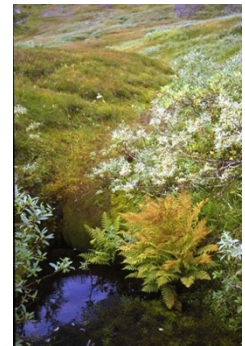


Are Icebergs Free?

Rethinking Ownership, Borders and Movement in the Arctic Circle

Leslie Gill / Khoi Nguyen Advanced Studio V Fall 2022



"Instead of the white wilderness that killed explorers and defeated navigators for centuries, the world would have a blue pole on top, a seasonally open sea nearly five times the size of the Mediterranean...If the Arctic is no longer a frozen backyard, then fences matter and for now it is not clear where those fences are."
The New York Times Oct 6th, 2006

Topical Objectives: Flexible Boundaries and Political Borders

The quote from the NYTimes above, just fifteen years ago, seems simultaneously prescient and outmoded. As the ice recedes, eight nations surrounding this area draw new lines across the ocean floor laying claim to additional territory, thereby potentially reaping the promise of wealth and power from the extraction of natural resources. What could not be foreseen is the effect that recent world events have had on our collective interest and nuanced understanding of the region. Today smaller groups are independently, and in linked alliances, asking us to reimagine the value of this iconic landscape. We are urged to see a globally important ecosystem, abundantly inhabited by flora and fauna and people, under rapid transition. Collectively this advocacy presents an alternate narrative to an imaginary empty wilderness depicted in the Age of Exploration or the forgotten Cold War "backyard" used for military defense and toxic waste. Today the region hangs in balance, but the effects of global warming are simultaneously a threat to, and a promise for, one of the last un-claimed territories on our planet.

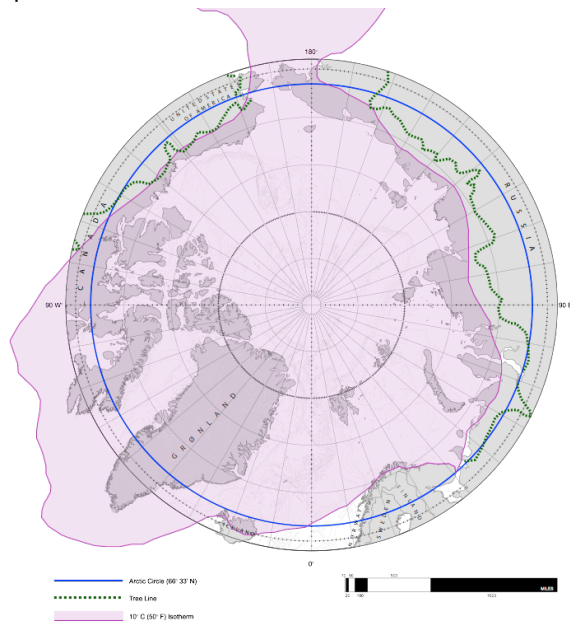
The Arctic is a land of contradictions, an often-tense relationship between finite boundaries and migratory flows. Each drawn edge is undermined by the seasonal or multiyear movement of people, ice and animals. Even its territorial definition can be put into question. Its limits are defined on the globe by an imaginary line at latitude 66.5 degrees north of the equator, a temporal boundary set by the summer and winter solstice, a time in which this region experiences 24 hours of sunlight and 24 hours of darkness respectively. Simultaneously the ecology of the shifting region sets a very different mutable boundary which sits within an evolving temperature and wind-determined boundary of isotherm and timber growth. The boundaries extend southward while also retreating northward from that same meridian, determined by organic variables that are affected by wind patterns and ocean flows.

The Arctic Ocean, a primary presence in this region, is the world's smallest and shallowest. Ice depth here can be up to 3 meters without land beneath. Even with the melting of the 'ice cap', this vast wilderness is home to 4 million people comprised of 10 distinct ethnic groups whose ways of life are under extreme political and environmental pressure. Of equal significance to the region and the globe, the Arctic Circle acts as a wildlife refuge for migratory animals and birds, many of which are under stress.

The challenge for this studio will be to bind the global awareness to the regional and local, asking the question: how do these scales, synthesize and extend

to or from one another? The seminal question is: what are we preserving and what are we advocating for; who effectively “owns” this extreme landscape?

Working in groups or individually, each project will define a topic for research and will outline where mutable boundaries are important to sustain and conversely where defined borders are best to preserve or protect. Topical research will speak to the Arctic’s history, its people, cultures resources and wildlife, and to its political significance. The program will acknowledge the rapid environmental change which is transforming the relationship between humans, plants, animals and the borders that are all prescribed to assign meaning to the vast expanse of space.



Architectural Constraints: Thermal Borders, Light and Color Boundaries

The extreme environments within the Arctic wilderness define a number of performative architectural constraints *in which* to work. Central to the studio is how these unique landscapes affect the design of architecture and creation of habitable spaces. These issues will be studied in parallel with topical and programmatic research providing a dialogue between thinking and making.

Cold temperatures, often below zero degrees with the lowest recorded temperature being minus 90 degrees

Fahrenheit and extremely high winds, require special consideration to make spaces habitable and structurally sound.

Color is likewise a critical architectural constraint and prospect. It is a challenging endeavor that breeds contradictory and didactic opinions: part quantifiable scientific study, part cultural interpretation, and part phenomenological observation. Critics have argued that the Western world is chromophobic, yet it is a defining element of the Arctic landscape. The ephemeral nature of everchanging chromatic light leads to a season of toned darkness and a season of bright sunlit days where the celestial bodies circumnavigating the horizon negate the use of know architectural tropes of orientation: north, south, east and west. Additionally, the singular hues of the Arctic landscapes create a monochromatic backdrop of embodied color to build within: the boreal forest (green), fresh and salt water (blue), and the cryosphere (white).

Color is as much a border as it is a boundary. Today, we are bathed in color. It literally emanates from every screen. Every pixel we draw vibrates with red, green and blue; we view our creations in printed layers of cyan, magenta, yellow and black; we experience buildings while seamlessly decoding millions of tones. Yet, the majority of us work in a world of color without using or understanding its power to communicate. The full integration of digital technologies in architecture has dulled our ability to use color effectively and deliberately. This same technology offers new opportunities to re-gain control over color as an area of speculative study, a cultural tool, and a technical exploration



Three Landscapes

One of the three primary Artic landscapes; the cryosphere, the water or the boreal forest and their respective inhabitants form the research topic for this studio.

Two Sites with One Programmatic Objective

Over the course of the semester, students will develop an architectural proposal that integrates two halves of a primary programmatic issue: the first will be a seasonally deployable field station for data

collection and research, designed to support research of the Artic Circle's increasingly fragile ecosystem or its inhabitants; the second will be civic and will engage a public. This *second*, larger component, remains open-ended and will emerge from individual interests and project thesis. Projects should consider all key stakeholders (*human, animal, mineral and plant*) in an effort to effectively lobby for, and protect the biodiversity of this globally significant eco-region for future generations.