Thinking Ecographically: Places, Ecographers, and Environmentalism

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ABSTRACT

The literature on environment-animal-human relations, place, and space, tends to emphasize cultural differences between global interests and local environmental practices. While this literature contributes substantially to our understanding of resource management, traditional ecological knowledge, and environmental protection, the work of key persons imbricated in both global and local positions has been elided. In this article, we propose a theory of "ecographers" as individuals particularly positioned to relate an indigenous epistemology of the local environment with reference to traditional *and* introduced forms of knowledge, practice, and uses of places, spaces, and inter-species relationships. We ground our analysis in ethnographic research among two Pacific communities, but draw parallels with individuals from varied ethnographic and environmental settings. This new concept offers a powerful cross-cultural approach to ecological strategizing relationships; one grounded by local yet globally and historically inflected agents of the present.

KEYWORDS

conservation, environment, fisheries, indigenous, mining, Papua New Guinea political ecology, Tonga

Introduction

This little house is important in terms of fish, that's the truth. The road of the fish ends here, but begins in the deep sea; they leave the sea, and this is their tomb.

-Saia Fifita "Hiko" of Ha`ano (2004)

The tree kangaroos have a meeting, a conference of their own, where they make plans and discuss dangers ... when they encounter threats, they plan and move to new places ... This is why they are plentiful in the Kuper Range.

-Kausa Ilau of Elauru (2002)



Landscapes and resources, places, spaces, and the species that live in them have become powerful, emotionally charged, and dramatically contested idioms. Minerals, fish, water, localized genomes, vistas, space to relocate labor, tracks for transportation, areas to test and train military, and models for natural resource management-all have become targets of desires and neoliberal reconceptualization (Gedicks 2001; Harvey 1996). As indigenous peoples and those whose life-ways are closely invested with their local environment feel the pressures and pleasures of a globalized economy, environmentalists call on their local perspectives to inform a counterbalance to the reconceptualization process (Hall and Fenelon 2004). Their voices-authoritative, grounded in local ethno-epistemologies, and highly varied—are often represented in the discourses of conservation and development as uniform, shared cultural knowledge (see Brosius 1999 for an analysis of such discourses: also Conklin and Graham 1995). Our intent here is not to critically assess these representations as this has been done elsewhere (e.g., Dove 2006; Hames 2007; Orlove and Brush 1996). Instead, we call for a refocus on the work of specific individuals in imagining and reimagining local ethno-ecologies. Doing so theorizes a repositioning of authority over, and agency in, the representational dialogues, desires, and resultant texts about such places, and decenters the perspectives of Western institutions and researchers (Smith 1999). such as ourselves.

We explore notions of "ecographic thinking," and offer the attendant construct of the "ecographer." Both provide important interventions in contemporary conversations about humans, animals, and environments. Ecography is "the inscription of human history and agency in a place and its denizens, and a mutual re-inscription of land, sea and dwellers into human lives, by way of place names, emplaced stories, ceremonial titles and remembered rituals" (Young-Leslie 2007: 366). We posit ecographers as indigenous "spokespersons" (Latour 2004) for places and their varied inhabitants, and "ecographic thinking" as the creativity of specific persons in the reciprocal interactive process of mutual inscription and reinscription of places and their denizens (i.e., all living entities of a place). Our theorizing of ecography builds on recent work in anthropology, cultural geography, and political ecology that emphasizes the relational gualities of human-environments through, for example, the examination of networks and collectives (Latour 1993, 2004), social natures (Braun 2002), cyborgs (Haraway 1991), new animal geographies (Philo and Wilbert 2000), companion species (Haraway 2003; see also Franklin 1999), emplacement (Rumsey

and Weiner 2001), and indigenous science and methodologies (Cajete 2000; Smith 1999). As recent accounts suggest, local peoples remain active in resisting, co-opting, and contesting as well as collaborating with globalized institutions and their agents (Coates 2004; Gedicks 2001). In this context, we see ecographers as talented individuals, situated, whether by design or circumstance, at a nexus of information and knowledge, power and event, place and time. Serres' (Serres and Latour 1995: 66) notion of Hermes as "the messenger" who folds spacetime helps us conceptualize ecographic epistemology. Through actions, behavior, and speech ecographers relate (fold) an inscribed landscape, rendering it, and its residents (all species), locally meaningful. Their skill at connecting places, persons, history, and futures depends on intimacy with the biology, geography, and human-animal social histories. However, they are not necessarily idealized conservationists, nor are ecographers always typical of their broader community.

Having conducted research in separate locations and on separate topics, we came to know and interview a number of individuals who exhibited such skills.¹ Here we focus on two ecographers: Saia Fifita of Tonga, bearer of the ceremonial name "Hiko," and Kausa Ilau of the Biangai people of Morobe Province, Papua New Guinea. In order to illustrate our understanding of ecography and ecographers, this article first develops our conceptual frame before focusing on their ecographic skills.

