EVENT-DRIVEN GEOGRAPHIES

by

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ABSTRACT

MONICA JEANETTE WHITMIRE. Enter your title exactly as it appears on the title page. (Under the direction of DR. JOSE GAMEZ and JEFFREY NESBIT)

Event-driven geographies, landscapes activated by programmed activity, are unique occupations of site that mitigate and utilize the host terrain in advantageous ways. Typically ephemeral in nature, the 'events' are flexible and adapt to the geography's physical characteristics, urbanism, cultural history, and political climate. In the examination of the Iditarod Trail Sled Dog Race, hosted across the state of Alaska, lessons of the race's logistical organization, network, terrain adaptations, and site occupations can inform other instances of site inhabitance, specifically in extra urban localities. These extracted interrogations can be systematized, allowing the Alaskan landscape to absorb the integration of mobility, on site data collection, and tourism in order to expand upon the traditional models of extra urban territories as they are affected by irreversible change.

ACKNOWLEDGEMENTS

In the development of this project, my advisor, Professor Jeffrey Nesbit, has been an invaluable resource. Professor Nesbit's contribution of time and knowledge were instrumental in the overall completion of the thesis.

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All figures in the document, unless otherwise cited in the figure's caption, are courtesy of the author.

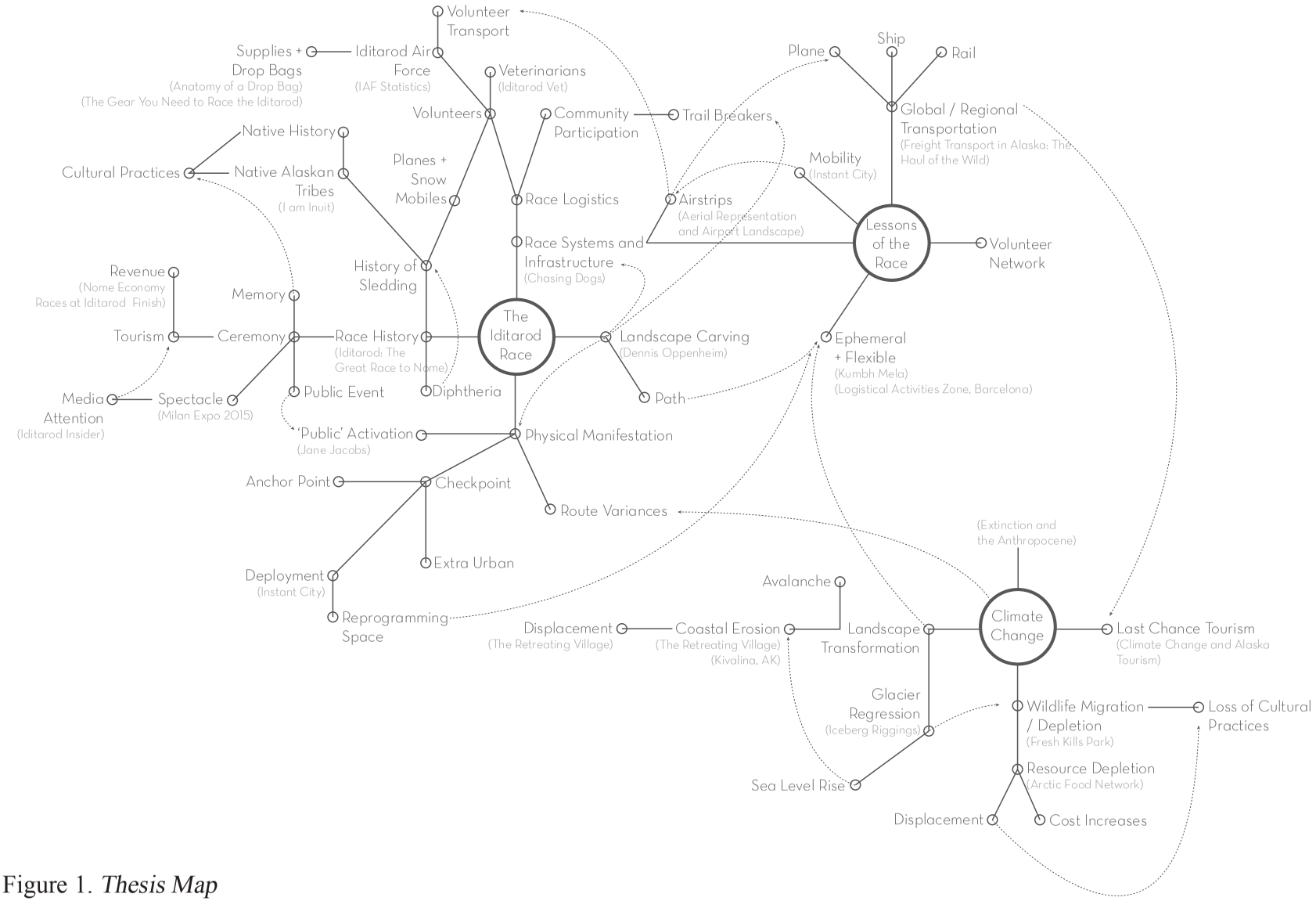

Figure 1. *Thesis Map*

INTRODUCTION

Alaska is a land of retention in the face of transformation. In the hundreds of years of which the Alaskan region has been occupied, Alaskan cultural practices have changed very little, with only slight adaptations using contemporary mechanical equipment to complete traditional tasks. Unlike a metropolis, progress and transformation are measured by the landscape and not the cityscape.

As a landscape-dominated region, the trail (as opposed to the road) serves to link destinations, resources and peoples of remote extra urban communities. As a prime example of a site sensitive ephemeral occupation, the Iditarod Sled Dog Race utilizes and adapts to Alaska's varying terrain while activating extra urban settlements as mushing teams pass through each checkpoint. "For the second time in three years, the Iditarod Trail Sled Dog Race will move its official start from Willow to Fairbanks due to poor trail conditions that race officials determined unsafe...'We're going through some major changes with the environment...we have more willow and brush than we've seen in years.'"[1] The landscape is rapidly transforming in Alaska, pushing the warming season earlier each year. There will come a point when a permanent change to the race will have to be made because the weather and terrain is unyielding to the interests of human occupation.

Climate change is not only being discussed in Alaska, but is also experienced. The state's environment has been rapidly transforming over the past few decades, affecting each region's ecosystem and, in turn, the cultural practices of extra urban communities, particularly Alaska Native villages. The thesis investigates how event-driven geographies,

1 Hanlon, Tegan. "Miserable stretches of trail prompt Iditarod to move race start to Fairbanks." Adn.com. 2017. Accessed April 19, 2017. https://www.adn.com/outdoors-adventure/iditarod/2017/02/10/iditarod-board-moves-official-race-start-to-fairbanks/.

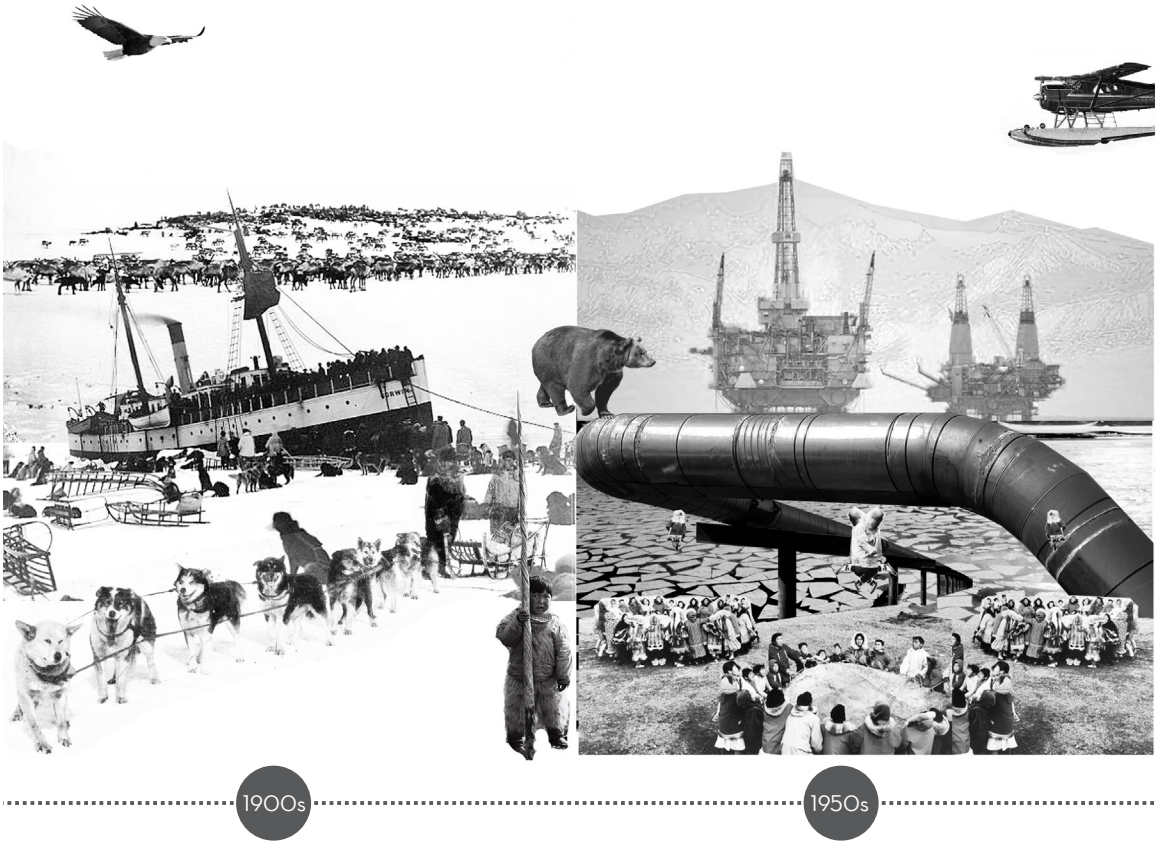

Figure 2. *Landscape Transformation Collage of the 1900s and 1950s*

landscapes activated by programmed activities, can ignite an architectural response to the effects of global warming and cultural transformations in Alaska.

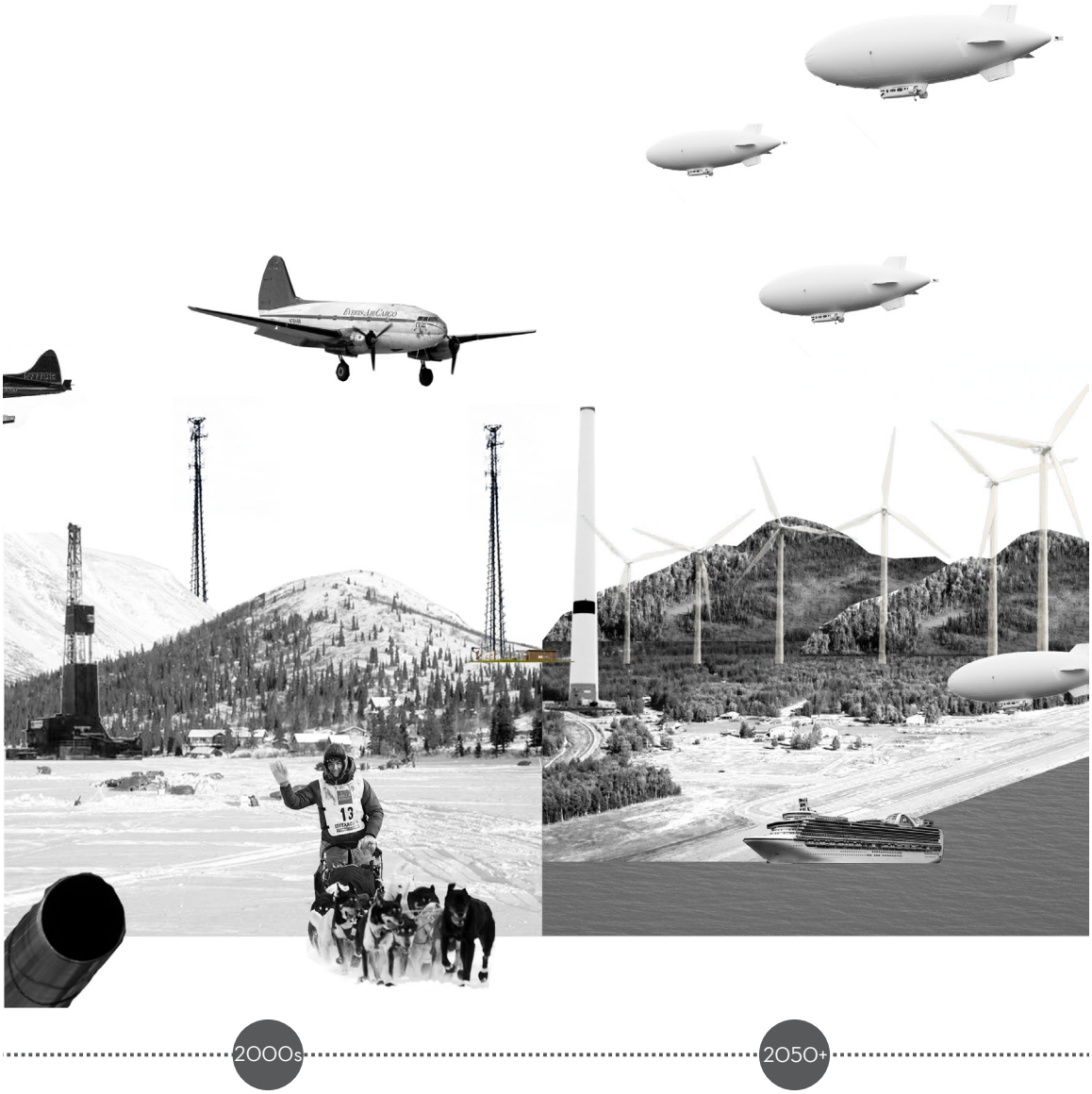

Figure 3. *Landscape Transformation Collage of the 2000s and 2050s*

Figure 4. Iditarod Ceremonial Start Aerial Photograph

THE IDITAROD SLED DOG RACE

Initiating in Eurasia, dog sledding was brought to Alaska hundreds of years ago as native tribes crossed the Bering Land Bridge connecting what is now Russia to Alaska, towed behind early breeds of Huskies. The dogs were large and stout, similar to wolves, and bred to withstand extreme temperatures and travel hundreds of miles in the elements. "From the eighteenth century to the early twentieth century, dog teams were used for transportation, exploration, trapping, hunting, hauling supplies, mining, and mail delivery."[2] Dogs were tied together in 'trains' or 'brigades' while traveling through the interior on fur trapping missions, a profession that is still alive today.

The Iditarod Trail, primarily a mail route, was the main artery for transporting supplies, post, and people from village to village as mining sites sprang up across the state. The trail cultivated growth and allowed small inns and outposts to pop up along the route to provide relief for travelers from the cold winter.[3] The late 1800s and early 1900s brought the Iditarod Trail to its apex when Alaska's gold rush era hit its peak and sled dog teams became invaluable in importing goods and exporting pay dirt.

In the early 1900s, the rise of industry brought new methods of transportation and shipment to Alaska, favoring ships, trains, and planes over wooden sleds pulled by animals. The legacies of sled dogs began to wane and they were used exclusively in remote extra urban localities. Not until the diphtheria outbreak of 1925 in Nome, Alaska

2 Sherwonit, Bill, and Jeff Schultz. Iditarod: the great race to Nome. Seattle: Sasquatch Books, 2002. 2.

3 Sherwonit, Bill, and Jeff Schultz. Iditarod: the great race to Nome. Seattle: Sasquatch Books, 2002.

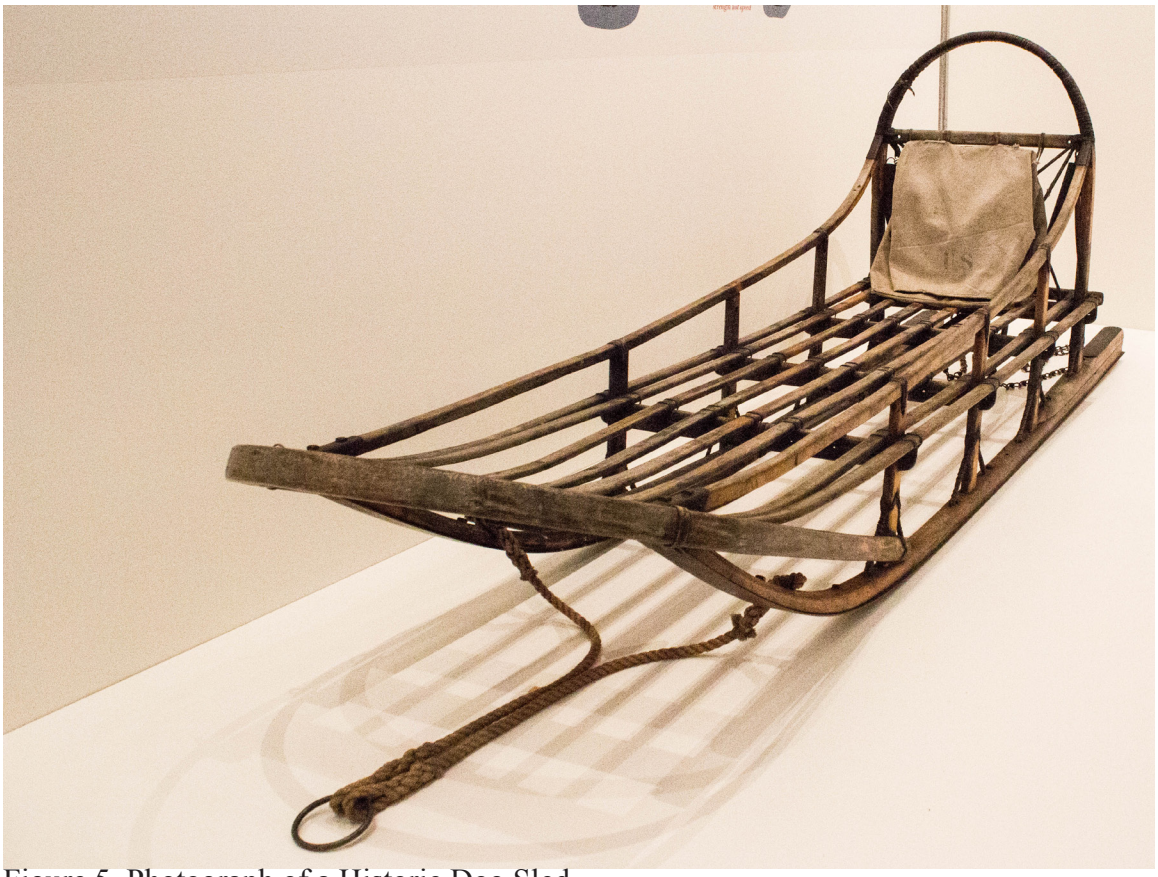

Figure 5. Photograph of a Historic Dog Sled

was the memory of dog sledding revitalized as the Great Race of Mercy attracted national attention, bringing sled dog racing and diphtheria to the forefront of people's minds. The outbreak was on the verge of wiping out the town of Nome and its surrounding population due to the disease's ease of contagion and the complete lack of availability of the antitoxin serum. Efforts to send a shipment of vaccines to Nome via plane and ship were thwarted by harsh winter weather, leaving transport via dog sled the last viable option.[4]

Twenty mushing teams with a total of approximately 150 sled dogs led a five and a half day relay race to transport diphtheria antitoxin from Nenana to Nome. With temperatures and wind chills bringing the weather to negative one hundred degrees

