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Ancient Uqshoyak

Recent Investigations at Tin City Long Range Radar Site, Alaska

ENRI

ENVIRONMENT AND NATURAL RESOURCES INSTITUTE

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View of the TEL-155 site area from south end of the Tin City runway.
The site is located just above the center of the photograph.

Introduction

In 2000, Cultural Heritage Studies of the University of Alaska Anchorage's Environment and Natural Resource Institute (UAA-ENRI) began mitigation of damage to an archaeological site at the Tin City Long Range Radar Site near Wales, Alaska. The site, known as TEL-155, has been partially destroyed by natural erosion and illegal digging. This recovery effort was done under a cooperative agreement between UAA-ENRI and the U.S. Air Force, 611 Air Support Group. Also addressed in the cooperative agreement was the need to conduct a baseline oral history of the Tin City area. Carol Jolles and Herbert Anungazuk undertook this component of work in July 2000. Roger Harritt was the Principal Investigator for both aspects of the project.

The objectives of the mitigation were to identify, record, and collect prehistoric and historic cultural materials from intact deposits present in the site. One of the results of the 2000 Phase I archaeology field investigation, was the discovery of the remains of a potential prehistoric house structure. This discovery led to additional, more intensive excavations in August of 2002, as a Phase II effort at the site. The Phase I crew included Ryan Peterson, Margan Grover, Cynthia Taylor, and Ron Ongtowasruk under the direction of Roger Harritt. The Phase II crew consisted of Teresa Brown, Margie Goatley, and Annie Clinton under the supervision of Roger Harritt.

The goal of the oral history research was to begin documentation of the interactions of the Wales Inupiat community with the Tin City area, taking into account the various activities that have constituted those interactions over time. These activities included participation in management of the reindeer herd introduced in the late 1800s; more general subsistence uses such as greens and berry picking; ivory and artifact trade at the local store and trading post establishment that was then a part of the Lee Mining Company; and seasonal employment in and around the Tin City area by the Lee Mining Company and U.S. Air Force during the 1950s, 1960s, and 1970s.

This report is presented in two parts. Part I: Archaeology synthesizes the results of the 2000 field investigations (previously reported in Peterson, Jolles, and Harritt 2001) with those of the 2002 investigation. Part II: Oral History presents documentation of the uses of the Tin City area by three Wales elders and identifies ten new Inupiat place names for the Tin City and Wales areas. Also included are the locations where a variety of activities were carried out by the three elders and others.

The Appendices of this report relate to Part I: Archaeology. Appendix 1 is the radiocarbon data for the project; Appendix 2 presents the faunal data; and Appendix 3 presents the artifact data including a typology, tables, and illustrations.

Part I: Archaeology

By

Teresa Brown
Ryan Peterson
Margie Goatley
Roger Harritt

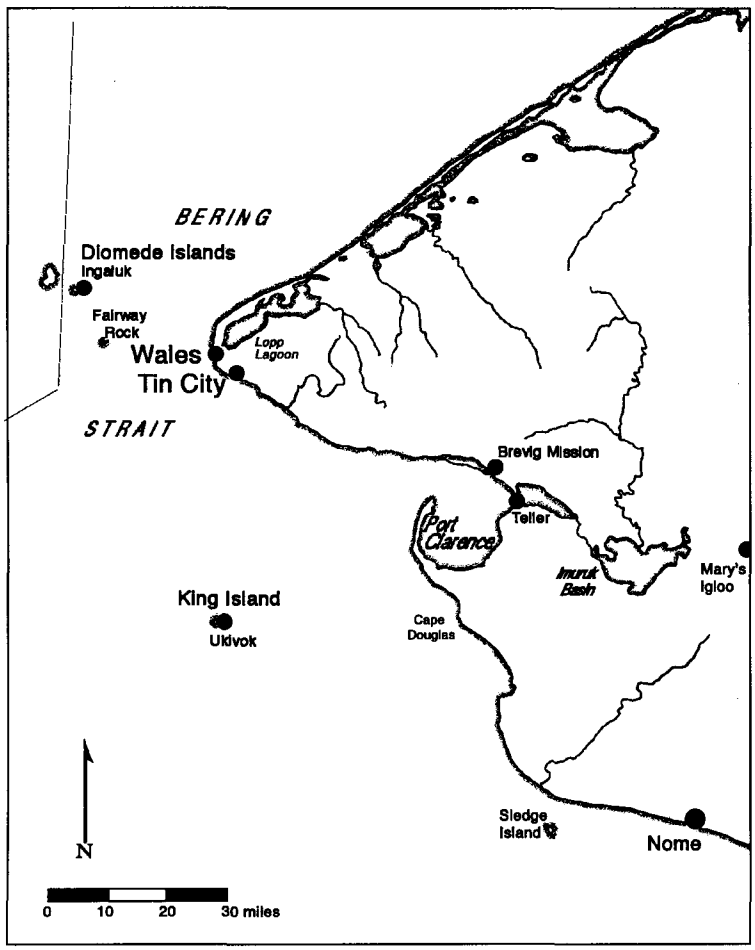
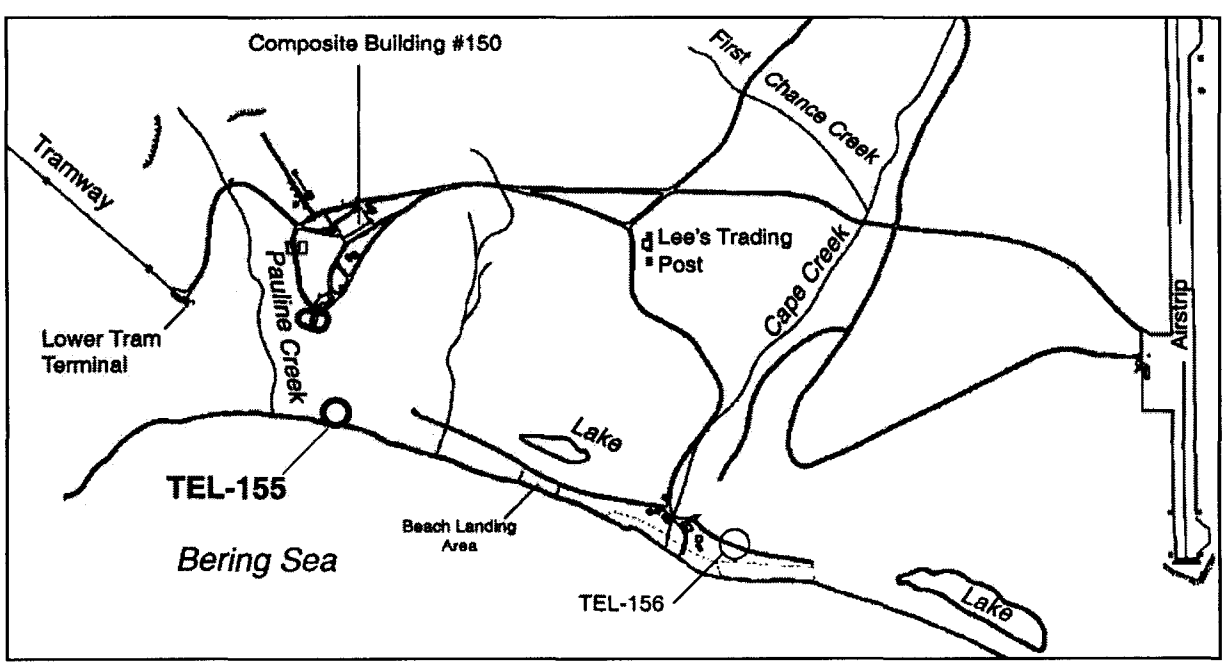


Figure 1. Seward Peninsula vicinity.

