"WE TAKE WHAT WE CAN GET": THE LONG-LASTING APPETITE FOR *RANGIFER* ON THE ALASKA PENINSULA

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INTRODUCTION: STUDYING REINDEER ON THE ALASKA PENINSULA

The story of why and how reindeer herding began and developed in Northwest Alaska from the 1890s to the present is well documented in the anthropological literature (Ellanna and Sherrod 2004; Fair 2003; Finstad et al. 2006; Koskey 2003; Olson 1969; Schneider 2002; Schneider et al. 2005; Simon 1998; Stern et al. 1980). Domestic reindeer were brought from the Russian Far East under the supervision of Sheldon Jackson, general agent of education in Alaska, who "argued before Congress that the reindeer would provide a source of meat and economic development for the Inupiaq" (Finstad et al. 2006:34). At a time when caribou (or wild reindeer as they are called outside of North America) were vanishing in Northwest Alaska (Burch 2012; Skoog 1968), Jackson's initiative was meant to stave off regional food shortages and acculturate subsistence hunters into entrepreneurial pastoralists (Ellanna and Sherrod 2004:67–113). In contrast to this documented history, relatively little scholarly work has been done on reindeer herding in the Lake Iliamna and Alaska Peninsula regions (Morseth 1998:134–140; Partnow 2001:233–235; Ringsmuth 2007:103–111; Unrau 1994:309–317), which were also administered by the U.S. Reindeer Service. Reindeer were introduced on the Alaska Peninsula in 1905 from Bethel, with the first reindeer station established at Kokhanok on the southern shore of Lake Iliamna. When the industry reached its peak in the early 1930s, approximately 10,000 domestic reindeer (Lincoln, this issue) were grazing on the Alaska Peninsula. In the northern and central sections of the peninsula, government stations were also started in Eagle Bay, Koggiung, South Naknek, and Ugashik, from where reindeer herding spread to the Port Heiden Bay area (Map 1, color plates).[1] Economically, however, herding could not compete with the greater earning potential of commercial fishing. Herders spent less time with reindeer, leaving them open to mixing with caribou herds and to predation by wolves and humans. By the end of the 1940s, the U.S. Reindeer Service no longer maintained official reindeer counts and the industry ceased by 1950.

Following ethnographer Michelle Morseth's (1998:147–148) and historian Katherine Ringsmuth's (2007:244) call for focused research on this topic, our paper documents the history and legacies of reindeer herding in the Lake Iliamna and Alaska Peninsula regions. Building on insights from ethnohistorical and cultural anthropological research we have conducted since 2011, this paper has two objectives. First, it analyses the development of reindeer herding within the broader context of regional caribou hunting. Drawing on recent research on human-reindeer-caribou interactions in Northwest Alaska (Burch 2012; Finstad et al. 2006; Schneider et al. 2005) and the North Slope of Alaska (Mager 2012), as well as on human-animal relations in arctic pastoralism (Beach and Stammler 2006; Stammler 2010; Takakura 2010), we suggest that the lasting "taste" for reindeer (*Rangifer tarandus tarandus*) on the Alaska Peninsula is best understood in connection to an older "appetite" for caribou

(*Rangifer tarandus granti*). By reviewing the short history of reindeer herding in light of the longer history of caribou hunting, we seek to understand how reindeer pastoralism was received on the Alaska Peninsula, and how "the socio-economic relationship of the local people with *Rangifer*" (Finstad et al. 2006:34) evolved after Alutiiq, Yup'ik, and Inupiaq herders developed "familiarity" with reindeer (Takakura 2010:26–35). Examining how reindeer herding was adapted to, and to some extent reinvented, within the broader sociocultural environment of the Alaska Peninsula is important because this past continues to inform the lives of residents today. Consistent with findings among former herding families on the Seward Peninsula (Schneider et al. 2005; Simon 1998) and in the Barrow region (Mager 2012), a second objective of this paper is to demonstrate how a cultural appreciation for reindeer and reindeer herding continues to inform the lives of the Alaska Peninsula's residents today, sixty-five years after the demise of the Reindeer Program. Stories of herding reindeer are shared as people browse historic photographs, display herding artifacts, navigate through local landscapes, trace ancestors, and encounter and hunt caribou. Engaging in these practices, while hearing stories of the past, according to cultural anthropologist C. Nadia Seremetakis (1996:33), "glues past generational and collective history onto present biographical experience," thereby informing the contemporary experiences, aesthetics, and worldviews of individuals today. This paper shows how the region's historical forms of reindeer herding, informed by a history of hunting caribou, have given rise to the way residents build expectations about their environment, engage in relationships with *Rangifer*, and respond to restrictions associated with obtaining *Rangifer* products (meat and hides).

In order to address these objectives, we begin by examining how different indigenous groups of the Lake Iliamna and Alaska Peninsula regions maintained a strong connection to caribou and caribou hunting during the Russian fur trade (1780–1867) and the early American period until the introduction of reindeer (1867–1905). We then explore the history of reindeer herding on the Alaska Peninsula (1905–1950) through the perspective of those who experienced it first-hand or grew up hearing stories about it. Finally, we provide ethnographic examples of the legacies of reindeer herding after the demise of the reindeer industry on the Alaska Peninsula (1950s–present). Part of the information pertaining to the 1905–1950 time frame was produced by researching private and public collections[2] (photographic, museum, oral history, and archival records). As cultural anthropologists, we also engaged in ethnographic research, which included oral history interviews, photo elicitation interviews, site surveys with local guides, and participant observation in the daily life of Alaska Peninsula residents. Our approach of augmenting historical sources with first-hand ethnographic accounts helps to understand how the past is lived in the present and continues to shape people's expectations for the future. It also allows for a better comprehension of how this lived and narrated past is differentiated from recorded history (Schneider et al. 2005; Tonkin 1994).

One problem that arises when studying reindeer herding in Alaska is distinguishing reindeer from caribou. On the one hand, *Rangifer tarandus tarandus* and *Rangifer tarandus granti* belong to the same biological species (*Rangifer tarandus*), can interbreed, and "[b]ecause of their social nature . . . are apt to mingle and travel together" (Schneider et al. 2005:47*n*1). On the other hand, reindeer and caribou are recognized as different subspecies and, as such, display "certain physical and behavioral differences" (Burch 2012:17). In any case, reindeer and caribou in Alaska "have played important roles in each other's affairs [. . . and] the history of one cannot be understood without knowledge of the other" (Burch 2012:17). Therefore, simply referring to "reindeer" as the animals imported from the Russian Far East and their descendants, and to "caribou" as animals with ancient Alaska ancestry is not without limitations and ambiguity.

The U.S. Code, which reproduces the definition found in the Reindeer Act of 1937, stipulates that "'Reindeer' . . . shall be understood to include reindeer and such caribou as have been introduced into animal husbandry or have actually joined reindeer herds, and the increase thereof" (25 U.S. Code § 500j).[3] As cultural anthropologist Hugh Beach (1985:10) notes, this definition implies that "there must be some attempt to *domesticate* a caribou before it can be defined as a reindeer, but just what this might mean is not clear, since the reindeer themselves are so frequently left to roam unattended." According to the Alaska Administrative Code (5 AAC 92.029 (d)(2)(C–D)), reindeer that leave state or federal leased rangelands are considered feral and presumed to be game. Thus, depending on the land it grazes on, a reindeer "turns into" a caribou unless a clear identifier is retained (permanent brand, ear tag, owner's mark). Accordingly, neither federal nor state laws account for mixed caribou-reindeer animals and their descendants.

