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Trails and Visions

REFLECTIONS ON ETHNOECOLOGY, LANDSCAPE, AND KNOWING

The ways people understand and act upon land can shape cultures and ways of life, determine identity and polity, create environmental relationships, and determine economies, whether sustainable or ephemeral. Understandings of “land” also underlie the complicated dance of resource development, even the concept of “resource,” as they are negotiated between local populations and larger socio-political and economic forces. This work undertakes an examination of understanding of the land, of ethnoecology and traditional knowledge of the land based on research with several indigenous peoples of northwestern Canada. The synthesis communicated here has developed over a period of years and in a variety of settings. My understanding of others’ understandings too has been a journey, a traveller’s path, a trail of story.

In some ways this investigation is rooted in indigeneity, in the concept that ancient or original connection of people and land engenders a unique relationship between them that at once creates social identity, and, as some have postulated, a deep and nuanced interaction with land which is, or should be, sustainable. In the post-Brundtland¹ world, sustainability is a concept that has been widely bandied about, imbued with political and ideological

currency, but which is difficult to actualize or evaluate. Sustainability drives a number of trends in current practice, and underlies, together with post-colonial concepts of self-determination, attempts to forge ecologically sound and socially just development. This can be construed as building both economies and societies, as the forces of global market and society expand or intensify, drawing in peripheries in both North and South. As a Canadian and onetime resident of the region, my focus is on the insights to be gained through working with indigenous peoples and local communities of the North.

In northern Canada, ecological knowledge of indigenous residents has gained a substantial currency. Its use or consideration is now mandated by governments in the Yukon, Northwest Territories and Nunavut, and consultation processes have been written into legislation and enshrined in land claims settlements. Dealing in some wise with the knowledge of the land of northern residents, especially indigenous residents, has now become a necessary and somewhat fashionable step in the transformation of hinterland to economic dynamo, glossing over the distinction between frontier and homeland which was cogently pointed out in the 1970s by Thomas Berger (1988). Traditional ecological knowledge is nearly universally now referred to by the acronym TEK, or by one of its variants such as TRM (traditional resource management) or TEKW (traditional ecological knowledge and wisdom). Contemporary use of TEK tends to be in the public involvement tradition of resource management and land use planning, and typically solicits a restricted subset of input relating to a specific planning or management need. Consultation regarding wildlife and fisheries management and environmental impact assessment for proposed development are generally the fora in which specific “chunks” of TEK are solicited (also referred to as “TEKbites” in my parlance, or “TEK artifacts” in the apt analysis of Paul Nadasdy 1999, 2003). The overall frame of reference and indeed even the domain of inquiry are provided by the institutions and knowledge systems of the dominant society.

As a number of authors have articulated (Cruikshank 1998; Nadasdy 1999, 2003; Fienup-Riordan 1990; Brody 1988; Morrow and Hensel 1992; Stevenson 1998; Hornborg 1998), this approach may in fact do serious violence to the nature of traditional knowledge systems, and may seriously limit what can be learned from study of the understandings of traditional and local peoples.

I have in my investigations taken quite a different tack. In the course of my research, there has been considerable “un-learning” to be done, and a

progressive widening of the frame of reference to avoid imposing my own categories in bounding my inquiry and in elucidating the nature of the connections that the people I work with make between phenomena and domains of knowledge and practice. I have spent time with people in a variety of communities, learning from, working with, and travelling with different people, observing and participating in land-based and community activities, and listening. I have cast my net broadly, seeking to understand how things are put together by people in a context outside the academy, within the practice of daily life, and how these understandings are learned and passed on. As I have not had the privilege of working in some pristine Eden-like society, isolated from change and outside impact, often what I have learned relates to past practices, or to practices which may be threatened by present and future resource development and social change. My emphasis is, perhaps, biased toward things of actual or potential relevance to contemporary people and communities. Part of the impetus for my work has been preservation and documentation, both for local communities and families, and arguably for the larger society, of knowledge and ways of life that may provide visions of alternatives or viable pathways for sustainable lifeways.

My research also necessarily deals with knowledge and knowing, epistemology and knowledges, and anthropology of science. This work is not a formal examination of epistemology or hermeneutics, nor a formal anthropology of science, but a consideration of what it means to “know” in different contexts, to understand how one knows. Keeping in mind the different ways that Western science and local peoples organize and experience knowledge is necessary to be able to explore local knowledge of land, and to consider its implications and entailments.