The Ecographer

"Ecography" and "ecographer" are heuristic concepts, emergent from a comparative ethnographic analysis. Ecographic thinking is not unique to a culture area approach, nor limited to indigenous peoples. As we envision it, the idea of the ecographer moves the discussion from generalized (but still significant) practices of subsistence lifestyles, and analysis of nostalgic myths, songs, and/or other cultural poetries of place (e.g., Feld 1982; Grossman 1998; Halvaksz 2003; Ingold 2000), to the desires, intentions, and practices of pivotal individuals. This is not to devalue the importance of the works cited here or to ignore the specific individuals whose stories and observations form *part* of the analysis. In fact, the literature is peppered with the voices that form, for example, Tsing's cosmopolitan nature lovers (2005), Gold's moral ecology (1998, 2003), advocates for environmental liberation (Peet and Watts 1996), indigenous environmental activists (Brosius et al. 2005;

Conklin and Graham 1995; Gedicks 2001), as well as Ingold's focus on "direct perception" (2000; also see Feit 1995; Preston 2002). The combined presence of multiple individuals in such accounts relates a certain level of ecographic understanding, incorporating and inscribing humans into the environment and vice versa. But ecographers demand, we argue, further attention.

Recognizing individual agency is not new. Durkheim and Mauss (1963) and Levi-Strauss (1966) each noted that "primitive" peoples syncretized culture and nature, rationality and emotion, though as Strathern and Latour both demonstrate, these dyads are foundational fictions of and for modernity. Within ecological anthropology, Vayda and McCay (1975) recognized agency when they called for a shift in focus from cognized models, populations, and ecosystems (e.g., Rappaport 1968; Vayda and Rappaport 1968) to individuals and environmental hazards (Orlove 1980). However, our understanding of ecographers also seeks to break (as West [2005] suggests) with the ecological anthropologies and political ecologies that privilege human action as merely what Viveiros de Castro called "an adaptive tête-à-tête with nature" (1996: 184). Instead, we agree that we must pay "[c]loser attention to the practice in which humans engage with the environment, rather than positivist pursuit of cognitive models" (Hviding 1996: 169).

In listening to the exposition of local ecographers, the concept of ecography as we intend it diverges from such ecologies where "people *act on* biological diversity, as opposed to *interacting with* plants and animals, and on each other, as opposed to acting with each other in dialectical productive relationships" (West 2005: 633; emphasis added). Through their direct interactions with human and non-human forms of agency, ecographers assemble novel (and not so novel) networks of people, places, and things. They offer non-human animals "more room," facilitating the interaction of "beastly" and human places (Philo and Wilbert 2000: 25). Ecographic thinking is therefore political and generative of new lines and movements between conventions of places, humans, and animals. Tsing, for example, describes the work of Uma Adang, a female Meratus shaman, as "taking words out of foreigners' mouths and juxtaposing them wildly" (1993: 253). Tsing says that Uma Adang "goes farther than most in creating new forms of speech, new regional positionings, new local and global 'histories'" (1993: 256). Using parody and ironic incorporation of Western texts into her shamanic chants, she says more about the making of marginal places than most post-colonial discourse. In doing so Uma Adang

makes claims about Meratus rights and resources, the relation between nature and culture, and how places are to be made. Reading Tsing retrospectively, we see this as one instance of ecographic thinking.

There are numerous examples in the literature of people who might be defined (retrospectively) as ecographers: variously referred to as shamans (e.g., Uma Adang [Tsing 1993]), culture-brokers (e.g., Yali [Law-rence 1979 (1964)]), poets (e.g., Tim Douglas [Gray 2003]), hunters (e.g., John Blackned [Preston 2002]), and so forth. We see ecographers as individuals situated at a nexus of information and events, bisected by time, and possessing an intimacy with their environment. The ecographer's information comes from personal knowledge of stories, genealogies, place names, behavior of characters (e.g., fish, pigs, heroines, birds, tree kangaroos, moose, crocodiles) and entities (e.g., ocean, wind, rivers, mountains, minerals). Events, such as the failure of annual runs of fish, mineral exploration and discoveries, international resource extraction partnerships, trade treaties, volcanic disasters, and visits of special personages, can trigger the opportunity to tell, retell, inscribe/incorporate, and reinscribe/reincorporate. With exquisite sensitivity to the present, and eclectic but perduring knowledge of the past, in weaving place and persons (human and not) into a present moment, ecographers assemble connections to tell-together what they know of past, present, and a potential future.

Ecographers are emotionally connected to the environment. Milton (2002) suggests this is true for the human species in general. She effectively argues that emotion and rationality are myths, which capitalism and science effectively deploy. Grounding her work in conservationist discourse, drawing broad distinctions between science and religion, market and non-market, she argues, "Nature protection is just one area of public debate in which the [emotionality-rationality] myth is prominently expressed, in which accusations of emotionality are used as instruments of power, as mechanisms for putting down opponents and winning arguments" (2002: 150). While she offers these as "cautious generalizations" and attends to indigenous struggles, our concern is that characterizing even a mythical human nature that contrasts the emotionality of nature loving, with the rationality of science and capitalism does not always speak to real local hybrids of these same positions (Escobar 1999; Feit 2007). Furthermore, in his critique of political ecology, Latour has cautioned that "under the pretext of protecting nature, the ecology movements have also retained the conception of nature that makes their political struggles hopeless" (2004: 19). Contrary to Milton's thesis, we argue that because they ground

their thought in local epistemologies (see Gegeo and Watson-Gegeo 2001; Hviding 1996; Smith 1999), ecographers are less concerned with Western distinctions of rationality and emotionality, nature and politics. They play with market and non-market sensibilities, demonstrating "different mode[s] of accumulating," which afford alternative economies (Hall and Fenelon 2004: 173), have different understandings of scientific and religious knowledges (Cajete 2000), and experience rationality and emotionality within the context of distinctly local understandings of what is knowable and how knowledge is created (Gegeo and Watson-Gegeo 2001; Smith 1999). Their sense of human-animal-environment relations is driven by locally constituted desires and practices, sometimes in confluence with conservationists, sometimes in line with markets and capitalisms, and sometimes with distinctly local partners (cf. Bebbington 2001; Gedicks 2001; West 2006).