Specialists from different fields are tackling this omission in various ways. Biologists are testing the "genetic connectivity" (Mager et al. 2013) between caribou and reindeer, a task that requires access to scientific resources and confirms the view that wild and domestic *Rangifer* can "hybridize" (Colson et al. 2014; Mager et al. 2013). As anthropologists we pay special attention to local definitions and terminologies used by past and present residents of the Alaska Peninsula, which highlight the history of interactions between reindeer and caribou. We focus on local terms coined during or after the reindeer experiment on the Alaska Peninsula such as "marked caribou" (feral reindeer with an ear mark), "mixed" (a caribou with reindeer ancestry) or "reinbou" (a regionally common and apropos mistake of speech denoting either a reindeer or a caribou).[4] As we will see, these terms not only suggest contiguity and connectivity between reindeer and caribou, they also invite us to think of *Rangifer* identities as interlocking along a continuum of practices and representations. To reflect these views in our analysis, we use *Rangifer* (italicized) to refer to biological categories, and Rangifer (nonitalicized) to refer to cultural representations. This analytical distinction allows us to better investigate local perceptions about animals whose qualities fluctuate between "caribou-like" and "reindeer-like."

BEFORE REINDEER HERDING: A GROWING APPETITE FOR CARIBOU MEAT

Unlike early herders on the Seward Peninsula (Northwest Alaska) who knew about reindeer herding from contacts with Siberia across the Bering Strait (Schneider et al. 2005:40; Simon 1998:75–92), the first apprentice herders on the Alaska Peninsula had no background in reindeer pastoralism. *Rangifer tarandus*, however, was not unfamiliar in the region. From the time of Russian penetration in the late 1750s, herds of wild caribou have occupied lands all the way to Unimak Island (Black 1999a:8, 11), suggesting long histories of human-*Rangifer* relations.[5] Among the various indigenous groups on the Alaska Peninsula, interactions with caribou were traditionally established and mediated through hunting (Liapunova 1996:106; Morseth 1998:5–26; Reedy-Maschner 2012:119).[6] In the northern section of the peninsula (northern and eastern shores of Lake Iliamna), Dena'ina Athabascans lived in an environment where "hunting and fishing were of the utmost importance [and where] [c]aribou, sheep, brown and black bear were usually stalked in the fall" (Dissler 1980:10). South of Lake Iliamna, the Severnovski (or Savonoski[7]) people living east of Naknek Lake relied on salmon, caribou, and bear (Clemens and Norris 1999:6), while the Aglurmiut established west of Naknek Lake as a result of a migration from Kuskokwim Bay around 1750 (Pratt 2013) were hunting caribou "rather extensively [. . .] not only for their meat but even more for their skins, which were much used in making clothing and as articles of trade" (Hussey 1971:75).[8] In the northeastern and central parts of the Alaska Peninsula, Alutiiq (or Sugpiaq) coastal populations inhabited small settlements and hunted and fished in seasonal rounds on both land and sea (Clemens and Norris 1999:8; Johnson 2006:69; Morseth 1998:13–15). Discussing the social ramifications of the tradition of caribou hunting in the Aniakchak region in early contact times, historian Katherine Johnson (2006:73) notes that Alaska Peninsula Alutiit "exchanged sinew and caribou skin for amber and bone ornaments, which they received from the Koniags from Kodiak Island" [or Kodiak Alutiit].[9] Trade and gift exchanges were overseen by a family or village *anayugak*, or chief, whose inherited status was fully granted only after he demonstrated leadership in different activities, including hunting (Morseth 1998:16; Johnson 2006:74–75). As German-born physician and traveler G. H. Langsdorff, who visited Russian America in 1805–1806, argued, the capacity to hunt and use "reindeer" (i.e., caribou) as a resource was the main difference between Alutiiq culture on Kodiak Island and on the Alaska Peninsula:

> The customs, habits and, in part, the clothing, even the language of the inhabitants of [the Alaska Peninsula], are the same as in Kodiak. Only in food is there a noticeable difference, since the peninsula is connected to America where there are quantities of reindeer and wild sheep. The inhabitants usually hunt them in the fall for use as food and clothing (Langsdorff 1993:141; see also Clemens and Norris 1999:8).[10]

A similar marker of cultural distinction existed between Alutiiq and Aleut populations living on the central and southern sections of the Alaska Peninsula and their Aleut (or Unangax) neighbors west of Unimak Island, who lived in an environment free of large terrestrial mammals and were heavily engaged in sea-mammal procurement.

Interactions with caribou on the Alaska Peninsula were affected by the development of the Russian fur trade (1780–1867), which targeted sea otters, seals, and foxes. When they first encountered Alutiiq hunters, Russians

considered them to be the "best hunters of sea otters in the world" (Johnson 2006:74) and pressed them to ignore hunting big game on land. As Alutiiq families started to resettle near the sea-mammal hunting camps (*artel'*), established between 1795 and 1799 by the Russian-American Company at Katmai and Sutkhum along the Aniakchak coast (Clemens and Norris 1999:13–14; Johnson 2006:85–87), "small Alutiiq villages that once facilitated hunter-gatherer seasonal rounds during pre-contact times gradually disappeared" (Johnson 2006:88). Significantly, however, the socioeconomic and political changes brought about by the colonial activities of the Russian-American Company did not diminish the value of caribou. On the contrary, caribou remained central to Alutiiq material and spiritual culture.[11] Thus, as the working conditions for Native hunters improved within the company after 1821 (Black 1999b:130) and as the sea otter population started to decline, Alutiiq hunters used their "free time" to reactivate precontact patterns of resource use, which included hunting caribou and bear in the fall, trapping fur-bearing animals in winter, digging for clams in the spring, and fishing for salmon all summer (Johnson 2006:94, 122).

Caribou, however, were not always readily available. Historically, caribou populations have fluctuated and migration patterns have shifted on the Alaska Peninsula (Colson et al. 2014; Skoog 1968; Valkenburg et al. 2003) as well as in northwestern and northern Alaska (Burch 2012; Finstad et al. 2006; Mager 2012:168; Skoog 1968). The same "fundamental aspect of caribou biology: the plasticity of caribou herds through time" (Dau 2012:xvi), characterizes what are now called the Unimak, the Southern Alaska Peninsula (SAP), and the Northern Alaska Peninsula (NAP) caribou herds.[12] Regarding the history of the Unimak and SAP herds, anthropologists Lydia Black and Natalia Taksami (1999:83) estimate that during Veniaminov's time as Russian Orthodox priest in the Unalaska District (1824–1834) "caribou were scarce due to ashfalls and predation by wolves and humans." Major volcanic eruptions on Unimak had greatly diminished the caribou that were abundant earlier at the western end of the Alaska Peninsula and on the surrounding islands of the Pacific Ocean—including Unimak, Unga, Deer, and Popof Islands (Black 1999b:131; Black and Jacka 1999b:181; Black and Taksami 1999:83; Jacka and Black 1999:146). However, instead of precluding Alutiiq hunters from hunting caribou, their scarcity seems to have contributed to the growing appetite for a rarefied good. Caribou were hunted by select marksmen; meat and skins were transported to the mining village of Unga and to Unalaska (Black 1999b:133; Osgood 1904:28). As trade administrators began to develop their own taste for caribou, hunting this animal became increasingly encouraged and even commissioned by the company (Black and Jacka 1999b:173).