Figure 2. The Tin City locality and TEL-155.



Setting

The Tin City Long Range Radar Site (LRRS) is located on the Seward Peninsula of Alaska, approximately five miles south and east of the Inupiat village of Wales (Figure 1). TEL-155 is situated on U.S. Air Force property on an eroding coastal bluff that rises approximately 30 meters above the existing shoreline (Figures 2 and 3). Pauline Creek lies 300 meters west of the site in a deeply cut ravine and is surrounded by vertical outcroppings of limestone, which also define the northern boundary of the site (Figures 4–6). To the east, the landscape abruptly slopes into a marshy flatland before joining the pebble-strewn, sandy beach on Bering Strait.

TEL-155 is located on the most level portion of the bluff, with expansive views of Bering Strait, King Island, and Little and Big Diomede Islands. The effect of erosion is easily observed at the site, where natural processes as well as human disturbances have eradicated portions of it (Figure 4). Boulders litter the grassy site area, which is pockmarked with pits from extensive and prolonged looting activities (Figure 7).

Figure 3. Plan map of TEL-155.

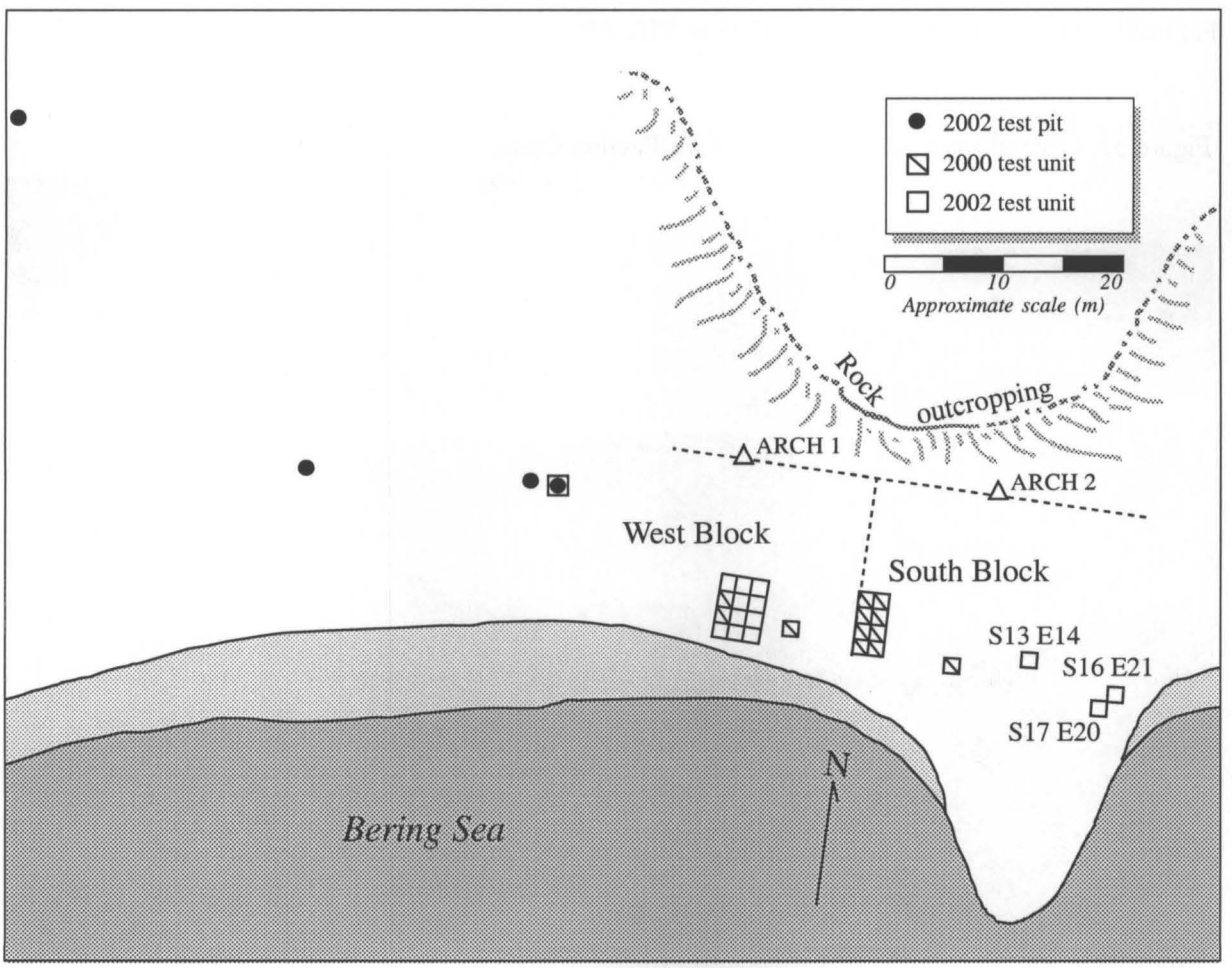


Figure 4. View west of eroded shoreline at TEL-155.

Figure 5. General view of area west toward Pauline Creek with TEL-155 in foreground.

Figure 6. South view of TEL-155, with the South Block excavation and 2000 field season test units visible.

Figure 7. Looting pit present at the South Block prior to excavation in 2000.

The Tin City Environment

Like most of Alaska, the geological landscape of the Seward Peninsula developed from often volatile and always evolving natural processes related to water, fire, wind, and ice. Areas of mountainous terrain that can be found in this area are the York Mountains in the southwest, the Bendeleben and Darby Mountains northeast and east of Nome, and the Kigluaik Mountains extending to the north of Nome.

During ancient glacial advances, massive glaciers carved deep valleys through these ranges, leaving numerous valleys and moraines in their wake. In combination with the ever-present wind, the loess (silt) from the glaciers created large areas of both active and stable dunes (Selkregg 1976). Additional active dune areas can be found along the western and northern coastline of the Seward Peninsula, including the area surrounding Nome (Black 1951).

The role of water in the landscape is easily observed in the numerous and often large lagoons (such as Lopp Lagoon, north and east of Wales) separated from Bering Sea by barrier bars, stretching for miles along the northern coast of the peninsula. The interior of the Seward Peninsula is also extensively shaped by water, with thousands of freshwater thaw lakes locked between its polygonal ice wedges, and small creeks and streams winding their way through crags and valleys, westward, into the Bering Sea.

Although volcanic activity is not as extensive as in some other areas of Alaska, it has left a permanent mark on the Seward Peninsula. Some examples of this phenomenon are found in the Imuruk Lake area in the central portion of the peninsula. This area has been covered in basalt by eruptions, and the Devil Mountain Lake region to the north has some of the largest volcanic maars in the world.

Geology

The bedrock plain of the interior Seward Peninsula, as defined by Höfle (1995), consists of two distinct terrains designated as Seward and York. The Seward terrain covers the central and eastern portions of the Seward Peninsula and consists of probable Precambrian and Paleozoic marble and schists, some of which contain granite intrusions. Tertiary glacial deposits may also be found on the surface of this terrain (Höfle 1995).