4 Sherwonit, Bill, and Jeff Schultz. Iditarod: the great race to Nome. Seattle: Sasquatch Books, 2002.

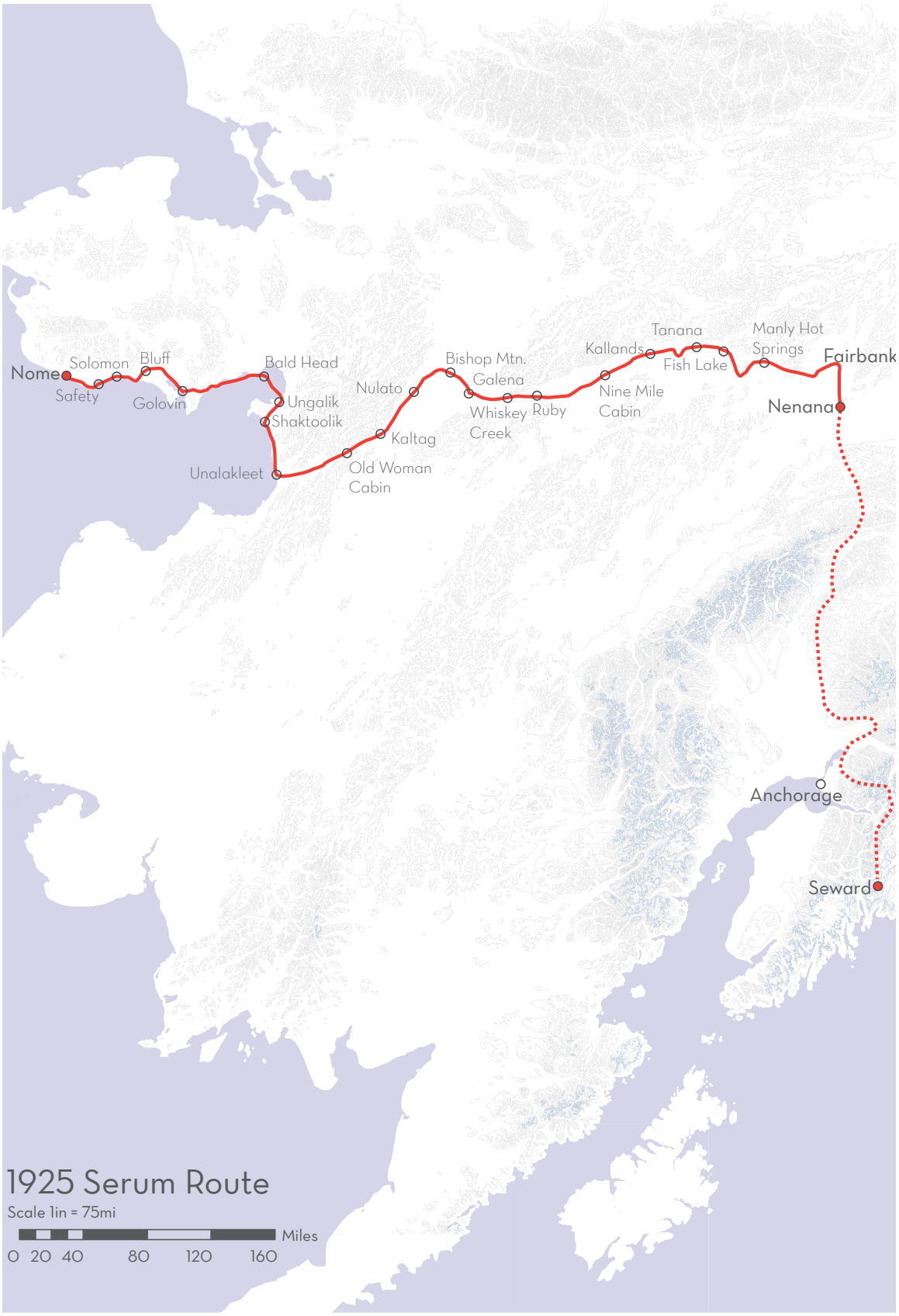

Figure 6. 1925 Serum Route

Figure 7. Iditarod Race Information

Fahrenheit, the dogs and their leaders demonstrated a type of resiliency that is native to Alaskans and pushes beyond the limitations of mechanical replacements. Gunnar Kaasen and lead dog Balto completed the final leg of the relay, delivering the vaccines on February fifteenth.[5]

The serum relay to Nome left a lasting mark on Alaskan history, even as dog sledding again became obsolete as planes and snowmobiles became the normative methods of mobility. The Iditarod Sled Dog Race was conceived in 1966 in an effort to commemorate the 1925 Serum Race to Nome and keeping the legacy of dog mushing alive in Alaska.[6] Although dog sledding is now categorized more as a sporting event than a lifestyle, the thousand-mile race from Anchorage to Nome has maintained the tradition of mushing and extreme endurance, deeming it the 'Last Great Race on Earth'.

The Iditarod is the longest dog sled race in the entire world, reaching roughly 1,200 miles from Anchorage to Nome. The ceremonial start is the first Saturday of March

5 Sherwonit, Bill, and Jeff Schultz. Iditarod: the great race to Nome. Seattle: Sasquatch Books, 2002.

6 Sherwonit, Bill, and Jeff Schultz. Iditarod: the great race to Nome. Seattle: Sasquatch Books, 2002.

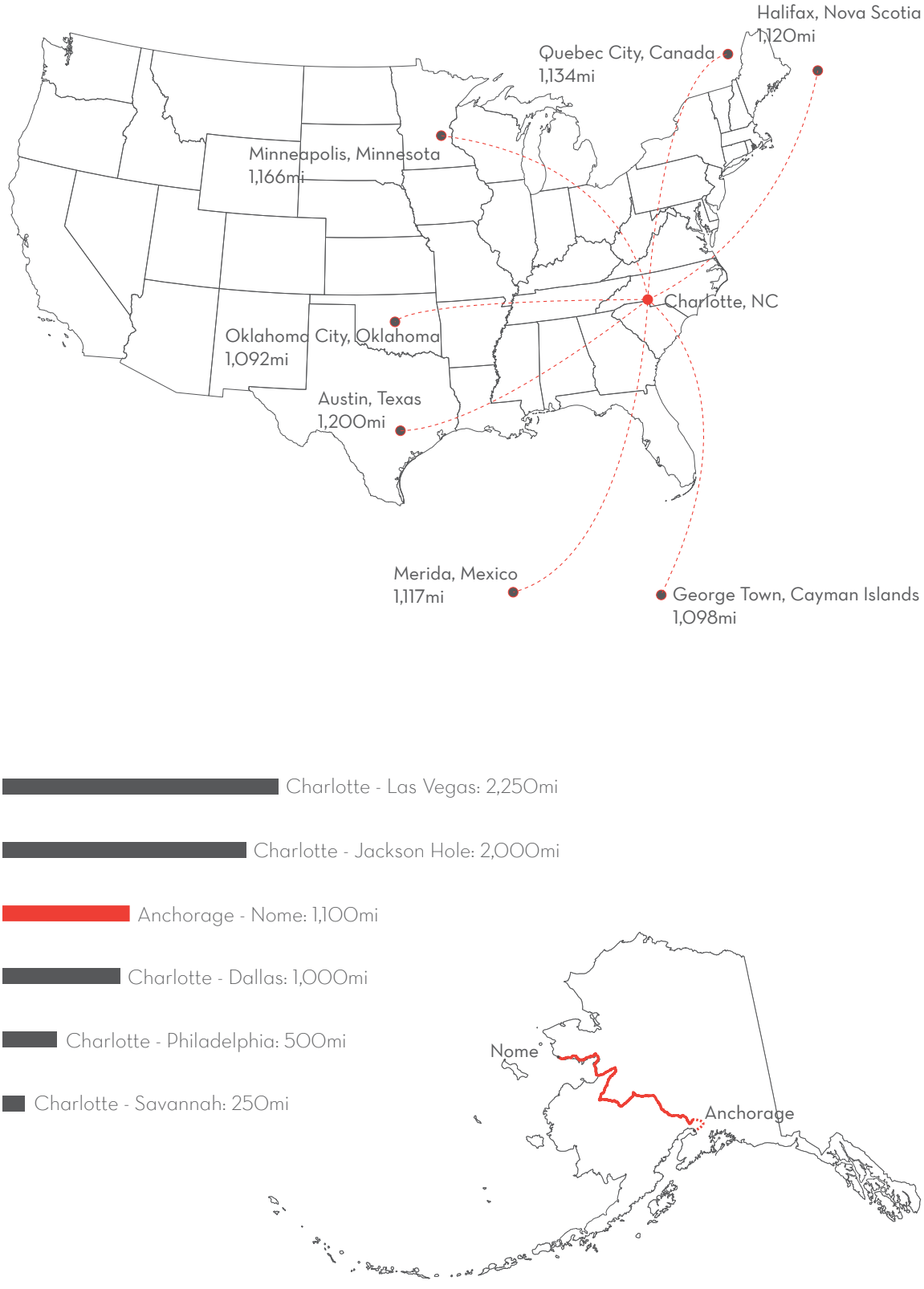

Figure 8. Iditarod Route Distance Illustration

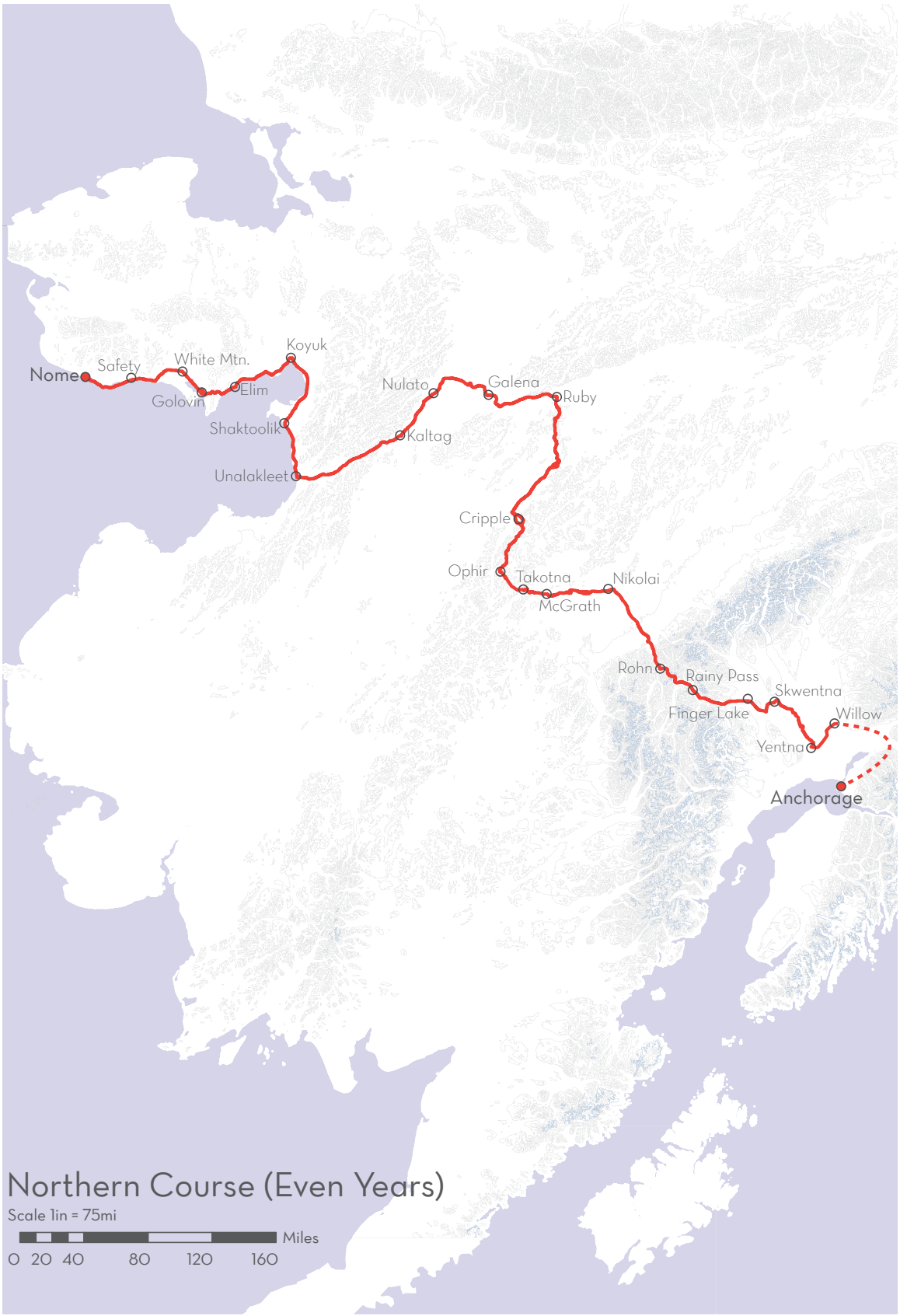

Figure 9. Northern Race Course

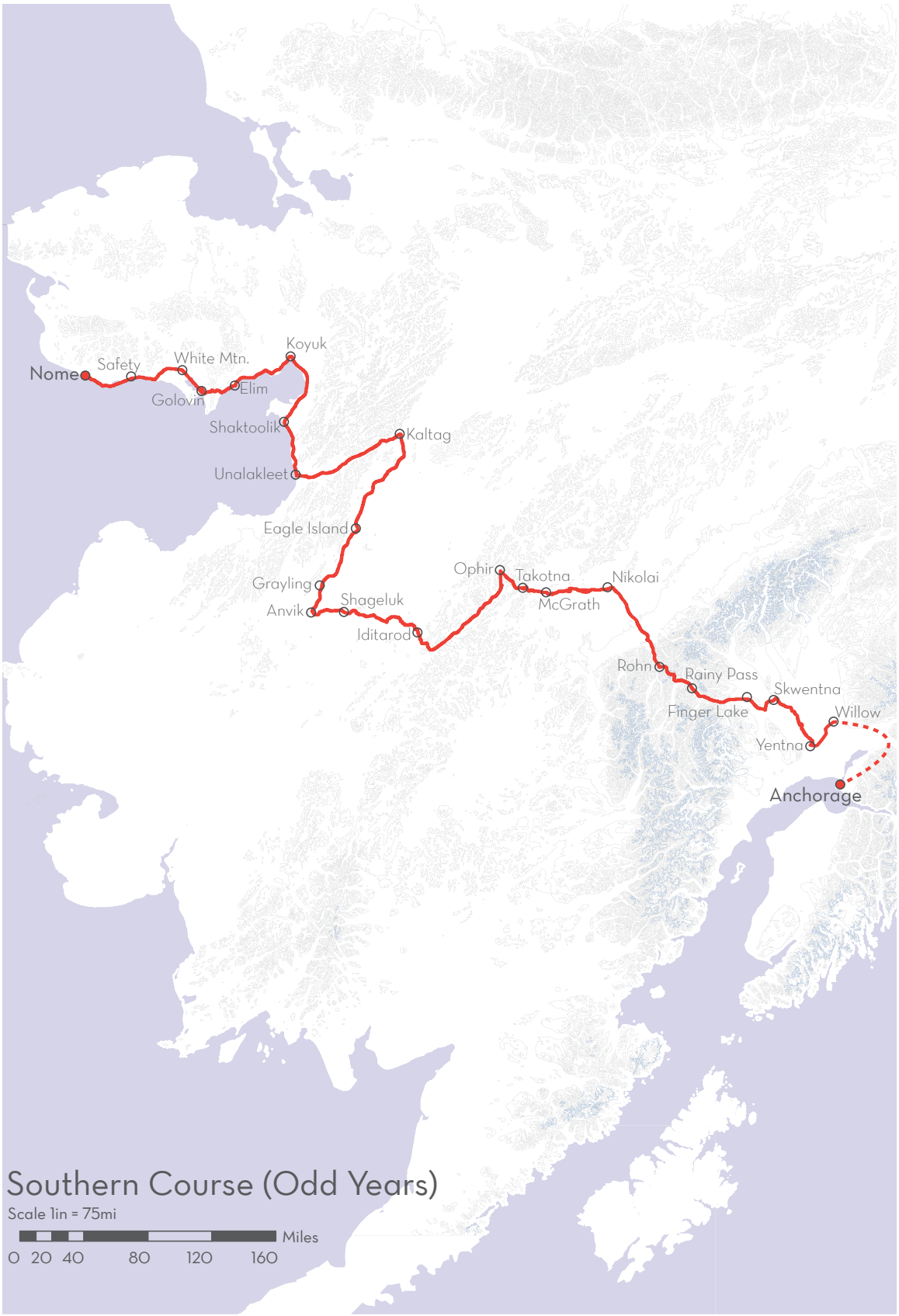

Figure 10. Southern Race Course

each year in Anchorage (where the 1920s diphtheria antitoxin was supplied) and ends in Nome (the town of the 1920s diphtheria outbreak) in as little as eight to nine days.[7] The race began along what is now the southern course route, used on odd numbered years. The southern route is most closely aligned with the historic Iditarod Trail; the northern portion of the course was added later in order to financially benefit additional extra urban communities, as the race represents an important activity for towns and villages that do not economically thrive during the winter months.[8]

The event is truly a line strung between towns, which become checkpoint stations for the race. The checkpoints are used as infrastructural nodes in order to accommodate drop bag deliveries, veterinarians, volunteers, the media, and to monitor the race. In order to survive the journey from start to finish, the mushers solely rely on the checkpoint communities to house and feed their teams, monitor their health, and to provide access to the larger connective network of temporary infrastructure implemented for the race. The beauty of the Iditarod Race is the invisible urbanism that is created by linking together a collection of extra urban settlements across three distinct terrain typologies. It is this unseen infrastructure of pilots, volunteer aids, air bases, and frozen terrain that creates a foundation of resource for mushers to plug into to aid in their nomadic journey.

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7 ICMN Staff. “39 Iditarod Facts.” Indian Country Media Network. March 07, 2011. Accessed March 4, 2017. https://indiancountrymedianetwork.com/news/39-iditarod-facts/.

8 Bauman, Margaret. “Nome Economy Races at Iditarod Finish.” The Alaska Journal of Commerce - Archives. March 20, 2005. Accessed April 18, 2017. http://classic.alaskajournal.com/stories/032005/hom_20050320001.shtml.

