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Fluidity Both in Inuit Culture and in Their Environment: An Assessment of Arctic Climate Change and Inuit Adaptations

Introduction

Inuit culture and society stretches across a vast amount of the Arctic, from Greenland all the way to Alaska and parts of Northeastern Russia. Although the communities across this vast space have small differences in cultural traditions, use of technology and dialect, they all share a core cultural identity of movement, both physically and philosophically, as a way of living. (Hastrup, 2009) The traditional Inuit concept of “home” not only refers to sedentary communities but also to the Inuit’s expansive outdoor knowledge of an area, including hunting grounds, fishing lakes, and campsites to use during their hunting expeditions. (Hastrup, 2009)

Because of the historically unpredictable nature of the Arctic climate—the Inuit could be out hunting one day and huddling for warmth in an igloo the next—close observation and detailed knowledge of land and weather patterns are essential to their survival. Inuit view the forces of air and water as geography, along with the land itself. Since much of the ground they travel on is either covered by ice or is in fact sea ice, the

Inuit have to be intimately aware of the immediate and drastic changes to geography that can occur as a result of the weather.

This paper explores recent changes to the Arctic climate as linked to global climate change, the disruption of traditional Inuit practices as a result of this climate change, and the reactionary and preemptory adaptations the Inuit have made to their traditional practices as result of climate change as aided by their cultural wisdom as nomads, by foreign technology and by the efforts of anthropologists.

The Inuit Trail System, *Sila*, and Other Traditional Knowledge

Through oral transmission, the Inuit have maintained knowledge of an intricate and extensive network of trails connecting the entire culture from Greenland to Russia, including communities, hunting and fishing areas, and potential campsites. These trails have no physical trace; the Arctic's unpredictable climate frequently wipes the landscape clean, leaving only a barren, seemingly untouched landscape of white. However, through the use of geographical place-names, journey narratives, and occasional maps drawn in snow or carved into wood, the Inuit have used these trails for centuries as a reliable means of navigating the often-treacherous terrain (Aporta 2009).

The journey narrative has an important role in the transmission of these seemingly invisible routes. Through a traveler's retelling of his journey through a particular trail, listeners learn the trail's relevant place-names, areas where the traveler got lost, where the trail intersects with other trails, even how to use the direction of the wind as an orientation tool (Aporta 2009).

The Inuit's ability to navigate these invisible trails, as well as cope with the Arctic's temperamental weather patterns, relates directly their close spiritual connection to their environment. *Sila*, a concept common to all Inuit communities but described here in the Greenlandic context, is defined as the all-pervading force in the universe. Besides its function as the word for intelligence and consciousness, the Inuit use it to describe the underlying mechanisms of the world as they experience it, a Universal Mind, to borrow the Buddhist term. *Sila* gives the Inuit a deep spiritual connection to the world around them; when the world around them changes, so must they, staying at one with *Sila* (Nuttal, 2009).

Dealing with the unpredictable nature of the Arctic climate has given the Inuit a way of seeing themselves as part of a greater whole, optimistic about the possibilities of each new day, and rarely bitter about the "environmental constraints" of the Arctic. The idea of the environment as a hindering factor in their lives simply does not work in the Inuit cultural context; being at one with *Sila* ensures the Inuit's continued survival as a culture, regardless of what form their culture takes in the future (Nuttal, 2009).

Climate Change in the Arctic: Science, Local Observations and Hindrances to Adaptation of Individual Communities

Although the traditional Inuit pride themselves on their ability to adapt to the environment, climate change in the last few decades has resulted in weather fluctuations beyond what many communities can cope with effectively in their present state. Air temperatures in the Arctic have risen to an average 2 degrees Fahrenheit warmer than they were three decades ago, twice the global average. Arctic sea ice, considered by the Inuit a

major part of Arctic geography, has receded by 39% in the same amount of time (Geerhead, 2008).

Accessible sea ice builds off of landfast ice, the ice that forms along bays and inlets. The amount of accessible sea ice depends on the amount of landfast ice that forms during the first freeze of the winter season. Traveling on sea ice gives Inuit hunters access to the floe edge, where sea ice ends and open water and moving ice, known as ice floes, begin. The floe edge is the main hunting platform for any game besides caribou, such as halibut and leopard seal (Henshaw, 2009).