After the purchase of Alaska by the United States in 1867, American trading posts replaced the Russian *artels* (Johnson 2006:103) and further stimulated the demand for caribou. Ronald Skoog's (1968) analysis of caribou populations over time suggests that the need for more caribou products during the early American period was satisfied due to sufficient *Rangifer* numbers. According to Skoog (1968:219), "during the early 1870s, and before, the caribou were numerous and utilized the entire Peninsula." Initially estimated to number around 20,000 animals in the early 1800s, Alaska Peninsula herds were migrating both southward to Unimak Island and northward, crossing the Kvichak River, into the Nushagak and Mulchatna River drainages where they were hunted as early as mid-August by the Central Yup'ik-speaking Kiatagmiut and Aglurmiut (Fall et al. 1986:15; VanStone 1984:232). Following these movements, the Ugaassarmiut of the Ugashik region "were reported to travel north and inland to get to the herds in August of 1866" (Morseth 1998:61).[13] However, by the 1890s, there were no more observations of caribou crossing the Kvichak River, suggesting that this migration pattern stopped (Skoog 1968:221). Major segments of caribou remained around Unimak Island (Black and Jacka 1999b:174) and north of the Kvichak River and "[a]fter 1890 the center of caribou abundance shifted to the southwest" (Skoog 1968:221). Attracted by the presence of caribou, as well as by the restoration of fur trading posts in the Aniakchak region (Johnson 2006:104–105), Ugashik people moved south between the foothills of Mount Veniaminov and Bristol Bay, establishing the village of Unangashak by 1889 (Morseth 1998:61–63; see also Luehrmann 2008:50–51) (Map 2, color plates).

At the turn of the twentieth century, the industrial landscape on the Alaska Peninsula started to change. As a result of low fur prices and decimated sea otter populations, the Alaska Commercial Company pulled out of the region (Black and Taksami 1999:93; Johnson 2006:112). New economic opportunities arose, including fox farming, gold mining, and commercial fishing. While some Aleut, Alutiiq, and Yup'ik individuals worked in these industries, employment was not secure. The canneries hired Chinese, Japanese, Filipino, and Mexican workers as

fishing and canning crews (Moser [1902] 2006; Selkregg [1974] 2006:7) and targeted Scandinavians for the highest-paid (and more pleasant) jobs, such as making and watching over fish traps (Jacka and Black 1999:160). Even though locals eventually came to work at the canneries, many Native residents had no choice but to return to older subsistence practices and patterns (Johnson 2006:122). This allowed them to sell caribou hides and meat to the trading posts supplying the growing number of mining operations and fishing camps (Osgood 1904:28). Caribou hides had already been actively marketed at the Ugashik and Nushagak posts under Russian rule in the mid-1800s (Hemming 1971:39). At Nushagak, the establishment of a Russian Orthodox mission in 1841 (Selkregg [1974] 2006:5; B. Smith 1980:122) stimulated the trade for caribou skins until the 1870s (VanStone 1967:58), while in the early 1900s "[t]he mail steamer which runs along the south side of the peninsula [took] on a supply of caribou meat on nearly every trip" (Osgood 1904:28). According to biologist Wilfred Osgood (1904:29), who was commissioned by the Bureau of Ornithology and Mammalogy, U.S. Department of Agriculture, to conduct animal surveys, 500 caribou hides were sold in seven months between 1902–1903 to the trading post that was established in Unangashak in 1902. Despite (or because of) such demand, the Alaska Game Act of 1902 halted further expansion of the market for caribou products on the Alaska Peninsula.

News of the caribou abundance as well as the booming market around the canneries in the late 1800s spread widely. Inupiat of the Seward Peninsula were recruited to work in the canneries because they were believed to be more "reliable" than the local Aleuts who "were considered unsatisfactory both at the King Cove and Port Moller canneries" (Black and Jacka 1999a:102).[14] Inupiaq immigrants were doubly marginalized: first, by the members of local communities who could not join them as cannery employees; second, by Asian workers who maintained exclusive kitchens in the canneries and were eating imported pork and chicken (Black and Jacka 1999a:101). As the King Cove cannery superintendent's wife candidly remembered, Inupiaq newcomers, like Alutiiq and Yup'ik residents who settled around the canneries, "lived very simply on fish and caribou meat, which they dried during the summer" (Black and Jacka 1999a:102). Inupiaq immigrants were not the only group of people settling on the Alaska Peninsula by the early twentieth century. The changing economic and political landscape brought about by the Americanization of the Alaska Peninsula led to a demographic explosion. Johnson (2006:222) explains that "[t]he largest number of Russians ever in America at one time was a mere 823 [while in] 1890, there were 8,000 non-Natives in Alaska." The demand for caribou products followed this population expansion; it became so high that by 1904 Osgood (1904:29) warned that "if the wholesale traffic in meat and hides . . . is not checked, the animals are surely doomed to speedy extinction." Osgood's warning was almost realized by the early 1900s when caribou products became unavailable due to decreasing herds. U.S. Geological Survey researchers in the 1920s continued to note the scarcity of caribou across the peninsula (Skoog 1968:222) as the NAP herd reached a population low (Valkenburg et al. 2003:138). Oral history corroborates these records. In a 1985 interview, the late Rose Hedlund, born 1917 in Chekok, near Lake Iliamna, discussed the lack of caribou and moose available when she was a child. Hedlund remembered that "[t]here was nothing to hunt in those days. There was no moose, no caribou. Ducks, spruce hens, and rabbits was the only meat animals around" (Hedlund and Hedlund 1985). People were not starving, however. As Hedlund's statement suggests, other food resources such as birds and small mammals were available (see also Partnow 2001:234). Moreover, people took advantage of the large and numerous runs of salmon moving up many of the rivers from Bristol Bay (Morseth 1998:11). Nevertheless, the problem was that by the early 1900s, neither indigenous people nor the growing number of settlers to the region could satisfy their appetite for caribou meat.

It would be misleading, however, to suggest that the timing of the arrival of the reindeer in 1905 was a direct response to declining caribou numbers, and that *Rangifer tarandus tarandus* was introduced as a substitute for *Rangifer tarandus granti*. In fact, as historian Harlan Unrau (1994) and cultural anthropologist James VanStone (1967) explain, the implementation of reindeer herding on the Alaska Peninsula was an accident. The Bureau of Education hired Saami Hedley Redmyer in 1904 "to transfer 300 deer from the Kuskokwim to the Copper River" (VanStone 1967:86). The difficult mountainous terrain and lack of adequate lichen for the reindeer contributed to the expedition's failure to cross the Alaska Range. Redmyer ended up on the southern shore of Lake Iliamna, establishing Kokhanok Reindeer Station with the approval of Sheldon Jackson (Unrau 1994:311). Nonetheless, 1905 was a fortuitous time for launching the

herding industry on the Alaska Peninsula because reindeer did not have to compete with as many caribou for rangelands and food.[15] This contributed to initial rapid expansion of the reindeer industry, enabling residents of the Alaska Peninsula to fulfill their taste for "caribou" meat. As Rose Hedlund's narrative illuminated, "[e]very fall dad bought two reindeers. They brought it up and took care of it right there. I mean they butchered it right in our own yard" (Hedlund and Hedlund 1985). Thus, those who had access to money and herding networks now had the option of purchasing reindeer meat. And those who had access to domestic reindeer now had the opportunity to develop new relations with *Rangifer*.

