

Outpost Gardening in Interior Alaska: Food System Innovation and the Alaska Native Gardens of the 1930s through the 1970s

Philip A. Loring, *University of Alaska Fairbanks*

S. Craig Gerlach, *University of Alaska Fairbanks*

Abstract. For over a century, various forms of crop cultivation, including family, community, and school gardens were a component of the foodways of many Alaska Native communities. This paper describes the history of these cropping practices in Athabascan communities of the Tanana and Yukon Flats regions of Alaska, and reveals a distinct agricultural tradition with roots that reach back as far as the late 1800s. Though American colonists, bureaucrats, and missionaries to the state saw agriculture as a mechanism for the economic development of the territory, gardening instead fulfilled a niche within local foodways that was perhaps best characterized by Karl E. Francis (1967) as “outpost agriculture,” valued not for its role as an exclusive means of subsistence, but as one of many equally important components in a flexible and diversified subsistence strategy. Nevertheless, these cropping activities are not widely considered to be either customary or traditional to Alaska Native communities, nor have they been incorporated into the historical and ethnographic literature about Alaska and about high-latitude agriculture at large. Because the use of and access to land and natural resources as practiced by Alaska Natives is heavily regulated by a state and federal legal framework based upon definitions of what is and is not “customary and traditional,” failure to recognize the long history of farming and gardening in rural Alaska has consequences for communities that are experimenting with new community gardens and other innovative responses to rapid ecological, climatic, and socioeconomic change.

The proliferation of agricultural practices across Alaska has followed a quite different trajectory than it did in the pioneer era of the lower forty-eight states. The process was not driven by a common vision of pioneer expansion, transformation and Americanization of the last frontier,¹ nor was it dominated by New Deal or contemporary Farm Bureau policy and agenda.² With a few exceptions, the rural agricultural boom anticipated by bureau-

Ethnohistory 57:2 (Spring 2010) DOI 10.1215/00141801-2009-060
Copyright 2010 by American Society for Ethnohistory

crats and other speculators in the continental United States never materialized, in part because of Alaska's remote geography and ecological character.³ Instead, agricultural practices developed a uniquely Alaskan character. While the Department of Agriculture did pursue an agenda of industrial-agricultural development in the state, largely through experiment stations, "outpost agriculture"—informal family and community gardens planted for the purposes of local economic diversity and food security—became a prevalent and successful strategy for coping with the natural variability and uncertainty of living in the remote territory.⁴ Produce from these outpost gardens filled in the gaps created by variation in the harvest of wild game and by the unpredictable food supply chain from the lower states.⁵

Many Alaska Native communities also experimented with gardening, complementing their wild food harvests with gardens of vegetables such as potatoes, rutabagas, and turnips. There is an extensive, and relatively well-known cropping tradition by the Haida and Tlingit peoples of the southeastern region of the state, but less known, however, are the early gardens of the Alaska Interior. As we describe in detail in the sections that follow, many of the communities in the Yukon Circle, a vast wetlands basin bounded roughly by the Yukon and Tanana rivers (figure 1), were experimenting with integrating some form of outpost-style gardening into their seasonal round of subsistence activities as early as the beginning of the twentieth century.⁶ In cooperation with agents of the Bureau of Indian Affairs (BIA), the Alaska Native Service (ANS), and later the University of Alaska Cooperative Extension Service, these communities planted school, family, and community gardens and attempted to develop strategies for planting and garden management that could complement the timing of the spring trapping season, the summer fishing season, and the fall hunt.

However, BIA and ANS officials were in general frustrated by the lack of a progressive transition in these communities toward agriculture as a primary subsistence activity, and as such they considered their garden outreach programs to be a failure. Thus, this gardening history has been labeled "failed development" by many of its contemporaries and has either been ignored or described as little more than "culture change" by social scientists since.⁷ This paper provides a different perspective on this history.

Though these gardens never quite lived up to the narrative of economic development pursued by the BIA, there is extensive evidence that they were effectively used to fill an important niche in local foodways, contributing an additional measure of economic diversity and therefore resilience to these communities. True, neither these communities nor their gardens fit the archetype of agriculturalists, but records for the region indicate that communities had been consistently cultivating gardens off and on since



Figure 1. Map the Yukon Flats area with some of the villages of the “Yukon Circle” identified. Map courtesy of Nicole Dufour.

the turn of the century. When asked about life during the early to middle 1900s, many elders speak fondly about their gardens, recalling time spent with their elders tending to planting and harvesting activities. Indeed potatoes, turnips, and rutabagas, none of which are native to Alaska, are all considered “traditional” foods in the recipes and menus of the Athabascan potlatch ceremony and favorite home dishes.⁸ Understanding the historical importance of these gardens helps us to come to terms with the notion that flexibility and diversity are perhaps far more appropriate benchmarks of what is truly “customary and traditional” for these communities, which unfortunately remain locked in to old definitions and stereotypes of hunter-gatherers.