Ecographers actively distill human-environment relations, forming (Latour 1993)-and cutting (Strathern 1996)-networks to make sense of the world. In this regard they are spokespersons for their community and cultural ontology, but they are also spokespersons for a wider, socialized nature (Latour 2004). Ecographers' work may involve physical actions-for example, walking paths or fishing-but is predominantly cognitive and oral. They move mentally through space-time, and with a dexterity of thought, traverse cultural meanings, forming and crossing complex networks, and (re)mapping new and old humananimal-environment relations, generally through story. This epistemological process is, we suggest, akin to how Serres (Serres and Latour 1995: 65-66) describes the Greek god Hermes. For Serres, Hermes the messenger transmits and clarifies "strange news" or "noise" (Serres and Latour 1995), across the folds of space-time. As he "traverses the noise, toward meaning" (Serres and Latour 1995: 65; see also Serres 1982), the messenger reveals that which is obscure. Following Serres' insights, we see ecographers as Hermes-esque persons. At times, the ecographer's story—the news he or she brings—is "strange," or at least the place-knowledge that they enfold brings meaning to strangeness. Where Serres uses the metaphor of Hermes's activities to create hybrids of science and humanities, we see the ecographer as assembling past, present and future ecologies of desire and power.

We will clarify these points with examples of two individuals. Their styles of ecographic thinking differ, as they are grounded in unequal experiences of modernity, and culturally different organizations of knowledge, power, and desire. However, both demonstrate what we mean by ecographic thinking and exhibit parallels with indigenous epistemologies as far away as the arctic (Feit 1995; Gaffin 1996; Ingold 2000, 2003). Such peoples are similarly positioned in relation to contemporary neoliberal reconceptualizations of places, persons, and resources.

Tongan Case Study (Young-Leslie Telling)

"Hiko" is the ceremonial Hingoa (name) for Saia Fifita, an elderly man of the tiny island of Ha`ano, in the Ha`apai region of Tonga. Ha`ano is part of the nation's economic periphery, a place associated with a mythic space of a "true, traditional Tonga," where infrastructural linkages present complex challenges to development. Yet today, the fishery and whaling potential of the Ha`apai waters are objects of much national and international desire (Young-Leslie 2007). Long histories of education, foreign aid, and out-migration mean remote Ha`ano is globally linked: residents exhibit an indigenized, selective embrasure of modernity (Young-Leslie 2004). Saia Fifita has held the name "Hiko" for so long that many of the younger generation do not know his natal name. Tongan ceremonial names of this sort are lowlevel titles: they offer a little prestige, they index particular familial histories, but they bring mostly responsibilities, and little in the way of material benefits or power. A name-holder's influence depends on individual abilities. Hingoa belong in genealogies, usually pass from father to son, but can pass to siblings, or even through a sister or daughter if the name-holder has no suitable male offspring. This was how the Hiko name came into Saia Fifita's ancestral genealogy.

Hiko is not certain of his exact age. He was born sometime during World War I, possibly in 1914; which makes him 94 in 2008. Unable to walk, confined to his house and the gardens he has planted beside it, these days Hiko has few opportunities to demonstrate his skills. Although his special knowledge and skills are not totally ignored—it is generally accepted that few know as much local history as he does—it is true that the powers that be do not value his knowledge: it counters the national and dynastic interests of the elites. Hiko was not always so disregarded. He is in fact, a classic example of an ethnographic informant—the person who knows a lot about everything, but needs the right invitation to demonstrate it. He has had these invitations. In the 1970s, he instructed French anthropologist Marie-Claire Battaille-Benguigui (1988) on historic fishing techniques and lore. Much earlier, in 1957, he gave his *fakamatala* (historical account) to

Queen Sālote's Tongan Traditions Committee, made up of "Nua" (anthropologist Elizabeth Bott [1982]), the noble Ve`ehala, and Tupou Posese Fonua. The latter two became high profile authorities on Tongan culture and history;² Hiko has outlived them both. Although an authority—the last of three living in the village—on Tongan tradition and vociferous about the accuracy of his special knowledge and skills, Saia Fifita was not obviously destined to fulfill the role of an "elder." His right to be the Hiko has been contested at various points, stemming from irresponsible actions in his youth, and a dispute over a point in history when a daughter's son (from whom he is descended) was given the name rather than a collateral brother (whose descendants continued to claim precedent rights to the Hiko name, a genealogical interpretation he disputes). At one point the name was revoked, then returned. Rather than being born into the role, Saia Fifita has grown into the Hiko title.