FORTY-FIVE YEARS OF HERDING: REMEMBERING CLOSE CONNECTIONS WITH REINDEER

The establishment of the first reindeer station with 300 reindeer on the southern shore of Lake Iliamna was the starting point of an intensive period of reindeer herding in Southwest Alaska lasting between 1905 and the late 1940s (Map 1, color plates). Herding in the Bristol Bay and Alaska Peninsula regions was an extension of the reindeer program that began in Teller in 1892. The Kokhanok reindeer were the progenitors of the animals that spread herding throughout Lake Iliamna, the Kvichak, Alagnak, and Naknek River drainages as well as into the Ugashik, Pilot Point, and Port Heiden regions (Map 2, color plates). In many places, reindeer herds grew so successfully that by the 1920s reindeer meat was a significant source of food for local people and was even sold to the region's canneries (Unrau 1994:315). Despite initial success, however, Alaska Peninsula herders faced challenges similar to those encountered by herders throughout the state, including wolf predation, emigration to caribou herds, overgrazing, and management issues (see Beach 1985; Finstad et al. 2006; Koskey 2003:257–259; Mager 2012; Rattenbury et al. 2009; Schneider et al. 2005; VanStone 1967:83–88). In addition, the fishing industry in Bristol Bay impacted the economic viability of reindeer herding on the Alaska Peninsula. By the 1930s, as commercial salmon prices rose and Native residents could secure seasonal employment within the industry, few herders could afford to give up the opportunity to earn more in one season than herders could make in a year (Atwater 2012:117–119; Nicholson 1995:110). Not unlike what happened elsewhere in the circumpolar North, the herding industry on the Alaska Peninsula suffered from what cultural anthropologist Michael Koskey (2003:245) calls a "dissonance between reindeer herding and market capitalism." For all these reasons, reindeer herding ceased in the region by 1950.

Before its termination, however, the production of reindeer meat came with a new multicultural and administrative structure. Reindeer herders and owners represented people from many different linguistic and cultural groups, including long-established Dena'ina, Yupiit, and Alutiit, as well as Inupiat, Euro-Americans, Scandinavians, and Saami settlers. Saami herders arrived in Alaska in the late nineteenth century to teach Alaska Natives herding techniques and reindeer management.[16] Such cross-cultural initiatives were neither new nor unusual on the Alaska Peninsula (Branson and Troll 2006; Ringsmuth 2007:238), and all worked together despite linguistic and cultural barriers. Diverse groups of people were brought together through a specific instructional system applied at the government reindeer stations. Professional Saami and Yup'ik herders from the Kuskokwim River drove reindeer to new locations, establishing reindeer stations in Kokhanok, Eagle Bay, Koggiung, Wood River, and Ugashik (Map 1, color plates), typically with 200 to 500 reindeer. These chief herders then trained Yup'ik, Dena'ina, and Alutiiq residents through a system of apprenticeship. Schoolteachers, who also served as local reindeer superintendents, nominated "promising" young men to work as apprentices with the government herd. In exchange for four years of work with the herd, these apprentices earned a small number of reindeer yearly. By 1907 each apprentice would receive four female and two male reindeer after one year of satisfactory service (based on the local superintendent's assessment). This number increased to a total of eight reindeer after the second year and ten after the third and fourth years with a three-to-one ratio of female to male reindeer (Unrau 1994:311). By the end of a four-year cycle, these apprentices could have earned 34 reindeer plus all of their offspring. With successful training in reindeer husbandry and barring unexpected losses, this was enough reindeer to leave the government herd and start one's own operation as a private herder. In contrast to government herds, private herding enterprises received no government resources. Profits were derived only from selling reindeer products, and chief herders used these earnings to hire relatives or seasonal herders (see Lincoln, this issue).

Herders who eventually managed their own herds as private enterprises gained esteem for their skills and suc-

cesses. Because they were exemplary at the time, they have since become founding ancestors in local genealogies. AlexAnna Salmon (this issue) describes how this transition from government to private herding took place and impacted her own family history. Many current residents of Igiugig and Levelock remember Alexi Gregory, Salmon's great grandfather, as "Big Alexi," and school children in Igiugig can trace their family ancestry to the prominent figure. Similarly, Evon Olympic, who operated reindeer herds throughout the Alaska Peninsula and died in the 1970s at the reported age of "well-past 100," is widely known even today among Alaska Peninsula residents. Several people we interviewed identified him as a young man in a historic photograph that had no associated information. Evon's daughter, Akelena Holstrom of South Naknek (born 1922) continues to tell stories of her father's role as a herder at Naknek Lake. Evon's portrait is prominently displayed in the home of Annie Zimin, granddaughter of Evon, of South Naknek, who also remembers him fondly as a herder. Other communities build relatedness to respected individuals and respected activities through similar processes. In Pilot Point and Naknek, local oral history programs of the 1980s feature prominent herders. The Igiugig hangar and community center exhibits historic photographs of respected kin engaging in various culturally significant practices, including reindeer herding. More than just individuals relating to their past, these local initiatives show the need for entire communities to not only feature those figures but to understand how they are connected to them and their way of life. Thus, histories of reindeer herding affect the way residents imagine relatedness.

People demonstrate pride in these herders, in part because of the skill set (lassoing, marking, corralling, castrating, predator management, rangeland management, traveling great distances, etc.) that was required of them. These skills were used not only for producing reindeer products but also for training sled deer for transportation. Recollections from young herders suggest that observing experts was a common strategy for learning these skills. In 1989, Evan Apokedak explained during a Bristol Bay High School oral history program how he learned to "break" a reindeer as a teenager around Kokhanok by watching his uncles:

> Everybody all together got over a thousand [reindeer]. I stayed there and helped them with the reindeer. Sometime the reindeer move around and we stay with them in a tent. Mostly we live in the tent, even in the wintertime. Usually three young men would herd the reindeer. The rest of the people and the families would stay in the village. We train them first, then let them pull. I watch them and that's how I learned. . . . Lasso first, tie them up to a tree, short line, not long. The next day make the line longer. If too long, he is going to run over himself, fall down and break his neck. For starting off use short line. Easy to break them in, chase them from other side [of the corral]. If they charge you, that's a good one. Easy to break that cranky kind (Wilson 1989:18–19).

For herding families like the Gregorys at Kukaklek Lake (Map 2, color plates), close interaction with reindeer was an integral part of the socialization of children (Fig. 1). Mary (Gregory) Olympic remembers lassoing reindeer calves for fun with her childhood playmate when she was very young (Salmon, this issue). The reindeer of her life formed her world of play and "make believe." In addition to lassoing calves, Olympic also recalled a story of "playing reindeer" with her friend, in

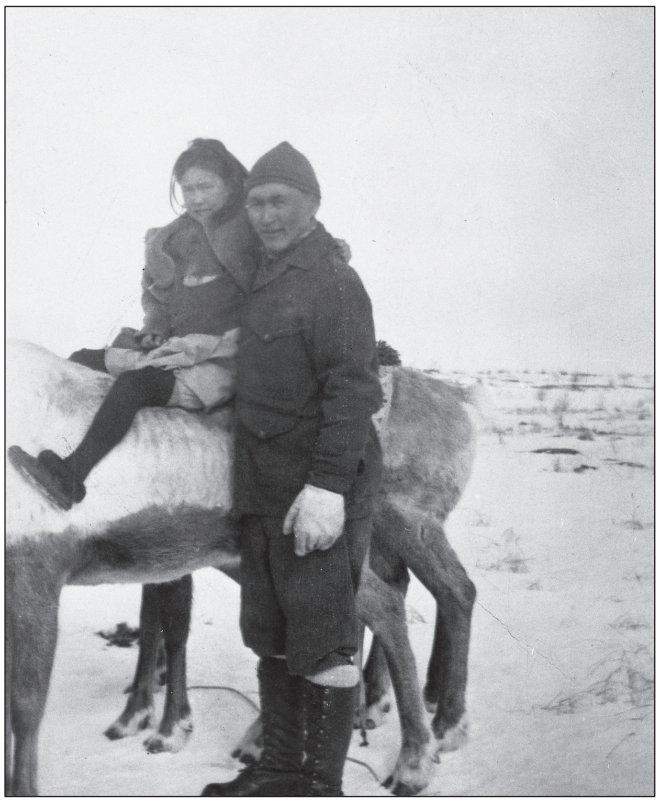

Figure 1. Frank Taller and his daughter sitting on a reindeer, Levelock area, circa 1930. Courtesy of Alex Tallekpalek and the National Park Service, Museum Management Program and Katmai National Park and Preserve; H-410.