The York terrain, where Tin City is located, consists of a combination of phylite, dolostone, and various limestones, including Ordovician, Silurian, Devonian, and Mississippian (Till and Dumoulin 1994). Stratigraphically the earliest, deepest deposits date to the Precambrian and are composed of volcanic and metamorphic rocks, such as slate. A sedimentary layer, consisting mainly of limestone and topped by Ordovician limestone, overlies these deposits (Knopf 1908; Selkregg 1976). Additional deposits of Mississippian crystalline limestone, siliceous schists, and quartzites are found in the area of Tin City, where these stratum are often mixed with metamor-

phic intrusions of granite and slate (Knopf 1908). Rock outcroppings, such as those found on Cape Mountain near Tin City, are typically composed of post-Mississippian granite intrusions and quartz-bearing porphyric dikes, which jut from the horizontal Mississippian limestones. The July 1902 discovery of tin ore in these granite outcroppings resulted in extensive mining operations in the region and the establishment of Tin City (Collier 1904).

Sediments surrounding the Tin City area generally consist of loess deposits, which accumulated during the glaciations of the Pliocene and early Pleistocene. These deposits are greenish in hue, with a fine to very fine texture. Poorly drained, they exist in areas of continuous permafrost that cover the upper two-thirds of the Seward Peninsula year-round. During summer months, permafrost is found within 20 to 80 centimeters of the surface, with continuous permafrost to a depth of 0.3 to 3.0 meters (Racine 1979). Some reports, however, suggest that permafrost extends to depths of more than 100 meters (Hopkins 1988).

Coastal erosion along Bering Strait occurs during the summer months, when surface frost thaws and wave action from storms combine to collapse large sections of bluff line. The removal of sod to build structures or as a result of vehicular or pedestrian traffic also accelerates the erosional process by allowing the transfer of heat to the frost layer, resulting in thaw of frozen deposits.

Flora

The rugged landscape and extreme climate of the Seward Peninsula support a diverse array of floral and faunal species, many of which are used by local residents in their subsistence diets. The uplands and slopes of the peninsula are dominated by dwarf shrub tundra and mountain avens *(Dryas),* with mixed grasses *(graminoids)* found mainly in the lower, moisture-rich valleys and plains. Dwarf tree species, such as willow *(Salix)* and alder *(Alnus),* are found along the streams, floodplains, and alluvial bars (Harritt 1994), where deeper seasonal thaw allows for the development of larger root systems. Edible species include lowbush cranberry *(Vaccinium vitis-idaea),* blueberry *(Vaccinium uliginosum),* wild celery *(Angelica lucida),* sourdock *(Rumex arcticus),* wild rhubarb *(Polygonum alaskanum),* salmonberry *(Rubus chamaemorus),* beach greens *(Honckenya peploides),* and Eskimo potato *(Hedysarum alpinum)* (Ray 1975).

Fauna

The faunal species include extant Pleistocene survivors such as the grizzly bear *(Ursus arctos),* moose *(Alces alces),* and caribou *(Rangifer tarandus)* (Melchior 1979). Caribou are still present on the Seward Peninsula; however the indigenous herds were almost hunted to extinction by the mid-1800s. Precontact period musk oxen *(Symbos cavifrons)* were also nearly hunted to extinction and a modern variety was introduced to the region in 1970 and 1981 by the State of Alaska. The modern herds are composed of a different genus and species *(Ovibos moschatus)* than their predecessors (Bliss and Richards 1982). Recent faunal additions to the Seward Peninsula include the polar bear *(Thalarctos maritimus),* gray wolf *(Canis lupus),* beaver *(Castor canadensis),* snowshoe hare *(Lepus americanus),* and arctic ground squirrel *(Spermophilus parryi).*

Domesticated reindeer herds were also introduced to the area in the late 1800s with moderate success. Sheldon Jackson, a Presbyterian missionary and government education agent, initiated the domesticated reindeer program at the Teller Reindeer Station in 1892 (Ray 1975; Smith and Smith 2000), because he believed the Inupiat populations were dying from starvation (Ray 1975). Although the government reindeer program is often considered a failure, several villages, including Wales, continue to maintain small reindeer herds to this day (c.f. Stern et al. 1980).

The waters of Bering Strait support a variety of fish and marine mammals, which form a significant percentage of the local diet. Marine mammals include the Pacific walrus *(Odobenus rosmarus)* and several species of seal, including the bearded seal *(Erignathus barbatus),* harbor (or spotted) seal *(Phoca larga),* ringed seal *(Phoca hispida),* and fur seal *(Callorhinus ursinus).* Spring through fall whale migrations also allow for seasonal harvests of belukha whale *(Delphinapterus leucus),* bowhead whale *(Balaena mysticetus),* gray whale *(Eschrichtius glaucus),* Minke whale *(Balaenoptera acutorostrata),* and finback whale *(Balaenoptera physalus)* (Kessel and Gibson 1979). Both riverine and marine fish abound, with some of the major species including herring *(Clupea pallasii),* Arctic flounder *(Pleuronectes glacialis),* Arctic cod *(Boreogadis saida),* various salmon (*Onchorynchus* spp.), Dolly Varden *(Salvelinus malma),* and northern pike *(Esox lucius)* (Mecklenburg, Mecklenburg, and Thorsteinson 2002). Finally, common bird species include the Canada goose *(Branta canadensis),* mallard duck *(Anas platyrhynchos),* golden eagle *(Aquila chrysaetos),* willow ptarmigan *(Lagopus lagopus),* tufted puffin *(Fratercula cirrhata),* and horned puffin *(F. cornuculata).*

Prehistory and History

The orientation of the TEL-155 mitigation was based on the western Seward Peninsula archaeology and history that is summarized below. It is important to note that this review is confined to those cultures and history that have been previously recorded for the vicinity of Tin City.

Prehistoric Cultures

The earliest known cultural remains in the vicinity of Tin City are attributed to the Norton tradition. In the broader definition (Dumond 1987) the Norton tradition includes the Choris (3000–2500 BP), Norton (2500–2000 BP), and Ipiutak (1400–300 BP) stages; it is recognized by artifacts that include sealing harpoons, fish spears, biface and slab knives, burins, wedges, and various projectile points constructed from fine cherts, chalcedony, and jasper (Giddings and Anderson 1986).

One of the most important aspects of the Norton tradition is the introduction of pottery to the Bering Sea coast during the Choris stage. Characteristic traits of this early ceramic are the use of hair or grass temper, and exterior linear stamping produced by tapping the wet clay with a carved paddle (Dumond 1987). Norton-stage paddles were characterized by a check design, which produced Norton Check-Stamped pottery (Dumond 1987). A pentagonal, chipped point form is also generally regarded as a diagnostic Norton-stage artifact form (Dumond 1987: Fig. 69).

Subsistence patterns in all stages of the Norton tradition included both sea mammal and terrestrial hunting. Secondary whale products, such as baleen and bone, have also been recovered from Norton sites. However, since no whaling gear has ever been recovered, the prehistoric means of acquiring these materials remains uncertain (Giddings and Anderson 1986).

Early Norton villages were located at both coastal and inland sites. Temporary dwellings, as well as permanent winter houses, were generally square in shape with long, subterranean entrances. Winter settlements were typically larger than summer encampments, with some permanent villages consisting of several hundred dwellings (Dumond 1987). In the later stages, Norton settlements were concentrated on the coasts.

A cultural pattern designated as the Northern Maritime tradition emerged after the Norton period. On the coast of the Seward Peninsula the overarching tradition subsumed several subtraditions, including the Birnirk (AD 450–950), Punuk (AD 600–1200), and Western Thule (AD 950–early nineteenth century) (Collins 1964; Harritt 1994).