Alaska’s Agricultural Beginnings

Alaska has a surprisingly rich and unique agricultural history. Like other indigenous peoples of the Pacific Northwest coast, Natives of southeastern Alaska are widely known to have a long tradition of cultivating potatoes

and a variety of other vegetables in coastal gardens, mentioned as early as 1765 through oral and written histories of Tlingit and Haida peoples as well as documents from Russian, Spanish, and American ships.⁹ The first Russian settlers to Alaska were likely the first non-Natives to try their hand at cropping in the territory, beginning perhaps with the establishment of a colony at Kodiak in 1783.¹⁰ Explorer and writer Kiriil Khlebnikov, in his travel notes on Russian America, claims observing great success with potatoes in Alaska's Southeast around the turn of the nineteenth century.¹¹ Most accounts, however, suggest that the early Russian attempts failed rather miserably, in part because the pioneer landowners lacked significant agricultural expertise, and because they had been unable to enlist the support of a sizable number of serfs, the only Russian people with a background in agriculture.¹² Early Russian contact is often linked to the cropping practices of the Native peoples; the Haida, for instance, are known to have grown potatoes as an export crop for both the Russian American Company as well as the Hudson's Bay Company.¹³ Recent ethnographic and genetic research, however, suggests that the Native gardens have roots that predate even the earliest-recorded Russian interaction.¹⁴

Less known is that cropping had also been practiced for some time in Interior Alaska, possibly introduced by the Hudson's Bay Company at Fort Yukon in 1847, where the Athabaskan people of the region grew potatoes, vegetables, and even some cereal grains for food and trade.¹⁵ Later correspondence between BIA agents and their administrative office in Juneau confirms this, with reports that Yukon Circle communities planted small gardens whenever visitors offered seeds to trade, albeit in a fashion that would not necessarily have been recognized by outsiders as organized gardening. One ANS schoolteacher reported with some surprise in 1937 that "the Indians already have a taste for potatoes and turnips."¹⁶

The U.S. purchase of the territory of Alaska from Russia brought a short-lived wave of stateside agricultural speculation. By the 1890s nearly all of the major areas of fertile, drought-free lands in the continental United States had been claimed, and it seemed that the only remaining option was Alaska. It was not until the turn of the twentieth century, however, that boosters including Presbyterian minister turned state educational agent Sheldon Jackson and high-latitude farming specialist Charles Christian Georgeson were able to convince skeptics that Alaska possessed any significant agricultural potential.¹⁷ Together, the two spurred a pioneer agriculture movement to populate this new frontier with aspiring Euro-American farmers from the continental United States. The migration made a strong start, and by 1929 there were five hundred farms in Alaska according to the U.S. Census.¹⁸ But as transportation into and through the state improved

with the building of rail lines, the cost of shipping came down, bringing with it the cost of lightweight packaged goods such as dry milk. Together with food-shipment innovations such as pasteurization, local farms and dairies were handily out-competed by these low-priced imported foods.¹⁹ Already plagued by the inherent difficulties of cropping in the north such as poor soils, unpredictable frosts, and a short growing season, many began to lose faith in Alaskan agriculture and abandoned the business in favor of fishing, mining, or military work.²⁰ Most start-up farms went defunct in a matter of years; by 1948 only sixty-three of the original families who were part of the experimental agricultural colony in the Matanuska Valley remained, subsidized by the Alaska Rural Rehabilitation Corporation. There was soon a general understanding among bureaucrats that agriculture could only make up a small part of Alaska's long-term economic growth.²¹

Nevertheless, agricultural development in the territory was generally considered necessary for "making Alaska American," so despite these hardships, agrarian idealism persisted.²² Attention was shifted, however, from pursuing new agricultural settlements to bringing agricultural practices to Alaska Native communities. The BIA had assumed broad governmental responsibility for the education and well-being of Alaska Natives.²³ Bureaucrats and missionaries to the territory generally believed that Alaska Natives were apathetic toward their tenuous lack of social and economic security, and what some called the "obvious comforts" of the American lifestyle.²⁴

In response to famine in northwestern Alaska in the late 1800s, both perceived and real, Sheldon Jackson launched a venture to import reindeer herding to the imperiled Eskimo communities as a mechanism of economic aid and industrial education.²⁵ His boosting gave rise to what would evolve into an all-Alaska agricultural office of the BIA—the Reindeer Service.²⁶ Its mission, to develop social and economic security for Alaska Natives through the outreach programs that aided communities in the conversion from a hunter-gatherer lifestyle to one based on a cash economy and subsistence agriculture.²⁷

In addition to the reindeer program, a series of village garden projects emerged under the Reindeer Service's jurisdiction. By the 1930s, garden programs managed by ANS schoolteachers were active in many Native communities, including some in the harshest, farthest-north settlements. Cropping configurations ranged from informal family gardens (often unfenced bits of land that went mostly unweeded, in some cases just randomly planted potato plants) to more structured community and 4-H school garden programs. In some communities, the ANS schoolteachers would use gardening to supplement their science curriculum, and whatever starts were grown in class were then planted in either a family or community patch.²⁸ In general,

these village gardens were dominated by root crops, especially potato, but a wide variety of produce was grown as well, including beans, beets, cabbage, carrots, celery, chard, kale, lettuce, peas, radishes, rutabagas, and turnips.