which they ate mushrooms pretending to be reindeer. Laughing at herself while telling the story, Olympic recalled how sick she and her friend became after eating too many mushrooms (Olympic et al. 2012). This kind of play and socialization with reindeer lasted for only a limited time. Between the 1910s and 1930s, the calves and children of herding families grew up playing and interacting together, quickly developing the same kind of close personal ties that Chukchi herders used to develop with their "favourite [rein]deer" (Gray 2012:32) in the Russian Far East, or the same kind of "intimate familiarity" that Eveny pastoralists perpetuate with some of their reindeer (Takakura 2010:27) in northern Yakutia. Reflecting this closeness, as an adult, Olympic refers to the reindeer she once herded as her "pets"—a familial designation also used on the North Slope of Alaska by those who herded in the first half of the twentieth century (Mager 2012:171).[17]

Like in Barrow (Mager 2012) and on the Seward Peninsula (Schneider et al. 2005; Simon 1998), working and living closely with reindeer became a source of pride on the Alaska Peninsula for individuals involved in the herding industry at large. In particular, descendants of herders admire those individuals who were skilled at taming reindeer. Brothers Eli and Nick Neketa from Pilot Point, whose family spoke Alutiiq, recalled that their father owned and herded between ten and twenty reindeer before he married and had children. These animals were also considered pets. Eli explained that his father would travel up to Egegik for short weekend visits. Upon his return, the deer would come running to him like dogs greeting their owner. In an interview in 1997 with Morseth, spouses Valentine and Pauline Supsook, both Inupiat of Pilot Point, praised Pauline's father, Willie Zunganuk, for his especially tame animals. Not unlike Tozhu herders in southern Siberia who attract reindeer with salt (Arakchaa, this issue), Pauline "used to feed them with [her] palm and a little sugar" (Supsook and Supsook 1997). But while the Tozhu milk their reindeer, Pauline simply "tried to pet them [because] they were very tame" (Supsook and Supsook 1997). Pilot Point and Port Heiden resident Andrew Matson, who learned some Alutiiq from his mother, also admired Zunganuk's ability to train animals. In 2013, he recalled Zunganuk's dog team:

> Zunganuk had 13 dogs. He talk[ed] to them in Inupiat and they listened. [He'd] put out his harness and call their names and they go sit by each one, go by their harness. [You] don't have to tell them, I mean he tell them but they know where it's at. Then he goes over and harness them up, [the dogs] stay there. Before he get ready to go, he get in the sled, talk to them, and then they go. Easy. Ours, we had to just tie . . . breaking ropes and everything, they always want to go (Matson 2013).

Elderly Naknek residents in particular remember and respect the skills of the Saami herders who were based in South Naknek in the 1930s, comparing them to "cowboys."

The late Carvel Zimin explained in 2012,

> When they first brought the deer in, they were just like cowboys, they stayed with the reindeer all summer . . . they lived with them, they walked and they had trained reindeer that carried their luggage or groceries and stuff like that (Zimin and Zimin 2012).

Although too young to remember the Saami working intensively with their reindeer, Ted Melgenak of King Salmon recalled in 2012 that the animals once herded by the Saami "hung out behind Savonoski" and contrasted them with the wild caribou: "they were just like dogs . . . reindeer never run away . . . those Laplander herders, they somehow take care of them, they keep an eye for them, they go out camping and all that" (Melgenak 2012). In describing the Saami herders' skills in an interview in 2012, Alvin Aspelund of Naknek also focused on the time the herders spent with the reindeer: "they traveled with them all the time, they had reindeer pulling sleds with their tents and equipment, and when the reindeer move, they move with them. That's pretty much how they kept them in line" (Aspelund 2012). All these storytellers admire the individuals who traveled and worked closely with reindeer.

At the same time, residents commonly understand the demise of the herding industry as resulting from the lack of both close herding and travelling with the herds. For example Andrew Matson told us in 2013 that herding ended in Pilot Point because "they just never took care of them, keep them herded. . . . they never cowboyed them. They were just wild" (Matson 2013). Akelena Holstrom, daughter of Evon Olympic, said there was no one left to take care of the reindeer and so the animals just scattered. Alvin Aspelund understood the end of herding similarly as a lack of staying close to the reindeer:

> [T]he government bought them out and turned them over to the natives but the natives didn't

> know what to do with them. Some of the guys up Kokhanok, they were old reindeer herders, they travel with them, but the new guys that came around here that took over from the Laplanders they didn't follow the herds. The herds scattered and the wolves started mingling with them and pretty much mixed in with the caribou, with caribous around, they just spread (Aspelund 2012).[18]

As the size of the commercial fishing industry increased and more Alaska Natives were able to participate in it, fewer people were available to take care of reindeer. Reindeer herding could not compete with the greater earning potential of commercial fishing. Herders traveled less with the reindeer, leaving the herds more vulnerable to wolf predation and mixing with caribou. The last private herder on the Alaska Peninsula abandoned his remaining reindeer in 1947 (Salmon, this issue), and by the early 1950s, the U.S. Reindeer Service no longer maintained remunerative records for the region.

AFTER THE END: REINVENTING HUMAN–*RANGIFER* RELATIONS

Although the herding industry on the Alaska Peninsula was discontinued by 1950, the animals once herded did not disappear. Hunters confirmed the presence of reindeer among caribou herds into the late 1960s. Levelock residents Howard Nelson and Peter Apokedak, son of Evan Apokedak, reported taking reindeer while hunting caribou into the 1950s and 1960s. Apokedak explained, "The way they know is by the ear marks. Every herder had his own mark. One time John D got one and cut off the ear and brought it to my dad. It had two notches. Yes, it was Big Alex's [former reindeer]" (Apokedak 2012). The late Gabby Gregory of Kokhanok, son of Alexi Gregory, also recalled catching reindeer while hunting caribou. In a 1999 interview, he explained, "They were marked on there, now you can't even get that kind, maybe all gone. When we used to drive dogs too, those days, that's when we used to catch some, marked caribou, we call them" (Gregory 1999). Those reindeer that survived predation and changing foraging conditions were thought by local residents to have "run off with the caribou." The late Carvel Zimin of South Naknek (born 1931) described how the reindeer mixed with caribou:

> Some of them [reindeer] went wild and they went out to the country and they had their young and then all of a sudden they started calling them caribou. But years ago when I was a little kid, there weren't any caribou in this country and after the reindeer were here for quite a while, all of sudden, you started getting caribou. Hell, they were actually reindeer but they were a mixture (Zimin and Zimin 2012).

Ambiguity lies in how those animals were referred to and perceived. What one sees in Rangifer is determined by one's experience with and knowledge of the history of reindeer herding, a characteristic also noted by Mager (2012) in her analysis of herding histories in the Barrow region. On the Alaska Peninsula, biologists quickly ignored reindeer in their reports of post-1950 NAP herd characteristics (numbers, migration patterns, behaviors, etc.). A 1950 office memorandum from Don C. Foster, superintendent for the Alaska Native Service, to Mr. Mountjoy, special agent of the Department of Justice, illustrates this shift:

> There is a report . . . that there are several thousand reindeer, probably 4 or 5 thousand reindeer in the Pilot Point area, probably 75–80 miles to the south and west of Pilot Point. The FWLS [Fish and Wildlife Service] call them caribou, but Bill Smith, the pilot with whom we flew to Pilot Point, says they are mostly reindeer . . . that drifted away from the herds after they were neglected and have accumulated in the swampy areas below Pilot Point some 80 miles, or possibly 100 miles. He said these deer come back up towards Pilot Point in the winter and early fall (Foster 1950).