The Birnirk tradition (AD 450–950) is recognized as a transitional period, containing elements of both the earlier Norton tradition and the subsequent Western Thule tradition (Giddings and Anderson 1986). Subsistence strategies during this time focused on the acquisition of marine mammals, particularly various species of seals, with the whaling culture occurring near the end

of the period. Tools from these assemblages reflect this subsistence focus and consist of both chipped and ground stone blades, including ulus, harpoon end blades, semilunar knife blades, and burin-like tools. Pottery from the Birnirk tradition differs from the Norton antecedent by the introduction of curvilinear surface impressions and an addition of sand and gravel tempers (Dumond 1987; Giddings and Anderson 1986:94, 110, 299). House structures during this time were small, probably single-family dwellings, with subterranean entry tunnels and a square-like shape. The additions of a "kitchen-like room" in the front wall and alcove in the entry tunnel wall expanded on the similar, earlier structures of the Norton tradition (Giddings and Anderson 1986:92–94, 108). Birnirk settlements typically ranged in size from 2 to 3 single-family houses to as many as the 16 houses recorded at Point Barrow (Anderson 1984; Harritt 1995). Birnirk sites have been discovered along coastal stretches from Norton Sound to Point Barrow and on the Bering Strait Islands (Ford 1959; Gerlach and Mason 1992).

Although Ipiutak culture is not a part of the Northern Maritime tradition, it was also present in northwest coastal Alaska during part of the Birnirk tradition times. Ipiutak people developed a degree of social and technological complexity, even though they did not acquire the technology and methods requisite for open-water whaling (Harritt 1995:36–37; Mason 1998). Ipiutak sites in the vicinity of the Seward Peninsula include one at Cape Espenberg, the Deering site, Pt. Spencer, and Golovin. The matter of Ipiutak and Birnirk relations is an important issue in the late prehistory of the region, insofar as the two entities both inhabited coastal zones in the same region while maintaining a significant degree of cultural heterogeneity.

The Northern Maritime Punuk tradition (AD 600–1200) was centered in Siberia and St. Lawrence Island and a noticeable increase in settlement size and density occurred, which was due, in part, to the evolving importance of whaling. Siberian Punuk settlements were composed of large, communal structures accommodating 30 to 80 inhabitants each, with sizable middens and an abundance of whalebone remains (Ackerman 1984; Krupnik 1983). Later houses such as those excavated on St. Lawrence Island were semisubterranean, single-family dwellings with walls and roofs constructed from whalebone, exteriors covered with turf, and plank floors. Technological advances reflected the need for whaling equipment and tools, with increases in ground stone implements and the use of organic materials, such as antler and ivory (Dumond 1987:129). Although no large Punuk settlements have been discovered on Alaska shores, the influences of the culture are evident, typically as implements found in association with Birnirk tradition elements. The appearance of Punuk art and tools at *Kurigitavik* dates to around AD 600, and Punuk whaling harpoon heads appear in the vicinity of Point Barrow by around AD 800, marking the advent of Siberian whaling techniques on Alaska shores (Stanford 1976).

Western Thule culture (AD 950–nineteenth century) represents the late expression of the Northern Maritime tradition. The importance of whaling and whaling culture to some Thule people gave rise to political, ceremonial, and cultural centers, such as at Wales, which functioned in a capacity similar to modern-day state capitals. Trade and warfare were commonplace, with initial contact by Russian explorers occurring during the latter part of this period. Relatively large populations occupied whaling villages and the surrounding area, with estimates during the mid-nineteenth century of up to 600 inhabitants at Wales proper.

Prehistoric and Historic Relations Between Wales and Tin City

Given the importance of Wales as a cultural center, the late prehistoric and contact period inhabitants of the Tin City locality were undoubtedly under its political sway. Historic information clearly indicates that intensive interactions occurred between Wales and Tin City area residents of the late nineteenth century (e.g., Ray 1983:210). Late prehistoric Wales contained at least four *qargis* or men's ceremonial houses; these functioned as important gathering places for whaling crews and were key elements in ceremonies related to the enterprise of whale hunting. Known qargis in nearby coastal villages include one at *Mitletagvik,* approximately 13 kilometers to the north of Wales. Qargis would have also been present at villages on the coast to the south and east of Wales, but none have been documented within a distance comparable to that of Mitletagvik. It is therefore probable that late precontact Tin City residents maintained membership in the qargis of Wales and served as members of whaling crews based in Wales. Several elder residents of Wales maintained cabins at Tin City at the end of the twentieth century and spent at least some portion of each year there (Toby Anungazuk, Jr., pers. comm., September 1999).

Traditional Culture Summary

Prior to European contact, Inupiat living on the Seward Peninsula maintained lengthy and sometimes violent relations with their neighbors on the adjacent Siberia shore. Inupiat oral histories and Cossack writings documented warfare between the different factions of Bering Strait Yupik and Inupiat people as early as the 1700s (Ray 1975). Nevertheless, trade was also carried out between the Siberia Yupik and mainland Alaska Inupiat, and at least one large trade fair was documented in the vicinity of Wales.

The collective Wales locality settlements, known as *Kingigan,* formed a very large cultural center in Bering Strait during this time. Population estimates range from 400 (Petroff 1884) to 900 inhabitants (*The Esquimaux* 1867), with the political influence of Kingigan stretching northward to Shishmaref and Cape Espenberg, and westward to the Diomede Islands (Ray 1975). The collective population of this area is estimated at 850, with over half of the people inhabiting the village of Kingigan (Ray 1975).

Some inhabitants of the coast participated in the whaling subsistence pattern at the larger village. In the case of the *Kingikmiut* of Kingigan, the major focuses were on fish, seals, walrus, and whales, supplemented with terrestrial game (Ray 1983). Hunting strategies were seasonal, with whaling carried out primarily during the spring and seal hunting during the winter. Salmon runs in Kotzebue Sound during the summer often lured Kingigan people north for fishing and trade (Ray 1975).

History of the Tin City Area

In July 1902, W.C.J. Bartels discovered tin ore in the granite outcroppings of Cape Mountain. He returned the following year to develop his prospecting operation and placed a large gasoline

engine dynamo ". . . near the beach at the point now known as Tin City" (Collier 1904:25). The dynamo failed and mining operations were discontinued until the spring of 1904, when Bartels returned to establish several claims and mill sites for the Bartels Tin Mining Company (Collier 1904; Mulligan 1966). Active lode mining by the Bartels Tin Mining Company, and later the Empire and U.S. Alaska Tin Mining Companies, continued for at least ten years (Heide, Wright, and Sanford 1946; Mulligan 1966). In 1918 placer tin was discovered in the area, and placer mines were operated in the area by various companies from 1924 to 1941.