ANS garden programs were formalized as a program of Native education by the BIA in 1941. Each year, ANS teachers were required to fill out “Native Food” and “Garden Activity” surveys.²⁹ A circular letter sent from V. R. Farrell, director of education for the BIA, comments on the dual purpose for these garden programs, in terms of meeting both educational and food security needs:

It is important that we have a survey of the quantity of garden vegetables and other locally available foods produced and stored during the current season. Garden seeds supplied by the Government should be regarded as educational supplies in the same sense as home economics, and shop supplies, and it is desirable that some measure be made of the extent to which they are utilized. . . . Too much emphasis cannot be placed on the desirability of having native people collect and store maximum quantities of fish, berries, meat and other locally available food products.³⁰

Teachers recorded detailed information about the country food harvest and garden production for each of the villages in the circle; capturing quantities of wild foods, including caribou, moose, berries, fish, waterfowl, and small mammals, as well as the quantities of garden produce harvested. Schoolteachers also used these forms to record colorful personal commentary, including views about the community, environment, even politics. One teacher in the village of Minto remarked in 1944 that the village’s food supply for winter that year was “inadequate because too many boys entered the war for [the] big wages. Increase supply by stopping the war.”³¹ Often teachers would also cause alarm at the BIA, by incorrectly assessing food levels as dramatically insufficient, leading to a general perception at the BIA of chronic famine in the villages. Charles Hawkesworth, also of the BIA Juneau office, wrote to his teachers, “It is clear with us that gardens will gradually be increased in size and the people will have a [necessary] third food resource. Heretofore the native people have secured their food from the water and from land animals. Now they should get the value of garden crops, and thus have a varied diet.”³²

The reported levels of Native participation and total crop yields varied greatly from year to year. All of the circle villages would produce thousands of pounds of produce for a few years, and then seemingly abandon the practice the next (table 1). The village gardens of Venetie, for example, yielded a recorded twenty-four thousand pounds of potatoes (and another four thou-

Table 1. Summary data for BIA records

Village	Years Reporting (n)*	Earliest mention of gardening	Average population	Avg. # of families eating from garden	Productivity range (lbs, min.-max.)
Arctic Village	1959-62 (4)	1959	86	0	0-13.5
Beaver	1940-67 (13)	1936	92	11	0-6,300
Birch Creek	1963-67 (2)	1962	32	3	1,863-2,400
Canyon Village	1964-67 (2)	1964	37	2	0-285
Chalkyitsik	1946-66 (5)	1946	77	7	0-5,600
Circle	1944-57 (8)	1944	66	6	345-1,900
Fort Yukon	1941-56 (4)	1898	382	25	3,000-29,700
Minto	1941-63 (13)	1933	140	8	180-8,750
Stevens Village	1941-67 (15)	1941	72	8	0-3,900
Venetie	1941-71 (15)	1931	81	10	0-28,095

*(n) represents the number of reports present in records for that year range. Summary of data available for village gardening projects in the Bureau of Indian Affairs, Reindeer Service Records at the U.S. National Archives, Pacific Alaska Region. Earliest mention of gardening does not reflect earlier references found in other sources. Average population calculated from "Number of people dependent on this supply" on Native Food Survey within the date range. Total number of families is unknown.

sand pounds of a variety of other produce) in 1961, and several Native gardeners won awards for their produce at the state fair in Palmer. Between 1961 and 1967, Venetie's gardens consistently produced at this level. However in 1970 the gardens were abandoned, reporting little more than two hundred pounds of potatoes. ANS administrators, apparently completely unaware of the past years' gardening success, explained the fall in production by saying "most people here prefer using their time in hunting and fishing."³³

ANS teachers and BIA officials both were frustrated by this extreme year-to-year variation in garden participation, taking it to represent a failure, not necessarily of the program but of the communities themselves. They regularly commented on lack of participation being a matter of laziness, apathy, or lack of ambition.³⁴ One teacher quipped, "The Native people think the garden should weed itself, apparently."³⁵ Nearly all ANS teachers continued to assert that gardening prospects in the region were far better than had been realized thus far, and that Natives must continue to be "pressed" and "encouraged."³⁶ Still, achievements like the twenty-five thousand pounds of potatoes grown in Venetie in 1961 were marginalized by the perception that no long-term developmental progress was

being made among Native communities toward a more consistent life as agriculturalists.

Development, Overinnovation, and Outpost Agriculture

We now know that the aboriginal diets and subsistence patterns of Athabascan and Eskimo communities were in fact far more diverse, in both content and nutrition, and historically far more reliable than they appeared to the educators, administrators, and bureaucrats, many of whom had short tenures and rarely saw the villages for which they made policy.³⁷ Nevertheless, the general perception was that garden projects, as a matter of rural development, were expected to eventually represent a major component of the local economy and diet. They were pursued as the centerpiece to “a [complete] community development plan . . . to promote social, economic, health and technological innovation.”³⁸ That these goals of dramatic, broad economic development and social transformation were not met by the village gardening initiatives is hardly surprising given that such years of extremely successful garden production were marginalized or dismissed altogether, eclipsed by the perception that no long-term developmental progress was being made toward transforming rural Alaskan economies into the rural American agricultural model.

The BIA approach was a prototypical case of “overinnovation,” where top-down prescriptions for development are made, often by those with a colonialist mind-set, which are negligent to local social and cultural structures.³⁹ Overinnovation is part of a development narrative that incorporates “planners’ values,” e.g., progress, efficiency, and modernization, and operates under the assumption that it can and should happen along a very specific timeline.⁴⁰ For Alaska, perceptions of food insecurity and need in rural communities were in some cases real, in others only perceived from the outside. Regardless, the BIA pursued a rigorous program of rural education and development that was rooted in and fueled by a long-held belief in agriculture as a mechanism of economic development and civil progress.⁴¹ This single-mindedness, coupled with ignorance of the complexities and nuances of local lifeways, made BIA agents unable to see the extent to which gardening actually *had* been integrated into the communities’ subsistence strategies.

