Regional food-gathering nodes and logistics network, Iqaluit, NU, Canada

Project description by author

The traditional Inuit diet in northern Canada, which is centered on hunting and gathering, has been compromised by an influx of southern manufactured food products. This has yielded significant health issues as well as the loss of knowledge of country hunting. The Canadian territory of Nunavut is in particular suffering from these recent dramatic changes as well as the ongoing challenges of food security among widely dispersed Inuit communities. The Arctic Food Network (AFN) addresses an urgent need for a snowmobile-accessible regional network of arctic farms, freezers, and camp hubs. The AFN encircles the large body of the Fiske Basin in Nunavut, Canada, home to a richly diverse wildlife, along the coast of Baffin Island and some 10,000 Nunavummiut.

The Arctic Food Network utilizes the existing skidoo trails, the only form of ground connection amongst the eleven disconnected Inuit communities of Baffin Island. Our lively on-mobility, food security, and health in this region led to the pursuit of a network of small structures that acknowledge the Inuit tradition of temporary enclosures in a cold climate. The network is comprised of what we call sheds, meshed, angular structures, which give to a set of highly integrated elements merging architecture, landscape, and technology. These integrated elements assist in negotiating the harsh dark winters and treeless landscape of the Canadian north. The AFN project is equal parts regional agiculture, seasonal camps, data transmission centers, and ecological management stations. In addition to providing secure food and travel network, AFN seeks to merge new technologies with traditional practices to support an emergent 21st century economy.

The AFN is a new model for cold climate survival that would assist to sustain the rapidly increasing (youthful) populations in northern settlements, but also potentially offer a future exportable economy for the North. Each of the hubs along the AFN opportunistically negotiates its local ecosystems, emergent biological potentials, and its proximity to communities. AFN hubs are distributed at 160km intervals. Hubs occupy varied sites: land, water/ice, or coastal conditions. Each of these sites offers a specific harvestable food product. In collaboration with Nunavut's Department of Culture, Language, Elders, and Youth, we are developing a set of prototypes for this network to be tested in three select sites along the proposed regional network. Each of the selected sites offers a unique ecological, or traditional arctic diet, opportunity as well as a specific condition in terms of siting relative to aquatic and terrestrial proximities.

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Comment of the Holcim Awards jury North America

The jury praised the project for bringing an overlooked issue to the table, and providing a stunning solution with an impressive value-added return on the resources invested. An attentive contextual response is demonstrated in all dimensions of the project, based upon thorough research and the participation of the community. The entire strategy up to the design responds to the landscape, climatic and site conditions, and includes purposeful interventions which are integrated without any grand gestures or expensive structures. Instead they bridge between the traditions of the Inuit and the expectations of the young generation thereby providing an opportunity to approach an improved future. The project is also highly transferable to other arctic regions, and its basis in terms of overall attitude and mood has even broader applicability.

Relevance to target issues by author

Innovation and transferability – Progress

Innovation and technology. The AFN project is a proposal highly tailored to the cultural and construction challenges of the Far North. It is deployed as an easy-to-assemble kit-of-parts. Assembly and construction takes place in the north by locals using northern materials. The project has the ability to be adapted to other conditions across the circumpolar countries. The project is low-impact on the fragile environment of the North through the use of floating foundations and renewable materials.

Ethical standards and social equity – People

The AFN project addresses the Inuit population of the Canadian North, a population marginalized in North America. Through our collaboration with the Department of Culture, Language, Elders, and Youth, we are reaching out to communities and their leaders to document both local knowledge and contemporary scientific data on food and health. This allows the project to have cultural and scientific relevance. The AFN project is modest in its scope but radical in its impact. The decline of traditional diet and its associated culture of hunting and food preparation confront many of the Inuit peoples. The AFN/hubs serve as a network of spaces for the exchange of Inuit traditions, dialogue between geographically-divided communities, and a formal infrastructure celebrating their resilient Northern lifestyle.

Environmental quality and resource efficiency – Planet

The AFN project utilizes two of the most abundant materials in the North: rock aggregate and snow / ice. Building upon an inherent efficiency in Inuit culture, the project includes a snow wall, a water harvesting trench on the roof, copper shingles that are malleable to hot and cold extremes, and reclaimed timber from demolition projects across Nunavut. More importantly, the network of hubs manages the North's most precious resource through species management and food security.

Economic performance and compatibility – Prosperity

The AFN project seeks to shift Northern communities' economic dependence away from the expensive and unhealthy importation of southern food. The project sustains traditional food culture and simultaneously generates local micro-economies, which is key to the long-term prosperity and sustainability of Northern populations that currently rely largely on government employment. Many Inuit live off a sustenance-based lifestyle, AFN postulates that this local knowledge and practice could sustain a small-scale food export economy generating economic independence and entrepreneurial possibilities. The financing and maintenance of the AFN project pairs municipal government investment with local cooperatives, ensuring the empowerment of the local population.

Contextual and aesthetic impact – Proficiency

Very few designers have given consideration to architecture or infrastructure that is ecologically and culturally specific to the North. AFN offers a local architecture and construction highly responsive to this unique geography, climate, and culture that are light on the land (and soil). AFN merges traditional knowledge with contemporary building through simple elements, such as sheds, poles and meshes, and recombines them to respond to specific geographic conditions and food resources.

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