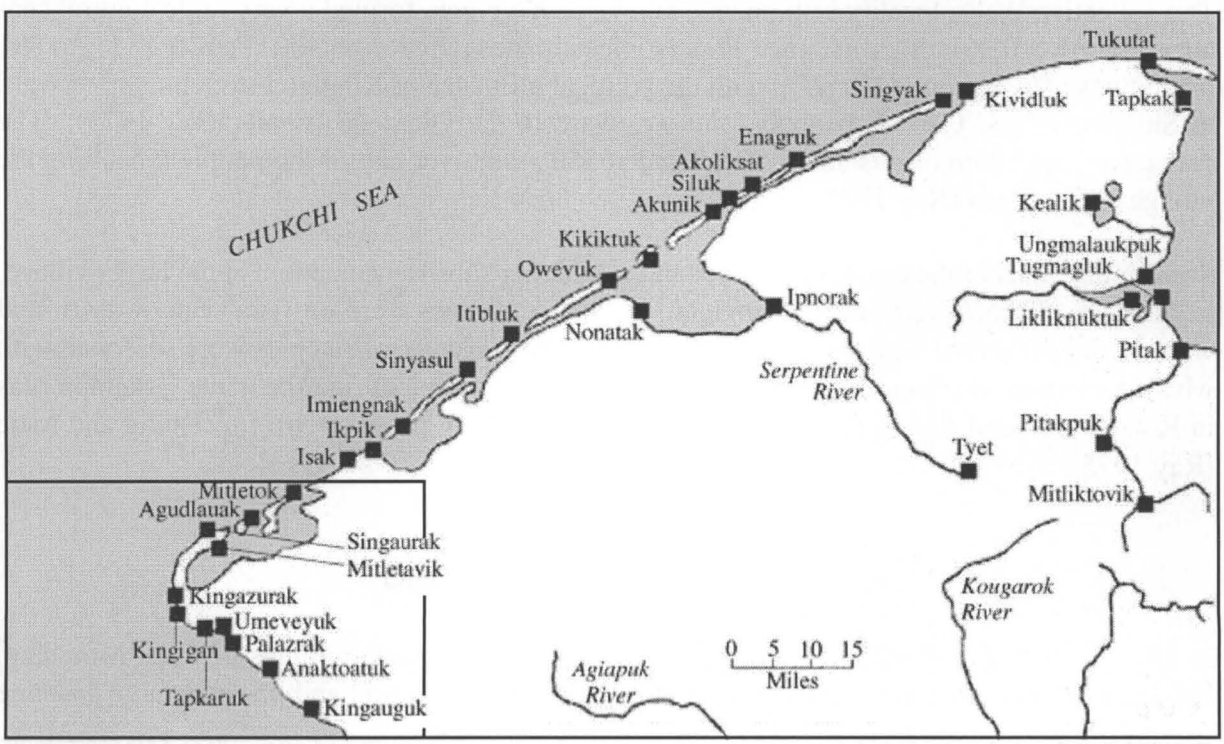
Mining activities, however, continued after establishment of the U.S. Air Force facility in the 1950s, and employees of the Lee, Tin City, and Lost River Mining Companies established seasonal dwellings in and around the original Tin City village site (see Part II of this report). Since supplies were only available from the general store in Wales or by plane from Nome, Richard Lee opened a trading post in the late 1960s (Herbert Anungazuk, Raymond Seetook, pers. comm. 2003). First established in a small cook shack along the beach, Lee soon moved into a larger building, which he acquired from the U.S. Air Force. This new location, on the bluff by the base, served an integral role in both the Tin City and Wales communities until its closure in the late 1980s (Raymond Seetook, pers. comm. 2003).

Site Records

Ray's Toponyms

Ray (1964:80, 1983) provides descriptions of the villages in the vicinity of Tin City (Figure 8). The following summarizes the entirety of information in the literature.

Figure 8. Contact period settlement sites in the Wales (Kingigan) area (Ray 1983: Map 3).



Palazrak represents what would have been one the largest villages in the area southeast of Wales, with estimates that six to seven houses were occupied simultaneously by 20 individuals. The village was reportedly 5.6 kilometers to the southeast of Tin City. However, it may actually be 3.0 or more additional kilometers to the southeast. Conversations with U.S. Air Force, 611 Air Support Group personnel working at Tin City in the summer of 2002 suggest that there are additional sites in the vicinity.

Tapkarak, also referred to as *Tapkarak suburb,* was a village location between Wales and Palazrak. The area was known as an excellent area for king crab in the months of February and March. The population for this area was also estimated at 20 individuals. As indicated below, there is now evidence that Tapkarak is a general designation for the Tin City locality.

Umeveyuk is the final village described in the vicinity of Tin City. It was located between Palazrak and Tapkarak and believed to be an ancient village site. The area was reportedly used as a reindeer herding camp in the 1890s. The location of a historic reindeer herding camp/corral was observed in 2000 and 2002 to the southeast of TEL-156, a site just east of the original Tin City settlement (see Figure 2).

Toponyms and Archaeological Site Records

Little information regarding the TEL-155 site was developed prior to the current project. Hoffecker (1999) made general observations about the site in 1998, but no subsurface testing was conducted. He obtained the Alaska Heritage Resources Survey (AHRS) site number TEL-155 from the Alaska State Historic Preservation Office and described it as the "western site near Tin City." Ray (1964, see also Koutsky 1981) identified another site, TEL-048, that bears the Inupiat name Tapkarak *(Tapqagsraq, Tapkaramiut),* also described as Tapkarak suburb by the *Eskimo Bulletin* (1895; Figure 8). Information obtained as a result of the oral history interviews conducted in 2000 indicates that the general Tin City area was known as Tapkarak, with more specific designations for sites within the locality. Tapkarak is also described by Thornton (1931) as one of the permanent villages in the area:

> There is a good deal of sled travel in winter between *Kinegan* [Kingigan] and two small settlements to the south: *Topkarsrook* [Tapkarak] and *Polizruk* [Palazrak]. By the beginning of spring the path is worn into a well-defined road, or sled track (Thornton 1931:131).

A third toponym, *Uqshoyak* (a term that refers to "oil"), was recently identified as a traditional name of the TEL-155 site. Ethnohistorical information about Uqshoyak, which was obtained in 2000 by Jolles (Part II of this report), indicates that a single family (whose name modern-day subsistence users cannot now recall) was once associated with the location. In recent times, the Uqshoyak area has been used as a campsite and for the gathering of assorted greens, such as sourdock and *aaqviaktuq.*

Unfortunately, problems with the Tin City AHRS site designations remain, as does the actual location of the settlement known as *Umeveyuk,* discussed below. The location of TEL-048 seems to be extremely close to TEL-155, therefore possible alternative designations for the same site should be acknowledged. It is also possible that TEL-048 is analogous to TEL-172 or another

site in the area. In addition, the brief descriptions provided by Ray (1964) and Koutsky (1981) do not appear to accurately describe TEL-155. The relationship of TEL-155 to previously documented sites therefore remains unclear.

The other site briefly examined in 2000, TEL-156, is the location of a prehistoric settlement for which there is no direct oral history. This is consistent with Jolles's impression (pers. comm. 2000) that her informants lacked knowledge of the site. Roger Harritt and Teresa Brown carried out a limited testing program at TEL-156 in 2002 with support from the National Science Foundation. As a result of this work, a single radiocarbon determination of a sample recovered from a flagstone house floor has produced an age of approximately 170 years for the house, and the absence of historic material also supports a late precontact age for the occupation. Collections and other data from this site are not yet completely analyzed; therefore nothing further concerning this location will be presented here. But, as noted previously, it is possible that TEL-156 is actually Umeveyuk, based on its proximity to an old reindeer corral to the east of the site. And, for the time being, the extensively damaged cultural deposits at the location should be considered the best candidate for representing the physical remains of the ancient village.

Field Investigations

Methodology

Prior to the 2000 field season, a U.S. Air Force 611 Air Support Group survey crew established two permanent datum points and designated them as ARCH 1 and ARCH 2 (see Figure 3). These two datum points, which were placed 20.76 meters apart along a northwest-southeast axis, provided the basis for the east-west baseline for the excavation grid. An additional baseline was established 11 meters grid east of ARCH 1 at a 90° angle from the east-west baseline. ARCH 1 was designated as grid coordinate S0 W11. The elevation datums were located in the northwest corner of S10 W11 for the South Block, the northwest corner of S17 E20 for Test Units S16 E21 and S17 E20, and the northwest corners of S13 E14 for the West Block and Test Unit 1.