Landfast ice has begun freezing later in the winter in smaller quantities, resulting in a decreased mass of sea ice. Hunters now have access to fewer hunting areas than in the past, and must travel to them with increasing care, as sea ice now has more unpredictable thickness (Henshaw, 2009). In Greenland, large expanses of inland ice have permanently disappeared from the country's geography (Nuttal, 2009).

A number of traditional Inuit trails have been completely erased (the sea ice upon which they sat melted) and trails that remain must be navigated much more cautiously due to unpredictable wind patterns and ice stability. Additionally, the traditional environmental knowledge used by Inuit to predict when and where to hunt has been rendered basically meaningless by chaotic weather patterns that do not exist in Inuit cultural memory (Geerhead 2008).

Additionally, the Inuit's traditional identity as adaptive nomads at one with their environment, a key factor in their future survival, has been at times disrupted by foreign cultural interference. Henshaw (2009, pp. 157) sums up the strengths of the traditional Inuit

nomadic lifestyle:

Inuit and their ancestors were able to cope with a range of sea ice extremes by relying on opportunistic and mobile lifeways involving resource sharing, flexible group size and settlement patterns, and diversified subsistence strategies that took advantage of seasonally available resources.

In Canada, the end of the 1960s marked the beginning of government-mandated permanent settlements for the Inuit. The amount of traditional knowledge being passed down to newer generations of Inuit has been limited in these settlements by mandatory government-sponsored education, integration into the Canadian economy and reliance on fossil fuels for travel and heat. Newer generations are better prepared for life in the Western World, but the cultural fixity of sedentary communities clamps down on the Inuit's traditional adaptive philosophies, or in more culturally significant terms, their ability to live at one with *Sila*.

Physical Adaptations and the Resiliency of Traditional Inuit Spirituality

The Inuit have had to constantly adapt to the temperamental climate of the Arctic, and although some of their traditional environmental knowledge has been rendered unusable, the Inuit have not delayed in revising their survival strategies and techniques. The thinning of sea ice has spurred a revitalization of the dog sled as a chief means of transportation. A dog sled is lighter than a snowmobile, and its weight is spread across a greater surface area. In cases of unexpected delay as a result of unexpected weather patterns, a team of dogs will not run out of gasoline and can in some cases find its way

home with its intuitive sense of direction. Additionally, the now-frequent dearth of navigable sea ice has led to the use of boats to travel from landfast ice to the floe edge, where bountiful hunting continues to be found. In fact, the Kinngait community on the Southwest corner of Baffin Island in Northeast Canada has noticed that their main hunting areas have actually become more profitable because although fewer in number, they now have greater game diversity and density as a result of later and thinner freezes (Henshaw, 2009).

The Inuit have been adapting their trails to take advantage of these more profitable hunting grounds while simultaneously avoiding the new hazards of a warmer climate. Through journey narratives of these new adaptations, the Inuit community at large has been pooling its knowledge of the local manifestations of climate change, which reflects their traditionally pragmatic views on cultural adaptation. To quote Hastrup (2009, pp. 5), “New knowledge comes from creative acts of discovery rather than imagining, from attending more closely to the environment.” The incredibly intimate and detailed connection the Inuit have with their frigid environment has allowed them to adapt their practices more swiftly than they could have otherwise. Along with revising their traditional methods of reading the weather, the Canadian Inuit have also adopted the use of both Western science’s weather predictions via Canadian radio broadcasts and of the cell phone as tool for instant communication between hunters about to begin their hunting expeditions and hunters already out in the wilderness. The combination of traditional environmental information and foreign science and technology has proven to be a great help in keeping misadventures out on the ice to a minimum.

Anthropologists have also played a key role in the maintenance and revision of Inuit cultural wisdom. By archiving traditional knowledge, including place names, methods for predicting the weather, journey narratives (both old and new) and the spiritual underpinnings of *Sila*, Anthropologists work to reintroduce new generations of Inuit to their nomadic cultural heritage, a pool of wisdom better suited to life in the harsh Arctic wilderness than what has been forced upon them in the past five decades by foreign meddling.