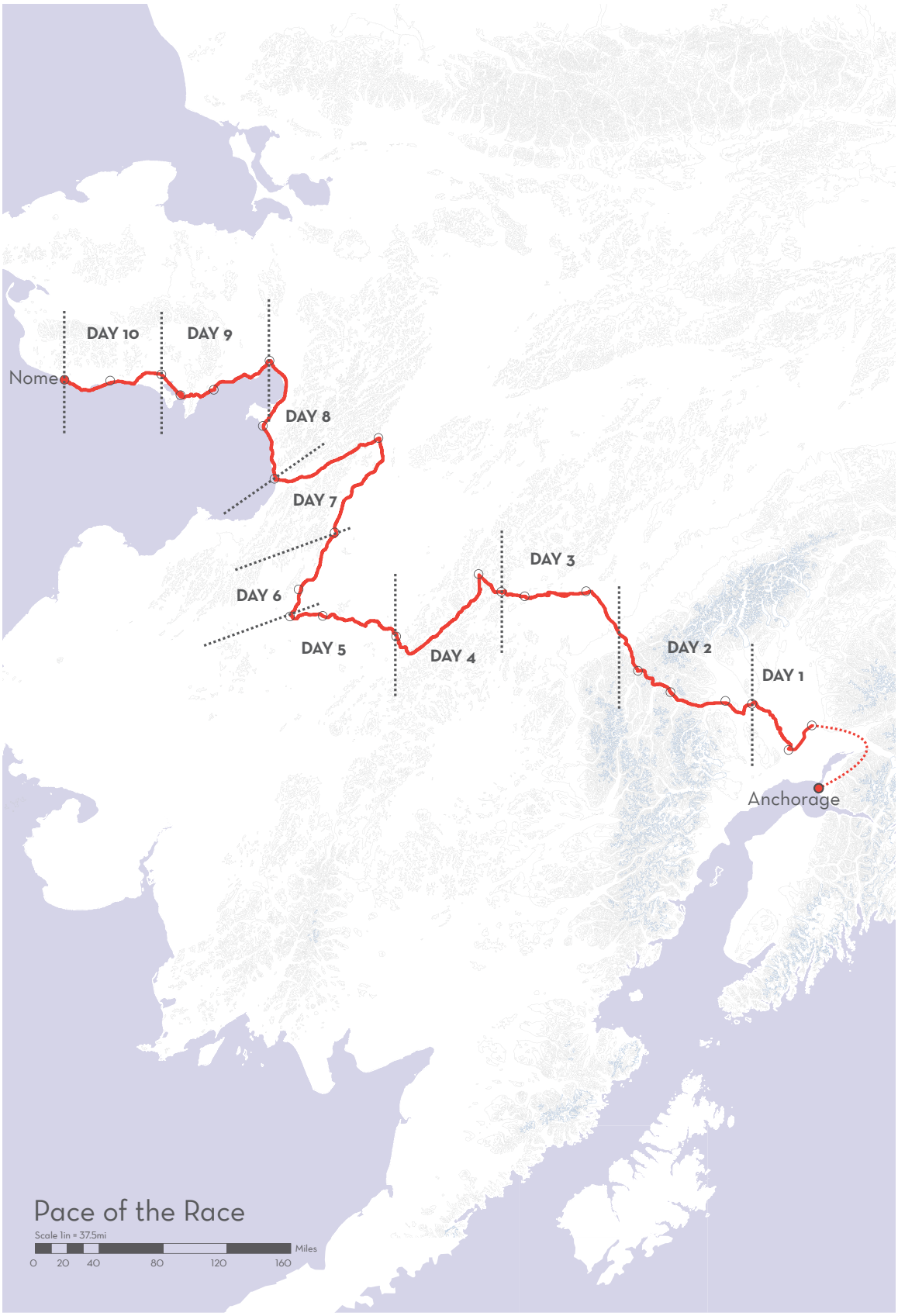


Figure 11. *Pace of the Race*

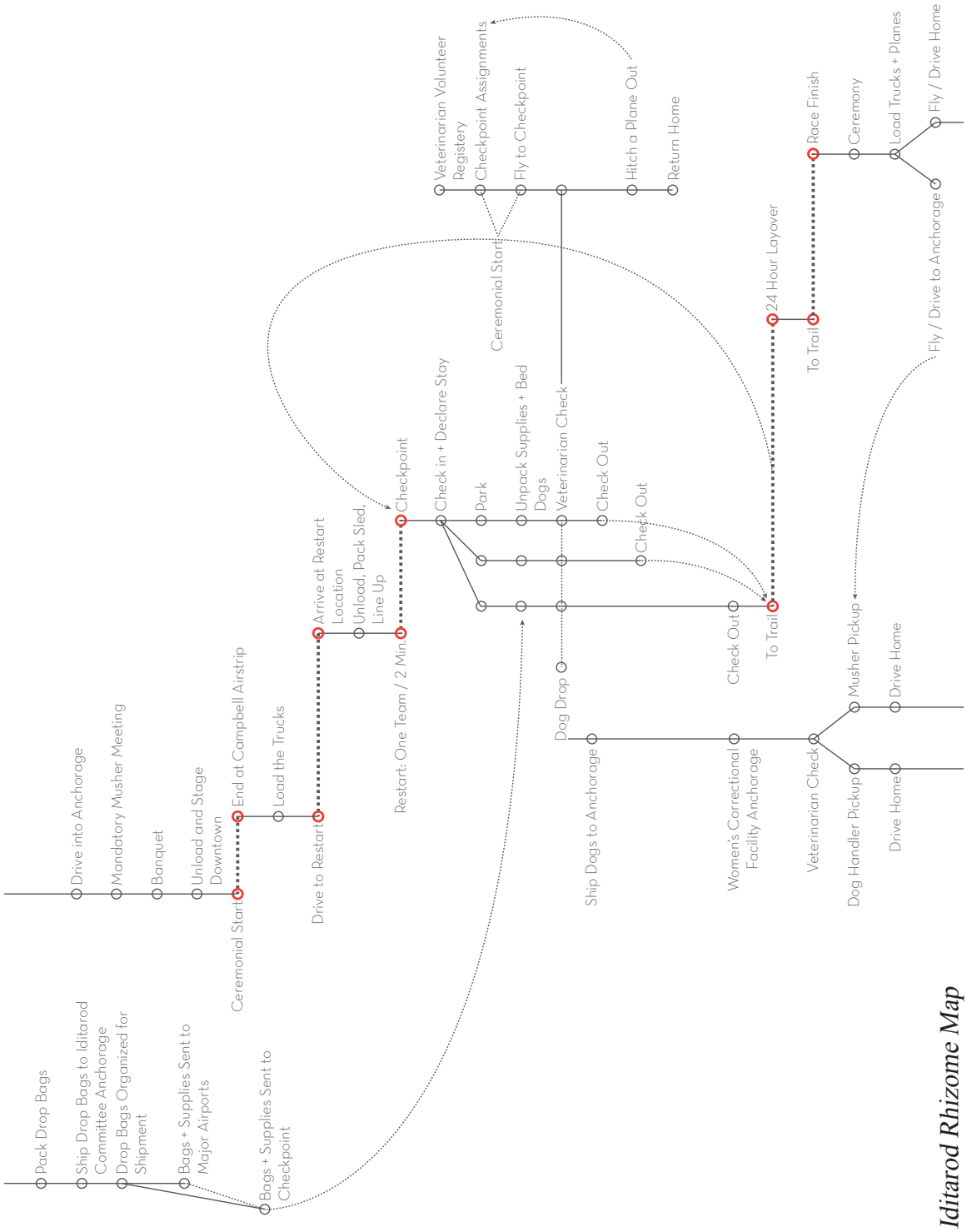


Figure 12. *Iditarod Rhizome Map*

EXTRA URBANISM

Although ‘urban’ is typically thought of as a synonym of ‘city’, urbanism refers to the interactions of any locality that have been inhabited by people with some form of a built environment, regardless of scale. Extra urban communities are characterized by an extreme remoteness in location and are restricted in connectivity to other settlements of people. Extra urban settlements are strategically located and have a direct relationship to the landscape. These settlements are situated at the intersections of resource and an access corridor. For Alaskans living in the remote wilderness, proximity to resource is of extreme importance because it is tied to the availability of food, fuel, and building materials.

Beyond the need to settle near ample wildlife is the need to be located near an access corridor, typically a connective body of water. Extra urban communities often utilize the terrain as a resource for transportation by situating their built environments alongside a river system, which is traversed by sled or snowmobile while frozen in the winter and used as a boating highway in the spring and summer. This proximity to a waterway provides access to enriched ecosystems of plants, fish, and game in addition to the availability of fresh water for consumption. In order to connect into a larger regional network, nearly all extra urban settlements have their own airstrip, ranging from a cleared strip of grass to an official airport. Physically the airstrips do not make a grand impression, but as an anchor of connectivity, they are invaluable.

Figure 13. Iditarod Air Force Illustration

In the logistical planning of the Iditarod race, an extra urban community is not eligible to become a checkpoint for the race if there is not a designated airstrip or frozen body of water available for teams of bush pilots to land. The Iditarod Air Force, the race's team of volunteer bush pilots, are the only method of transport, medical attention, and supply transfer for the entirety of the race.[9] The volunteer pilots have nearly 800 years of experience between them and they will move over 120,000 pounds of dog food, 45 veterinarians, 1,000 cases of Heet, and nearly 400 bales of hay to the checkpoint locations over the period of one single race.[10] The race utilizes the airstrips as tether points to the villages for servicing the organization of the race while using the frozen waterways of the landscape as the traversable trail for the mushers.

The airstrips, like the checkpoints themselves, can be categorized into one of four typologies. "Alaska has 400 public use airports, 282 land-based, 4 heliports (only public use listed this year), 114 seaplane bases, and approximately 747 recorded landing areas (private, public, and military) total."[11] These statistics do not include the numerous gravel bars and lake landing sites across the state. Of those totals, the landing sites can be characterized as: sea adjacent, water strips, interior river adjacent, and uninhabited.

Sea adjacent airstrips are connective in nature because they are located near a significant water port. Unlike other typologies, these airfields are not the only permanent link the community has to the outside world. Alaska's larger cities are located along the coast as the climate is more temperate and regional and global trade is more easily accessible. Waterstrips have no official landing strip, leaving planes to land on the frozen

9 Fischer, Greg. "The Iditarod Air Force." Dogflying.com. Accessed March 14, 2017. http://www.dogflying.com/index.php?option=com_content&view=article&id=30&Itemid=7.

10 Fischer, Greg. "The Iditarod Air Force." Dogflying.com. Accessed March 14, 2017. http://www.dogflying.com/index.php?option=com_content&view=article&id=30&Itemid=7.

11 United States. Federal Aviation Administration. Anchorage. Alaskan Region Aviation Fact Sheet, 2016. 1.

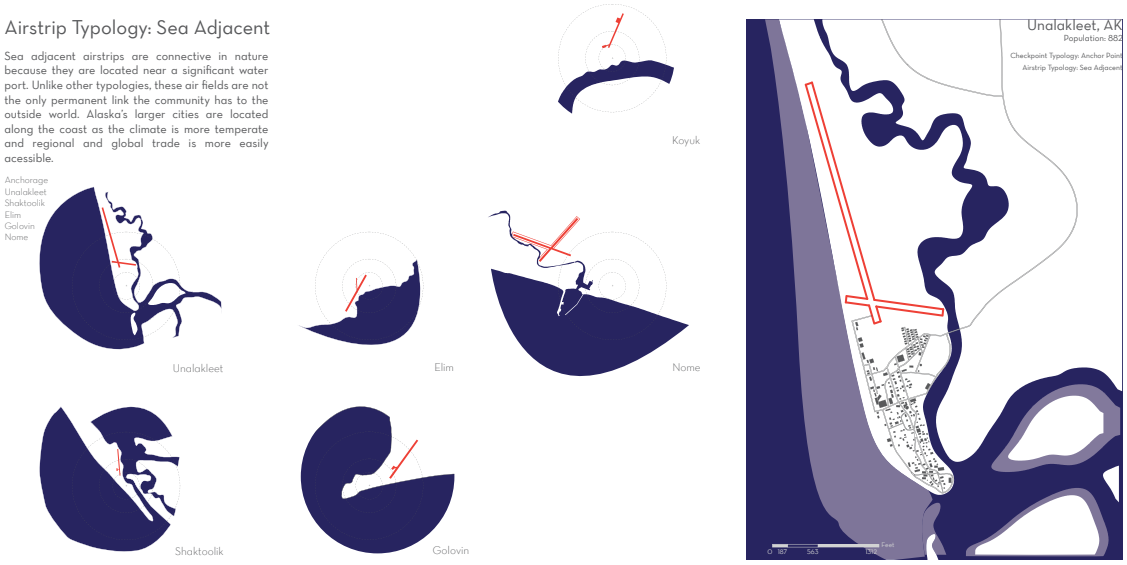


Figure 14. Sea Adjacent Airstrip Typologies

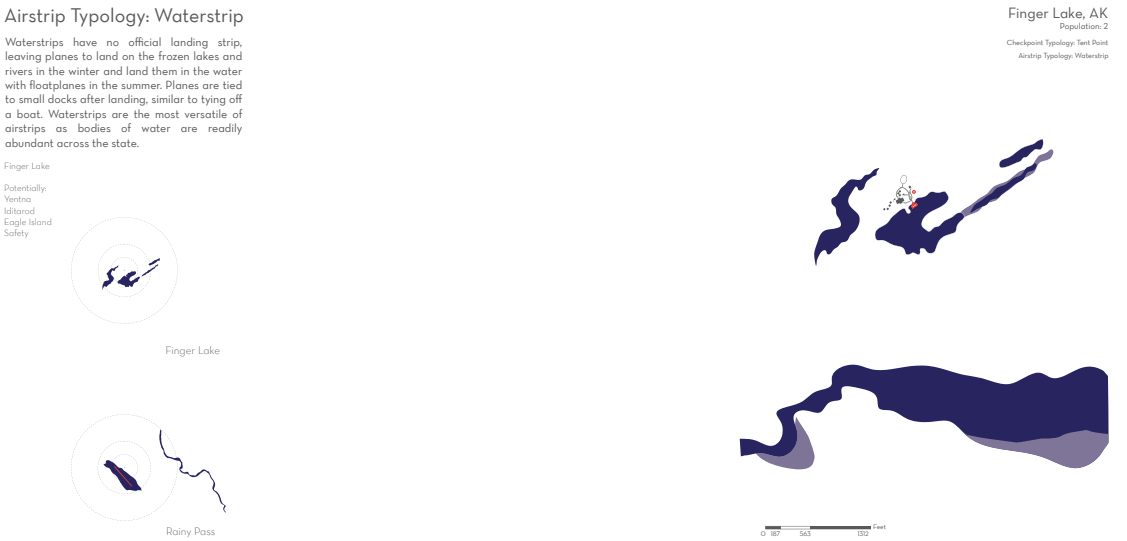


Figure 15. Waterstrip Aistrip Typologies

lakes and rivers in the winter and land them in water with floatplanes during the summer. Planes are tied to small docks after landing, similar to tying off a boat. Waterstrips are the most versatile of airstrips as bodies of water are readily abundant across the state.

River adjacent airstrips are the most common of checkpoint airfield typologies as most interior Alaskan communities are situated near connective waterways. The waterways serve as local avenues of transportation, allowing boats to ship supplies from

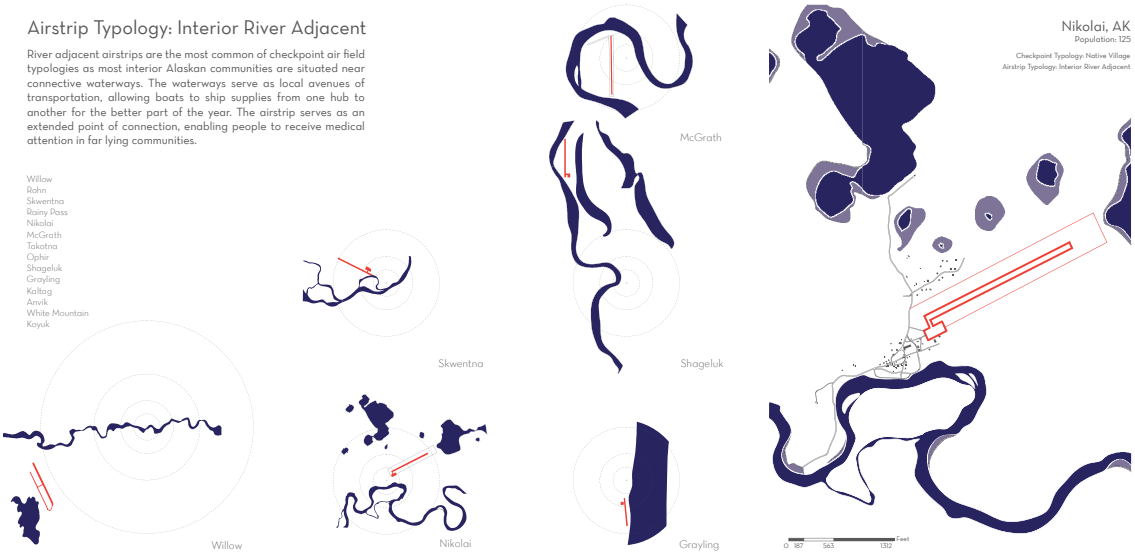


Figure 16. Interior River Adjacent Airstrip Typologies

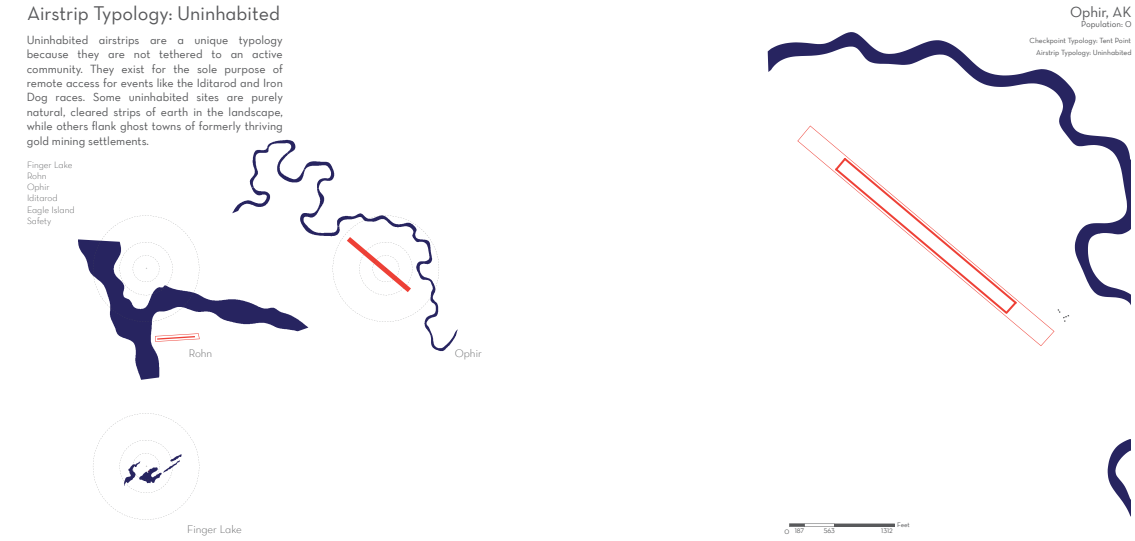


Figure 17. Uninhabited Airstrip Typologies

one hub to another for the better part of the year. The airstrip serves as an extended point of connection, enabling people to receive medical attention in far lying communities.

Uninhabited airstrips are a unique typology because they are not tethered to an active extra urban community. They exist for the sole purpose of remote access for events like the Iditarod and Iron Dog races. Some uninhabited sites are purely natural, cleared strips of earth in the landscape, while others flank ghost towns of formerly thriving gold

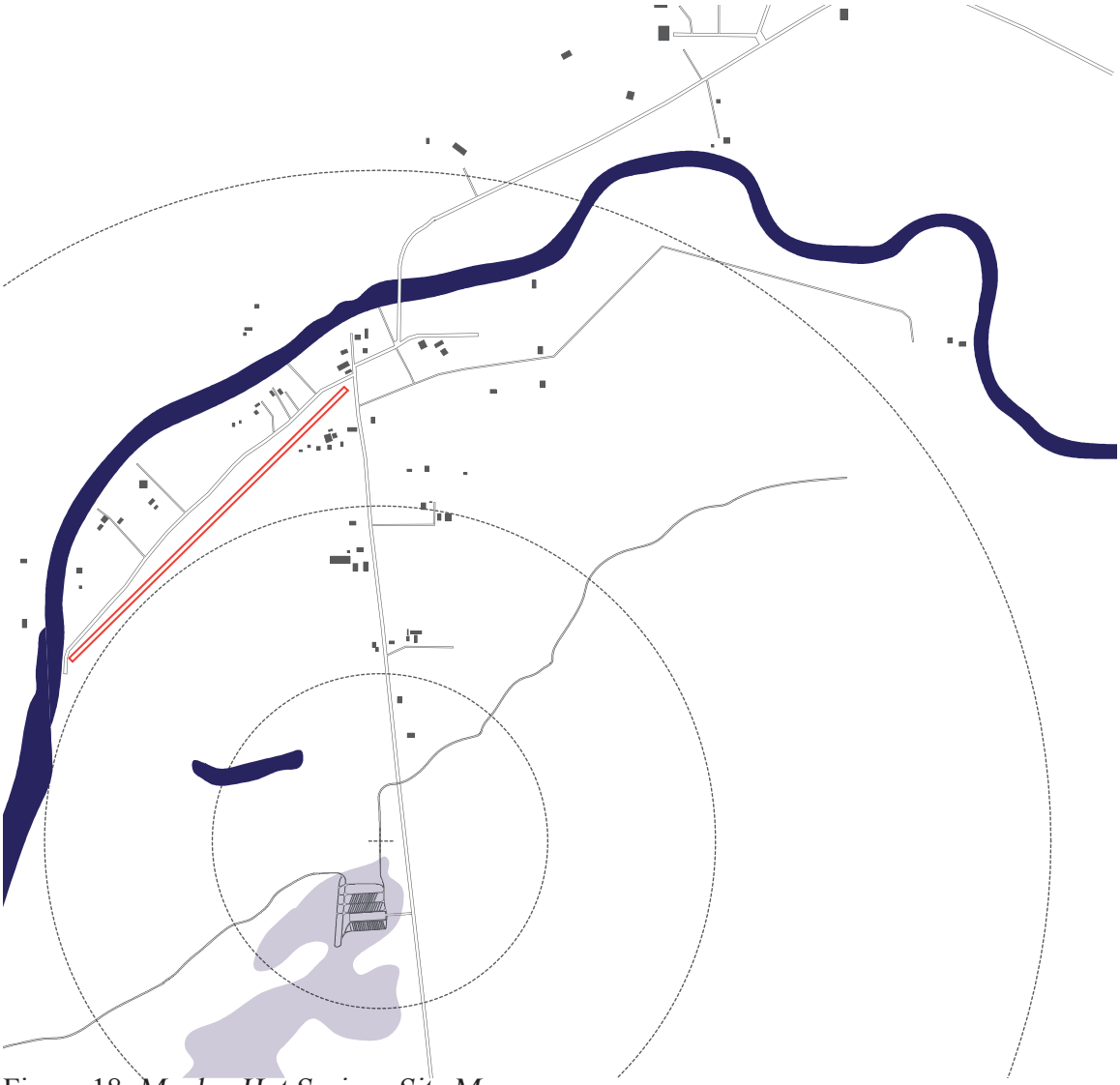


Figure 18. *Manley Hot Springs Site Map*

mining settlements or vacant communities that were displaced from the repercussive effects of climate change.