According to local residents who had routine interaction with the animals, feral reindeer were being counted as members of the NAP herd by state and federal resource management agencies. In contrast to these biological assessments, local residents systematically accounted for reindeer histories in their explanations and conceptions of Rangifer. Place names, genealogies, photographs of herders with their reindeer, and the stories revering those involved in herding worked to remind residents of past interactions with domestic herds.

As herding ceased and left the way open to hunting feral reindeer or "tame" caribou, hunters explained Rangifer behavior in terms of a (brief) history of pastoralism. Around the Naknek River John Knutsen remembered being confronted by Rangifer that acted differently from Rangifer of today. Hunting in the early 1960s, he recalled an unusual hunting experience:

> I remember wounding one and being able to run it down because it was never really afraid of me

> and I ran out of bullets and I had to kill it with an ax. . . . You just can't do that with wild animals. . . . that could have been why they were reindeer, they were familiar with humans (Knutsen 2012).

From this history of reindeer herding and subsequent experiences hunting and observing animals, residents of the Alaska Peninsula recognize the descendants of reindeer in contemporary wild herds. Ralph Angasan thought that the best eating caribou were short and squat ones, "probably the reindeer-like ones," he concluded (Angasan and Angasan 2012). "Reindeer-like" is commonly considered to include shorter legs, stockier bodies and thinner antlers. On the other end of the spectrum, "caribou-like" is considered to include taller bodies with thicker antlers. Residents also distinguish these animals behaviorally: caribou scatter when confronted by prey, while reindeer cluster.[19] With the exception of Angasan, few people noticed differences in the meat, hide, or sinew characteristics. Because opportunities to hunt caribou have decreased since the mid-1990s, due to declining caribou herds and resource management strategies, most hunters do not have the opportunity to choose particular animals. A common response to questions about stalking reindeer-like versus caribou-like animals while hunting is, "We take what we can get."

In addition to physical traits, locals identify behavioral traits that distinguish animals with more reindeer or more caribou ancestry along "a broad continuum from great tameness to great ferality" (Beach and Stammler 2006:10). Such beliefs or explanations stress that reindeer do not migrate, they do not run from wolves, and they do not fear or try to elude hunters. In the early 1950s, when Ted Melgenak of King Salmon was around twenty years old, he would haul wood with his dog team. He remembered:

> I used to see reindeer like that. I'd go right by them and my dogs go crazy . . . we'd go right beside them, they never go away, they just move around you. . . . Now, today, they [caribou] spot you a mile away, they take off. They're pretty wild. Those days, they were just like dogs, they go right by them, reindeer never run away (Melgenak 2012).

In his explanation of a resident caribou herd south of Pilot Point, Eli Neketa explained, "Caribou got reindeer blood in them and that is why they don't migrate. Reindeer don't migrate" (Neketa 2013). Howard Nelson of Levelock explained physical differences among different caribou herds as the result of different degree of mixing with reindeer. Nelson said that fifteen years ago the Mulchatna herd moved north and the NAP herd also moved north into places where Levelock and Igiugig residents could access them (Nelson 2012). There are subtle differences, Nelson said, but Mulchatna caribou are considered to be much larger animals than the NAP animals. He and Peter Apokedak, also of Levelock, thought this was the case because the NAP herd bred with so many reindeer, causing them to be smaller. Aware of the region's herding past and of the history of the herds, local residents recognize more or less caribou-likeness and reindeer-likeness in the region's contemporary *Rangifer*. This consciousness of history is reinforced by all the reindeer photographs, stories, place names, and herding genealogies, which continue to occupy a central place in peoples' daily lives.

Many residents of the Alaska Peninsula who were too young to have been directly exposed to reindeer herding still identify specific reindeer traits. Such ability derives from older generations willing to pass down the memories of their herding experiences and from younger generations eager to hear about reindeer pasts (see Mager 2012). The ability to identify reindeer traits also affects the relationship people have with Rangifer today. This can be seen in how hunters occasionally draw on the repertoire of herding while hunting. In a story told in 2013, Emile Christensen from Port Heiden remembered a hunting trip he took with four other men at Caribou Cabin in the 1990s. Caribou Cabin is a prominent site in the region. It is located along Barbara Creek (Map 2, color plates) and "sits in the middle of the flat, on probably about like a fifty foot hill, [where] you could see everywhere, and the creek runs behind so you get fresh water" (E. Christensen 2013). In the past, this made Caribou Cabin a great location for hunting as "the main migration for the [Northern Alaska] Peninsula herd passed right there" (E. Christensen 2013). At the same time, the cabin is also associated with Nick Meticgoruk, a prominent "big" herder in the 1930s in the Pilot Point and Port Heiden area who used it periodically. The mixed caribou/reindeer and hunting/herding foundation of the cabin provides the context in which Christensen's story becomes meaningful:

> We woke up in the morning, and it was a white-out condition. And it cleared up, you know, and one of the guys looked out and said "hey there is a whole herd of caribou right behind the cabin!" So we get our snowmachines, we ran across [. . .], we get there and it's zero, zero [visibility], but we

> know where they are, they weren't far away, I mean within maybe like 400 yards of the cabin. So we get there and we stop and it clears up and shoulder-to-shoulder, in a semi-circle, all around us, was that herd of caribou. I mean one of the guys sort of freaked out [laughs]. It was like out of the twilight zone, that kind of stuff you know [laughs]. But we shot four of them. They decided it wasn't a good tactic I guess, then took off [laughs] (E. Christensen 2013).

The identity of both animals and humans is uncertain in Christensen's story. Instead of fleeing like people expect of caribou, the animals chose to stay, surrounding the men on snowmachines. The hunters were perplexed and slow to respond to prey animals that were pursuing, rather than fleeing, interactions with humans. Only after the hunters overcame their confusion and started shooting did the animals flee from the men. Emile could not explain what happened at Caribou Cabin other than by seeing in these animals the descendants of the family and government herds from the 1920s–1940s. Since that time, due to declining SAP and NAP herd numbers, Port Heiden residents have had fewer opportunities to hunt Rangifer. The state's game management units nearest to Port Heiden were closed to caribou hunting in 2006, and have remained closed since then. Without fear of being shot, groups of Rangifer with "less caribou in them" started to move closer to the village, seeking refuge from the growing number of predatory wolves. This created a situation in which residents were forced to interact with these animals, but not as hunters. Emile Christensen's brother, Jimmy Christensen (2013), casually reflected about village driving conditions, "You have to stop on the road going to school and let them cross . . . they got tame in just a little while. In over a period of ten years they went from being wild, as soon as they saw you they took off, to now, they let you honk the horn to get them out of your way."