Today, few people approach Hiko for his traditional knowledge, and some even laugh at his attempts to exert the "old ways." This is unfortunate: most of the villagers under the age of 40 may have never heard the stories that document their island's specific history, one elided in the state- and church-sponsored schooling systems, which privilege a national history focused on the current ruling family, and a modernizing curriculum congruent with that of New Zealand or Australia. Yet Hiko's knowledge is prodigious: once he begins to relate a genealogy, traditional narrative, or ceremonial protocol, and is given the opportunity to do so without interruption, Hiko is able to talk for hours, demonstrating in content as well as narrative style (which reflects rhetorical language and styles rarely tolerated today), "classic" Tongan cultural knowledge. It is my privilege to be his amanuensis.

With his permission, I briefly recount Hiko's *fakamatala* (see Young-Leslie 2007 for a fuller exposition). The narrative concerns the Tā`atu, a traditional fishing technique and event that is practiced specifically in Ha`ano, and which is instigated by runs of `*atu* (skipjack tuna) so numerous that they may leap from the sea onto the shore. According to the story, the `*atu* were an annual love-gift to the island of Ha`ano, sent from Samoa because Hina of Aliepata (Upolu, Samoa) took as her first lover/husband an early Ha`ano-based chief, Nganatatafu. The story recounts Nganatatafu's voyage from Ha`ano to Aliepata, his tryst with Hina, and his harrowing and heroic return home. The trip was instigated by his elder brother who held the paramount chiefly title of Tu`i Tonga. The elder brother intended to deflower the famous beauty, Hina.³ She, however, preferred Nganatatafu. As the

Tongans prepared to return home, the young Hina, now narratively associated with the goddess of the same name, provided Nganatatafu with the gift of her fish, and instructions for how to recognize their coming, ritual preparations for their harvest, and subsequent treatment, so that they would return in perpetuity. As the Tongan party voyaged back from Samoa, the elder brother's anger over losing access to Hina's virginity lead him to cast his brother and a Fijian attendant into the ocean and sail away, leaving them at the "mercy" of the legal arbiter of the sea, the shark. The pair swam a vast distance to the island of Ha`ano, accompanied by Hina's fish. Nganatatafu survived, but his Fijian attendant perished on a fringing reef, not quite within reach of land. The reef is named for the event, and a land plot nearby is named for the stunning sight of the young chief rising up from the sea surrounded by fish, with a dead Fijian in his arms. Nearby is Saia Fifita's family graveyard, named for Aliepata in Samoa.

In my discussions with Hiko and several Ha`ano fishermen in their sixties on the subject of the Ta`atu story and fish harvesting, what is initially evident is that the story is inscribed in the landscape, seascape, and vistas onomastically: the reef where the Fijian died, the nearby land site from which the young chief's survival is witnessed, the family grave plot that Hiko (as Saia Fifita) controls and where he will be buried, the distant, not always visible island where the pair were cast overboard and where sharks are known to frequent, the little house where Hiko lives and where (as Hiko says) "the road of the fish end." In this regard, the island and the ocean are toponymic memoryscapes, aurally and verbally inscribed. What became evident to me, after much listening and cross-referencing, was the recognition that each name is a distilled mnemonic that recalls other linked names. genealogies, proverbs and environmentally encoded histories (Young-Leslie 2007). That recognition lead to the conclusion, later confirmed by Hiko, that the Ta`atu story is a form of mythopoesis. The tale emplaces the genealogy of Nganatatafu-the contemporary Tu`iha`angana title holders descend from Hina and Nganatatafu—as rightful authorities of the place: the Tu`iha`angana belongs to Ha`ano, and vice versa, by virtue of Nganatatafu's ancestral mana.4

Parts of the story resonate with other places (Emory 1965; Feit 1995; Malinowski 1918). Hiko's statement that the road of the tuna begins in the deep and ends in his house has clear parallels with Sechelt, Tshimian, and other stories of Salmon people traveling from their home in the sea to give themselves as food (Joe 2001). At the same time, as descendants of the people who consumed those gifts of

`*atu,* Ha`ano people of today embody that form of sacred nurturance. Thus, Hiko's narrative simultaneously, reciprocally, and literally incorporates humans and sea partners, landscape and seascape, past and present.

In his performance Hiko demonstrates his skill as an ecographer, and his right to his name. When he tells the story, Hiko uses the "heroic I" pronoun (Sahlins 1985), and adds details far beyond those included in the published texts; he especially situates the role of the *tehina* (the younger brother title, Hiko) in the harvest ritual and perpetuation of Hina's bounty. While the Tu`iha`angana is the hero of the Tā`atu narrative, the ultimate cause of the gift, it is the Hiko who makes sure that the bonito will recycle through time and continue to nourish the people of Ha`ano: Hina's instructions were that when the fish begin to arrive, her lover must go into ritual seclusion; Hiko must manage the event, a process that may involve propitiating Hina-as-fish with kava, and wearing special regalia. As Hiko said to me in a March 2004 interview:

it is I who directs. Havea [personal name of Tu`iha`angana] must stay here. It is essential that Havea does not join in this thing. If Havea appeared, we would not have a $T\bar{a}$ [harvest] here; the fish would go. Hina is very shy about what they did—that is the reason Havea is banned from the beach, from the sea: Hina said to Nganatatafu: find your younger brother so that he may manage the entire thing.

