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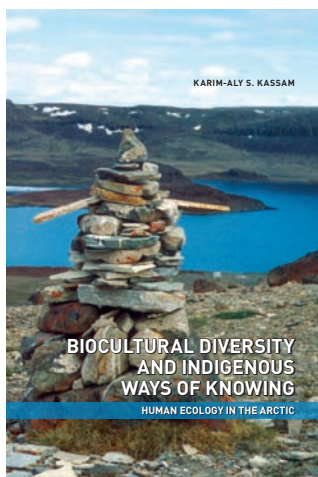
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BIOCULTURAL DIVERSITY AND INDIGENOUS WAYS OF KNOWING: HUMAN ECOLOGY IN THE ARCTIC

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Notes

1: Introduction

- 1 These events also provide a unique twist to the rhetoric of globalization through the use of indigenous transnational organizations – a subject that will not be explored in this work.
- 2 This statement is not intended as polemical, but is rather an observation made repeatedly by social scientists of their own respective fields and the social sciences and humanities as a whole. In addition to the various publications cited throughout this work, *Open the Social Sciences*, Report of the Gulbenkian Commission on the Restructuring of the Social Sciences, presents thoughtful recommendations (Mudimbe 1996).
- 3 Physics envy is a metaphor that illustrates the quantitative compulsion to reduce the socio-cultural context to a series of abstract models and statistical inferences that are vacant of local nuances and therefore ultimately not useful for practical purposes.
- 4 It is therefore not surprising that in September 2007, while 143 member states approved the United Nations Declaration of the Rights of Indigenous Peoples, four English-speaking countries, namely Australia, Canada, New Zealand, and the United States of America, with histories of cultural genocide of indigenous peoples in their midst voted against it.
- 5 North is towards, or in the direction of, that part of the earth or the heavens which (in the northern hemisphere) is most remote from the midday sun. The word “north” is also applied with qualifications as in north by east or with reference to movement, extent, or direction. The definition of north can be understood as the position of an object, flow of a river, or direction of travel in relation to the north poles’ location in the northern hemisphere (OED 2003). In scientific terms the Arctic is the area north of latitude 66.7° where the sun does not set below the horizon at midnight on midsummer’s night, and does not rise above the horizon at midday on midwinter’s day. The problem with this definition is that it has a solar rather than an ecological, human community, or geopolitical focus. West Alaska, the Aleutian Islands, Southern Greenland, and Iceland all fall to the south of 66.7E, and therefore are excluded from the

Arctic in this definition (CAFF 2001). In lieu of disagreement on specifics, the circumpolar north is a convenient abbreviation for both the Arctic and the sub-Arctic which will be utilized in this work for ease of understanding.

6 In 1776, amending its 1745 legislation, the British Parliament agreed to give a £20,000 reward for the first voyage through any northern passage by sea from the Atlantic to the Pacific; and a £5000 reward for any expedition that sailed as far north as 89° north (David 2000)

7 Adapted from David 2000: 52.

2: Relations between Culture and Nature: A Critical Consideration

1 At first (1984) Hawley describes five elements and then (1986) three propositions that comprise the human ecology paradigm. The latter three are called the adaptive, growth, and evolution propositions.

2 This impulse towards practical wisdom, what Aristotle refers to as *phronesis*, is a theme underlying indigenous human ecology.

3 For a critical analysis of Wilson's Sociobiology see Greenwood's (1984) *The Taming of Evolution*.

4 Trends in conservation biology against invasive species reflect continued discomfort with the notion of diversity as the discussion takes place in a milieu of science, politics, and culture (Peretti 1998). Anti-immigration rhetoric and its xenophobic language are marked by a striking similarity to the discussion of invasive species.

5 Islam, like Judaism and Christianity, traces its monotheistic roots both genealogically and intellectually to Abraham (see Armstrong 1993; Feiler 2002).

6 The emphasis is mine.

7 Neo-liberal market economics focuses on the short-term exchange value (chrematistics) and not long-term use-value (*oikonomia*).

8 Genesis 1:28.

9 The desire to document is understandable although it may be interpreted as self-serving in terms of professional interests.

10 It is worth noting that the canonical Linnaean texts drew ideas from indigenous cultures in southeast Asia before transporting them to Europe where they became the standard (Ellen and Harris 2000: 10).

11 Emphasis is mine. We will return to the idea of knowing *how* in the next chapter.

12 See Dostoevsky's (1913: 259–79) *The Brothers Karamazov*.

13 Bible (1989), Luke 4:4; Mathew 4:4; Deuteronomy 8:3.

14 This is not unlike Donald Schön's (1983) "espoused theory" and "theory-in-use." In this case, "espoused theory" is the cultural level of meaning and "theory-in-use" is the social level of action. Conflict arises when there is a contradiction between "espoused theory" and "theory-in-use."

15 My question is: What if there is continuity and with our five senses we are not sensitive to that continuity of variation?