Perhaps this is a good place to consider the terms *land* and *landscape*, terms that I have chosen to employ in order to discuss people’s relationships with and understandings of what we in mainstream Euro-North American society might call environment. The simple English term *land* designates much more than mere terrain or area on a map. It is not limited to meaning soil or the surface of the Earth. Instead “land” encompasses the totality of beings existing in the place that a people live. It is a homeland, and includes the earth itself and its landforms—the waters, the sky and weather, the living beings, both plant and animal, spirit entities, history, and the will of the Creator. Land in this sense cannot be measured in hectares or reduced to a value of dollars, though the land provides both livelihood and identity. Land constitutes place, rather than space (cf. Casey 1996). Land cannot be reduced to a grid or the static

representation of a map. Land and people are neither separate nor separable, a concept well captured by the title of a popular work on Yukon indigenous peoples commissioned by the Council of Yukon Indians entitled *Part of the Lands, Part of the Waters* (McClellan et al. 1987). Land could be envisioned more as a medium than a (roughly) planar surface on which things happen, that is, more than a stage or backdrop for human activities. Colin Turnbull (reported in Tuan 1974) described BaMbuti perception of their forested homeland as “ambience” rather than “landscape,” as the place in which they live and with which they maintain both social and spiritual relationships, an interesting rendering of the relationship to homeland where there is no remove, no separation, no distant views or prospects. In some ways, the homelands of the peoples with whom I have worked and from whom I have learned are more ambience than landscape, if by that we imply a distinction between lived spaces and the features of the land. Or perhaps better would be to describe “land” as a society, a network of relationships.

Trails rather than fields are the dominant land metaphor for people who travel through their homelands to make a living, who use a variety of resource sites located in different places throughout the cycle of the year, who hunt, encountering animals which sustain them in different places and at distinct times. Trails traverse even the spiritual landscape of time-space via the *kungax (cin k'ih)*, or trails of song for Witsuwit'en of northwest British Columbia (Mills 1994), and Ridington (1990) eloquently describes the trail of dream leading to the hunter's encounter with an animal for the Dane-zaa of northeastern BC.

I began to think about ethnoecology some years ago when I was trying to represent habitat information for significant cultural plants in northwest British Columbia. I began to realize in conversations with elders and others about medicinal and food plants, that our systems of understanding the landscape differed in fundamental ways. As I struggled to interpret terms such as “gully,” “swamp” and “halfway up the mountain” as predictive habitat types, or found myself confronted with a series of now obsolete local landmarks in elders' descriptions of key plant localities, I realized that local systems of representation of place kinds, or ecotopes, merited investigation. In the process of writing my doctoral dissertation on Gitksan traditional uses of plants, I included a short chapter on Gitksan place terms. Searching for comparative material, at that time it was difficult to find comparable studies in the literature. Between cultures, it appears that ways of discussing place

kinds may be far more variable than ways of discussing plants and animals (Johnson and Hunn 2009).

The reasons for this may be many—among the simplest is that landforms themselves are less discrete than individuals of most biological species (Mark and Turk 2003; Mark, Turk and Stea 2009; Johnson and Hunn 2009). As discussed in Johnson and Hunn (2009), the scale of phenomena that may be relevant is also hard to bound. “Sandbar” is a logical candidate for an ecotope, but what about “sand”? My intuitive response is to include “sandbar” as an ecotope, a repeating landscape unit of definable spatial extent, but to exclude “sand” because it is a substrate and therefore lacks intrinsic spatial qualities. What about “moss”? At first glance, “moss” appears to be a term for a living kind, a plant life form, rather than a kind of place. However, for the Montagnais (Innu), the term meaning ‘moss’ is construed as a kind of “earth” (Clément 1990), while for Dene peoples “moss” may indicate the types of forest or muskeg stands which have thick layers of feather moss or sphagnum. These last are arguably ecotopes, landscape units typified by vegetative cover. These “moss” sites retain moisture, and the spongy texture makes them difficult to walk through, making them undesirable for trail routes or for camp sites in the summer season.