Some aspects of contemporary Tongan political economy and ecology are significant to understanding Hiko's motives and tactics as an ecographer: at the nation-state level, Tonga has participated in talks framing international fish-protection conventions, but has also permitted deep-water fishing, by foreigners, most visibly, Chinese. Partly this is because Tonga does not have the resources to police its own waters, and fish poaching was rampant. But it is also true that China and Japan are very interested in Tonga's fishery and are willing to provide loans and grants for Tongan infrastructure (schools, hospitals) and national political aspirations, such as membership in the United Nations and the World Trade Organization. The fact that the Tā`atu ritual has not been performed for decades has been the subject of much speculation within Ha`ano village. In 2003, people opined that the bonito were absent because, to paraphrase my interlocutors, the "Chinese and other foreigners and fish-pirates" were capturing them before they could swim from Samoa to Ha`ano. As a Christian country with an avowedly high modernist government (Harvey 1989), epistemologies such as those which underlie faith in fish that return out

of love sit in uncomfortable tandem with scholarship referencing El Nino/La Nina events, the increased use of long-line fishing, the blasting of the reef to create a passage for larger boats and to build a wharf, and other material, scientific, and "modern" reasons. Hiko, exerting a cultural logic associated with "traditional Tonga" and based in his own experiences as a ritual specialist, in combination with his youthful exploits outside the village, claimed responsibility to himself alone; some of the other older fishers, men who have participated in Tā`atu harvests in their youth, agree (in fact it was one of them who first told me about Hiko's role in severing the relationship with Hina's fish).

According to Hiko (interview March 2004), the last time the fish arrived to give themselves was in the late 1980s. When he saw the signs the `atu where coming, Hiko says he called for the people to prepare to harvest in the traditional fashion; he paddled out to meet the `atu and keep them occupied while the people got ready. But the islanders did not get ready. They ignored Hiko. Three times, he says, he paddled around the bay, leading the fish in circles, ready to bring them to shore. Eventually, angry at the people's lack of respect (for the fish, for him, for the traditions), perhaps cranky and tired (he was, then, in his seventies), Hiko swore at Hina, purposely using profanities to offend her/the fish so they would not return, ever.

In admitting culpability for ending the miracle of the `atu-cutting the network in Strathern's (1996) terms-he was, as Saia Fifita, reinforcing his claim to special skills as Hiko, and subtly resisting the glamour of market-driven economic thinking, which denies the ancestral kinship of fish and human denizens of Ha`ano. From an event that might have been construed as a failure—insofar as he was unable to mobilize the people to harvest the fish—as ecographer, Hiko situates himself in the story as the one person essential to managing the Tā`atu. It is probable that this claim to power comes from a specific point in his life when his competitors—the distant cousins who always claimed to have rights to the Hiko name—had finally outmaneuvered him. The young and fairly new noble, living in the capital and unaware that the Hiko name was still occupied, succumbed to the lobbying (Hiko describes it as "lying') and performed the ceremony naming a member of the rival branch of the genealogy as "Hiko." In admitting to ending the coming of the fish, Saia claims, subtly, that he is truly, the one, rightful Hiko.5

Hiko's telling of the Tā`atu narrative maps a mnemonic terrain, and positions him as an agent with great potency. The story justifies the Tu`iha`angana's position in the national political hierarchy, but also

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Hiko's own position within the historic complex of "heroic Is" that underlie much of Tongan historiography. The story is clearly a mythic charter in the Malinowskian sense, which is verified to Hiko through toponomy, topophilia, performance, and his knowledge of genealogy, historical adages, and seasonal fish behavior. As he tells and then discusses the story, Hiko's rhetorical style, gestures, and personal knowledge fold information (Serres and Latour 1995: 65) into a graticular "meshwork" (Ingold 2006) connecting places (Tonga, Samoa, Fiji, Aliepata, Ha`ano, the ocean, the reef), characters (Nganatatafu, the Tu`iha`angana, Hiko, Hina, the deceased Fijian, the Tu`i Tonga, the `atu, the shark), events (the voyage, the love affair, the gift, the heroic swim, the death of the faithful attendant, the annual arrival of the fish)-all are bisected by *time* such that the time that preceded the now, and the present time that has followed are linked together. Hiko folds it all together, demonstrating a prototypical ecography. Perhaps his successor will grow to be as skilled as Saia Fifita, although it is unclear if the next Hiko will also be an ecographer, because that man is neither fisher, farmer, or even a resident of the village. He lacks the intimacv that ecographic thinking requires.

Biangai Case Study (Halvaksz Telling)

The story that Kausa Ilau tells of his life is that of a rascally boy who grew up within a changing resource environment. Kausa's ecographic tellings seek to make sense of this world, incorporating the actions of humans and non-humans alike.⁶ He spent the first eleven years of his life in the colonial gold mining town of Wau where his father, Ilau, worked for both the local medical post and Euro-Australian alluvial miners. In his youth, Kausa was educated in both mission and state schools, worked as a chainsaw operator, and traveled throughout much of the area playing soccer, singing and strumming his guitar for a community band. Lacking the formal initiations of the men's house (destroyed after World War II), Kausa was educated in many of the Biangai "customs." In order to make him "strong" his body was treated in a secretive way, and his elders taught him Biangai history. Later, training as an evangelist at the Lutheran mission in Finschaffen (Morobe Province), he was exposed to histories and practices different from those that he learned from his elders.