Each unit was excavated by arbitrary 20-centimeter levels and by natural and cultural deposits. Descriptions of the excavations presented in this report include depths below the modern surface in order to provide the reader with a clearer sense of proveniences than depths below the datum. Artifacts in disturbed levels were bagged by unit, quadrant, level, and material type, with samples collected of historic and modern materials. Once intact cultural deposits were encountered, implements were point-provenienced using the southwest unit corner, and the deposits were screened by quadrant using 1/4-inch mesh screens.

Each archaeologist kept a daily journal throughout the excavations. They completed forms for each level, and documented artifacts collected, soil deposits, and observations on cultural remains. Cultural features were photographed and drawn as plan views, and profiles of at least one wall of each unit were drawn after each excavation was completed.

Phase I

The focus of the 2000 excavations was to recover data from the damaged site on U.S. Air Force property, and to develop a rudimentary oral history of the traditional uses of the Tin City area (Peterson, Jolles, and Harritt 2001). The 2000 excavation centered on identifying areas that were extensively disturbed and on documenting the potential at these locations for containing intact cultural deposits. Additional units were also placed around several visible upright posts. Twelve units, each 1 x 1 meters, were excavated to sterile deposits; excavations extended to more than a meter below the modern surface (see Figure 3). Two potential house structures were identified in these units: one in South Block and one in Test Units S12 W11 and S11 W11.

Phase II

The primary focus of the 2002 excavations was to expand the potential house feature identified in Test Units S12 W11 and S11 W11 in 2000, and to test additional cultural deposits. The former

was achieved by expanding the West Block into areas surrounding S12 W11 and S11 W11, where the potential house feature was encountered in 2000, and by excavating four additional test units and five shovel tests west and east of the block (see Figure 3). The block surrounding S12 W11 and S11 W11 was expanded 1 meter south and 2 meters east to create a 3 x 3 square meter block (Figure 9).

The additional testing consisted of two units, S13 E14 and S17 E20, excavated on an extant projection of the eroding bluff edge east of the block units (see Figure 3). A third unit, S16 E20, was added later to the northeast of S17 E20 in order to collect a larger sample of the unique faunal deposits recovered in the upper levels of S17 E20.

Finally, five shovel tests were excavated west of the West Block units in areas of slight depressions or surface deposits. These tests were referenced to ARCH 1 datum as bearings and distances not included as grid coordinates. All of the tests were shallow and generally sterile, with the exception of Test Unit 1, which was expanded to a 1 x 1 meter unit based on an encounter with intact cultural deposits, as observed in the stratigraphy and artifacts recovered in the initial shovel test.

Figure 9. View of West Block facing south, 2002. The two deepest units are S12 W11 and S11 W11 excavated in 2000.

Test Unit S13 E14

Test Unit S13 E14 was located on the eastern side of the site at the base of a narrow projection of the present bluff edge. This test was excavated in 2002 in six arbitrary levels to ~87 centimeters below the modern surface. The deposits encountered consisted of three strata: a brown (10YR 3/3) sandy loam to ~79 centimeters below the modern surface, followed by a black (2.5YR 2.5/1) sandy loam to ~87 centimeters below the modern surface, and an olive green sand at the lowest extent of the excavation.

Disturbed Upper Levels

Historic materials were recovered to a depth of ~79 centimeters below the modern surface, although the disturbance was minimal below the sod level and consisted mainly of bottle glass and nails, often found driven into wooden planks. Most of the prehistoric artifacts recovered from the disturbed deposits were subsistence oriented (Appendix 3, Table 3.6); however a handle and a half-burned wooden anthropomorphic figurine were also found. Ceramics from the disturbed levels of Test Unit S13 E14 were predominately undecorated. Of the decorated sherds, most can be classified as Seward Striated, which date from 500 to 300 AD (Harritt 1994:420).

Lower Level House Feature

House remains were found in an undisturbed cultural deposit located ~79 centimeters below the modern surface (Figure 10). Structural members uncovered in Test Unit S13 E14 consisted of three upright wooden posts and two flagstones. Only one artifact, a rolled-glass trade bead, was

Figure 10. View of uprights (center of photo) and flagstones uncovered in S13 E14.

recovered from the floor deposit. A sample (BETA 170899) of one of the structural members was submitted for dating; however, the results of 50 ± 50 (Conventional Radiocarbon Age) are clearly inaccurate.

A belukha whale skull, which was propped against one of the upright posts, was found in disturbed deposits directly above the house floor.

Test Units S17 E20 and S16 E21

Test Units S17 E20 and S16 E21 are adjacent units on the eastern side of the site along the eastern edge of the bluff projection (see Figure 3). Unit S17 E20 was excavated in 2002 in three natural strata to a depth of ~37 centimeters below the modern surface. Unit S16 E21 was excavated in one and one-half arbitrary levels to a depth of ~40 centimeters below the modern surface. Aside from the faunal scatter encountered in the first disturbed deposit, no other cultural material was found.

Faunal Scatter

Test Units S17 E20 and S16 E21 contained a substantial scatter of faunal remains as well as implements extending from the modern surface to depths slightly less than 25 centimeters below the modern surface. No structural features were encountered in either unit and the strata located below this organic layer were sterile. Historic debris, including tarpaper, planks, cartridge casings, glass, and nails, were also found to depths of ~20 centimeters below the modern surface and were mixed with the animal bones.

A variety of prehistoric artifacts were also recovered (Appendix 3, Table 3.3). Most of the ceramic from the two units lacked decoration. However, a majority of the decorated sherds were classified as Seward Striated, which date from 500 to 300 AD (Harritt 1994:420).

The relatively large amount of faunal remains recovered in the first 25 centimeters of both units is almost three times the amount unearthed in the other tests (Appendix 2, Table 2.1). Marine mammals, especially various seal species, dominate the collection of over 3,000 identified bones. Migratory bird species such as scoters and ducks are also well represented.

West Block

During the 2000 excavations, potential remains of a prehistoric house structure, including an upright post supported by two boulders, were found and presumed to be undisturbed (Peterson, Jolles, and Harritt 2001) (Figure 11). Test Units S11 W11 and S12 W11 were excavated as natural strata in seven levels to a depth of ~106 centimeters below the modern surface. Historic disturbance was noted in 2000 through level 2.

The 2002 excavation at this location encompassed the 2000 excavation Test Units S11 W11 and S12 W11. It expanded the two original units to the east, eventually comprising a 3 x 3 meter block, which included S11 W10, S11 W9, S12 W10, S12 W9, S13 W10, S13 W11, and S13 W9.

Figure 11. Historic post braced by boulders located in S12 W11 in 2000.

The 2002 units were excavated in arbitrary levels to depths ranging from about 69 to 109 centimeters below the modern surface (Table 1).

Initially during the 2002 excavation, deposits were distinguished as an upper disturbed deposit (levels 1 and 2) and lower undisturbed house remains. However, it was quickly established that the upright posts of 2000 were remains of a historic structure. Modern trash was recovered from the deepest deposits of the 2002 excavations and was found beneath the posts (Figure 12). Since the deposits were determined in 2002 to be disturbed throughout, the excavation is treated here as that of a single deposit.

Table 1. Test units, levels excavated, and maximum depths.

Test Unit	Levels Excavated	Maximum Depth (centimeters below the modern surface)
S11 W10	3	71
S11 W9	2	69
S12 W10	2.5	76
S12 W9	2	74
S13 W10	2.5	109
S13 W11	3.25	106
S13 W9	2	91

Figure 12. Excavation of historic posts in West Block by Annie Clinton and Margie Goatley in 2002. Modern trash was discovered beneath and surrounding the uprights.