Without connective anchors, like airstrips and water ports, extra urban Alaskan communities cannot survive. For many of these villages, there are no roads or rail in or out of the settlement; medical attention is hours away and all supplies such as clothing, fuel, and tools must be flown in on small private planes.[12] When accessibility is at a

12 Johnson, Kirk. "Health Care Is Spread Thin on Alaskan Frontier." The New York Times. May 28, 2013. Accessed April 19, 2017. http://www.nytimes.com/2013/05/29/us/health-care-in-vast-alaska-frontier-is-spread-thin.html.

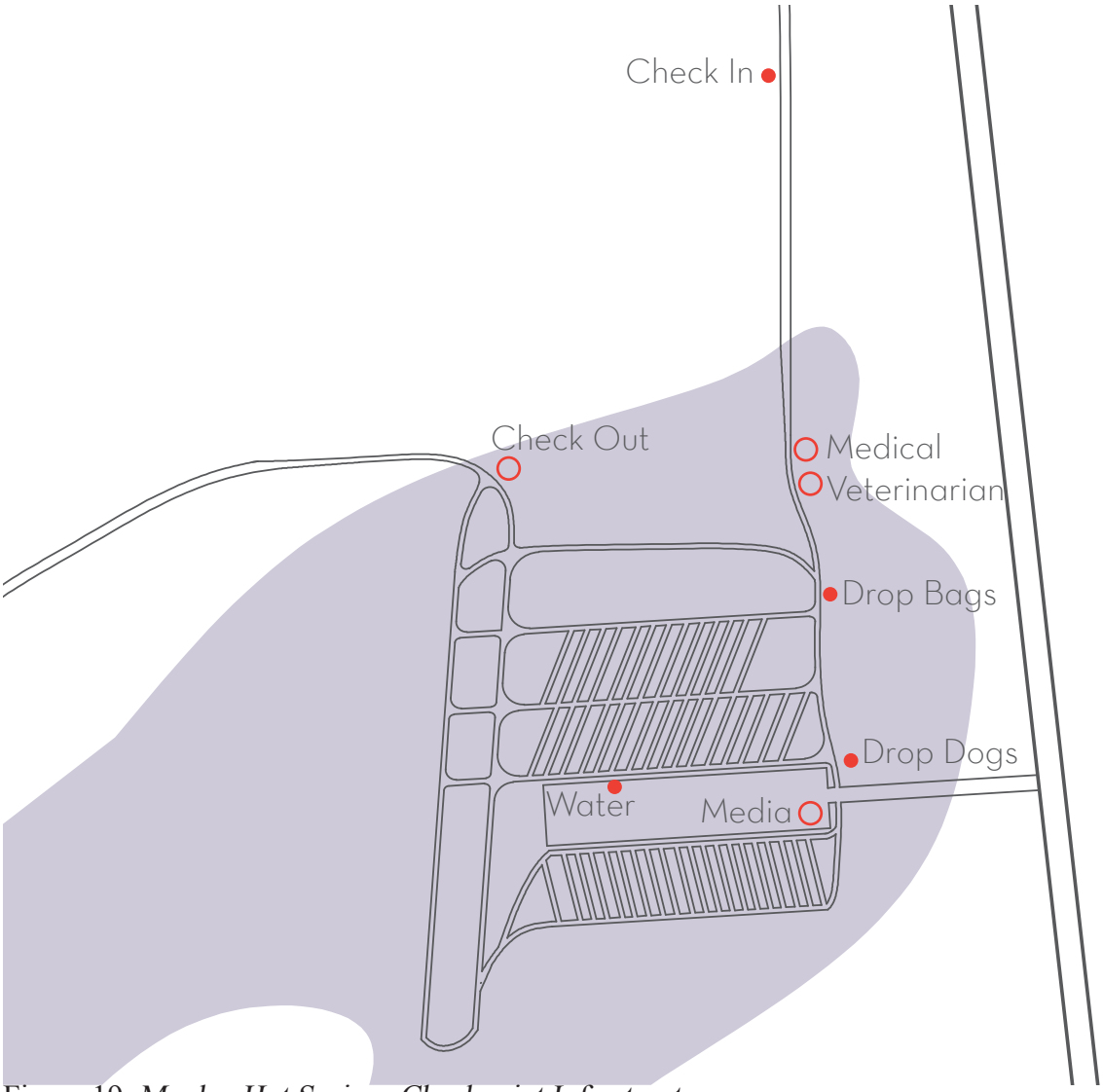


Figure 19. *Manley Hot Springs Checkpoint Infrastructure*

minimum, residents rely on the landscape's transformations to become a platform for infrastructure and public space. As an example, the bush community of Manley Hot Springs designed and carved out a sledding infrastructural network in order to efficiently host as an Iditarod checkpoint. The community used the only naturally cleared space, the frozen lake, as the main site for the check-in, checkout, and sled parking aisles of their checkpoint. Easily made, the residents used snowmobiles and plows to carve out the network on the ice as it connects to the established race trail. In a matter of weeks,

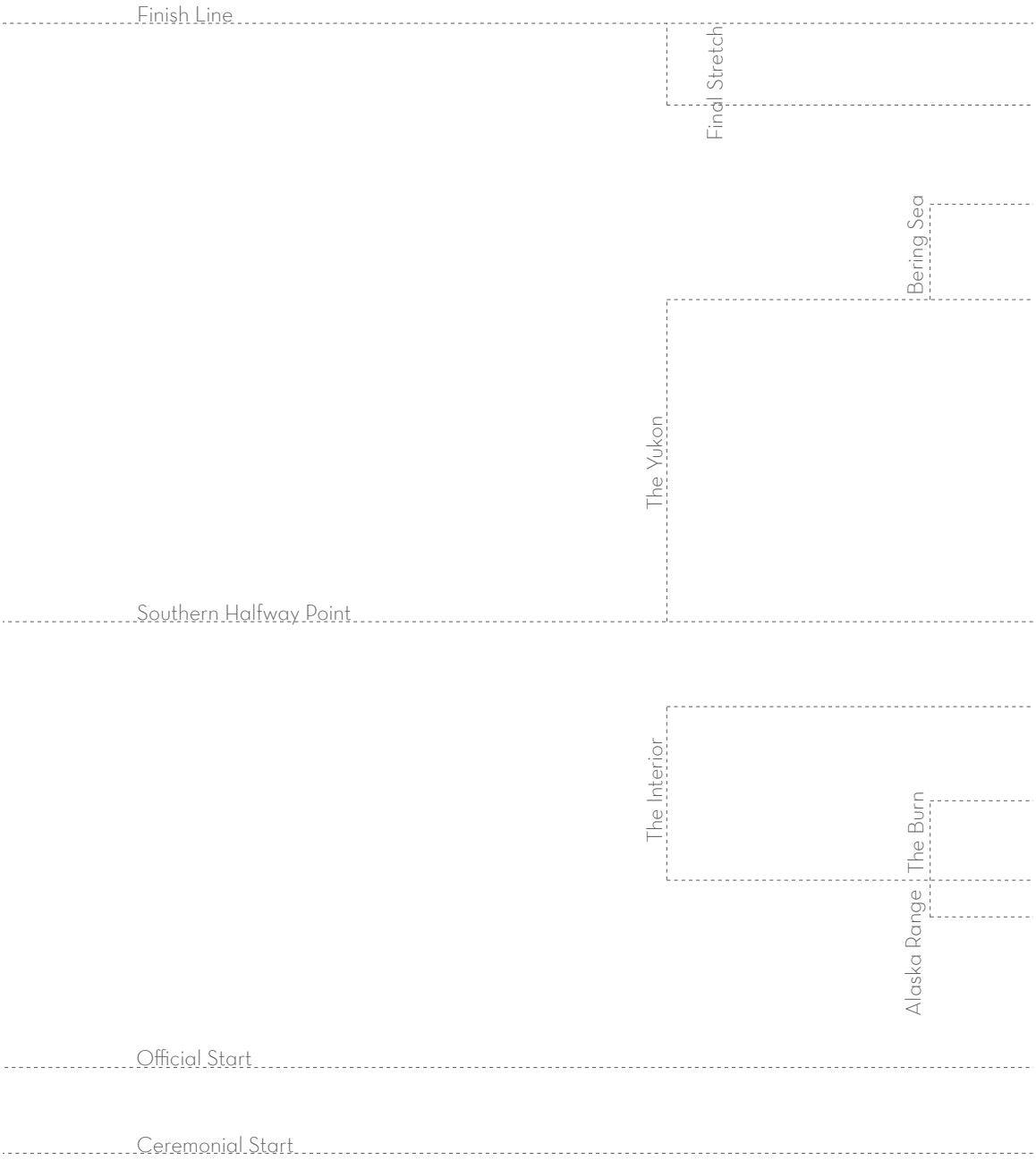


Figure 20. Race Leg Typologies

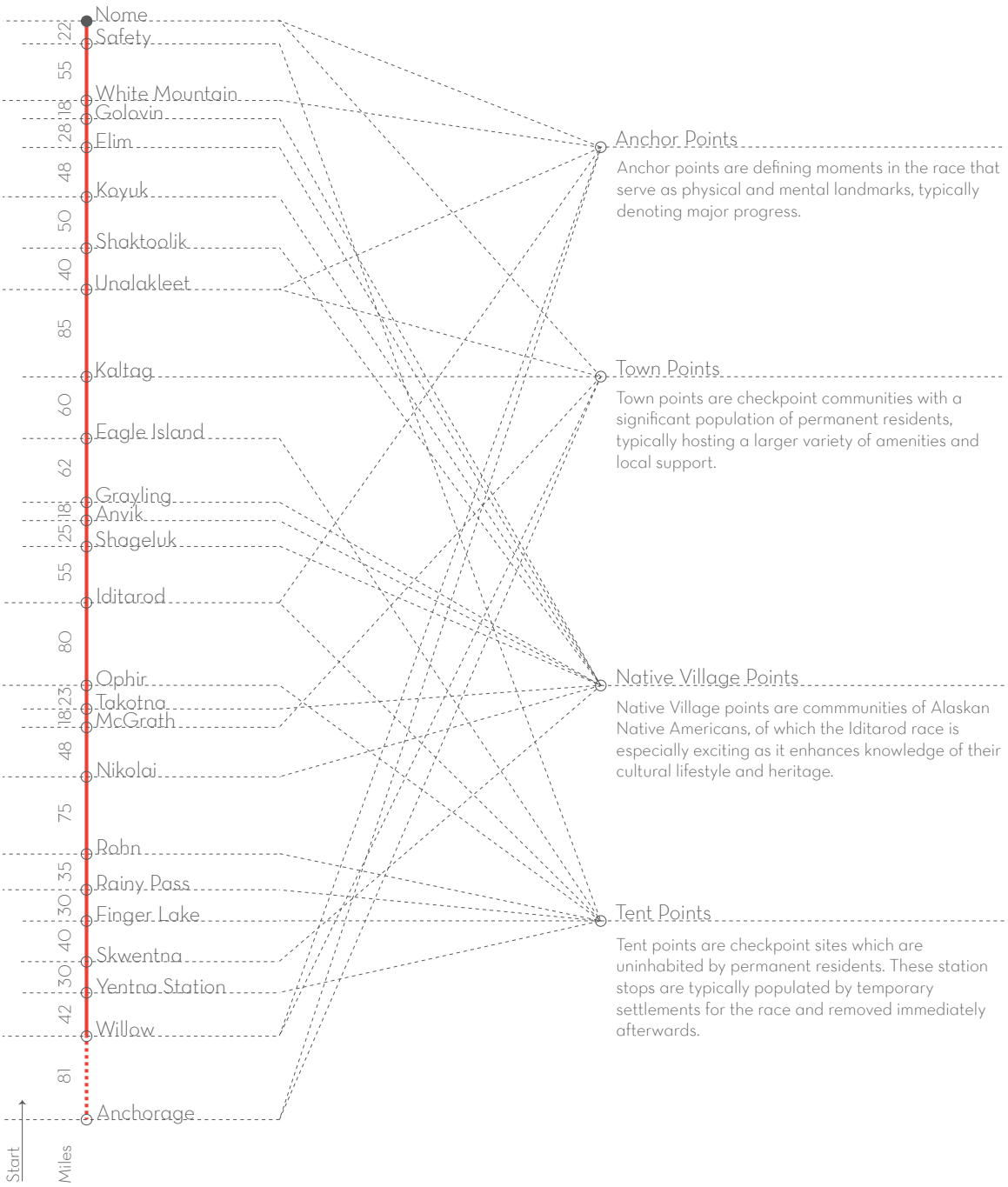


Figure 21. Checkpoint Typologies

Figure 22. Schultz, Jeff. Chasing Dogs. Anchorage, AK: Jeff Schultz Photography, Inc., 2014. 11.

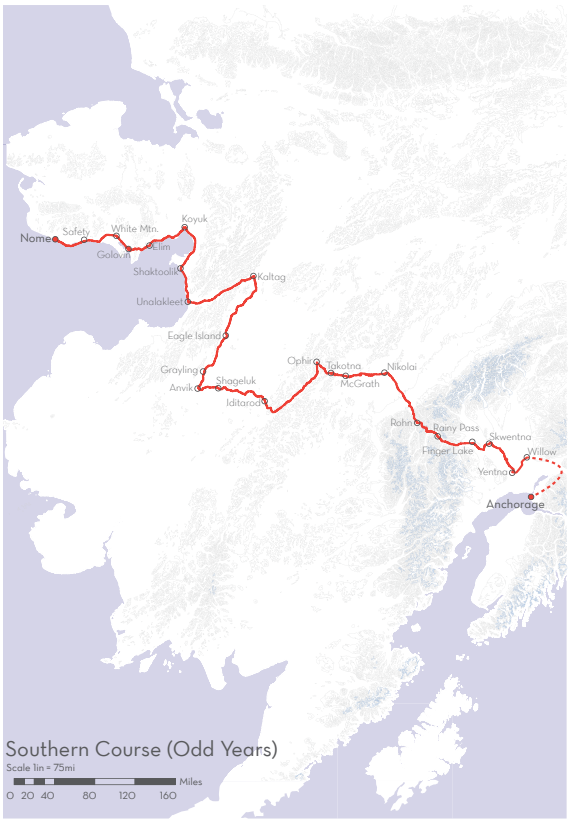


Figure 23. Southern Race Course

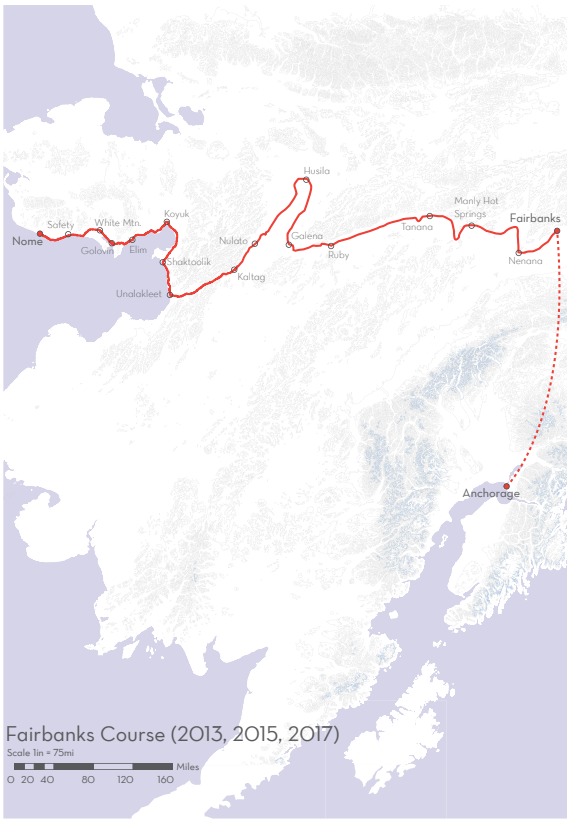


Figure 24. Fairbanks Race Course

the temporary ‘sled road’ will melt away to reveal the ice of the frozen lake where the Manley Hot Springs community will host its annual spring festival before the ice melts to water during the summer months. In Alaska, the rivers are the highways, the lakes are the town squares, and the terrain is an open source grocery store. Alaskans plan their lives around the cyclical transformations of the landscape because each season is accompanied with its own set of resources to utilize. It is only in the face of unpredictable accelerated climate change that extra urban lifestyle practices are threatened.

Figure 25. Adams, Brian. *Kivalina Sea Wall.* 2007. I AM INUIT, Anchorage Museum, Anchorage.

DATA COLLECTION, RESOURCE, CULTURAL PRACTICES, AND PRODUCTION

In Alaska, there is a current dialectic between changes in climate and the invisible urbanism that is responsive to the landscape, resources, and connective networks of people. Data collection, resource, cultural practices, and production are part of this unseen urbanism. In many cases, the activities tied to the terrain connect and trigger one another, becoming mutually beneficial in between categories. For example, the cultural practice of subsistence living (hunting, fishing, and gathering food from the land to self sustain) taps into resources of fish, game, and vegetation in the landscape. Once caught or gathered, the food is stored and prepared using techniques passed down by generations of Alaskans; nothing is wasted once harvested from the landscape. After processing the items, clothing, oil, paint, and jewelry can be produced from certain parts of the harvested resources and sold or traded to obtain other goods that are more difficult to come by in extra urban territories.

These shifts in the landscape triggered by climate change threaten extra urban activities, forcing certain practices to either adapt to new host sites and conditions or to wither and dissipate. Affected at exponential rates are the native coastal villages, like Kivalina, that are experiencing rapid coastal erosion and soil destabilization.[13] Coastal erosion in Alaska is a result of two combined instances of landscape transformation triggered by environmental warming: sea level rise and the thawing of the permafrost layer in the site's soil. "Warmer temperatures melt the permafrost, or frozen sub-surface

13 Adams, Brian. I am Alaskan. Fairbanks, AK: University of Alaska Press, 2013.

Figure 26. *Moose Calf*

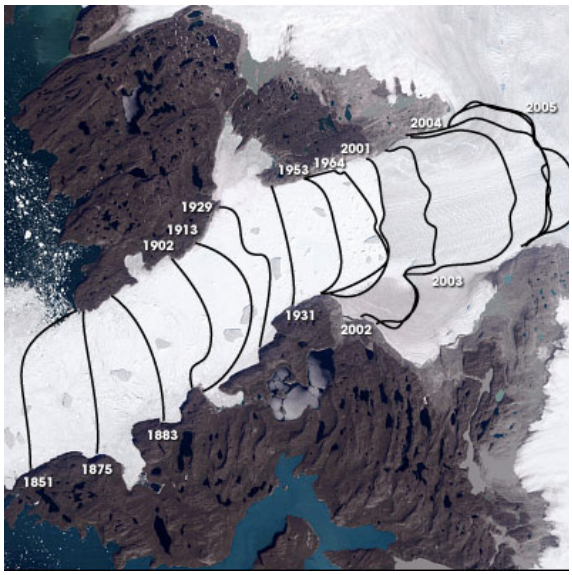


Figure 27. "Jakobshavn retreat from 1851 to 2006." Digital image. Facts and Details.

layers which helped bind together the soil. Heavier rains produce more floods, and swollen rivers which wash away the soil. Waves break higher, because of sea-level rise, clawing at beaches."[14] Displacement of settlements due to shore encroachment and erosion are not unique to Alaska; mitigating the effects of sea level rise is becoming a design prompt for many architects as they choose between RIBA's three flood management strategies of defending, attacking, or retreating from coastal sea level rise.[15] In Augmented Landscapes, Allen proposes an infrastructural framework that allows the retreating village to strategically shift away from the crumbling coast as it consumes the site's buildings.[16] Monitoring site transformations over time to document and project changes in Alaska will provide a reference point for the rest of the contiguous United States and adjacent countries to measure against in the future.