Indeed, the Alaska Native communities of the Yukon Circle saw great potential in crop cultivation, and experimented with new and different ways to incorporate the practice into their subsistence strategies and general food system. Though it could not, in either the short or the long term, follow the same developmental path that agriculture had in the lower forty-eight, it

could and did meet more “down-to-earth and specific objectives” as a flexible, supplementary, stabilizing activity that *could* be easily and informally integrated with the existing local economies (see figure 2).⁴² The variability of participation in gardening was not an indicator of failure but characteristic of a process of experimentation that happened outside the dominant narrative of economic development. Cropping was part of a larger picture, incorporated within a set of strategies that valued diversity over economic growth and followed not just a yearly set of activities but also multiyear and in some cases multidecadal ecological and climatic cycles.⁴³

Only within the past two decades have scholars and bureaucrats come to recognize the complex nature of Alaska Native subsistence strategies, in particular how they follow not just a yearly seasonal round of activities but are flexible and responsive to multiyear and in some cases multidecadal ecological and climatic cycles.⁴⁴ Though the gardening programs did not initiate a radical transformation of lifestyle for these Native communities, gardens were indeed being integrated into the communities’ subsistence strategies (figure 2) in a way that reflected local knowledge, awareness, and responsiveness to these ecosystem patterns. With this new information, such year-to-year variation of garden production can be better contextualized. For instance, many officials shared the opinion that gardens were not a viable strategy for Athabascans because the time needed to garden conflicted with traditional subsistence activities.⁴⁵ Were there in fact such a hard-and-fast conflict, however, it would be impossible to account for the years when both the subsistence foods harvest and garden production were high. More plausible is the explanation given by the community members themselves: that because of year-to-year differences in weather, as well as moose and other animal populations, subsistence activities conflicted with gardening in some years but not others.

One example of this was the muskrat hunt, or “ratting” season: “We are told that the reason gardens are not cultivated is because of the ratting season. The season usually is from March 1st to May 31st. After ratting season the Natives return to town and stay long enough to get supplies then go to fish camp. This coming spring is the peak of the ratting season; the following years will show a decrease. Families will then stay in town; some will then make gardens as in previous years.”⁴⁶ Historically, the ratting season ranged from a three-week to three-month segment of the seasonal round of subsistence activities for many Interior Athabaskan communities, immediately following winter trapping.⁴⁷ Each family had its own “rat camp,” and entire families were involved in the hunting and trapping of muskrat and other small mammals, which were used for their fur and as dog food.⁴⁸ Yearly emphasis on the activity was not constant, however,

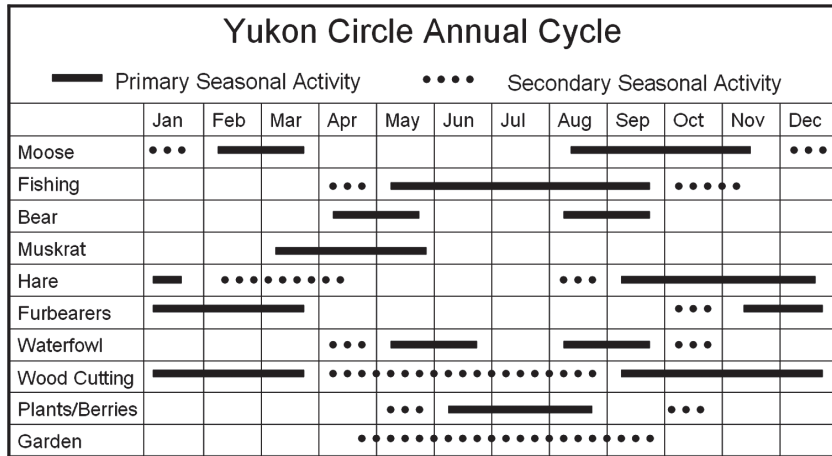


Figure 2. The seasonal subsistence round of Alaska natives of the Yukon Circle. Note the diversity of secondary options available throughout the year that allow people alternatives when one or more food sources is less abundant. Note how well the activity fits in as a secondary pursuit, should weather or population cycles cause the muskrat and hare trapping/hunting to be less viable. Figure based on information as described in Caulfield, "Subsistence Land Use in Upper Yukon Porcupine Communities."

but was dependent on observations and knowledge of muskrat populations. The population ecologies of furbearers like muskrats, mink, and snowshoe hares each follow a marked decadal cycle of expansion and contraction.⁴⁹ As reflected in fur records of the Hudson's Bay Company, that cycle was on a downswing for the Alaska-Yukon region during the late 1940s and early 1950s, confirmed also by frequent mention of dog starvation during the same period.⁵⁰ Not surprisingly, the emphasis on ridding declined, and more spring activities were centered in the village; more people (especially women) were able to return, as the preceding quote implies, to gardening as a springtime component of their subsistence calendar.

Discussion: Customary and Traditional?

We've got to make a living, you know? But some people worry that if we stop looking or acting like hunters and fishers we'll lose what rights we have left on this land. Using a motorboat, you know, out on the flats doesn't make us less traditional, but digging for potatoes when we could be fishing, to some people, does. If we ask the department of game for more moose tags or longer hunting

seasons, or to hunt out of season, because we need to eat, they'll tell us to eat our potatoes.