3: Human Ecology Re-conceptualized: A Lens for Relations between Biological and Cultural Diversity

- 1 Also without acknowledging Ryle.
- 2 It is here that I have a fundamental disagreement with Flyvbjerg (2001). He argues that *phronesis* is knowledge representative of the social sciences and *episteme* is akin to the natural sciences. Not only does such a generalization fail to see that knowledge generation is necessarily context-dependent, but it smacks of the nature-culture dichotomy discussed in chapter 2. Furthermore, Flyvbjerg asks: “how does one argue theoretically for practical skills one uses to formulate a theory?” He asserts that that the natural sciences are cumulative and predictive whereas the social sciences are not (2001: 29). However, if we hold an evolutionary perspective then we can talk about possibilities and even probabilities in both the social and natural sciences, but we can never predict the actual (Jacob 1982). In other words, Flyvbjerg is wrong about the both the natural and social sciences. He argues, furthermore, that the social sciences do not undergo paradigm shifts, just “waves of intellectual fashion.” Perhaps Flyvbjerg’s observations about the natural and social sciences are simply a wave of fashion too.
- 3 Look at discussion of *oikonomia* in section 2.4.1.
- 4 I am grateful to Dr. David Norton for drawing my attention to this case.
- 5 Flyvbjerg’s statement is reminiscent of Francis Bacon: “The secrets of nature reveal themselves more readily under the vexation of art than when they go their own way” (Berman 1984: 17), or Kurt Lewin, the godfather of action research, who said: “We do not understand the inner structure of a social system until we try to change it” (Greenwood and Levin 1998: 56).

- 6 Olav Eikeland (2006) articulates the notion of *phronesis* in the larger context of Aristotle’s intellectual virtues. It is from this more holistic view of *phronesis*, which includes its connection to culturally grounded ethical aims, that the foundation is set for wise action to emerge.

4: “Man and His Friends” – An Illustrative Case of Human Ecology in Ulukhaktok, Northwest Territories, Canada

- 1 Ulukhaktokmiut is the Inuit name for the people of Holman. It is also spelled elsewhere as Olokhaktokmiut. It is named after the bluff called Ulukhaktok facing south on Victoria Island between Queen’s and Jack’s Bay.
- 2 The reference to illness by villagers may also reflect fear of diseases that accompanied European contact and devastated Inuit populations in the Arctic.
- 3 The name for each of these groups speaks to their human ecological relations.
- 4 The emphasis is mine to refer back to the discussion on knowing *how*.
- 5 Dollars Canadian.
- 6 In a personal conversation, in July and again in August 1998, a local artist who has achieved international standing explained that he/she no longer “made drawings of medicine” because of his/her Christian belief. The local clergy did not encourage such drawings, even though the demand for drawings with shamanic narratives was great and the artist had attained prominence through such drawings.
- 7 Includes caribou soup, tongue, heart, frozen caribou, fried caribou, and caribou burgers.

- 8 The data obtained through human ecology research among the *Ulukhatokmuit* will be cited as 'Holman Interviews' so as to facilitate triangulation with other information sources which also will be cited.
- 9 The traditional way was just to freeze food outside.
- 10 The open water is currently a spring hunting area.
- 11 Formerly the Hudson's Bay Company store, the Northern Store is still owned by the Hudson's Bay Company.
- 12 Consumption of raw polar bear meat may lead to trichinosis. Health officials have advised the community of this potential hazard.
- 13 It seems that teenagers are influenced by southern media representations of polar bears as "cuddly and cute" animals.
- 14 Contrary to testimony by 'experts' where scientists claimed that whales did not migrate north to Victoria Island, community members testified to repeated sightings of the Beluga Whale.
- 15 Amitukyok and Imigaahook are English transliterations of the Inuvialuit name of the location. It was validated by the Hunters and Trappers Committee in May 1999.
- 16 This word is an English transliteration of the Inuvialuit name of the location. It was validated by the Hunters and Trappers Committee in May 1999.
- 17 Anialik, Hingelik, Nakushin, and Hini-gouk are English transliterations of the Inuvialuit name of the location. It was validated by the Holman Hunters and Trappers Committee in May 1999.
- 18 Rods are used only in the summertime.
- 19 The fish is wrapped prior to freezing.
- 20 This word is an English transliteration of the Inuvialuit name of the location. It was validated by the Holman Hunters and Trappers Committee in May 1999.
- 21 Herring was discussed in interviews, but not mapped by respondents.

5: "The Weather Is Going Under" – Human Ecology, *Phronesis*, and Climate Change in Wainright, Alaska, USA

- 1 Temperature variations create immediate impacts on seasonal growth and decay patterns of sea-ice; consequently, sea-ice is a useful indicator of climatic trends. Sea-ice is a relatively thin floating layer of ice averaging 2 to 3 metres with a salt water origin, located in the polar-regions, covering approximately 7 per cent of the world's oceans: an area greater than Europe and North America combined. It is a product of the earth's very complex climate system and is extremely sensitive to any alterations in the surface energy balance. As a result, slight warming trends can have a tremendous impact on growth and ablation patterns of polar sea-ice. The phenomena of sea-ice is not a static process, it is a dynamic relationship that inherently records climatic variability occurring at the global scale. Ice morphology, formation, and melting dates can point to cooling or warming patterns.
- 2 As community members in Wainright express measurement in English in the imperial system, distance will be given miles with approximate equivalents in the metric system in brackets.
- 3 Father of Blair Patkotak mentioned in section 5.2.
- 4 The objective of this image is to demonstrate the connectivity. Differentiation by colour of the abiotic, biotic, and cultural, albeit not sufficient in complexity, reinforce the connectivity that comprises relation of the Inupiaq to sea-ice.

6: Mapping Human Ecology: A Transformative Act

- 1 Several factors had to be configured in order for the Sami to map their human in the context of Russia in the mid-1990s. External intervention was a key element in facilitating the documentation of indigenous knowledge: see *Sami Potatoes: Living with Reindeer and Perestroika* (Robinson and Kassam 1998).
- 2 The idea of *terra incognita* was furthered by mapping and placing names from the European conqueror's culture to transform what was otherwise 'unknown.'

7: Implications of a Human Ecological Outlook

- 1 Here we are not discussing a divide between science and indigenous knowledge because knowledge is context-specific in its generation.