14 Chen, Greg, Gabriel Dance, Feilding Cage, and Suzanne Goldenberg US Environment Correspondent. "The State We're In." The Guardian. May 15, 2013. Accessed March 20, 2017. https://www.theguardian.com/environment/interactive/2013/may/15/alaska-erosion-climate-change.

15 "Facing Up to Rising Sea Levels." Building Futures. Accessed May 06, 2017. http://www.buildingfutures.org.uk/projects/building-futures/facing-up.

16 Allen, Smout. Pamphlet Architecture 28: Augmented landscapes. New York: Princeton Architectural Press, 2007.

Figure 28. Adams, Brian. *Lynden Weyiouanna.* 2007. I AM INUIT, Anchorage Museum, Anchorage.

Research, in the form of on-site scientific data collection, has been an important activity in Alaska for decades. Glacial retreat, widespread wildfires, and the monitoring of wildlife migration and herd population have been documented to connect their effects to changes in resource availability, decreases in production, increases in displacement, and loss of cultural continuity. When visiting Alaska, the consequences of climate change are undeniable; people there are not speculating about climate change, they are living with

Figure 29. Frozen River Aerial Photograph

it. Given the indications of current data collected in the coastal plains region of Alaska, America will have its first climate refugees within the next few years as Newtok Village crumbles into the sea - and 186 other villages are next on deck.[17]

The collected climate data connects instances of landscape transformation to changes in resource patterns and availability. Although the residents of extra urban

17 Dance, Gabriel, Feilding Cage, and Suzanne Goldenberg US Environment Correspondent. "Alaska on the edge: America's First Climate Refugees." The Guardian. May 13, 2013. Accessed March 20, 2017. https://www.theguardian.com/environment/interactive/2013/may/13/newtok-alaska-climate-change-refugees.

Figure 30. *Resting Caribou*

Figure 31. CSM Photos. Offload Crew in St. Paul. CSM Photos. https://csmphotos.wordpress.com/2013/01/17/bering-sea-opies-and-the-reality-of-the-deadliest-catch/

communities confront the effects of these shifts, scientists and government officials track the falling dominos across the entire region. Lynden Weyiouanna, an Inupiaq from Shishmaref explains the effects of environmental change in his village:

> I will be 18 tomorrow, and every year I see the land slowly decreasing. People call it climate change; others call it big bologna. In real life, if they actually came up here and lived with us for a few years, they would see what we are talking about and what we are going through, year by year. Berries and animals are coming quicker than usual. It's a big change for us. Prices have even gone up in town. I am not even that old you know? Things have changed in a short amount of time.[18]

Unlike other areas in the United States, resources in Alaska are physically manifested in the landscape in the form of caribou, frozen river systems, whales, fish, gold, timber, and oil. While families in Charlotte, North Carolina, for example, locate themselves near intangible resources (like neighborhoods with high real estate value and good school districts), extra urban residents in Alaska live in proximity to fresh water rivers, herds of dall sheep, medicinal plants, and adjacent to wooded forests in order

18 Adams, Brian. I am Inuit. February 24, 2017. Museum Exhibit, Anchorage Museum, Anchorage.

Figure 32. Orlinsky, Katie. The Guardian. July 16, 2015. https://www.theguardian.com/travel/2015/jul/16/alaska-point-hope-whaling-climate.

to achieve a subsistence lifestyle. Subsistence living, living on only essential human necessities, is tied to the cultural traditions of Alaska Native people.

> 'Native people of southeast Alaska. The relationship between the Native population and the resources of the land and the sea is so close that an entire culture is reflected...Traditional law...was passed from generation to generation, intact, through repetition of legends and observance of ceremonials which were largely concerned with the use of land, water, and the resources contained therein. Subsistence living was not only a way of life, but also a life-enriching process...'[19]

19 "Alaska Native Subsistence: A Matter of Cultural Survival." Cultural Survival. September 1998. Accessed April 04, 2017. https://www.culturalsurvival.org/publications/cultural-survival-quarterly/alaska-native-subsistence-matter-cultural-survival.

Figure 33. Adams, Brian. *Holly Nordlum.* 2007. I AM INUIT, Anchorage Museum, Anchorage.

Figure 34. Adams, Brian. *Marie Rexford.* 2007. I AM INUIT, Anchorage Museum, Anchorage.

When living in an extra urban territory, cultural practices and generational traditions are embedded into everyday activities such as food preparation, clothing choices, and recreational events. Communities band together to share information, support, and resources because they have the same lifestyle and historical ties to place. Villages create connections in order to trade and barter with one another, their wealth lies in experience and relationships instead of material possessions; people's lives are measured by their skills and experiential milestones that they in turn relay to their future generations.

Cultural practices are retained over time by passing down accumulated knowledge of how to thrive, not just survive, in the Alaskan wilderness. Extra urban residents take pride in their ability to lead a fulfilling life in uninhabitable conditions. Natives and non-natives alike utilize the knowledge of their territory to turn a profit. Production of goods in order to profit monetarily or trade for manufactured necessities is a vital part of Alaskan culture. Residents use their available resources and accumulated knowledge

Figure 35. Adams, Brian. *Anna Andrew*. 2007. I AM INUIT, Anchorage Museum, Anchorage.

to produce fur products, leather goods, jewelry, tools, and handmade art to sell in larger towns to earn money. Anna Andrew, an Alaskan Native sells handmade fur products at festivals all over Alaska. "I specialize in fur-parkas, beaver hats, mittens and mukluks. I have been doing it for many years, pretty much all my life. I learned most of my sewing from my mother. Ever since I could hold scissors, my mother has been teaching me how to sew."[20] Harvesting the landscape is a legacy of Alaska, whether it be a local village

20 Adams, Brian. I am Inuit. February 24, 2017. Museum Exhibit, Anchorage Museum, Anchorage.

Figure 36. Adams, Brian. *Minnie Foster.* 2007. I AM INUIT, Anchorage Museum, Anchorage.

Figure 37. Adams, Brian. *That's a Lot of Snow*. In I AM ALASKAN. Fairbanks, AK: University of Alaska Press, 2013. 21.

woman harvesting berries for jam, or British Petroleum drilling the vast Northern Slope for oil in the tundra.

Figure 38. *Bison Feeding*

Figure 39. Rainy Pass Checkpoint Aerial Photograph

Figure 40. *Iditarod Bootie Alley*

EVENT-DRIVEN GEOGRAPHIES

Event-driven geographies, landscapes activated by programmed activity, are unique occupations of sites that mitigate and utilize the host terrain in advantageous ways. Typically, ephemeral in nature, the ‘events’ are flexible and adapt to the geography’s physical characteristics, urbanism, cultural history, and political climate.

The Iditarod Trail, in accompaniment of the extra urban communities serving as checkpoints, is an example of an event-driven geography. In the interrogation of the Iditarod Sled Dog Race, certain lessons of ephemeral activation can be extracted and applied to different localities separate from the race itself. The race’s successes are its utilization of terrain as infrastructure, the strategic pairing of mobility methods, adaptation to the changes in terrain, plugging into an existing invisible network of extra urban communities, and capitalizing on the benefits of experience economy.

When the lessons extracted from the Iditarod Race are systematized to occur elsewhere, they can be repackaged and tailored to become compatible with specific terrain typologies. Because the Alaskan landscape is so unyielding, human activation of extra urban territories must accommodate the terrain and take advantage of its attributes. Each terrain typology has its own unique physical characteristics, site-specific resources, network availability, and possible modes of mobility. With extensive research and first hand experience, one can map the resources and networks of a particular terrain to understand its system of invisible activities. Once knowledgeable of the site’s existing

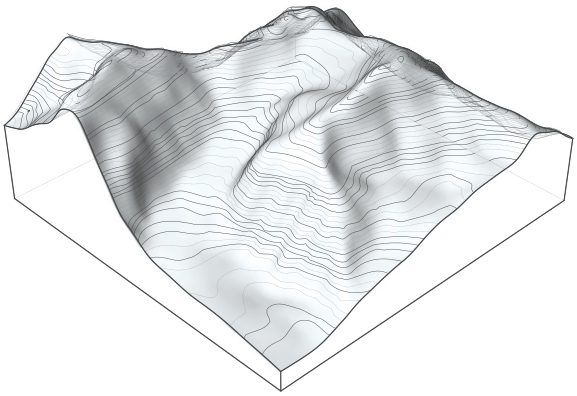


Figure 41. *Range Terrain Axonometric*

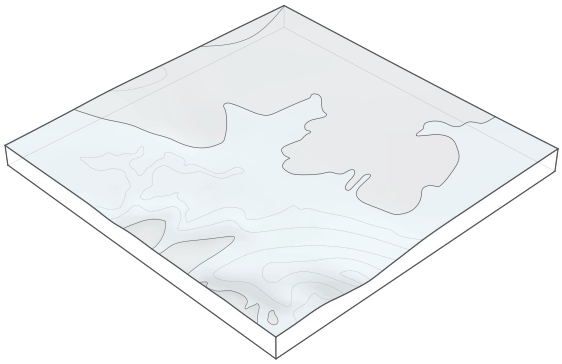


Figure 42. *Coastal Plains Terrain Axonometric*

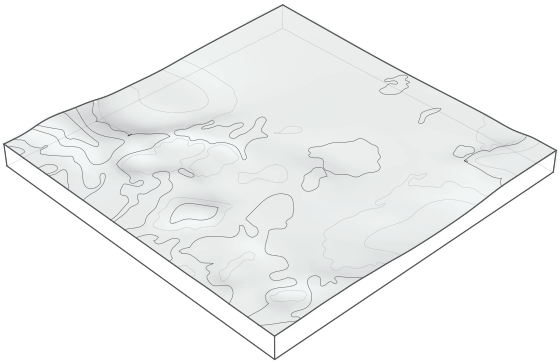


Figure 43. *Tundra Slopes Terrain Axonometric*

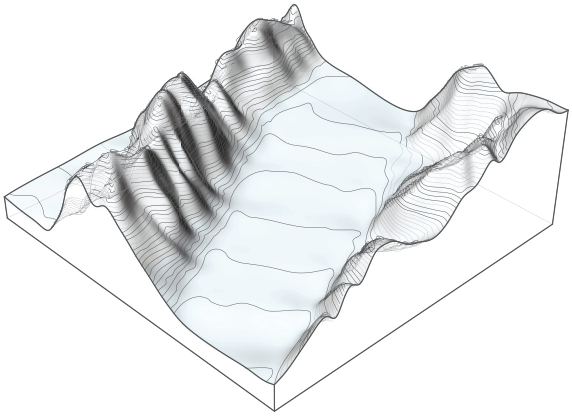


Figure 44. *Glacier Terrain Axonometric*

conditions, an activation can be proposed that combines a mode of mobility, method of research initiated data collection, and a component of tourism. The newly formed ‘event’ meant to provide a temporary instance of extreme stimulation to an extra urban settlement charges the local economy with tourist dollars, provides powerful documentation of the effects of climate change, and does not detrimentally impact the host site during or after occupation. Together, these components form an ‘event’, which is driven by the opportunities of the local and regional landscape.

Event geographies must address specific cultural and environmental conditions of unique locations and extra urban communities. In order to understand the relationships between local cultural practices and local geographies, a series of terrain typologies were

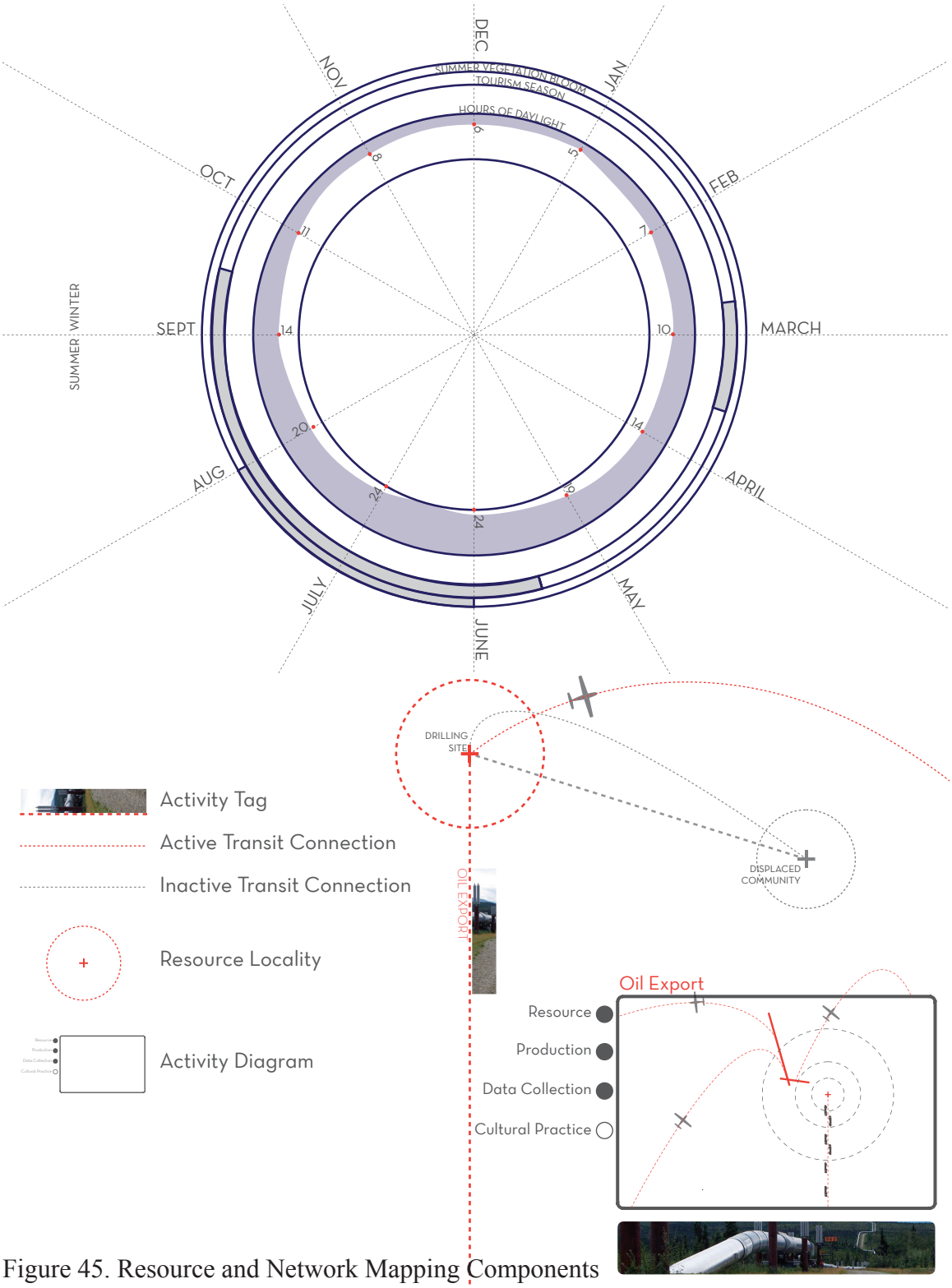


Figure 45. Resource and Network Mapping Components

identified to investigate activities driven by resource and network in order to discover potential opportunities for region-specific event activations.

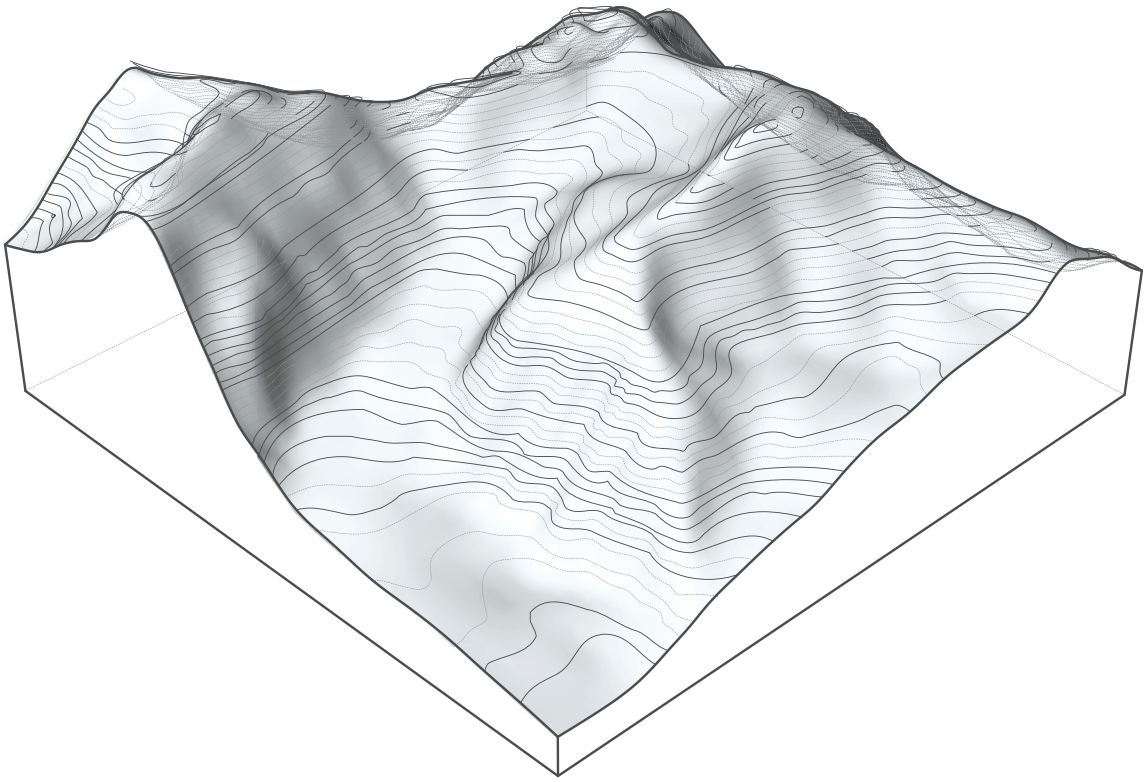


Figure 46. *Range Terrain Axonometric*

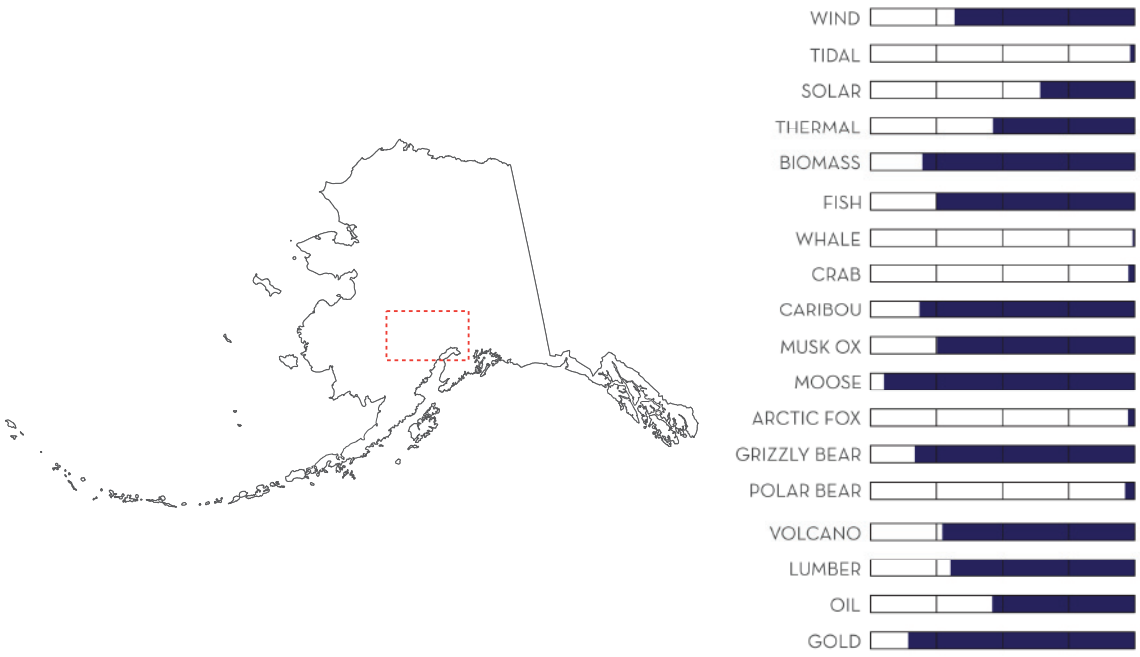


Figure 47. Range Location and Resources

THE RANGE

The Range refers to various mountain ranges throughout Alaska. Alaskan ranges are rockier, more jagged and more extreme in topography than that of other mountain ranges in the contiguous United States. Typically capped with snow year around, the range is difficult to navigate, full of wildlife, and prone to avalanches. Alaskan Ranges help to buffer extreme weather and wind from other land regions, making their valleys milder in temperature.