—Anonymous, 2006

When viewed without this rural development bias, this Native gardening can be better understood as an activity that many communities successfully incorporated into their round of traditional and customary practices. To understand why this distinction is important to Alaska Native communities today, brief mention is necessary of the context within which rural Alaskan community subsistence activities are regulated and managed by federal and state authorities. According to the current State of Alaska resource management regime, the subsistence harvest of “country foods”—such as salmon, whitefish, moose, caribou, beaver, ptarmigan, and waterfowl, and botanical resources such as berries, wild rhubarb, and rosehips—is regulated within a context of resource uses and harvesting practices that are “customary and traditional.”⁵¹ Though this does provide a measure of protection with respect to hunting activities and access to land, it comes with some troubling ramifications.

Whether or not particular technologies as well as harvest and resource-use patterns are identified by state and federal regulators is often determined by whether or not they were used or practiced before 1971—the year of the passage of the Alaska Native Claims Settlement Act (ANCSA) when thirteen regional and local Native corporations were created with an economic and entitlement approach that differed significantly from the reservation and tribal model of the lower forty-eight states and parts of Canada.⁵² But Alaskan Natives did not in the past divide their daily activities along lines that are clearly defined as modern or traditional, “for subsistence” or otherwise; they simply did what was necessary to make a living for themselves and their families, working on landscapes in and around their local communities. Today, as the quote that introduced this section suggests, these etic definitions of Alaska Native culture have come to provide a source of power and legitimacy for these communities, but their static nature betrays the reality: that it is the strategy of flexibility, and spatial and temporal patterns of land use, that is most traditional to these peoples, far more so than the specific harvest technologies and even the particular harvested animals.⁵³

Conclusion

There is no officially recorded correspondence that marks a definitive end to the ANS garden program. Many village gardens in the state, like those of Arctic Village and Venetie in the Yukon Circle, were discontinued because

of multiple consecutive years of low production. In 1965, the Alaska State Department of Education established the Division of State-Operated Schools to help focus on unique rural needs, and over the next twenty years the ANS schools transitioned to state control.⁵⁴ Thus school gardens, as the primary mechanism of BIA agricultural outreach, were discontinued one by one and agricultural outreach in Native communities became solely the purview of the Cooperative Extension Service at the University of Alaska. Still, it would be incorrect to say that experimentation with village gardening has ended. In fact, the practices have entered a period of revival; some public and private schools are developing new gardening curricula, and the Cooperative Extension Service reports that it supports over forty rural community initiatives to integrate community gardens within the economies and cultures of rural Alaska.⁵⁵

Today, the foodstuffs on the shelves of the local store are viewed as providing an important measure of food security, especially by elders who lived during what they sometimes call the “skin tent days” and experienced their fair share of periodic food scarcity and hunger.⁵⁶ But as our understanding of the caveats of the nutritional and political economies of cheap food increases, outpost agriculture is finding a renewed niche in emerging indigenous movements away from this system and the vulnerabilities embedded within it.⁵⁷ Many Native communities are trying to recover and redevelop local gardening expertise in an attempt to break the cheap-food addiction that has brought with it plagues such as type 2 diabetes and obesity.⁵⁸ Villages like Minto, Fort Yukon, and others are renewing these village gardening initiatives to complement their other traditional subsistence activities, with clear implications for increasing the quality and quantity of food that is produced locally, for reducing vulnerability to external economic forces, and for contributing to better individual and community health.

Unfortunately, despite the history of gardening by Natives described here, agriculture is still considered by many to be a non-Native activity. The 1998 review of one hundred years of agriculture in Alaska published by the University of Alaska, Fairbanks, School of Agricultural Sciences and Natural Resource Management, for instance, makes no mention whatsoever of the long history of Alaska Native subsistence gardening described here. Cropping is mentioned in only one of over twenty subsistence reports for the region authored by the Alaska Department of Fish and Game,⁵⁹ and is also omitted from the 2002 National Park Services historical review *Alaska Subsistence*.⁶⁰ Though it is not necessarily the intent of this paper to embark on a debate regarding legal or anthropological definitions of what qualifies as customary and traditional for Athabascan communities of the Yukon Circle, the outpost gardening described here gives a clear pattern of behav-

ior and land use that provides historical precedent for contemporary Native gardening practices. Alaska Native subsistence is a dynamic and innovative enterprise and is changing today to meet the needs of the present just as it did in the past, in spite of the way that regulatory regimes continue to constrain subsistence practice with a web of legal definitions and policies that are not especially sympathetic to innovation and change.