Even so, dogs still occasionally fall through thin ice, and new periods of warmth during the spring and summer seasons have rendered travel by sea ice virtually impossible (Geerhead 2008). But the Inuit place greater value on their identity as master adapters living at one with the universe than they do on their identity as defined by specific cultural knowledge or environmental setting. Among the Greenlandic Inuit communities, there is a saying: “Nothing is so bad that it is not good for something else” (Nuttal, 2009, pp. 295).

Greenland has faced some of the most dramatic climate change of the Arctic region. In some areas, inland ice has disappeared permanently, resulting in the complete nullification of traditional survival techniques. However, local communities view these dramatic changes as a golden opportunity for Greenland to strengthen its economy and increase the standard of living for all its inhabitants.

Unlike Inuit communities in Canada, the Greenlandic Inuit have procured a fair amount of autonomy from Denmark, Greenland’s imperialist conqueror, in the form of the Greenland Home Rule Government and can act more according to their traditional cultural philosophies (remember, the concept of *Sila* is especially strong in Greenland). The official

Greenland opinion on climate change is welcoming: the receding ice caps expose bountiful mineral deposits in the land beneath, which when exploited will increase the wealth of the nation as a whole. Additionally, nomadic Inuit in Greenland have begun herding sheep and planting crops such as broccoli and potatoes, casting aside the now useless techniques of surviving in the frigid wasteland that is Greenland no longer (Nuttal, 2009).

The Greenlandic Inuit's ability to be so detached from seemingly vital aspects of their cultural identity is best understood through an analysis of the concept of cultural resiliency and how it fits into the Inuit's traditional spiritual underpinnings. Nuttal (2009, pp. 298) defines cultural resiliency: "The capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks."

In order to evaluate the cultural resiliency of a culture, in this case the Greenlandic Inuit, one must examine the functions, structures, identities and feedback of the culture and determine which aspects are truly integral to its overall cultural identity. Being at one with *Sila*, as mentioned earlier in this paper, was the most important principle for sustainable life in the once constantly frozen environment of Greenland. Even now, with the recession of the ice caps, the importance of *Sila* has remained the root of Inuit cultural pride in Greenland and enabled Greenlanders to cast aside other aspects of their culture, such as hunting strategies and weather prediction, as unimportant in the grand scheme of the universe. It can be said, with some amusement, that the Inuit's incredible cultural resiliency in the face of large-scale climate change is a result of *Sila*, an Inuit spiritual concept advocating complete adaptability through disassociation with cultural practices, being the

only cultural structure the Inuit need to maintain their identity.

Conclusion

Looking back on this research, it is obvious that cultural flexibility is the most important theme in an indigenous group's successful adaptation to climate change. Inuit life in the harsh climate of the Arctic led to the development of a strong sense of pride, even spiritual fulfillment, in their ability to adapt to anything their unforgiving environment could throw at them. Through a strong oral tradition of sharing environmental knowledge and the aid of anthropologists in archiving traditional philosophies on adaptability, the Inuit have been able to observe and adapt to climate change as a group, maintaining their identity as a people. Finally, the Inuit emphasis on the spiritual aspects of culture give them the power to shed any physical manifestations of their cultural identity in order to survive without compromising the overall strength of the Inuit identity. *Sila*, the Inuit-defined all-pervading mind of the universe and the key factor of Inuit adaptability, enables the Inuit to be more flexible in its cultural adaptation than other indigenous groups who rely more on their physical way of life as the pillar of their cultural identity.

Ultimately however, the ways in which different Inuit communities implement their cultural adaptability depend upon numerous social and environmental factors. Greenlandic Inuit have the advantage of an autonomous national government, the Greenland Home Rule Government. Even if Inuit communities in Greenland have transitioned to a more sedentary lifestyle, the transition has occurred as a result of cultural choice, not as a result of forced implementation of foreign cultural practices, as in the case of the Canadian Inuit. The

Canadian Inuit suffer as a people not entirely because of climate change, but because they have been forced into a living situation unsuitable to an environment that, although altered by climate change, still remains the frigid and unpredictable Arctic wasteland it has always been known to be. Because of the penetration of foreign culture, they have been unable to bring the full strength of their indigenous cultural flexibility to bear on the problem.

The Inuit find themselves in a unique but powerful situation. Although the current physical manifestations of their culture may disappear entirely in the near future, their cultural pride will remain sustainable as a result of their spiritual devotion to living in perfect harmony with the environment, regardless of what form such living takes.

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