My research in indigenous knowledge of the land began with the premise that indigenous cultures in northwestern North America would encode their knowledge of ecosystems, habitats or environments in their languages, and that these recognized kinds of place might well reveal ecological understandings that differed from those of Western science and landscape management. I also felt that the way people understand land and landscape would likely vary depending on the landscape itself, and characteristics of their societies and ways of making a living, insights articulated in Thornton’s volume *Being and Place Among the Tlingit* (2008). In order to get a sense of the variation between cultures and environments while limiting variation within these parameters, I chose a series of four research areas with different indigenous groups in northwestern Canada. Two areas were located in adjacent areas of the inner Coast Mountains in northwestern British Columbia, one along the Yukon-British Columbia border, and the last along the tundra-taiga ecotone in the Mackenzie Delta region. I have also worked with a fifth group in the taiga-tundra ecotone by Great Bear Lake. Four of the five peoples speak Athapaskan languages, and the fifth a Tsimshianic language. The communities and their homelands are introduced in the following chapters.

A variety of approaches have been made to investigating ecological relationships and ethnobiological knowledge by other investigators. However, I found few models for investigating kinds of place and the organization of ecological understanding of land as a domain of knowledge. My methodology then, of necessity, has been eclectic and somewhat pioneering in the effort to focus on the particular aspects of environmental understanding which initially interested me, and in the subsequent attempt to figure out what properly belongs in the “ethnoecology” box, and what methods are needed to learn about and explicate this understanding. In order to avoid biasing my results by the nature of my questions, my investigations have been framed to learn in an open-ended way. I have employed a mixture of participant observation, visual documentation, and an analysis of narratives in my ethnoecological research.

I found that ethnoecological knowledge is complex, and that it is often implicit more than explicit, in practice as much as encoded in language. It is linked with all other aspects of culture, as relationship to land is foundational for native North American peoples. I also found that there is not a tidy line demarcating knowledge of the land in an abstract sense, from knowledge of how to move on, or what to do on, the land. Neither is ethnoecological knowledge well demarcated in the sense of limiting itself to the physical and biological, but encompasses history and the sacred as well as what Western scientific traditions would understand as ecological. As the conception of the social network encompasses the human species, ethnoecology is necessarily social, and about appropriate behaviour as well.

My initial intent to focus on abstract categories and their interrelationships was confounded by the particularity of knowledge (leading to discussion of specific places rather than place kinds), its temporal fluidity (things do not stay put nor have firm boundaries, especially in the North), and, for Dene speaking peoples, the great importance of practice and learning through experience rather than by talking about things. The stories people do tell about land are multilayered, and do not lay out explicit ecological knowledge isolated from other aspects of life. As is common in storytelling traditions, the information—the meaning—in a narrative is up to the listener to decipher.

Indigenous ethnoecology includes people as a focal point of ecological relationships. Specific places are extremely significant, and knowledgeable people have a large inventory of specific places where they have travelled and harvested resources, and have a rich knowledge of stories of personal experience and events long ago that are tied to such places. The types of shifting

and often poorly bounded kinds of place recognized by indigenous peoples, and areas of significance to them, are challenging to render in contemporary media such as GIS and may match poorly with the kinds of place understood by those trained in disciplines such as forestry or wildlife management.

I begin this volume with a consideration of key concepts, including ethnoecology, landscape and landscape ecology and a range of approaches, that people have taken in approaching the domain of cultural knowledge of land and landscapes. I then move into a consideration of Gitksan ethnoecology, and the linkage of landforms and overall orientation systems to social structure and the storied landscape, followed by a review of Witsuwit'en landscape ethnoecology. I continue my musings on people and landscape in northwest British Columbia by focusing on a key ecological type, the berry patch, and considering the apparently simple question, *What makes a berry patch?* I reflect on the ethnoecology of Dene (Athapaskan speakers) in northern Canada, beginning with chapters on Kaska and Gwich'in landscape knowledge, and concluding with consideration of commonalities and contrasts in Dene ethnoecology.

In Chapter 10, I reflect on named places. Finally, I consider the contrasts between indigenous landscape ethnoecology and the classification of habitats and landscapes in Western scientific thought, and the implications of these differences for how knowledge about landscape is presented and apprehended. In my concluding chapter I reflect on landscape ethnoecology and on its potential to inform social and ecological sciences, land management, and contemporary political debates.