Notes

- 1 As described in general by Frederick Jackson Turner, *The Frontier in American History* (New York: Henry Holt and Company, 1920), and in specific regard to Alaska by Roxanne Rae Willis, "Making Alaska American: Environment and Development in a Foreign Land," PhD diss., Yale University, 2006.
- 2 James Shortridge, "American Perceptions of the Agricultural Potential of Alaska, 1867–1953," PhD diss., University of Kansas, 1972.
- 3 Ibid.
- 4 Jan Hanscom, "100 Years of Agricultural Research in Alaska" *Agroborealis* 30 (1998): 38–45.
- 5 Ibid.
- 6 Herman Turner, agricultural agent-at-large, University of Alaska Cooperative Extension Service (UA CES), letter to Mr. Vern V. Hirsch, Assistant Director of the Division of Resources, ANS (Alaska Native Services), 18 May 1956, File 916, Garden Subsistence (GS), General Subject Correspondence 1933–1963 (GSC), Alaska Reindeer Service (RR), Record Group (RG) 75, National Archives Pacific Alaska Region (NAPA). Mr. Turner lists Fort Yukon, Circle, Venetie, Arctic Village, Beaver, Stevens Village, and Minto as the places visited on a tour of the "Yukon Circle." Though not referenced in this letter, Rampart, Chalkyitsik, and Canyon Village are found regularly in other documents grouped with these villages.
- 7 Wallace M. Olson, "Minto, Alaska: Cultural and Historical Influences on Group Identity," PhD diss., University of Alaska, 1968; W. E. Simeone, *Rifles, Blankets, and Beads: Identity, History and the Northern Athapaskan Potlatch*. vol. 216, *Civilization of the American Indian* (Norman: University of Oklahoma Press, 2002).
- 8 Linda Janine Reed, "Diet and Subsistence in Transition: Traditional and Western Practices in an Alaskan Athapaskan Village," PhD diss., University of Oregon, 1995.
- 9 Douglas Deur and Nancy J. Turner, *Keeping It Living* (University of Washington Press, 2007).
- 10 Elizabeth Kunibe, "The Origin of Alaska's First Potato," in *Conference Abstracts*. (Fairbanks, AK: American Association of the Advancement of Science, Arctic, 2008). See also Julie Coburn, "Seed Potatoes and Foxgloves," in *Alaska Native Writers, Storytellers, and Orators: The Expanded Edition*, Ronald Spatz, Patricia Partnow, and Jeane Breinig, eds., (Anchorage: University of Alaska, *Alaska Quarterly Review*, 1999), available online at www.litsite.org/index.cfm?section=History%20and%20Culture&page=Art%20of%20Storytelling&ContentId=885&viewpost=2&pg=116&crt=1. For early mentions of this practice, see

- Hanscom, "Agroborealis"; Wayne Suttles, "The Early Diffusion of the Potato among the Coast Salish," *Southwestern Journal of Anthropology* 7(3) (1951).
- 11 K. T. Khlebnikov, *The Khlebnikov Archive: Unpublished Journal (1800-37) and Travel Notes (1820, 1822, and 1824)* (Fairbanks, AK: University of Alaska Press, 1990). Also H. H. Bancroft, *History of the Pacific States*, vol. 28: *Alaska 1730-1855* (San Francisco: 1886).
 - 12 Bancroft, *History of the Pacific States*, vol. 28; Shortridge, "American Perceptions."
 - 13 Jonathan R. Dean, "'Uses of the Past' on the Northwest Coast: The Russian American Company and Tlingit Nobility, 1825-1867," *Ethnohistory* 42 (1995): 265-302; Jay Ellis Ransom, "Aleut Natural-Food Economy," *American Anthropologist* 48 (1946): 607-23; Shortridge, "American Perceptions."
 - 14 Kunibe, "The Origin of Alaska's First Potato."
 - 15 Bancroft, *History of the Pacific States*, vol. 28; Shortridge, "American Perceptions."
 - 16 G. S. Wilson, ANS Schoolteacher, to Mr. Claude M. Hirst, General Superintendent, Office of Indian Affairs, Juneau, AK, 3 September 1937, File 916, GS, GSC, RR, RG75, NAPA.
 - 17 C. C. Georgeson, "The Possibilities of Alaska," *National Geographic Magazine*, Vol. 13, 1902, 81-85; Ted C. Hinckley, "The Presbyterian Leadership in Pioneer Alaska," *The Journal of American History* 52 (1966): 742-56; Willis, "Making Alaska American."
 - 18 Shortridge, "American Perceptions."
 - 19 C. E. Logsdon, L. J. Klebesadl, and J. A. Smith, Alaska Resource Development Council (ARDC), "Alaska's Agricultural Potential" (Fairbanks, AK: The Alaska Rural Development Council, 1974); Karl Francis, "Outpost Agriculture: The Case of Alaska," *Geographical Review*, LVII:4 (1967): 496-505.
 - 20 Kirk H. Stone, "Alaskan Group Settlement: The Matanuska Valley Colony," (Anchorage, AK: U.S. Department of the Interior, Bureau of Land Management, 1949); Willis, "Making Alaska American."
 - 21 Francis, "Outpost Agriculture"; Shortridge, "American Perceptions"; Stone, "Alaskan Group Settlement"; Willis, "Making Alaska American."
 - 22 Willis, "Making Alaska American."
 - 23 U.S. Archives, RG 75: BIA Fact Finder: Reindeer Records, (Anchorage, AK: U.S. National Archives, 1975); Carol Barnhardt, "A History of Schooling for Alaska Native People," *Journal of American Indian Education* 40 (2001): 1-30.
 - 24 Sister Mary of the Angels Agatha, "Social Adaptation of the Alaska Native to White Culture," PhD diss., Gonzaga University, 1965; U. S. Archives, RG 75: BIA Fact Finder: Reindeer Records; Katherine M. Cook, "Education among Native and Minority Groups in Alaska, Puerto Rico, Virgin Islands and Hawaii," *Journal of Negro Education* 3 (1934): 20-41; Alice Postell, *Where Did the Reindeer Come From?* (Portland, OR: Amanak Press, 1990).
 - 25 S. C. Gerlach, "Historical Archaeology and the Early Twentieth Century Reindeer Herding Frontier on the Northern Seward Peninsula, Alaska," in *Ublasau: First Light*, eds. Jeanne Schaaf and Thetus Smith (Fairbanks, AK: U.S. Department of the Interior, National Park Service, 1996); Hinckley, "The Presbyterian Leadership in Pioneer Alaska"; Roxanne Rae Willis, "A New Game in the North: Alaska Native Reindeer Herding, 1890-1940," *Western Historical Quarterly* 37 (2006): 277-301.