Due to an extreme restriction in mobility, few people populate the range territory. Steep cliffs and uneven ground conditions make traversing the landscape dangerous throughout the entire year. Like most of interior Alaska, the Range Mountains are carved with abundant river systems that are used as transportation infrastructure and subsistence living by its inhabitants. During the winter months, the frozen river is used as a sledding and snow mobile corridor because it is the only continuous area of land that is cleared of all ground vegetation. In the summer, the river network is used for waterway transport, fishing, and as a hub of wildlife.

Other than the waterways, the resources of the range are fish, large predatory game, moose, dall sheep, ample timber, and the beautiful landscape. The activities generated by connecting resources and networks help residents to profit from the terrain. The range is a common host for guided wildlife tours, hunting expeditions, fishing excursions, and sightseeing tours via bush plane and helicopter. The abundance of

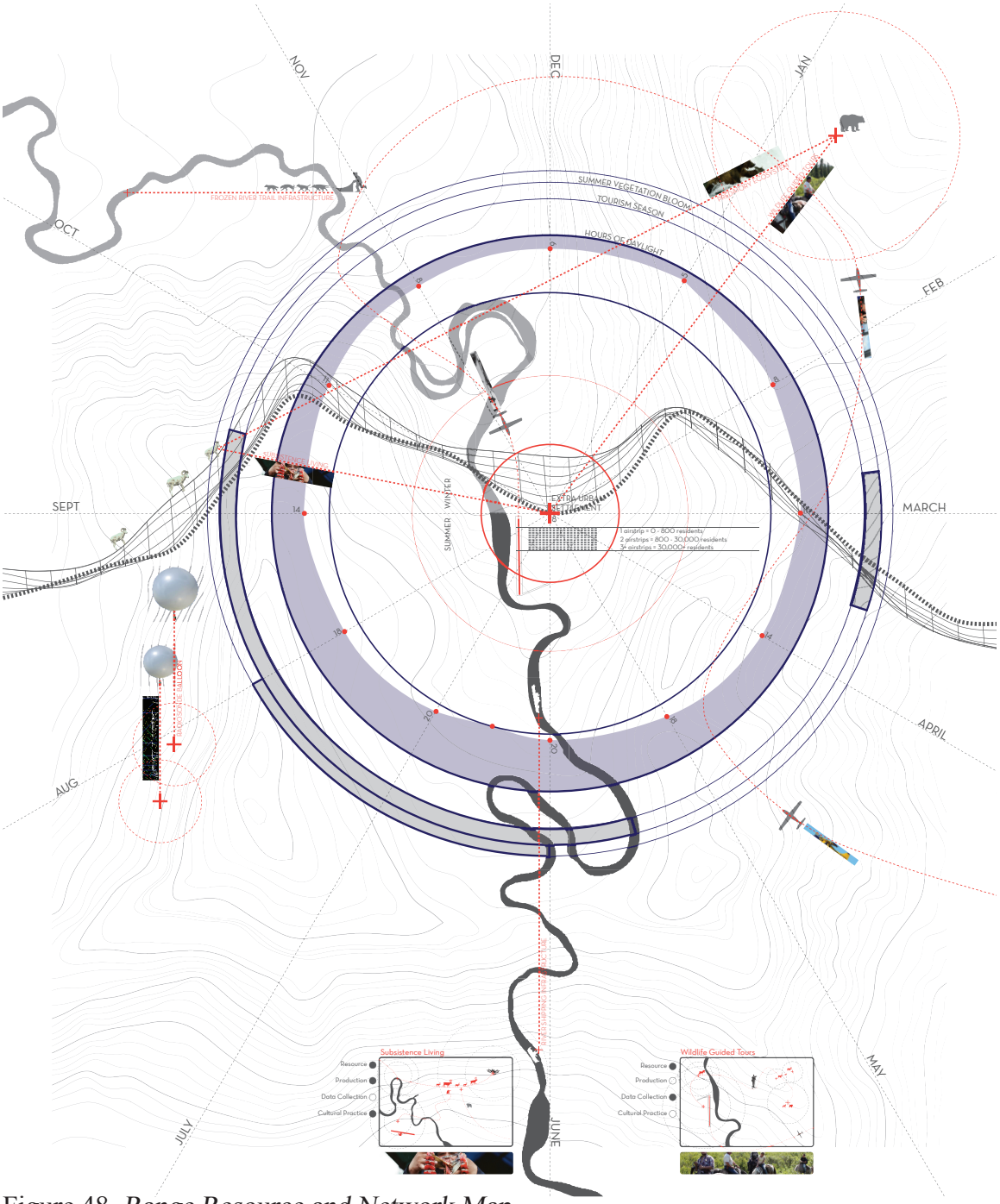


Figure 48. *Range Resource and Network Map*

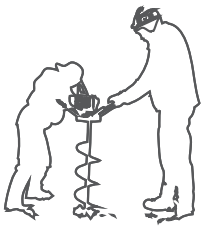
Figure 49. Schultz, Jeff. Chasing Dogs. Anchorage, AK: Jeff Schultz Photography, Inc., 2014. 46

Figure 50. Rainy Pass Frozen Waterstrip Photograph

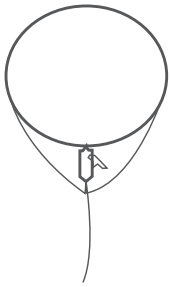
vegetation and wildlife makes subsistence living easier for extra urban communities inhabiting this terrain typology. It is rare that a settlement in the range has a dedicated airstrip because the availability of flat ground conditions with wide overhead airspace are extremely hard to come by. Instead, bush planes use the frozen river as a runway in the winter months to ship supplies to the communities. In the summer months, only floatplanes can land in the range when the waterways are no longer solid.

When considering a proposed activation, the range can be paired with an event that integrates the use of radiosonde weather balloons and geological core sampling on sites where tourists are able to engage in mountain climbing to view wildlife. The mobility method should be limited to air travel, which is favorable for sightseeing, in order to avoid dangerous and unstable ground terrain.

RESEARCH

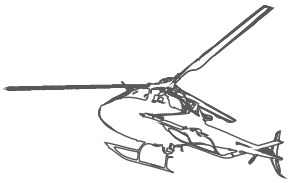


Geological Core Sampling



Weather Balloons

TOURISM

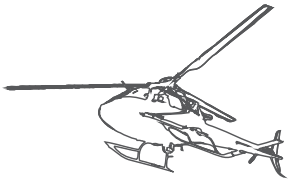


Helicopter Sightseeing

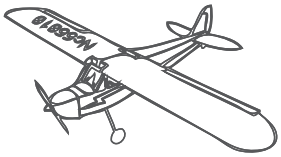
Rock Climbing

Hiking

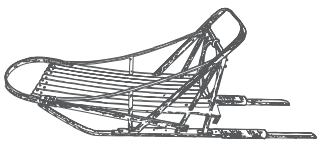
MOBILITY



Helicopter



Bush Plane



Sled

Figure 51. Range Research, Tourism, and Mobility Activities

Figure 52. Range Activity Collage

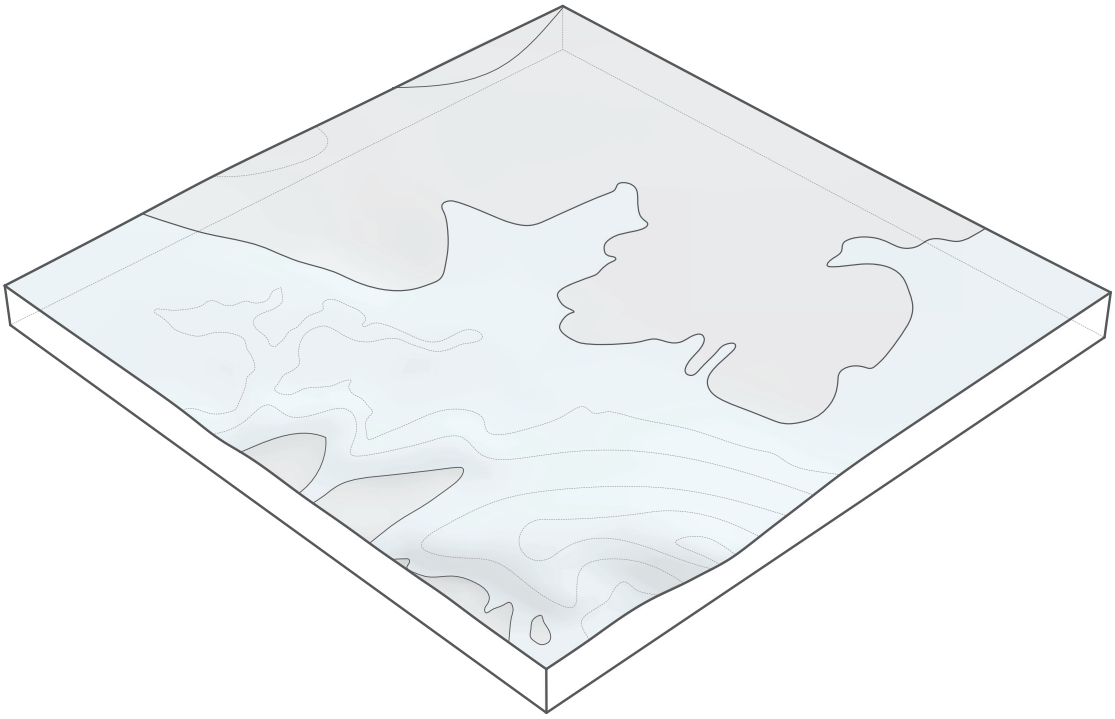


Figure 53. *Coastal Plains Terrain Axonometric*

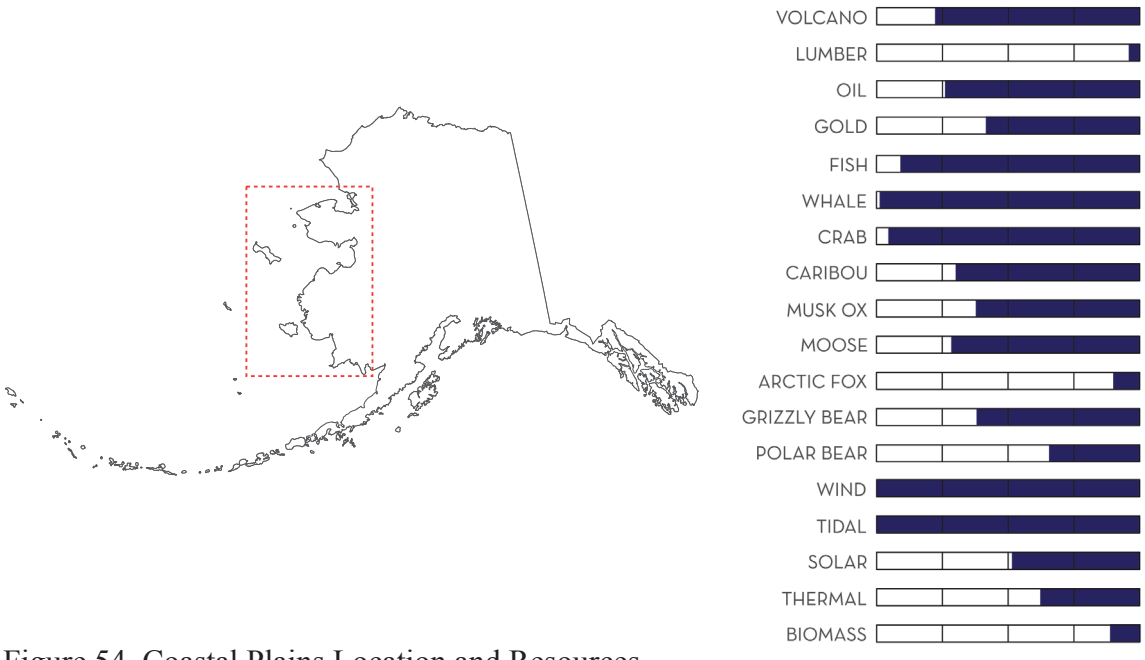


Figure 54. Coastal Plains Location and Resources

THE COASTAL PLAINS

The Coastal Plains are flat windy swaths of land along the coastal edge of Alaska. During the winter months and early spring, the sea is frozen and can be traversed by sled or snow mobile. The main characters of the coastal plains are the blinding white snow, wind, and sky. Iditarod racers have described this area as disorienting because one cannot distinguish the ground from the sky and the landscape extends as far as the eye can see.

The coastal plains region is a much more accommodating terrain compared to the brutality of the range and the tundra typologies. Flat and adjacent to the ocean, the coastal edges can utilize planes, helicopters, blimps, sleds, snowmobiles, and various sizes of boats and ships. What is seen as a barren landscape is secretly rich in invisible urbanism. Strung along one network of resources are activities involving cultural practices, data collection, production, and utilization of both land and sea resources.

Nested along the coast are clusters of Alaska Native villages that have occupied the area for hundreds of years. These extra urban settlements are tactically located in proximity of whale pods migrating to their feeding grounds during the summertime. The Alaska Native people cast out to sea in order to catch fish, crab, seals, and whales. When whaling, the community hunts together as a team to bring home the massive haul. Once caught and transported to shore, the village spends days harvesting the whale's meat, fat, skin, and bones. The whale meat is smoked and dried, the fat is melted into oil, the skin is stretched and tanned, and the bones are carved into tools, art, and jewelry.[21]

21 O'Malley, Julia, and Katie Orlinsky. "Whale hunting in Alaska: Point Hope, the village caught be-

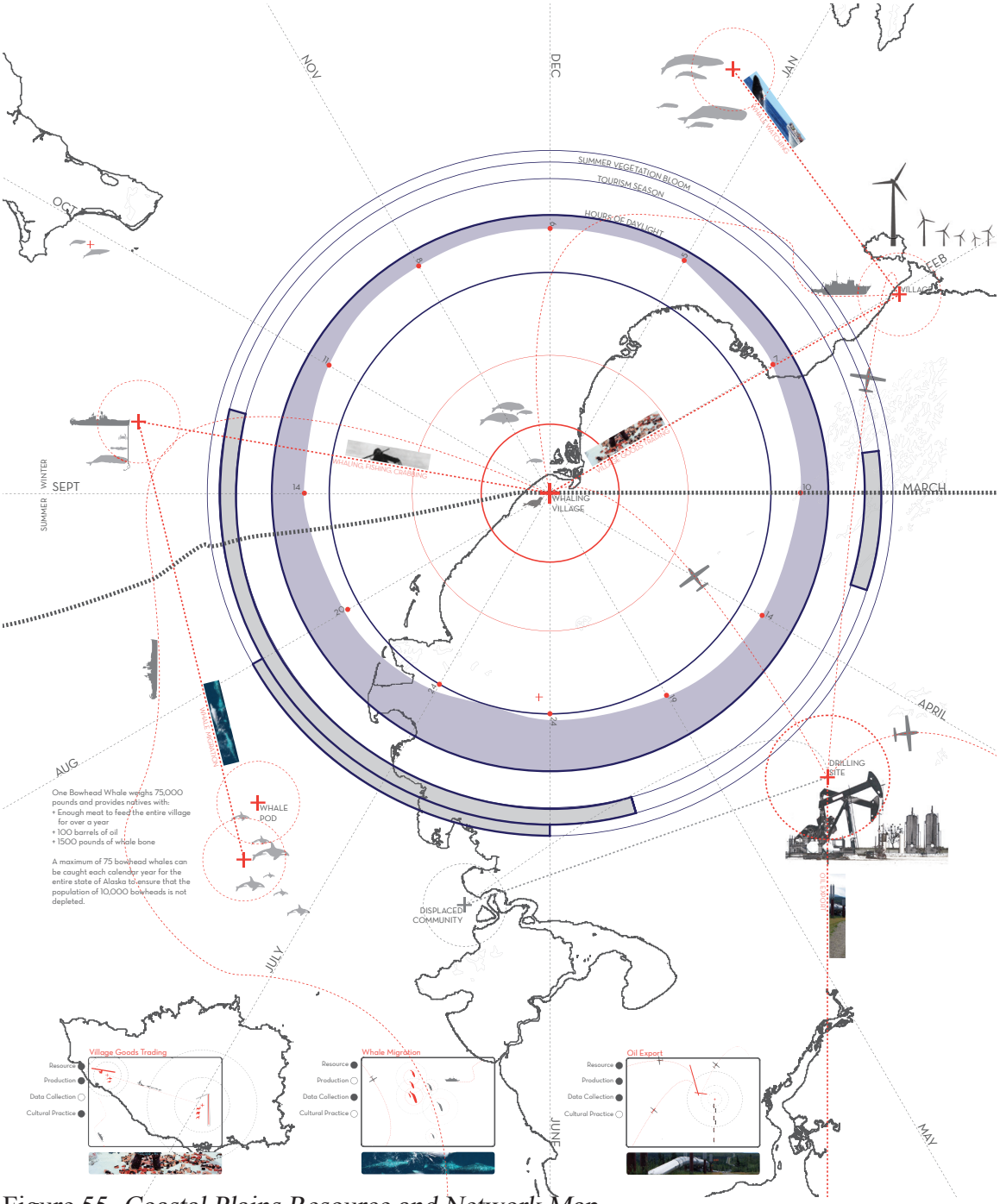


Figure 55. *Coastal Plains Resource and Network Map*

Figure 56. Adams, Brian. *Barrow*. 2007. I AM INUIT, Anchorage Museum, Anchorage.

Figure 57. Schultz, Jeff. Chasing Dogs. Anchorage, AK: Jeff Schultz Photography, Inc., 2014. 63

Once the whaling expedition has provided plenty of meat for winter, villagers will sail or sled to surrounding villages to trade their meat and oil for other goods such as fur clothing, ammunition, gasoline, snow mobile parts, etc. For example, handmade whale products are sold in larger towns or online for money to buy items that cannot be sourced in the landscape. This trading and bartering relationship with other extra urban villages is indicative of a larger unseen collaborative network of support. The Alaska Natives utilize the terrain differently as it transforms throughout each season. The residents are semi-nomadic, temporarily occupying other adjacent areas that are seasonally activated with a surge of caribou, musk oxen, fish, berries, and fur.

The resource and network mapping process teases out physically unseen connections that are influential factors when planning a proposed activation.

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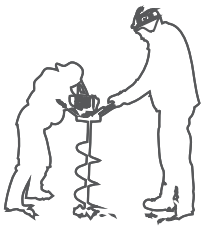
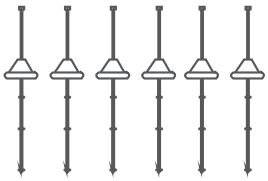
tween tradition and climate change." The Guardian. July 16, 2015. Accessed March 05, 2017. https://www.theguardian.com/travel/2015/jul/16/alaska-point-hope-whaling-climate.