Sharing such close residential space has become mutually beneficial; each partner helps the other against the common threat of wolf predation.[20] "The herd" feels protected by the presence of humans and, in turn, the herd moving closer to the houses signals the threat of nearby wolves for the community. Such "symbiotic domesticity" (Stammler 2010) emerges at the confluence of caribou hunting regulations and reindeer herding legacies. As a result of hunting permits currently not being granted, as well as Rangifer acting more reindeer-like than caribou-like, interactions between Rangifer and humans can be reinvented in a mutually beneficial way. Unexpectedly, Port Heiden residents find themselves caring for animals in herder-like ways. For example, Jimmy Christensen explained that when inhabitants see wolves trying to separate the herd by "pushing" the young ones out of the village, they often respond by jumping on their snowmachines and driving the young ones back "into the pile" in a manner reminiscent of historical herding techniques (J. Christensen 2013). Far from revealing a loss of tradition, this practice demonstrates that reindeer-like caribou, in some ways, can be herded. Just as varieties of Rangifer conform to a continuum of local representations, it can be suggested that various modes of interacting with Rangifer "are considered continuous in the subsistence pattern," regardless of the degree of domestication (Takakura 2010:22; see also Ventsel 2006). This adds nuance to studies of adaptations of reindeer herders to caribou on the Seward Peninsula in Northwest Alaska where "reindeer and caribou like to mix but reindeer herding and caribou don't mix" (Schneider et al. 2005:47*n*1). In Port Heiden, depending on the situation, residents demonstrate an ability to engage with Rangifer both as experienced hunters and as those who inherited the legacy of herding.

CONCLUSION: THE COLLECTIVE IMAGINARY AND THE FUTURE OF *RANGIFER* ON THE ALASKA PENINSULA

Examined within a broader historical and cultural perspective, reindeer herding on the Alaska Peninsula was not a complete shift from hunting to pastoralism. In contrast to the official discourse, which considered the reindeer program central for transforming and modernizing Alaska, unofficial accounts of reindeer herding highlight the continuity with preexisting patterns of social life. Local inhabitants were already familiar with components of the herding enterprise, including its multicultural dimension and *Rangifer*-oriented basis. As a result, people had a repertoire of resources at hand to receive, and later reinvent, reindeer herding in a way that would help meet local expectations (see also Simon 1998 in the case of the Seward Peninsula). The hope for a more regular and more certain presence of *Rangifer* in the landscape was certainly not the least of these prospects.

This, of course, does not mean that reindeer herding did not affect individuals and communities. To fit reindeer herding into existing livelihood patterns, people had to adapt. By including reindeer herding in their yearly cycle at Kukaklek Lake, the Gregorys developed connections

with both this rangeland and the reindeer. Herding became valuable for the entire family: Alexi, Marsha (Alexi's wife), their seven children (including Mary Olympic), as well as their descendants. The impact of the industry was significant at many levels of the social fabric, in part because what started as economic initiative became so much more "total." Other domains developed in conjunction with the economic transaction. Herding had an impact on subsistence patterns and cycles, on land uses and land-use choices (developing new routes and going to new places), on essential skills and valued practices (learning to lasso, tame a reindeer, and travel), and on choices of tools and technology. Herding also reshaped community structures (with the establishment of government reindeer stations), village demographics (through Inupiat and Saami immigration), local politics (through the emergence of new specialists and new forms of prestige), and even ritual life (reindeer meat became a legitimate substitute for caribou meat during Russian Orthodox celebrations, spring carnivals, and funerary rites).

In contrast, some critical aspects of reindeer herding were not transmitted. In general, people could not tell us how and where herding was done exactly. No one remembers how lassos, harnesses, and sleds were made. The history was too short. One-and-a-half generations of local herders were not enough to make reindeer *herding* an integral part of the cultural skill set passed down to present generations. The system of apprenticeship, which favored transmission of herding skills to nonrelatives, did not last long enough to develop mechanisms for transferring deer ownership, learning to use and make new technologies, and establishing multiyear grazing itineraries. Other external factors contributed to limiting the potential for transmitting particular herding skills and technologies. The 1919 influenza epidemic that devastated the entire Bristol Bay coastline killed many herders in the Koggiung and Ugashik/Pilot Point regions, most likely leaving the reindeer to scatter. High flu mortalities may have reduced the focus on reindeer and limited communication between administrators and herders. Today, only a few elders, like Mary Olympic, who lived with "real" reindeer and "big" herders, have knowledge of herding practices.

Nonetheless, reindeer herding survived, if not as an industry, at least as a powerful marker of collective identity and imaginary. The old days of herding endured in stories that maintain their power over time until they release it again to new listeners in different contexts. AlexAnna Salmon and her grandmother Mary Olympic went back to Kukaklek with a group of elders and teenagers to "perform the past" in situ, at a culture camp. For Olympic, this was a trip back "home." For others, it was a short visit to a place of significance. The 2012 Kukaklek Culture Camp gave participants an opportunity to converge in a common space, where they could represent and reshape not only reindeer historicity but also "the historical as a sensory dimension" (Seremetakis 1996:3; see also Dudley 2010:91). Similar kinds of heritage gatherings take place outside of the Alaska Peninsula. In the Anchorage area, descendants of Inupiat families who were involved in the reindeer industry have a yearly family reunion during which they remember and pass down their relation to herding and the Inupiat who immigrated to Pilot Point. Those from Kukaklek and Anchorage who inherit this bond put great effort into preserving a knowledge of family names, place names, objects, stories, and values that are rooted in reindeer herding pasts. Reindeer and herding continue to shape people's sensory experience. The old appetite for caribou products expanded into a durable taste for reindeer. Photographs of "big herders" and retired reindeer equipment are displayed in classrooms, homes, and community centers and fondly demonstrate sources of belongingness and relatedness. Sixty-five years after its official end, reindeer herding still occupies a central place in domestic and public spaces.

Reindeer also survived in the broader environment of the Alaska Peninsula. In Igiugig, Kokhanok, Pilot Point, Port Heiden, Naknek, and Levelock, residents concur that a significant portion of the animals released from government/family control throughout the 1940s did not vanish. Big game hunters consider that domestic reindeer adapted to the wild as "feral reindeer," "reinbou," "marked caribou," or "mixtures" who seek out, or at least do not quickly flee, interactions with humans.[21] According to our estimate, 4,000 to 6,000 reindeer were abandoned during the 1940s. In comparison, NAP population numbers decline from 20,000 to 8,000 from the late 1930s to the late 1940s (Valkenburg et al. 2003:134, 138). How many reindeer were counted as caribou in this decade and beyond remains unclear. Recent genetic analysis of caribou populations in southwestern Alaska suggests "widespread but low levels of domestic introgression into wild herds approximately 70 years after the end of managed reindeer herding in the region." (Colson et al. 2014:593). For local inhabitants, reindeer-caribou "mixing" has a genetic (i.e., blood) and a social basis. Mixing implies more than interbreeding. It also indicates the capacity of *Rangifer*

tarandus tarandus and *Rangifer tarandus granti* to live together and share connections to humans. Such an interpretation complicates the notion of mixing. For hunters and others, "mixing" brings together the best of "reindeer-like" and "caribou-like" animals. "Mixing" also consolidates the ties between the short history of reindeer herding and the longer history of caribou hunting in a time when, once again, *Rangifer*'s future is uncertain on the peninsula. From the beginning, the history of the reindeer herding industry in Southwest Alaska was part of a larger discussion about sustainability. This discussion continues as communities pay great attention to their food security and more generally to their socioeconomic viability. In this context, it is no surprise that the idea of bringing reindeer back is gaining support on the Alaska Peninsula. These initiatives reflect broader discussions about sustainable reindeer herding throughout the circumpolar North (see, e.g., Koskey 2003:244–270) and in Alaska (Finstad et al. 2006; Schneider et al. 2005). At a time of low NAP numbers again in Southwest Alaska, their focus is not so much on reestablishing reindeer as a large-scale enterprise as it is on reintroducing small herds kept close to villages and capable of supplying local demands. Proposals are heard in places where the memories of the (not so) old days of herding are strong and where the short history of reindeer pastoralism has proven to be long lasting. Concrete plans are being devised and imagined by young people who have never herded reindeer (Murray 2015) and who do not necessarily want to, but who have taken great care of their connection to big herders and significant herding places. That so many contemporary residents on the Alaska Peninsula miss caribou and regret the absence of reindeer shows how critical it is for them to live in a place where the "appetite" for Rangifer remains.