- 26 James Johnson Koffroth Simon, "Twentieth Century Iñupiaq Eskimo Reindeer Herding on Northern Seward Peninsula, Alaska," PhD diss., University of Alaska, Fairbanks, 1998; Willis, "A New Game in the North"
- 27 For example Henry A. Benson, Office of the Commissioner of Labor, letter to Ernest Patty, President, University of Alaska, 27 August 1954, File 917, GS, GSC, RR, RG75, NAPA.
- 28 Magdalene Delehart, ANS Teacher, to the Office of Indian Affairs Field Service, 2 February 1948, Juneau Area Office Correspondence (JOC), RR, RG75, NAPA.
- 29 File 917, Agricultural Hunting & Fishing Statistics: Afognak—Fort Yukon (AHF1), Kwinglillingok—Scammon Bay (AHF2), and Selawik-Yakutat (AHF3), RR, RG75, NAPA.
- 30 V. E. Farrel, Director of Education, Office of Indian Affairs, Juneau, AK, to "Teachers," File 917, Ag. Statistics & Production: Beaver, AK1933–66, Agricultural Hunting & Fishing Statistics: Afognak—Fort Yukon, RR, RG75, NAPA.
- 31 C.W. Holland, ANS Schoolteacher, "Annual Survey of Native Food 1943," File 917, Ag. Statistics & Production: Minto 1941–63, AHF2, RR, RG75, NAPA.
- 32 Personal communication, Charles Hawkesworth, Assistant to the Director, Bureau of Indian Affairs Juneau Area Office, letter to John Fredson, Government Teacher, Venetie, Alaska, 20 October 1938, JOC, RR, RG75, NAPA.
- 33 William H. Barney, "Annual Survey of Garden Activity," File 917, Ag. Statistics & Production: Venetie, AK 1938–72, AHF2, RR, RG75, NAPA.
- 34 For example Jens Forshaug, ANS Schoolteacher, "Annual Survey of Native Food 1953," File 917, Ag. Statistics & Production: Minto 1941–63, AHF2, RR, RG75, NAPA.
- 35 Dorothy Johnson, ANS Schoolteacher, "Annual Survey of Native Food 1944," File 917, Ag. Statistics & Production: Circle 1944–57, AHF, RR, RG75, NAPA.
- 36 C.W. Holland, ANS Schoolteacher, "Annual Survey of Native Food 1944," File 917, Ag. Statistics & Production: Minto 1941–63, AHF2, RR, RG75, NAPA.
- 37 The longest number of consecutive years an ANS schoolteacher reported for a village was five (Mr. Richard P. Birchill, 1960–1964), the most common, however, was just one. Many left the villages during the summer and did not participate in subsistence activities. See also P. Gadsby, "The Inuit Paradox," *Discover* 25:10 (2004): 48–55; Louis E. Grivetti and B. M. Ogle, "The Value of Traditional Foods in Meeting Macro- and Micronutrient Needs: The Wild Plant Connection," *Nutrition Research Reviews* 13 (2000): 1–16; Patricia S. Holloway and Ginny Alexander, "Ethnobotany of the Fort Yukon Region, Alaska," *Economic Botany* 44 (1990): 214–25; Richard K. Nelson, *Hunters of the Northern Forest: Designs for Survival among the Alaska Kutchin* (Chicago: University of Chicago Press, 1986).
- 38 Lydia Fohn-Hansen, UA CES, to Max Penrod, Educational Director, Bureau of Indian Affairs, 18 April 1958, Folder 947, GS, GSC, RR, RG75, NAPA.
- 39 For discussion of overinnovation, see Henry Delcore, "Development and the Life Story of a Thai Farmer Leader," *Ethnology* 43 (2004): 33–50; Conrad Phillip Kottak, "Culture and Economic Development," *American Anthropologist* 92 (1990): 723–32; Sally Engle Merry, *Colonizing Hawai'i: The Cultural Power of Law* (Princeton, NJ: Princeton University Press, 2000).
- 40 Kottak, "Culture and Economic Development."