All Levels

Similar to the other identified cultural areas of the site, the West Block excavations contained an array of subsistence-oriented tools (Appendix 3, Table 3.2). Artifacts not related to subsistence included a labret and a zoomorphic stone effigy. One trade bead, classified as a White Heart or Cornaline d'Aleppo, was also recovered. The Hudson Bay Company of Ft. Victoria, British Columbia, sold this type of bead from 1825 to 1880 (National Bead Society website). A single .22 cal. cartridge casing was also recovered in this excavation in level 1. Information in the head stamp indicates that it was manufactured between 1890 and 1912 (Cartridge Corner website). A total of two .25-.20 cal. cartridge casings were recovered from level 1 as well. Head stamp information on these indicates that they were manufactured between 1890 and 1931 (op cit.). A military .50 cal. cartridge casing was also recovered from level 1 in this excavation; head stamp information on this item indicates it was manufactured in 1942 (Cartridge Corner website). Another section of a cartridge casing had head stamp information indicating it was manufactured in a St. Louis ordinance plant in 1943; under the circumstances, it is likely that this item is also a .50 cal. military casing (op cit).

Ceramics from this block were predominantly undecorated, with most of the decorated sherds classified as Seward-Striated pottery (Appendix 3, Table 3.2). These date from 550 AD to

contact (Harritt 1994:420), which corresponds with the date for the trade bead. The faunal remains from these units reflect a diet focused on marine mammals.

South Block

Six of eight units in the 2 x 8 meter block excavated at this location in 2000 contained in situ deposits at the deepest levels (Figures 13 and 14). The two exceptions were S10 E1 and S9 E1, which were disturbed throughout. Test Unit S11 E0 contained an unusual stone feature in the upper levels of the excavation. Below the stone feature and north of it, the deposits were undisturbed. Table 2 summarizes the levels at which intact deposits were encountered in each unit.

A limited amount of sod stacking was noted in the wall north of the stone feature located at S11 E0, possibly on top of an old, buried surface. Profiles of the southern six units of the South Block clearly indicate the presence of undisturbed deposits (Figures 13–15). Angular stones were encountered in gray/brown, silt/sand, sterile deposits throughout the excavation area.

Figure 13. South Block stone feature and sill timber (west view) with possible prehistoric construction back dirt located north of the feature and timber.

Figure 14. South Block. Wider angle view of the stone feature and sill after construction back dirt was excavated (west view).

Table 2. South Block units and levels related to disturbed and undisturbed deposits.

Test Unit	Level	Notes
S9 E0	6 and 7	Possible intact, but not evident from profile
S9 E1	All	Clearly disturbed throughout
S10 E0	5 and 6–8	Undisturbed
S10 E1	7–9	Partially disturbed
S11 E0	6–10	Undisturbed; level 10 contained feature deposit
S11 E1	3–4	Undisturbed; level 4 contained parts of east and west features
S12 E0	8	Mostly undisturbed
	9 and 10	Intact; level 10 contained part of west feature
S12 E1	7–10	Intact; level 10 contained east feature

Two possible borrow/construction trenches were uncovered in the south half of South Block. The two trench features are referred to as the east and west features of the South Block. A meat cache was also found in the vicinity of the trench features (Figure 16) between the two trenches previously discussed; it is attached to the western trench feature. A balk of sand soaked with sea mammal oil forms a partial separation between the two features. The meat cache is included as

Figure 15. The west wall at the north corner of South Block in 2000 (view west).

Figure 16. Western trench feature (South Block) in 2000 with connected meat cache. S11 E0 antler scoop fragment, the spoon and baleen were under the adze-worked plank.

part of the west feature because of their spatial relationship. The meat cache, not surprisingly, was soaked with sea mammal oil throughout. Deposits contained within the cache were undisturbed and seemed to indicate that the cache was reused as a storage/refuse pit. A large wooden dish (Figure 17 and Appendix 3, Figure 3.5) was recovered from the cache.

The western trench feature associated with the cache was also undisturbed. The trench contained several artifacts and a large adze-hewn plank (Figure 17). Two other smaller adze-worked pieces of wood were also present at this level, as well as the first piece of baleen to be recovered in the excavations. Sterile deposits were encountered at the lowest extent of the feature. The trench may have been created during the construction of a house and subsequently filled with refuse. The disturbance of the upper levels in this area precludes any further speculation. The eastern trench feature (Figure 18) seems to be similar in nature to the western trench. Deposits located in this feature were clearly undisturbed and include a layer of woodworking debris several centimeters thick. This feature may also represent a construction trench.

Upper Deposits

This level consisted of disturbed deposits ranging from the surface to level 6–7 (a maximum depth of ~71 centimeters below the modern surface) or more in some instances. Surface collections are also included in this category. Artifacts included modern/historic artifacts as well as prehistoric artifacts (Appendix 3, Table 3.1). The historic material includes a button, metal can

Figure 17. Close-up of meat cache seen in Figure 16 with large wooden dish and adze-hewn plank in situ.

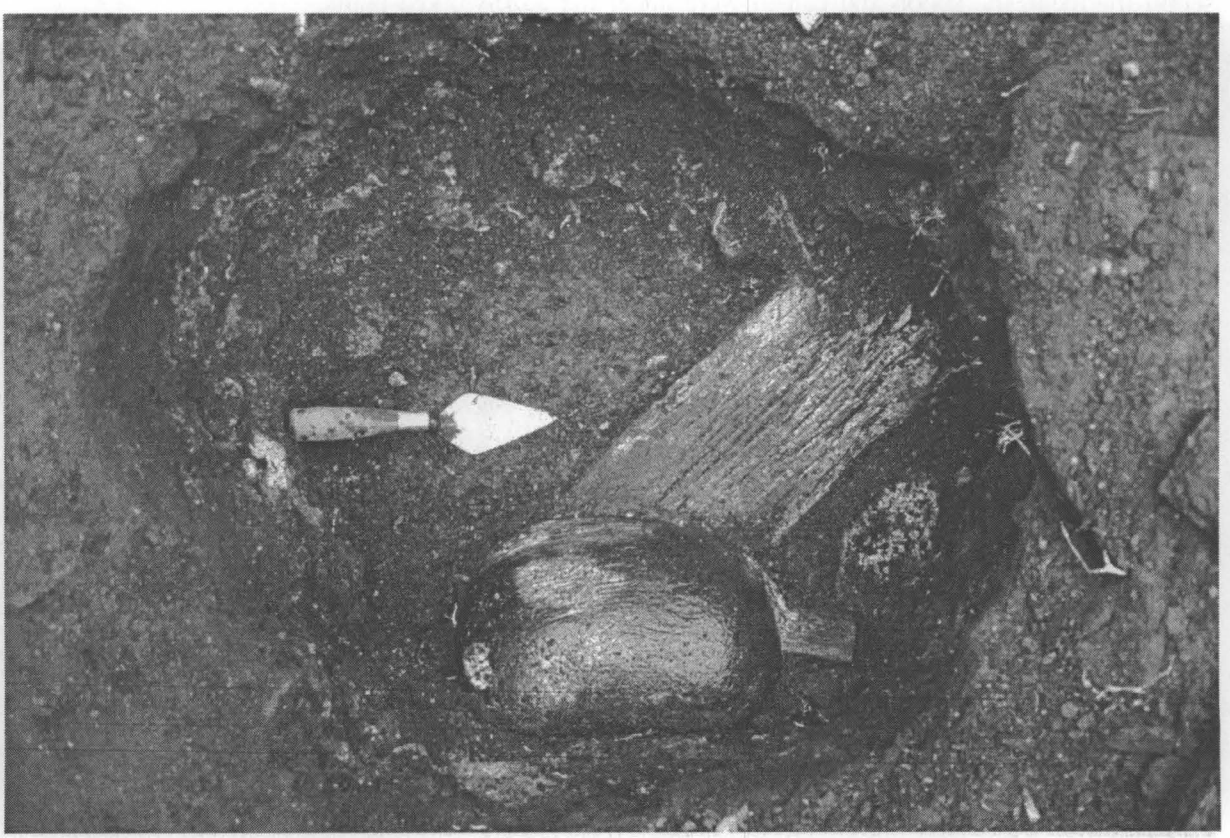


Figure 18. Eastern trench feature excavated in 2000 in south corner of South Block within S11 E1 and S12 E1.