Such varied skills-training informs Kausa's perspective on village leadership and social life. He explained to me that when he is in the village the Lutheran church runs well, but his work is not limited to the church. The village livens up at night as he strikes his *kundu* drum, calling others to sing old songs and learn new ones. Likewise, his fireside discussions are animated with grand business plans, old stories, histories, and news from neighboring communities. He draws together Lutheranism, business, development projects, mythopoetic songs and tales, and his personal experiences in his ecographic thinking. Here I want to consider two aspects of his ecography as he shared them with me: 1) his relation to the land, power, and authority, and 2) his incorporation of mineral and forest resources into practices that elevate both his leadership role in the community and the community's place in a wider political ecology.

Kausa was the only son of Ilau living in Elauru. Both he and his father are members of a named cognatic kinship grouping called *Koibu* (on Biangai kinship see Burton 1996; Halvaksz 2005; Mitio 1981). Such groupings mark their place on the land through animal metaphors, evoking named pigs, birds of prey, and serpents in telling their stories. Such groups are lead according to genealogical seniority and an individual's demonstration of leadership. In pre-colonial times, Ilau and Kausa might have been considered *nembili* or "fight leader" of Koibu, but the general gloss of *ngaibek*, or those who "go first," is more suiting today. As Biangai have engaged in global flows and the extraction of local resources, these leaders interpret, fold and unfold the strange and not so strange practices and knowledges that they encounter. Kausa is not the only one that I would call an ecographer in Elauru, but he is a most outspoken and creative one.

As leaders, Kausa and his father differed in their degree of authority over Biangai ecographies. While they shared knowledge and desires, Ilau remained *the* authority. Like a grandfather to me throughout my fieldwork, Ilau taught me much about Biangai past, present, and future. He had taught both Kausa and I his paths and the paths of Koibu—a named wild pig of mythic origin. Through routes that he shares with those who followed the same paths before, Ilau makes his place along the Upper Bulolo River. As he explained, laughing, "My story? *Too* much land."

Ilau died in December of 2001. On his deathbed, he cautioned his kin to follow Koibu and not diverge. He died with his mouth open, leaving things to be said by his son. At least, that was Kausa's interpretation. During a village meeting shortly after Ilau's death, Kausa positioned himself at the head of Koibu. He would now be the "decision maker" he stated in English, demonstrating a skill that his father

lacked. Elaborating in a linguistic mix of Biangai, Tok Pisin, and English, he explained that his older brother had left the village many years ago. His sisters were there, but they followed their husbands' rights to land. Other members of his kin group are his junior, so only he could complete his father's last words. In our terms, he signaled his intention of becoming Koibu's ecographer.

As part of my research into the intimacies of place, I provided a camera to the men and women with whom I worked most closely. They would take photographs of things, places, and people that were meaningful to them. I would then develop them for discussion. Kausa's time with the camera followed his father's death. He wanted to document his first venture to the gardens as he traced his father's footpaths. He finished the roll of film and returned it to me for developing. However, only one photograph developed properly: the first one, taken in the village of close family. Once he left the village, following his father's paths, the photographs are blackened. I told Kausa the photo shop's explanation that the film was exposed before processing, but Kausa, adept at incorporating the "strange" in place-making, observed that he had failed in his photographic expedition on two accounts. First, he did not stop to take a photograph of his father's grave. Second, he has returned to his father's paths before his father's spirit had left the village. Though Kausa rightfully claimed leadership, his father's relationship with the land was hard to reinscribe. Ilau's paths became Ilau. This then, was Kausa's ecographic interpretation of the blackened photographs: the land, imbued with the spirit of his father, objected to his early presence. As Kausa regains his footing on these same mountain paths, at first in sorrow at the thought of his father, he too is mutually reincorporated into the land. Kausa's demonstrates his still emerging adeptness through a unique mythopoetry of resource management, discussed below.

In a context of expanding coffee gardens, mineral exploration, logging, and conservation, Kausa's ecography is about desires for himself, for Koibu, and for Elauru. In this, he draws connections between religious, geological, Western/global, and Biangai/local knowledge. Here, I focus on his skillful ecographic maneuverings of conservation and mineral exploration. In Western discourse, such approaches are antithetical, dealing with highly opposed alignments of power and desire. In Kausa's telling, they are not so distinct.

Kausa understands that conservation provides pleasure. Between 1990 and 2005 he participated in a now defunct effort to establish an ecotourism destination in the mountain ranges above Elauru. It was

an attempt to sell tourists and researchers the pleasure-filled experience of seeing wildlife *in situ*. But it also expressed his unique take on the pleasures of the landscape. The Kuper Range Wildlife Management Area was initially established in 1989 on the land of a rival kin group. Koibu group joined the effort as international funding began to flow into the community. Because of his education and knowledge of the area Kausa became an active participant in the sociality of scientific and ecotourisms. While the area garnered international attention (e.g., National Geographic film crew, perfume researchers, entomologists, bird watchers). Kausa and other participants became increasingly uncomfortable with the distribution of benefits. Though Koibu and others had contributed the majority of land, families with land rights closest to the conservation area's permanent buildings controlled most of the financial rewards. In community meetings, interviews, and casual conversation, Kausa proclaimed that it is Koibu land that attracts tourists, and it is the land that attracts animals.