- 41 For more on agriculture as an implement of civilization, see Daniel Quinn, *Ishmael* (New York: Bantam, 1991); Willis, "Making Alaska American."
- 42 Kottak, "Culture and Economic Development."
- 43 Igor Krupnik and Dyanna Jolly, eds., *The Earth Is Faster Now: Indigenous Observations of Arctic Environmental Change* (Fairbanks, AK: Arctic Research Consortium of the United States, 2002); Nelson, *Hunters of the Northern Forest*.
- 44 See, for example, Nelson, *Hunters of the Northern Forest*, and more recently contributors to Krupnik and Jolly, eds., *The Earth Is Faster Now*.
- 45 See Mr. Kashmir Bezich, ANS Special Assistant to Mr. Elmo Miller, Administrative Asst., ANS—Nome, AK, 8 March 1948, JOC, RR, RG75, NAPA; or William H. Barney, "Annual Survey of Garden Activity," File 917, Ag. Statistics & Production: Venetic, AK, 1938–72, AHF2, RR, RG75, NAPA.
- 46 Dorothy Henry, ANS Schoolteacher, "Annual Survey of Native Food 1941," File 917, Ag. Statistics & Production: Stevens Village, AK 1941–67, AHF2, RR, RG75, NAPA.
- 47 Valerie A. Sumida, "Patterns of Fish and Wildlife Harvest and Use in Beaver, AK," (Fairbanks, AK: Alaska Department of Fish and Game, 1989).
- 48 Nelson, *Hunters of the Northern Forest*; William S. Schneider, "Beaver, Alaska: The Story of a Multi-Ethnic Community," Phd. diss., Bryn Mawr College, 1976; Sumida, "Patterns of Fish and Wildlife Harvest and Use in Beaver, Ak."
- 49 John P. Bryant and Peggy J. Kuropat, "Selection of Winter Forage by Subarctic Browsing Vertebrates: The Role of Plant Chemistry," *Annual Review of Ecology Systematics* 11 (1980): 261–85; Charles Elton, *Animal Ecology* (London: Sidgwick & Jackson, 1951); Robert McRedie May, *Stability and Complexity in Model Ecosystems* (Princeton, NJ: Princeton University Press, 1973).
- 50 Hildegunn Viljugrein et al., "Spatio-Temporal Patterns of Mink and Muskrat in Canada During a Quarter-Century," *Journal of Animal Ecology* 70 (2001): 671–82; Wm. C. Beach to General Superintendent, Alaska Indian Service, 7 December 1944, File 917, Ag. Statistics & Production: Fort Yukon, AK 1941–57, AHF2, RR, RG75, NAPA; J. Ransom, community worker, to Claude M. Hirst, General Superintendent, Office of Indian Affairs, 15 January 1949, File 917, Ag. Statistics & Production: Stevens Village, AK 1941–67, AHF2, RR, RG75, NAPA.
- 51 Alaska Statute 16.05.940(33).
- 52 For example, the first chapter in *Alaska Subsistence: A National Park Service Management History* by Frank B. Norris (Anchorage, AK: Alaska Support Office, National Park Service, U.S. Dept. of the Interior, 2002) is titled "Alaska Native and Rural Lifeways Prior to 1971," as if everything changed in terms of local "lifeways" with the passage of ANCSA.
- 53 Edwin S. Hall, S. C. Gerlach, and Margaret B. Blackman, "In the National Interest: A Geographically Based Study of Anaktuvik Pass Inupiat Subsistence through Time," (Barrow, AK: The North Slope Borough, 1985); Henry P. Huntington, *Wildlife Management and Subsistence Hunting in Alaska* (Seattle: University of Washington Press, 1992).
- 54 Barnhardt, "A History of Schooling for Alaska Native People."
- 55 Michele Hebert, Land Resources Director, University of Alaska Fairbanks Cooperative Extension Service, 2006.
- 56 T. O'Brien, "Athabaskan Implements from the Skin House Days as Related by Reverend David Salmon," Phd. diss., University of Alaska Fairbanks, 1997.
- 57 Jack Kloppenburg, John Hendrickson, and George W. Stevenson, "Coming into

- the Foodshed," *Agriculture and Human Values* 13 (1996): 33–42; H. V. Kuhnlein et al., "Arctic Indigenous Peoples Experience the Nutrition Transition with Changing Dietary Patterns and Obesity," *Journal of Nutrition* 134 (2004): 1447–53; Michael Pollan, *The Omnivore's Dilemma: A Natural History of Four Meals* (New York: The Penguin Press, 2006).
- 58 C. Ballew et al., *The Alaska Traditional Diet Survey* (Anchorage, AK: Alaska Native Health Board, Alaska Native Epidemiology Center, 2004); Kuhnlein et al., "Arctic Indigenous Peoples Experience the Nutrition Transition"; Elizabeth Nobmann et al., "The Diet of Alaska Native Adults: 1987–1988," *American Journal of Clinical Nutrition* 55 (1992): 1024–32.
- 59 Sumida, "Patterns of Fish and Wildlife Harvest and Use in Beaver, AK," appears to be the only Alaska Department of Fish and Game community subsistence profile to include a (very short) note, under the heading "Plant Resources" (66), about contemporary family gardens, though no mention is made of the role they played prior to 1989.
- 60 Elizabeth F. Andrews, "The Harvest of Fish and Wildlife for Subsistence Use by Residents of Minto, AK," (Juneau, AK: Alaska Department of Fish and Game, 1988); Richard Caulfield, "Subsistence Land Use in Upper Yukon Porcupine Communities, Alaska. Dinjii Nats'aa Nan Kak Adagwaandaii. Report #16" (Fairbanks, AK: Alaska Department of Fish and Game, 1983); Frank Norris, "Alaska Subsistence" (Anchorage, AK: U.S. Department of the Interior, National Park Service, 2002); Sumida, "Patterns of Fish and Wildlife Harvest and Use in Beaver, AK."