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NOTES

1. Reindeer were transferred to Unimak Island (Burdick 1941), but we could not determine when this took place, how many animals were transported, or whether the reindeer were actively herded.
2. We consulted the following archives: records of the Bureau of Indian Affairs, Alaska Division [microform]: general correspondence, 1908–1935, University of Alaska Anchorage/Alaska Pacific University Consortium Library; RG 75 Bureau of Indian Affairs, Alaska Division: records relating to reindeer in Alaska, National Archives, Washington, DC; RG 75 Bureau of Indian Affairs, Alaska Reindeer Service, boxes 44, 45, 47, 53, National Archives, Anchorage. The National Archives at Anchorage closed in 2014 and records are now located at the National Archives in Seattle. We consulted the following museum collections: University of Alaska Museum of the North Ethnology and History Collection; Anchorage Museum of History and Art; Burke Museum of Natural History and Culture. We consulted the National Park Service, Alaska Regional Office Photo Collection; the Igiugig Village Council Collection; and the Judy (Monsen) Foster Collection.
3. Passed by the U.S. government in 1937, the Reindeer Act restricted reindeer ownership to Alaska Natives and required non-Native herders to sell their reindeer to the U.S. government.
4. Although we have encountered Native terms for "caribou" and "reindeer," we are unaware of Native terms denoting the idea of a "mixture" between reindeer and caribou, which is the primary focus of this paper.
5. Archaeologists have shown that this tradition extends to prehistoric times on the Alaska Peninsula (Dumond 1981; Yesner 1985:57–59).
6. Many cultural groups occupy the study area. Throughout history, these groups have self-identified and sought affiliation with other groups in various ways (see Morseth 1998:5–10; Partnow 2001:27–31). When citing historical sources, we have followed anthropological and linguistic designations, including Dena'ina Athabascan, Alutiiq/Sugpiaq, Yup'ik,

and Aleut/Unangax. When citing contemporary residents of the Alaska Peninsula, we have used the ethnic designation they use to refer to themselves. For example, many residents of Naknek, Pilot Point, and Port Heiden refer to themselves as Aleut (Morseth 1998:8–10).

7. According to Clemens and Norris (1999:7),

> The native word(s) for the people living around the eastern Naknek Lake region is unknown. The Russians called the villages Severnovsk or Severnovskoe settlements and the inhabitants the *Severnovskie Aleuty* or *Severnovsk Aleuts*. The inhabitants' ethnic and linguistic affinity is not clear. While the literature shows inconsistent references to Savonoski's population as either predominately Aglurmiut or Sugpiat/Alutiiq, there are a few other clues. The Russian application of the term Severnovskie, which means "northerners," explains that these were the northernmost "Aleut" (meaning Alutiiq or Sugpiat) speakers.

8. According to John Hussey,

> caribou were sometimes plentiful in the valley of the Ukak River (the present Valley of Ten Thousand Smokes), and the residents of the settlement at the head of the Naknek Lake frequently hunted there. At times, however, it was necessary to make long journeys to obtain sufficient skins. One of the favorite hunting grounds for the Naknek Lake Eskimos was on the upper waters of the King Salmon River, in the extreme southwestern portion of the present National Monument (Hussey 1971:75).

9. Such trade practices occurred prior to the historic period. Contacts were made through trade, immigration, and warfare (Dumond 2005; Liapunova 1996:150–154; Morseth 1998:20–26; Pratt 2013; Selkregg 2006:4–5).
10. In this quote, "reindeer" is a translation of the German *Rentier*, which is a generic term for different subspecies of *Rangifer tarandus*. Here, Langsdorff means "wild reindeer" or "caribou." Hussey (1971:69) notes that there was also a demographic difference between Kodiak Alutiit and Alaska Peninsula Alutiit in the nineteenth century: "6,500 Koniags lived on Kodiak and its neighboring islands, but only about 500 inhabited the opposite shore of the Alaska Peninsula."
11. A particularly illuminating example of the importance of caribou and caribou hunting during the Russian period can be seen in the Alutiiq artifacts collected on the Alaska Peninsula by Russian explorers and scientists in the first half of the nineteenth century for the Peter the Great Museum of Anthropology and Ethnography (Kunstkamera) (Korsun 2012:4–54).
12. According to Valkenburg et al. (2003:134):

> the NAP occupies the Alaska Peninsula from Lake Iliamna south to Port Moller. Previously, all caribou on the Alaska Peninsula south to, and including, Unimak Island were considered 1 herd, but by the early 1960s, Skoog (1968) considered them to be divided into 3 populations. However, [the Alaska Department of Fish and Game] continued to consider all the caribou on the Alaska Peninsula as 1 herd until about 1980 (C. Smith 1981). During the early 1980s, [the Alaska Department of Fish and Game] began differentiating between the caribou living north of Port Moller and those occupying the Alaska Peninsula and Unimak Island south of Port Moller, and since the mid-1990s, the caribou on Unimak Island have been considered a separate herd because of their geographic isolation and lack of interaction with SAP caribou.

Recent genetic analysis by Colson et al. (2014) suggests long-term separation—in terms of average genetic exchange over time, not necessarily representative of contemporary patterns of exchange—between these three caribou herds. We are thankful to one of the reviewers of our paper for this comment.

13. According to Morseth (1998:5),

> Ugaassarmiut designates people of the Ugashik River drainage who speak a dialect mutually intelligible to both Yup'ik and Sugtestun [Alutiiq] speakers. While linguists have classified their language as Central Yup'ik, they have aligned themselves with Sugpia[q] or, in current usage, Alutiiq.

14. These Inupiat immigrants, like the Saami newcomers, would soon become important players in the emergent industry of reindeer herding on the Alaska Peninsula.
15. NAP herd numbers peaked at approximately 20,000 in the late 1880s and again in the late 1930s, and declined between the 1890s and the late 1920s (reaching a population low of approximately 2,000 caribou), according to Valkenburg et al. (2003:134, 138).
16. In addition to the Scandinavians who came to work in the canneries, some were hired by Sheldon Jackson to supervise the U.S. Reindeer Service in Alaska. According to Nathan Muus ("Alaska Chronology" online at http://www.baiki.org/content/alaskachron/pre1890.htm), one of them was William Kjellmann,

a Norwegian from Wisconsin who had worked with reindeer in Finnmark (Norwegian Lapland) and who became superintendent of the Teller Reindeer Station in 1893. Under Kjellmann's supervision, Saami herders were recruited in Finnmark and brought to Alaska in 1894. Four years later, another epic expedition, known as the "Manitoba Expedition" (1898) brought "113 Saami men, women and children, as well as 539 draft reindeer, 418 sleds, a number of herd dogs and a supply of lichen" to Alaska. According to the same source, only 114 reindeer survived the journey.

17. Tommy Pikok Sr. of Barrow noted how reindeer became "pets" in a short amount of time: "Reindeer are just like a pet when you stay with them after two, three months. They just like a family" (Mager 2012:171).
18. See Mager 2012 and Finstad et al. 2006 for a discussion of reindeer emigration to caribou herds in northern and northwestern Alaska.
19. These distinguishing qualities resemble those observed by residents of the North Slope of Alaska as reported by Mager (2012).
20. This threat is perceived as very real. In 2010, two wolves killed a jogger on a road near Chignik Lake. Biologists attributed the attack to aggression (Joling 2011).
21. This is not unique to the Alaska Peninsula. To mention just one other example, Gwich'in people in northeast Alaska/northwest Canada tell similar stories about "caribou hanging around" humans (Robert Wishart, pers. comm., 2014).

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