i> and <i>waq/ken/jaaq</i> are honorifics for males and females, respectively. In some cases, honorifics are left out of toponyms commemorating people. The ancestors listed here are those who lived and famed, or whose graves are located, in the areas mentioned. In addition to <i>dengraq</i> and double tree toponyms, ancestor toponyms may be viewed as a means to
	Tééw Wòók Jaaq Kelap (Pos Woh)	'Stream–groove–grandmother Kelap'	
	Loot Bah Caluus (Ampang Woh)	'Incline–Bah Caluus'	
	Tééw Bah Neeng (Ampang Woh)	'Stream–Bah Neeng'	
	Tééw Namiik (Ampang Woh)	'Stream–(Bek) Namiik'	
	Tééw Bibééy (Ampang Woh)	'Stream–(Ken) Bibééy'	
	Tééw Bah Basuuq (Woh Inték)	'Stream–Bah Basuuq'	

	Téew Bek Lengkaar (Woh Inték)	'Stream–Bek Lengkaar'	map old habitation and swidden sites.
Incidents <i>Cermóor</i> : 1) Malevolent spirit-related	Geel Kóór	'River pool–goitre'	About a couple searching for food around the river pool. While chopping down a <i>langkap</i> palm for its fruit, the man lost control of his hatchet and it fell into the pool. He dived into the pool to search for it but this angered the spirit of the river pool. The man was killed as a result and all that remained of him was one of his shoulder blades. The man is remembered in this toponym not by his name but for his goitrous condition.
	Geel Berkeet	'River pool–pregnant'	About a pregnant woman weaving a basket from <i>sepaal</i> fronds near the river pool. Plait after unsuccessful plait, the woman was left unhappy, ridiculing and laughing at her work. Tragedy struck when the woman went home: she went into labour and soon perished. The river pool spirit had given her a sickness. Her husband made an offering of

				<i>sepuuy</i> leaves at the pool and named the place <i>berkeet</i> in memory of his pregnant wife.
2) Tiger-related	Tééw Gòòl		'Stream-floating'	A tiger-given name. Gòòl is a contraction of <i>gel drayòòl</i> or 'to bob or float'. Concerns a tiger that was hesitant to eat its prey by the stream for fear that the bones would fall into the water and float downstream where people would see them and be frightened away.
	Tééw War		'Stream-to corner or surround'	A tiger-given name. Possibly from <i>céwar</i> or 'to circle', having the meaning to corner a wild beast. A second meaning is 'here and there', in the sense of pacing to and fro.
	Danòòs Senem (Pos Woh)		'Ridge-grease'	A tiger-given name describing the abundance of fat prey in the area.
	Tééw Tenlòp (Ampang Woh)		'Stream-ear close'	Contraction of <i>entak se'òp</i> or 'ear close'. About a tiger finding nothing to prey on around this stream. The whole area seemed barred to the tiger, as if its ears had been stopped and it could no longer sense prey. In frustration, it

				gave the area the name <i>tenlôp</i> , which has the meaning 'closed off'.
3) <i>Ngkuuq</i> -related	Talaak Ka'ôôh (Woh Inték)		'Cascade ?'	Related to a narrative about the thunder deity Ngkuuq, known for his impetuosity (see Dentan 2008). Filled with envy at the idea of people enjoying themselves at a <i>sewang</i> , Ngkuuq tore up his <i>lat</i> (loincloth) to build a bridge to earth. Just as he took a step, he fell to his death at this cascade. As in other Ngkuuq narratives, he was brought back to life by his brother, Bah Luc.
	Ubaaybalééh		'They two ('both of them') maiden'	Designates a major peak on the Perak–Pahang border, known officially as Gunung Batu Bujang. Connected to three mythological events. The translation of the toponym refers to the first event, in which a <i>halaak</i> rescued two maidens from a flash flood. The second concerns Menaléh Cabiq, Ngkuuq's youngest sister, who was flung down to earth by her