RESEARCH

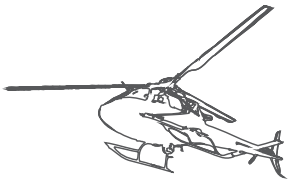


Ice Core Drilling



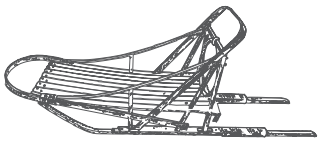
Water Probes

TOURISM



Helicopter Sightseeing

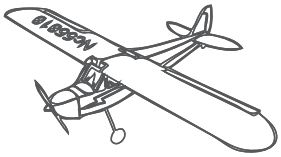
Ice Fishing



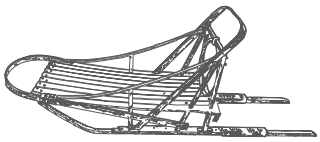
Dog Sledding

MOBILITY

Small Ship



Bush Plane



Sled

Figure 58. Coastal Plains Research, Tourism, and Mobility Activities

Figure 59. Coastal Plains Activity Collage

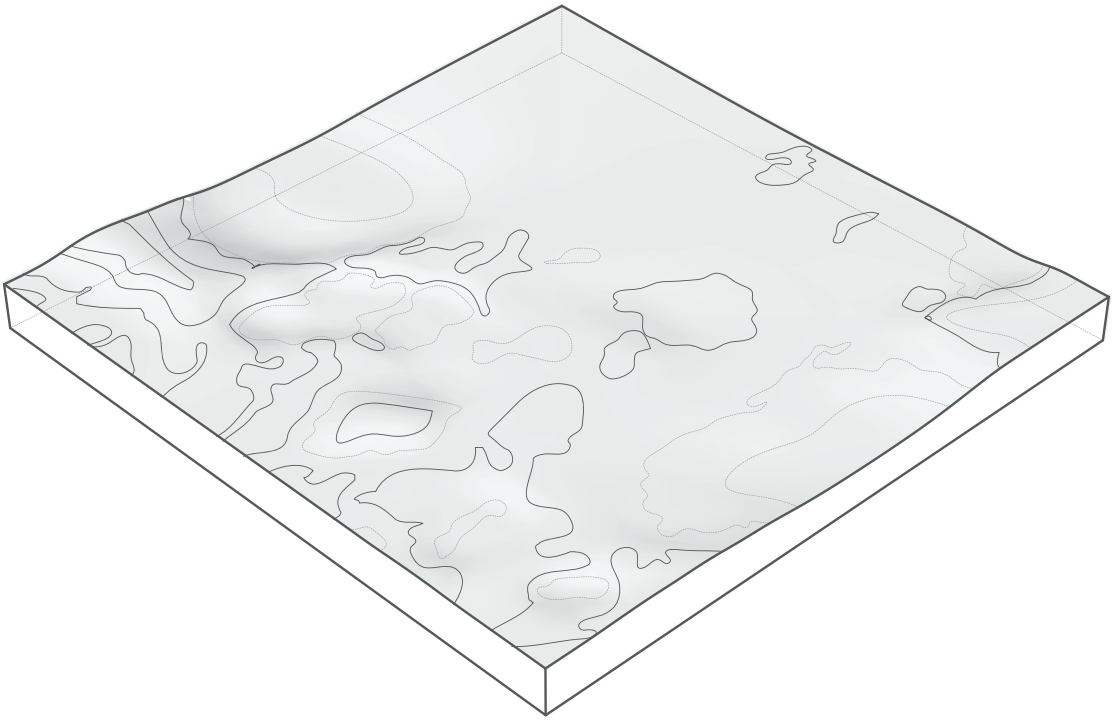


Figure 60. *Tundra Slopes Terrain Axonometric*

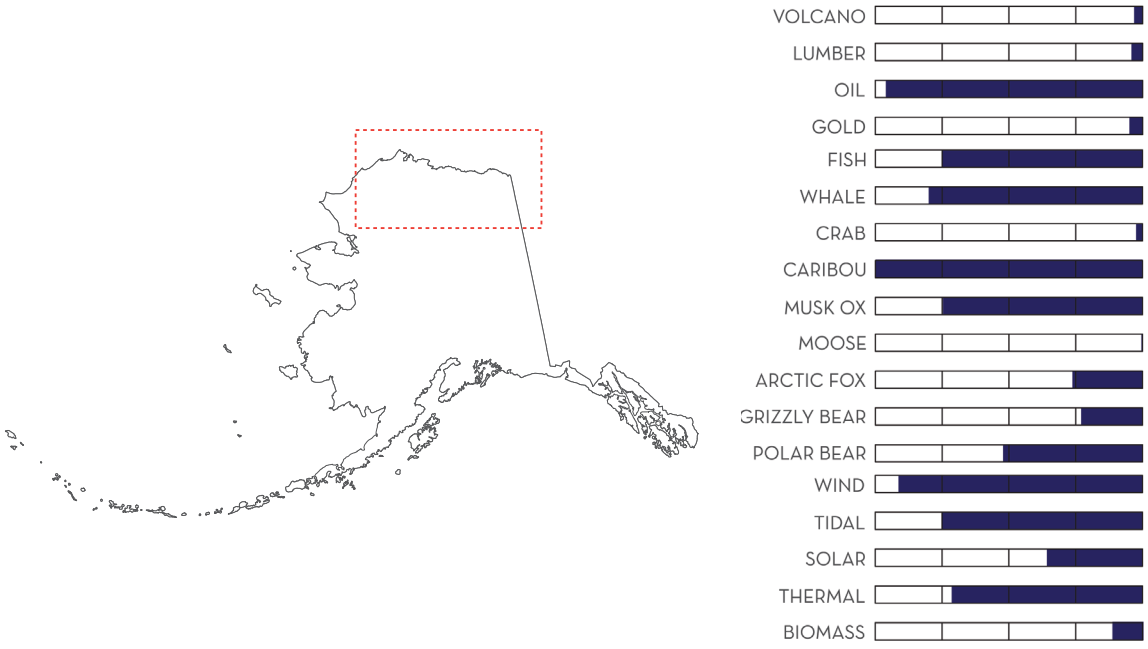


Figure 61. Tundra Slopes Location and Resources

THE TUNDRA SLOPES

The Tundra Slopes, populated mostly in the summer months, are rolling hills covered in three to four feet of spongy ground vegetation. The vegetation attracts the largest number of migratory wildlife in the state. The tundra is extremely susceptible to large wildfires, a growing problem in the region as the change in climate causes imbalances in the ecosystems. During the winter, the tundra is harsh and unforgiving. Tundra winters are very long and have some of the coldest temperatures of the various terrain typologies. The lack of trees makes living in the tundra nearly impossible because expensive fuel must be purchased to heat village homes, something that is usually achieved with wood.

The North Slope of the tundra is home to the Prudhoe Bay Oil Field, the largest oil field in North America. In contrast to the rest of Alaska's extra urban territories, the tundra is fairly well connected to other areas of the state because of the presence of the oil fields. Long infrastructural highway, rail, pipeline, and electricity systems reach from Anchorage up to the top of the world, an investment that was made to aid in the distribution of the fuel.

The proposed geographical activation for the tundra terrain typology is an integrated system overlapping the monitoring of migratory animals with the popular tourist attraction of big game hunting. In the speculative proposal, small teams of guides, scientists, and visitors fly to an extra urban tundra community, utilizing an airstrip and

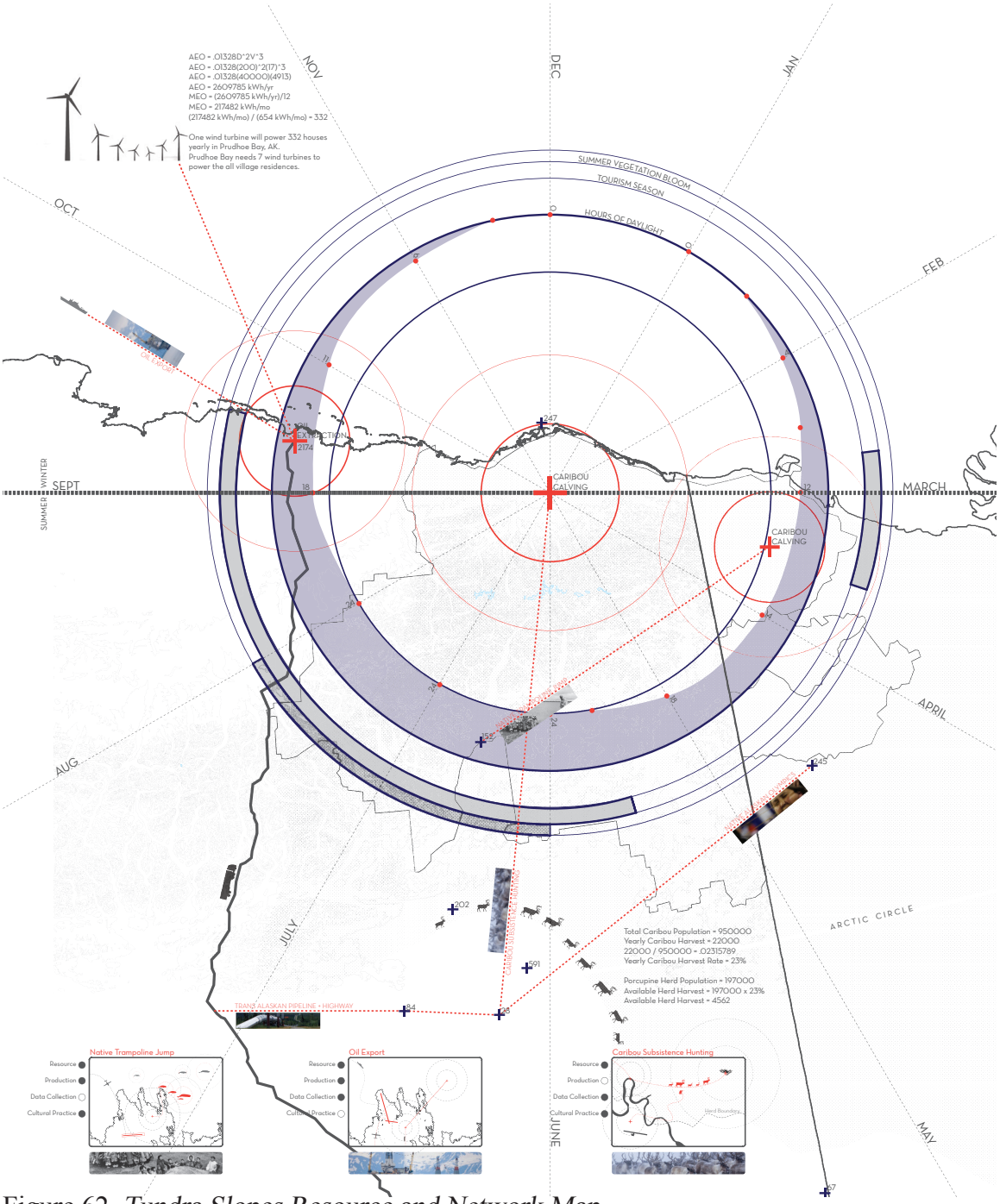


Figure 62. *Tundra Slopes Resource and Network Map*

Figure 63. *Young Caribou*

Figure 64. Houseknecht, Dave. The Washington Post. April 15, 2017. https://www.washingtonpost.com/news/post-nation/wp/2017/04/15/bp-trying-to-get-leaking-oil-well-under-control-on-alaskas-north-slope/?utm_term=.3f5963e8436d.

bringing them supplies simultaneously. The expedition team then traverses the vegetated landscape either by foot or on horseback to track migratory herds such as caribou. Once in position with the target in sight, the visiting participants will take down caribou with a dart-loaded rifle. The tourist is able to 'hunt' the animal, see it up close, and take photographs with it before helping the wildlife team to tag the animal in order to monitor its future lifespan and migratory patterns. As a system, the proposal is efficient because guided hunting tours let visitors have the hunting experience they are in search of without wasting the harvest of what would have been a fallen animal.