In 1998, thirteen Papua New Guinean landowners were invited to participate with Western specialists in a course on the preservation of tree kangaroos (Conservationist Breeding Specialist Group 1998). Kausa attended, learning quite a bit, but he claimed that they learned as much from him about tree kangaroo behavior. While discussing his role as a source of information for international scientists, our discussion meandered to a story of a hunter following a tree kangaroo through the forest into a clearing, where the hunter witnessed a gathering of the species. Kausa elaborated on the story: "The tree kangaroos have a meeting, a conference of their own, where they make plans and discuss dangers ... when they encounter threats, they plan and move to new [safer] places ... This is why they are plentiful in the Kuper Range." Contrasting his stewardship with other landowners in the village, Kausa noted that those who benefit the most from tourism dollars do not look after the tree kangaroos. In fact, he claimed that they hunt them.⁷ Like people, tree kangaroos "make plans and discuss dangers," but more important, he argued, tree kangaroos are attracted and motivated by similar things. They still come to his part of the area because they too share its pleasures and its safety. Because of his knowledge and careful management, Kausa argued that ecotourists, researchers, and animals came for the pleasures that he and his land are better at providing; therefore, Koibu family should be justly compensated. Such disputes led to the community's dissolution of the effort in 2005.

Kausa also understands the pleasures of gold mining. His community knows alluvial mining well, and has a peripheral history in Papua

New Guinea's early gold rushes (Halvaksz 2006). Kausa, for example, has worked at the site of the Hidden Valley gold mine⁸ during its early exploration stages and among the depleted alluvials of past mines. However, according to government and company understandings, Elauru is outside the lease area of the Hidden Valley mine and is not an official beneficiary. The neighboring Biangai communities of Winima and Kwembu, and the Watut community of Nauti, are recognized landowners. Yet in Kausa's narrative, Elauru is repositioned as a significant stakeholder.

Biangai historical narratives tell of a great ancestor, whose name and story is too meaningful to reveal here.⁹ His death is part of the mythopoetic knowledge, which Elauru residents deploy in claiming their central importance among the seven contemporary communities.¹⁰ Kausa's version of the story is unique as he reads it through geological knowledge, histories, court cases, and other encounters that position Biangai within the global political economy:

Ok, the story I am telling is about what came about within Wau. It's not the story of a recent ancestor of Hidden Valley. But when [the first man] died he told his children "Go wait near my grave for later, something of me will appear. It is my yam garden, and plenty men will come later to see this, all will come, all will come." He foretold of the gold, and of these pine trees: Klinkii pines and Hoop Pines. [Yams] were a metaphor (*tok piksa*).

Kausa concluded that Elauru could go to court to claim compensation for Hidden Valley based on this history. In distinguishing Elauru's story of the first man from the story of "a recent ancestor," Kausa unfolds and reassembles temporal and spatial relations. It does not matter that the mine is occurring on land that he recognizes as presently occupied by other Biangai communities. What matters is the network of relations between past and present spaces, his village, and the gold that sleeps beneath the surface. This particular folding of space-time is partly rooted in his understanding of geology.

Geologists commonly distinguish between the ore body and the bankable reserves and Kausa fits this distinction into his ecography. Having worked with geologists at Hidden Valley, Kausa appreciates that the depth and location of Elauru's gold presents difficulties for extraction. But he uses the contours of this problem to stake out a claim to gold *elsewhere*. During an interview in 2001, he complained, "with gold, we are the last line," suggesting that Elauru will be the last Biangai village to benefit from mineral extraction. But he rephrases and shifts the emphasis: "Deep in this [Elauru] ground gold can be found. *Everywhere* there is gold; we tried, but the gold is so far down." He then likens the gold to this first ancestor, to whom he refers as an "underground man." Biangai too have dug in the burial ground of this first man and finding nothing, speculated that his body must be further down. In an analysis similar to other mineral resource areas (Biersack 1999; Rumsey and Weiner 2004; Taussig 1980; West 2006), Kausa argues that it is this underground man's body that is the gold. All Biangai are connected to this story, but as his burial was in Elauru's soil, the gold that extends to Hidden Valley must originate within Elauru. Kausa's interpretation folds Biangai pasts and present at a geological scale. When geologists explain the position of the ore *body* deep in the ground, Kausa reinscribes this knowledge, using it to incorporate the gold into his history, into his network, and his land. Here, being "the last line" means being at the base/center.

For Kausa, conservation and gold mining are about the intimacies of land, persons, and things. His unique position is not of one who dictates the nature of relations between humans and their environment, but one who folds meaning and collapses spaces in order to unfold other possibilities. Like Hiko, Kausa uses his knowledge and skills to make sense of this world, revealing multitemporal connections between places (bush, Ilau's paths, Elauru ground, the Kuper Range Wildlife Management Area), mythical and contemporary persons (the "first man," his father, tourists), entities (gold, tree kangaroos), and events (mineral exploration, ecotourism).