			brother because she was badly deformed. As she wandered in the forest crying, she came across a tiger who took pity on her and carried her away to Ubaaybalèèh. They married and planted a <i>selaay</i> . The area is said to be a <i>selaay cermòòr</i> , always in a treeless state as if someone still farms there. From afar, it looks like it is planted with <i>selaay</i> crops but upon reaching the place, only grass is found growing.
4) Yéèq-related	Batuq Babòq (Ampang Woh)	'Rock-to cradle'	Regarding a man who was carrying his sick wife. The <i>yéèq</i> spotted them from afar and they soon turned to stone.
	Danòòs Batuq Petang Gól (Woh Inték)	'Ridge-rock ? load'	Refers to twin boulders. Petrified form of a hunter carrying a wild boar carcass on his shoulders. A result of the <i>yéèq</i> 's ill-fated gaze.
<i>Pasaal</i> : Accidents and other violent incidents	Tééw Waq Tampuan (Pos Woh)	'Stream-Waq Tampuan'	The new name for Tééw Beraay. Also known as Tééw Tampuan. Waq Tampuan was a Bidor woman who was mauled by a tiger.

	Tééw Batuuq Kelahiq (Pos Woh)	'Stream-to quarrel'	Refers to a bitter quarrel that occurred at this rock. Stream is named after the rock. <i>Kelahiq</i> is a borrowing from the Malay <i>kelahi</i> or 'quarrel'.
	Talaak Yòók Pòs (Ampang Woh)	'Cascade-fall-deer'	Records the unusualness of a deer losing its footing and falling to its death.
Taboo violations:	(See Geel Berkeet above and Article III)		<i>Terlaac</i> can also be incurred through ridiculing personal attributes or possessions. A thunder squall or flash flood is usually the consequence. In this case of Geel Berkeet, it was the contracting of an illness that brought on the onset of labour.
	Tééw Semeey	'Stream-semeey'	The original name for Tééw Necwaal. Stream personifies the idea of <i>semeey</i> or the consequences of violating the taboo of <i>penaliq</i> , which is usually a severe or deadly illness or pestilence. Refers to the mixing of different categories of food, which suggests upsetting the natural order (see Dentan 2008).

	Téew Tercòk	'Stream-tercòk'	Stream personifies the prohibition of sitting under or felling two different species of trees growing side by side. Drinking from its waters can cause severe headache.
Objects out of place in a forest setting	Lon Bliut (Batu 14)	'Incline-trigonometric station'	Loot Menglaaq is the incline's original name. Toponym refers to the land surveys carried out during the British colonial period and the construction of a trigonometric station atop this hill.
	Cah Canduu (Pos Woh)	'Cah-opium'	Refers to the smoking of opium by Chinese itinerant farmers in the area. The specificity of the name seems to suggest that a stash of opium was left by or under a <i>Shorea/Eugenia</i> spp. hardwood.
	Bareh Jedook (Pos Woh)	'Valley ?'	Meaning of <i>jedook</i> unknown. Toponym speaks to an episode of <i>penalitiq</i> , whereby a whole settlement perished. Believed to be an old Hindu gravesite where artefacts such as pottery, beads and coins can be found.

	Loot Pasiir Empòòc (Ampang Woh)	'Incline–sand–salt'	Refers to a reservoir atop this incline that was filled with fine sand, presumably for the construction of a trigonometric station. Linked to the colonial land surveys.
	Tééw Wòòk Sangkuut Liiq (Ampang Woh)	'Stream–groove–stuck–frying pan'	Relates how a man moving back to his birthplace in Pahang decided to leave behind his <i>liiq</i> (from the Malay <i>kuali</i> or 'frying pan'). He strung it up on a bough as a remembrance.
	Tééw Belangaaq	'Stream–clay pot'	Refers to Chinese tin miners leaving behind a wide-mouthed clay pot at this stream. A borrowing from the Malay <i>belanga</i> .
	Tééw Misiin (Ampang Woh)	'Stream–machine'	<i>Misiin</i> is a borrowing from the Malay <i>mesin getah</i> or 'rubber mangle' used to process latex into solid sheets. The only toponym recorded so far to refer to the cultivation and harvesting of rubber.
	Tééw P'luup (Ampang Woh)	'Stream–p'luup'	Although a tree species is denoted, the toponym preserves

			the memory of a sewing machine taken along by a group of British, Malays, Indians and Chinese who were fleeing the Japanese during the Second World War. The machine was abandoned at the stream.
	Loot Bediil	'Hill-to shoot'	Refers to the stashing of firearms on this hill by a Siamese man. <i>Bediil</i> is found in other Mon-Khmer languages and is not necessarily a borrowing from Malay (Ngah Aching and Bah Yit 2007).