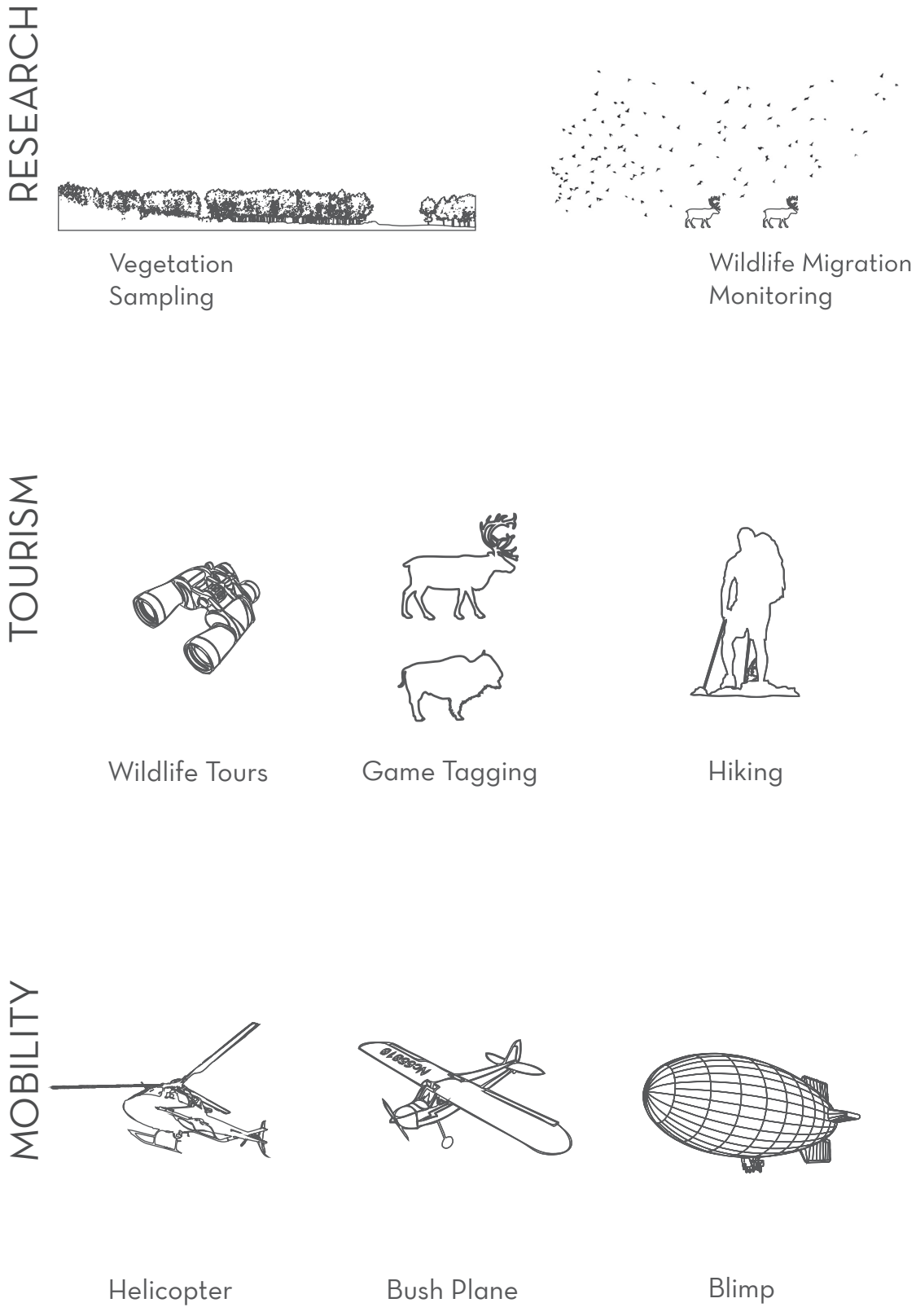


Figure 65. Tundra Slopes Research, Tourism, and Mobility Activities

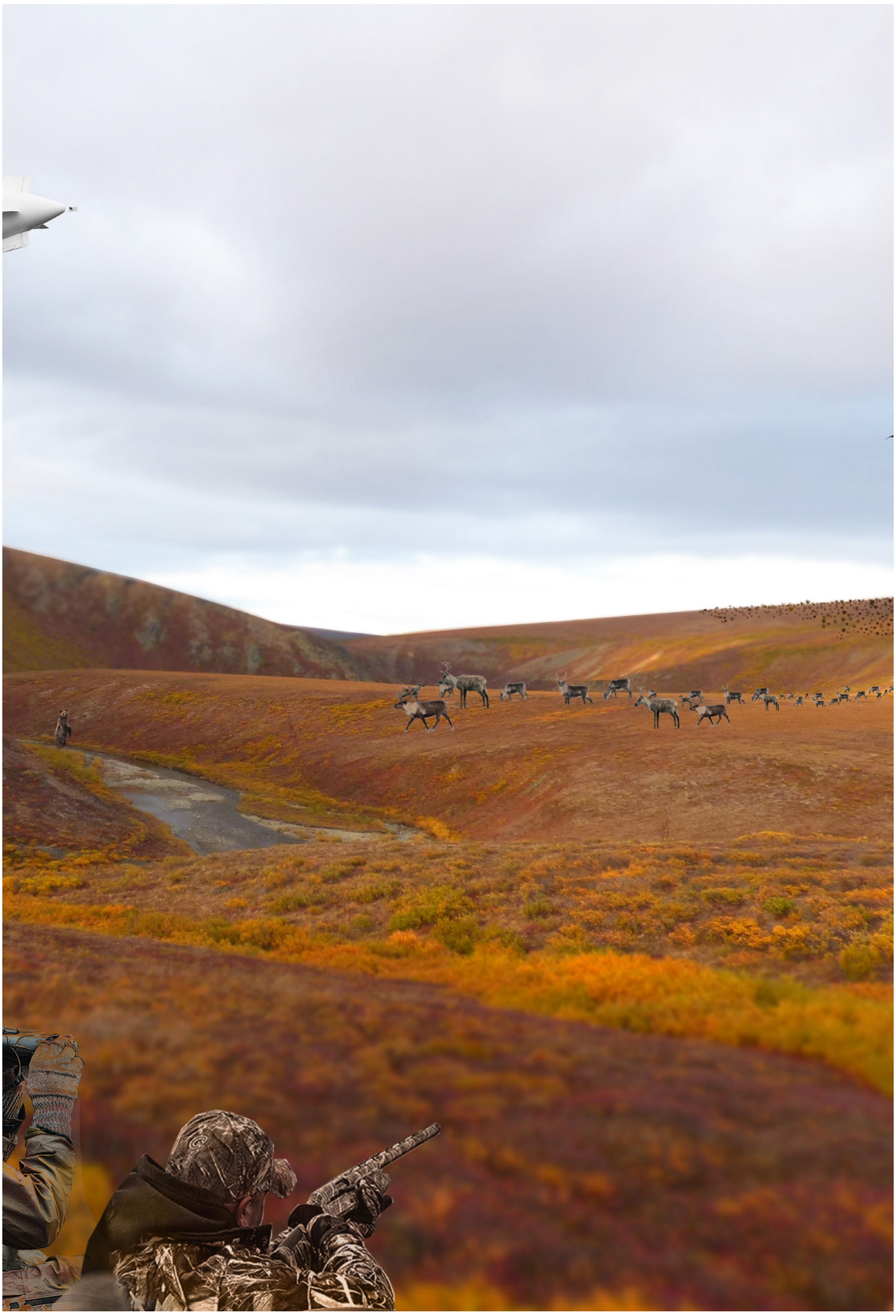


Figure 66. Tundra Slopes Activity Collage

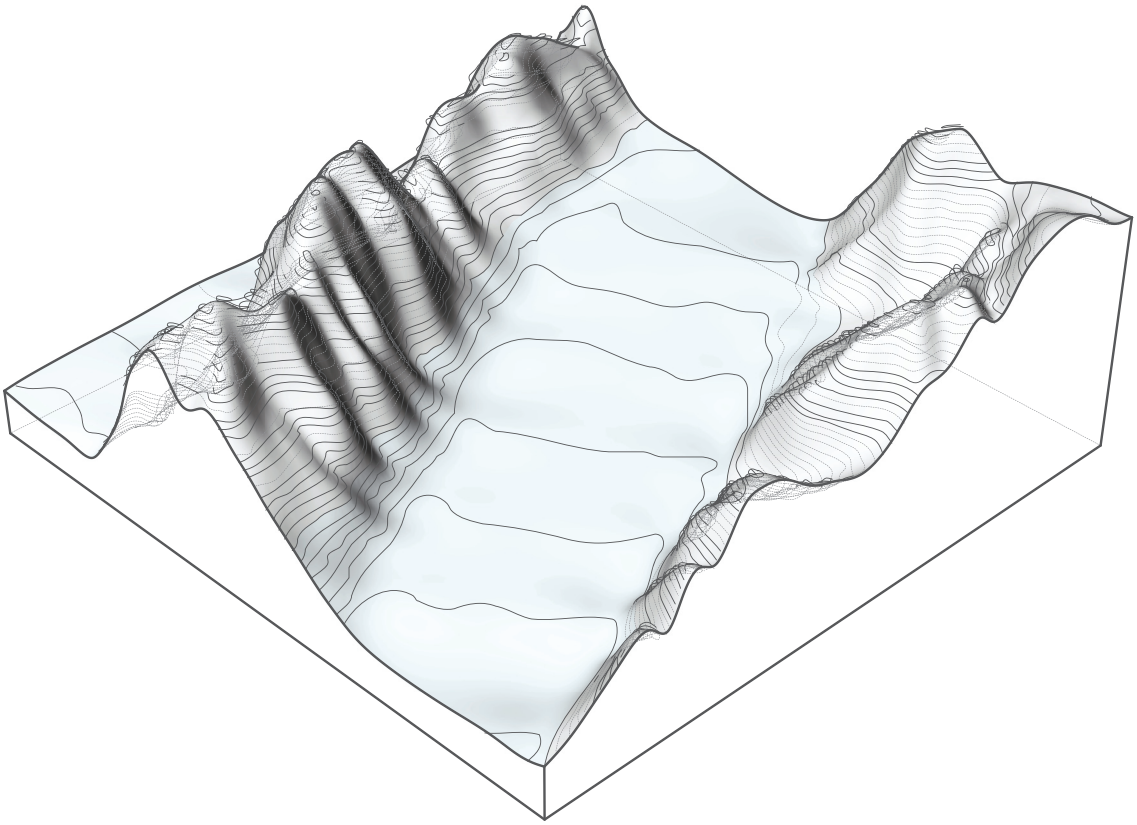


Figure 67. *Glacier Terrain Axonometric*

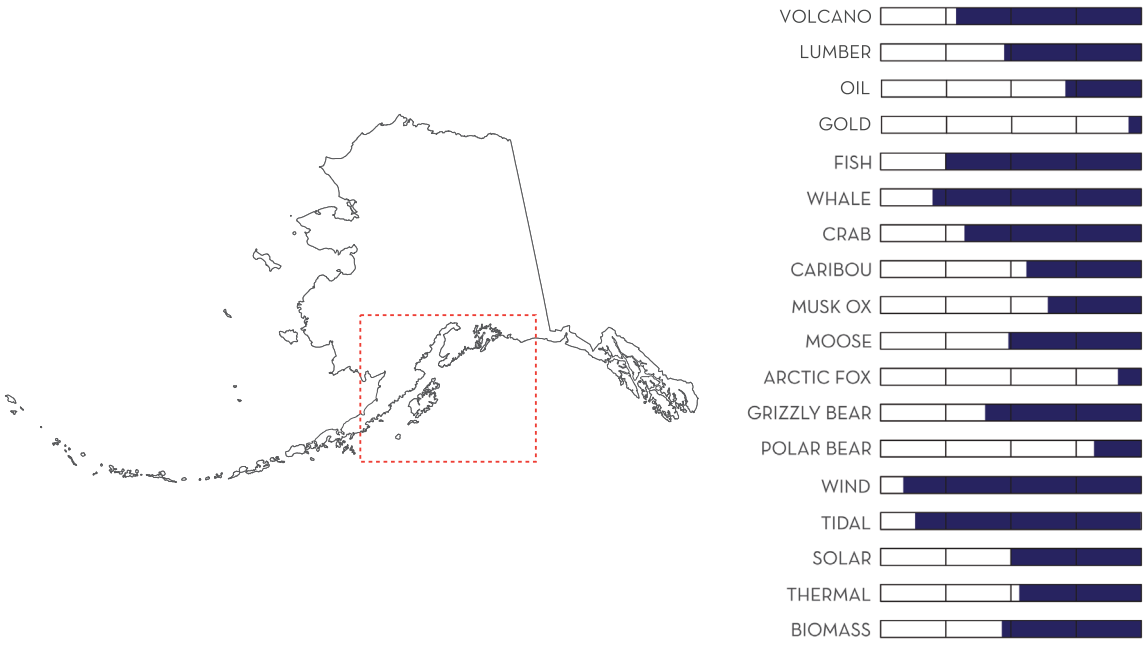


Figure 68. Glacier Location and Resources

THE GLACIER

Glaciers are large bodies of frozen water nested in the valleys of mountains, typically depositing into the ocean. Glacial retreat is the accelerated melting of glaciers, noticeable by their ending edges slowly retreating backwards into the mountains. When a glacier calves, large pieces of ice break away from the mass to form icebergs. The calving process is said to sound like dynamite exploding. Glaciers are one of Alaska's most popular tourist attractions; visitors can experience glaciers visually alongside the highways, view them in helicopter tours, hike and climb them, and sail around them on cruises.

Because glaciers are so sensitive to changes in ambient temperature, they provide an accurate visual index of the effects of global warming. "How the climate has been changing over the past few decades of anthropogenic influence really has manifest itself quite well….It provides tangible evidence for how climate change is affecting the landscapes."[22] Glacial water carries a wealth of nutrients as it is deposited into the Alaskan gulf. Those nutrient rich waters enable the bays to be teeming with marine life, adding to the appeal of visiting the glacial landscape.

Because the glacier's terrain is rapidly transforming, the region is not populated with permanent residents, only ephemerally occupied by visitors, fisherman, and scientists. This terrain typology is important not for its invisible networks of urbanism,

22 Hobson, Margaret Kriz, and ClimateWire. "Alaska's Glaciers Are Retreating." Scientific American. September 30, 2016. Accessed May 05, 2017. https://www.scientificamerican.com/article/alaska-s-glaciers-are-retreating/.

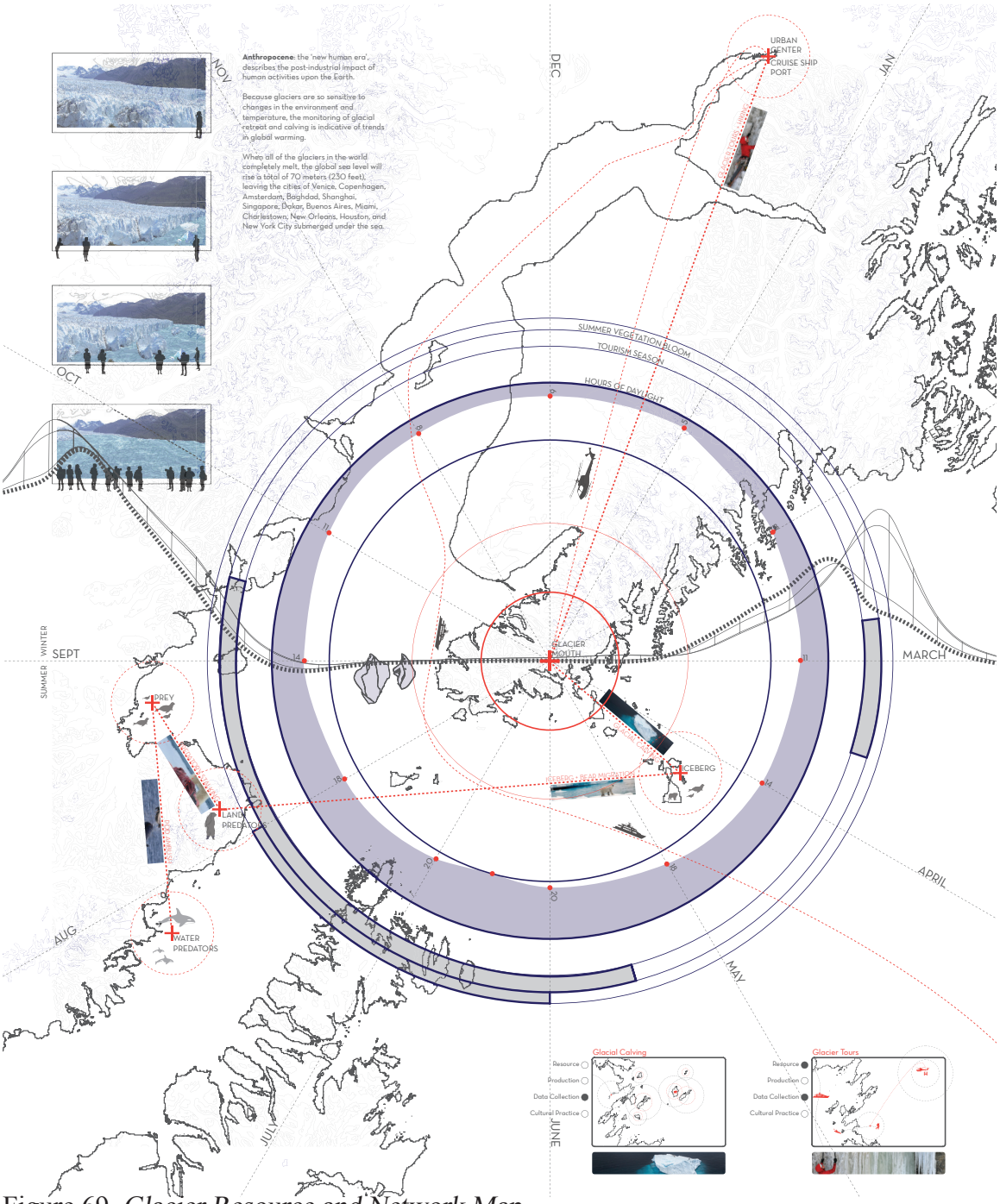


Figure 69. *Glacier Resource and Network Map*

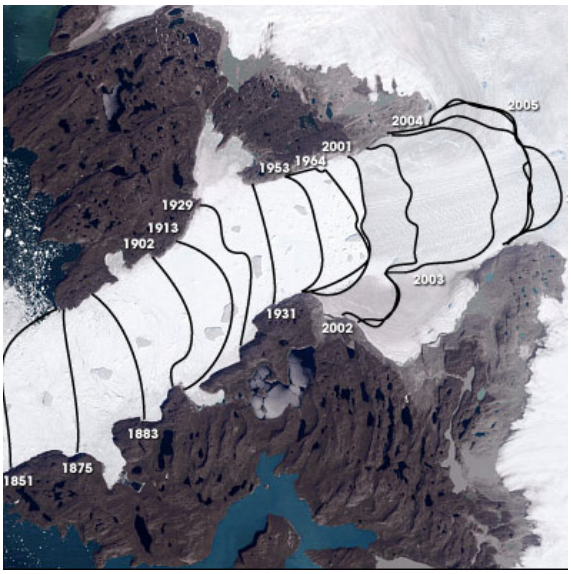


Figure 70. "Jakobshavn retreat from 1851 to 2006." Digital image. Facts and Details. http://factsanddetails.com/world/cat52/sub328/item2103.html.

Figure 71. Blue Ice Winter Trip on Solheimajökull. In Glacier Guides. http://www.glacierguides.is/gallery/photos/blue-ice.

but its silent warnings. When viewing the terrain, visitors see the majesty of the glacier and the beauty of the landscape. But if people could see the invisible, the missing mass of what once was, the majesty would turn to alarm and the beauty to loss. The activation of the glacial terrain is the subtlest of all, employing techniques of temporal documentation, surgically surveying the transformations of the landscape in order to forecast the future changes - and their ecological consequences.

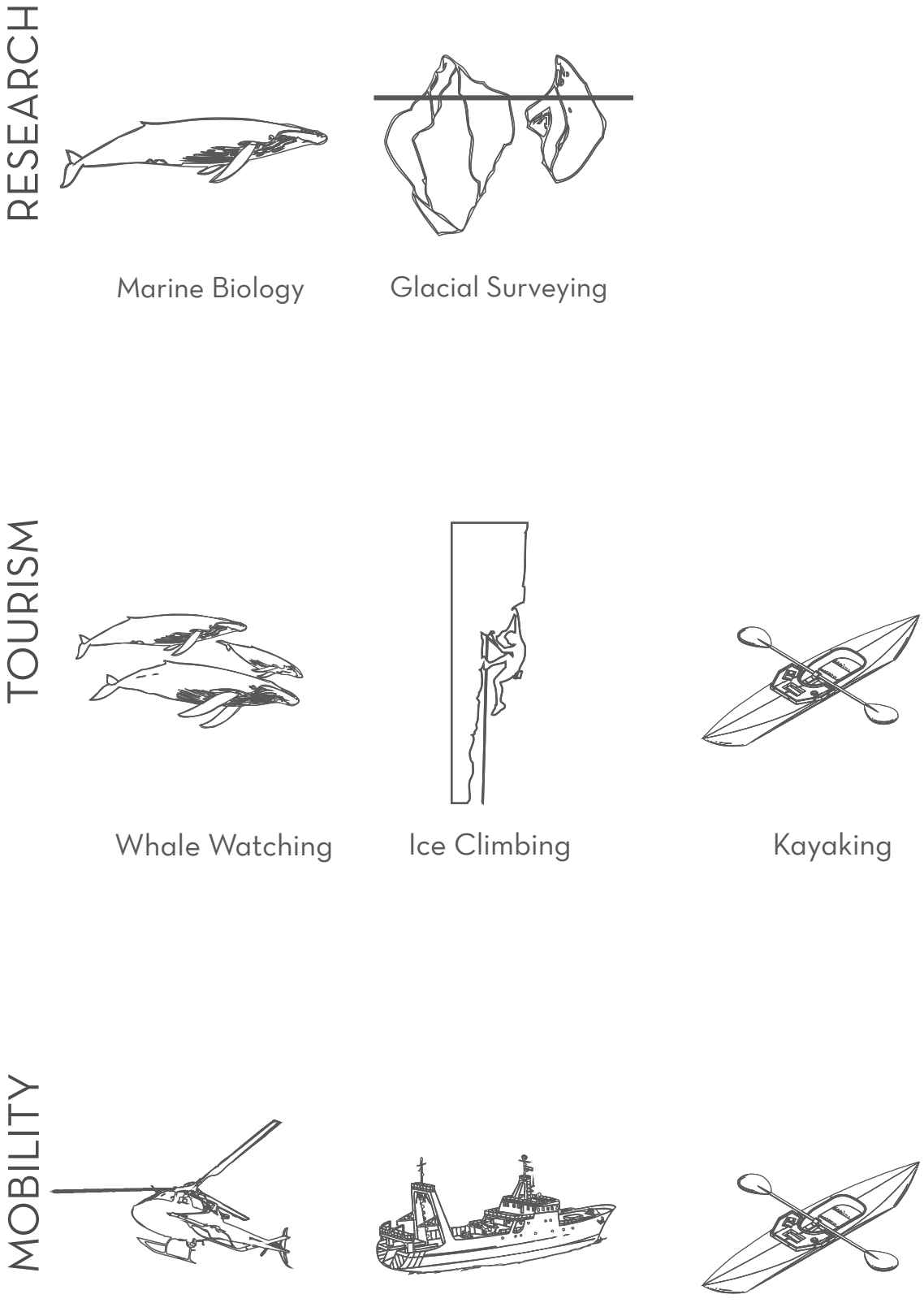


Figure 72. Glacier Research, Tourism, and Mobility Activities

Figure 73. Glacier Activity Collage

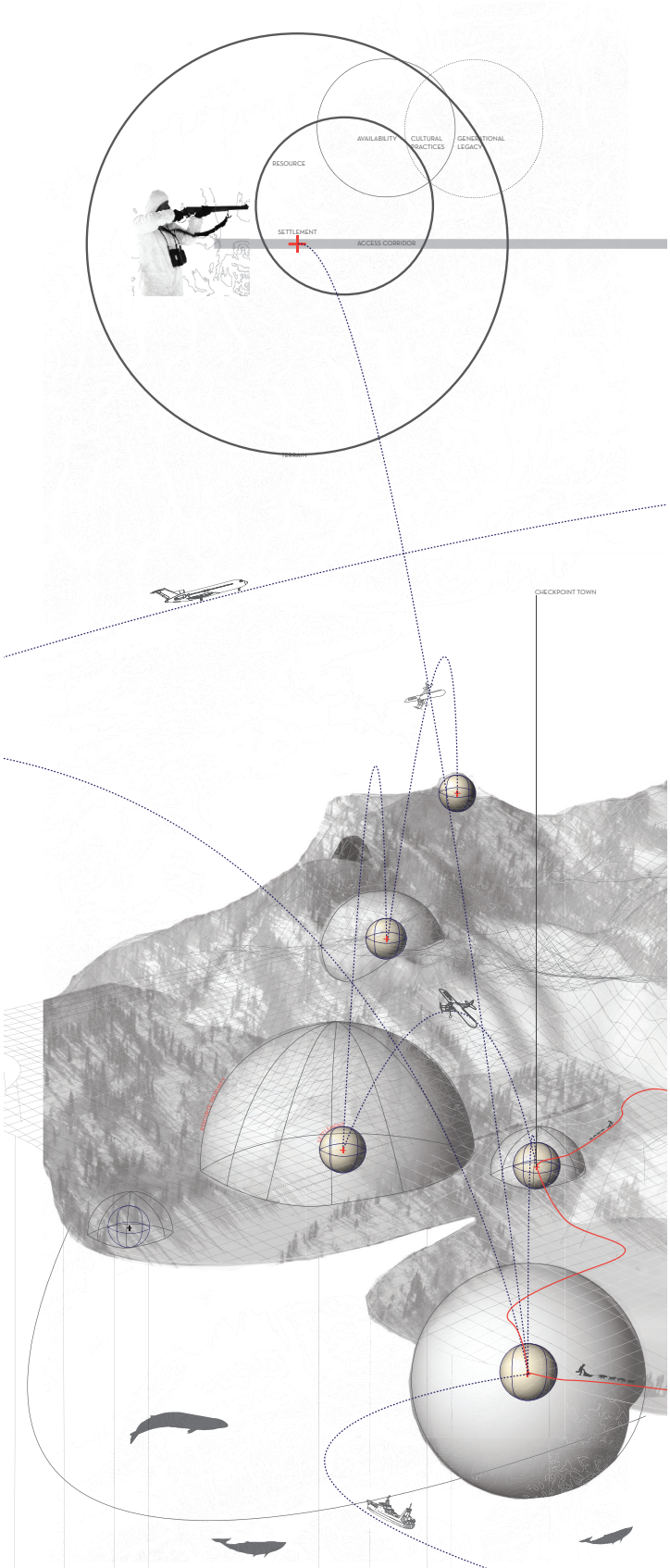


Figure 74. *Extra Urban Community Networks*

CONCLUSION

Unlike Archigram's Instant City, event-driven geographies are not meant to jump-start a socially malnourished town.[23] Extra urban settlements in Alaska are not developing communities, they are pockets of intentionally underdeveloped counter cultures. The transient activations are coincidentally recharging remote built environments with increased connectivity and economic stimulation, but the impact 'left behind' remains with the visitors, the people who came to Alaska to view Mount Denali or watch the Iditarod Race; they come as spectators and leave as participants.

The extracted components of the thesis interrogating the dialectic between landscape transformation and the invisible complex networks of the extra urban can be applied to other localities outside of the Arctic North. Cities are large fluctuating organisms, too complex to be evaluated in a singular project; but by replacing the components of extra urban communities with the components of cities, it is understood that they are comprised of the same systematic relationships on a much wider scale. Extra urban communities situate themselves at the intersections of resource and access corridors, a tactical decision. Once established, the overlap in resource availability and generational legacy create cultural practices; cities are no different.

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23 Cook, Peter. "Instant City." In Archigram, 86-101. New York, NY: Princeton architectural press, 1999.

Figure 75. Literature Map

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