Ecography and Global-Local Discourse

Kay Milton (2002) argued for an "ecology of emotions" that seeks to acknowledge the intimacies of all human-environment relations. Challenging the dualism of rationality and emotionality, she argues that because of our shared direct perception and participation in a social and physical environment we all should be environmentalists. In this she finds a basis from which a broad program of "environmental protection" can be organized. Hers is a call to live closely with the environment. In our terms, she is arguing that living ecographically would lead to a universal care for the environment. But what of local environmental imaginaries that combine emotionality, rationality, market and non-market, science and religion, and those that voice them in different ways? Although her idealism is appreciated, and such interventions in globalized discourses of human-environment relations are needed, real local struggles continue. Her approach reminds us of

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David Harvey's critical assessment of the possibilities for transforming human environment relations when the debates are grounded in local struggles, what Raymond Williams calls "militant particularisms" (1989: 249). Harvey says "[l]oyalities contacted at one scale, in one place and in terms of a particular structure of feeling, cannot easily be carried over without transformation or translation into the kinds of lovalties required to make socialism [or environmentalism] either elsewhere or in general" (1996: 39). Although we appreciate Milton's call for a broad shift in the global politics of nature, and Harvey's concern with translations of local to global, the success or failure of such efforts ultimately must rest on the shoulders of individual agents. Kausa and Hiko are not aware of Milton's thesis, nor do they fit the stereotype of environmental activists: Kausa desires both mining and conservation, and Hiko is the aged master of a ritual for harvesting skipjack tuna, who has no influence on Tonga's foreign fishing treaties, but who nevertheless continues to promote an epistemology of place that takes the effect of those treaties into account. Yet, we argue, such examples of ecographic thinking will exist long after broad programs for rethinking human-animal-environment relations have come and gone. Thus, contrary to Harvey, militant and not-so-militant particularisms do matter (see also Gedicks 2001). Future environmentalisms must attend to these factors in order to speak of transforming the broader political ecologies of neoliberal capitalism and globalizations.

In describing ecographic thinking, and associating it with agents of a particular kind, we seek to move discussions of human-environment relations toward considerations of environmentalism at its base: in the life stories of specific individual agents who are pivotal in the organization of power and knowledge, even if from the margins. The way that Hiko and Kausa incorporate and inscribe these types of knowledge reveals their unique positions as spokespersons of and for the particularities of locality. For both, the role of "ecographer" was something to grow into; neither can claim absolute power/authority/knowledge. They differ, perhaps in the degree of authority, the dispersal/concentration of power and knowledge over human-environment relations in their hands. Kausa, as a Biangai man, leads a subgroup of his village in managing an increasingly global flow of ideas and techniques. Hiko, a housebound elder, exploits what audiences he can find, including sympathetic ethnographers. Yet both situate themselves at a nexus of place, time, sentient characters and events, and both consider relevant information to include knowledge of genealogy, toponomy, proverb, local animals, places, and phenomena-all articulated via story.

In drawing on toponomy, mythopoesis, metaphors, proverb, genealogy, adage, intimacy with animals, landscapes and seascapes, but also mining, Christianity, geology and other globalized forms of information, in recognizing that the landscape and seascape and the others who dwell within have volition, and in connecting these epistemologies to contemporary issues —such as changes in political leadership, fish harvests, and land stewardship—ecographers act as spokespersons. They translate their own ontologies and epistemologies, and reinscribe local histories vis-à-vis validations from other global agents. A theory of ecography thus moves the project beyond the Marxistinfused political economy that underlies much political ecology and that finds its focus in commodity desires/fetishisms, to look at other, local, cultural models of desire, and epistemologies, as well as the spokespersons who seek to represent places and their denizens.

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Notes

1. Young-Leslie coined the term, "ecography" to describe the ontology she was learning from her interlocutors for speaking selves, surroundings, history, future, and present into being. Overlapping research positions at the MacMillan Brown Centre for Pacific Studies (University of Canterbury, NZ), provided the opportunity to discover the similarities in the life history data we had separately collected.

2. The narrative material they collected is full of environmental markers. Tongan poetry and oral performance is known for its application of landscape, floral, and faunal metaphors.

3. Hina is the name applied in many central Polynesian stories to the heroic female character; she is sometimes a goddess, sometimes a strong-willed and/or beautiful woman, and sometimes both.

4. A key role of a pre-Christian Polynesian chief was to channel the sacred so as to empower bounty for the people. Annual runs of bonito that arrived (historically, but indeed within living memory) with such abundance as to appear to leap willingly on the sandy shore were clearly evidence of chiefly mana—conversion of beauty into bounty.

5. Because it is impossible for two *Hingoa* to be extant at the same time, when informed of his faux pas, the young noble effectively split the name, allocating the name "Hiko" to the new younger man of the collateral line, and the name "Hiko 'o Ha`angana" to Saia Fifita. In the village, no one refers to him as Saia Fifita. He is still Hiko, and the other man is referred to by his birth name.

6. This very much reflects Biangai ontology, where agency is dispersed across networks of people, places, and things (see Halvaksz 2005).

7. He too hunts them, but only mature males and never inside the conservation area.

8. The Hidden Valley gold mine was operated by Morobe Goldfields, a subsidiary of Harmony Gold (South Africa).

9. In this version of Biangai history, Halvaksz fulfills a promise to Biangai leaders in Elauru not to share the exact account of Biangai pasts, instead to "talk on top." Such knowledge is highly political, forming a powerful referent in community debates and in state courts where compensation rights are vetted.

10. See also Barth 1987 and Jorgensen 1996.

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