fragments, cartridge casings, glass, various metal fragments (mainly iron and some copper), and nails. Some of this material may have been deposited when a structure that had been located roughly 20 meters from the site was in use or when it was demolished. Three cartridge casings recovered from disturbed deposits are .44 cal. Winchester Center Fire, Winchester Repeating Arms Company casings. Based on head stamp information, they were manufactured between 1883 and 1900 (Turpin Guns and Ammo, pers. comm. 2003). A third cartridge casing recovered from disturbed deposits is, based on head stamp information, a .50 cal. military casing manufactured in 1943 (Cartridge Corner website).

The prehistoric material includes examples with unknown functions made of bone, antler, and ivory. Hunting implements, such as an arrowhead base, bola weights, lure, and various fragments of harpoon parts (but no harpoon heads) are represented as well. Fishing implements include fishing hook bodies and net sinkers. Hammerstones, a marlin spike, net shuttle fragments (several pieces of two implements), a metapodial scraper, whetstones, a multitude (over 200) of pottery fragments, modified wood, an amulet, a labret, a needle, pegs, and various other items (Appendix 3, Table 3.1) were also recovered. These deposits were disturbed throughout this level, and the artifacts represented may have been affected by the activities of looters.

Lower Deposits

The lower undisturbed deposits range in depth from ~71 centimeters below the modern surface and continue to ~81 centimeters below the modern surface to the tops of the features. No historic debris was encountered in these deposits. The artifact count was significantly lower than

for upper deposits, but artifacts were recovered in undisturbed context (Appendix 3, Table 3.1). The collection includes hunting equipment (bow fragments and harpoon head preform); bone manufacturing debris; various modified materials including bone, antler, ivory, and wood; the only example of an ulu blade found at the site; sled runner shoe fragments; whetstones; slate flakes and a larger piece of slate that exhibits flaking; a spoon bowl; numerous (64) pottery fragments; handle fragments; and other miscellaneous artifacts. A charcoal sample was collected from the upper portion of the lower deposit. The assay of the sample yielded an age of Uncal. BP 130 ± 60 (Cal. AD 1650–1960; Beta 154499). The later end of the age range is too recent to be considered accurate. A full description of the analysis of this sample is included in the radiocarbon data (Appendix 1).

The east and west trench features are in close proximity to one another and at the same depth. Only a small portion of the east trench feature was excavated, but it extended beyond the east wall of South Block. Because of their close contextual relationships, the two trench features will be discussed together. The west feature consisted of a trench with two lobes of sorts, and one of the lobes and the interface between the two was soaked with sea mammal oil. This appears to have been a small meat cache at one time. The western lobe extends into the western wall of South Block and may have been a construction trench. The overall feature resembles construction trenches excavated on the northwest coast of Alaska at Point Franklin. A charcoal sample collected from S11 E1 level 4, 119 centimeters below the modern surface and from deposits in the west trench feature, had the most secure associations of the two samples submitted for radiocarbon assay. The sample (Beta 154500) yielded a conventional radiocarbon age of Uncal. 380 ± 40 BP and a calibrated date range of AD 1440 to 1640 (Appendix 1).

Artifacts from the two trench features include the only piece of baleen recovered from the site, an adze handle, a complete crooked knife handle, the only fur fragments recovered from the site, bone and ivory preforms, an ice scoop fragment, a multitude of wooden shaft fragments (primarily from the east feature), a spectacular wooden dish (see Figure 17), a fishhook body, a spoon (bowl only), several pieces of worked wood and a sample of woodworking debris, a slate flake, and a surprisingly small (seven pieces) sample of pottery fragments (Appendix 3, Table 3.1).

Test Unit S11 W7

A 1 x 1 meter test unit was excavated at this location (see Figure 3). Four large (~45 centimeters in diameter), apparently structural, timbers were encountered ~1 meter below the modern surface. One timber had a structural sill form, a notch cut lengthwise into 1/4 of the circumference. Three other substantial timbers were encountered at the same level as the sill. Just under the large timbers, an iron fragment and fiberglass insulation were encountered.

Because all of the deposits encountered in the unit were disturbed, all levels are addressed here as one unit. Artifacts include historic objects such as cartridge casings, window and bottle glass, metal fragments, copper fragments, and nails (Appendix 3, Table 3.5). Prehistoric materials include worked antler, bone and ivory, a chert biface, unmodified cobbles, a drilled tooth/amulet, net sinkers, pottery fragments, and a sled runner shoe fragment.

Test Unit S14 E7.5

This unit was placed between two distinct looting pits in the hopes that intact deposits would be found between them. Due to time constraints, excavation of S14 E7.5 ceased at the bottom of arbitrary level 3, ~50 centimeters below the modern surface. All three levels excavated were clearly disturbed. No features were discovered in the portions of the unit that were excavated. The recovered artifacts consisted of historic material (cartridge casings and metal fragments) and prehistoric material (worked antler, ivory, and wood; a possible armor slat; a fishhook body; and fragments of pottery) (Appendix 3, Table 3.4). One of the cartridge casings recovered is a .50 cal. military casing that was manufactured in 1942, based on head stamp information (Cartridge Corner website). A second cartridge casing is a .22 cal. casing, manufactured after 1930, based on head stamp information (op cit.).

Shovel Tests and Test Unit 1

During the 2002 field season, five separate shovel tests were also excavated west of the West Block excavations (see Figure 3) to the depths shown in Table 3. With the exception of shovel test 1, which was expanded into a 1 x 1 meter unit (Test Unit 1), the shallow tests were relatively sterile (Appendix 3, Table 3.8).

Test Unit 1 was excavated in two arbitrary levels within the natural stratigraphy to a maximum depth of ~48 centimeters below the modern ground surface. The soil consisted of very dark brown (10YR 2/2) silt, with inclusions of coarse olive sand in the southern quads. Excavation ceased in the unit at contact with bedrock. Compared to the other units excavated at TEL-155, Test Unit 1 contained a relatively low density of artifacts and faunal remains (Appendix 3, Table 3.7). Tools recovered included an ivory root pick, grinding stone, bola weight, and whetstone. Two sherds of ceramic were also recovered; both were undecorated. Marine mammals (including seal, whale, and walrus) composed the highest percentage of the collected faunal remains, which, like the artifacts, are consistent with the rest of the site.

The recovered materials from shovel tests 2, 3, 4, and 5 consisted mainly of faunal remains, which were, again, predominantly marine mammals (Appendix 2, Table 2.2). A single cartridge casing recovered from shovel test 2 is a .30-.30 cal. casing, manufactured from 1895 to present, based on head stamp information (IAA website).

Table 3. Maximum depths for shovel test pits.

Shovel Test	Maximum Depth (centimeters below the modern surface)
2	32
3	45
4	57
5	20

Discussion and Conclusions

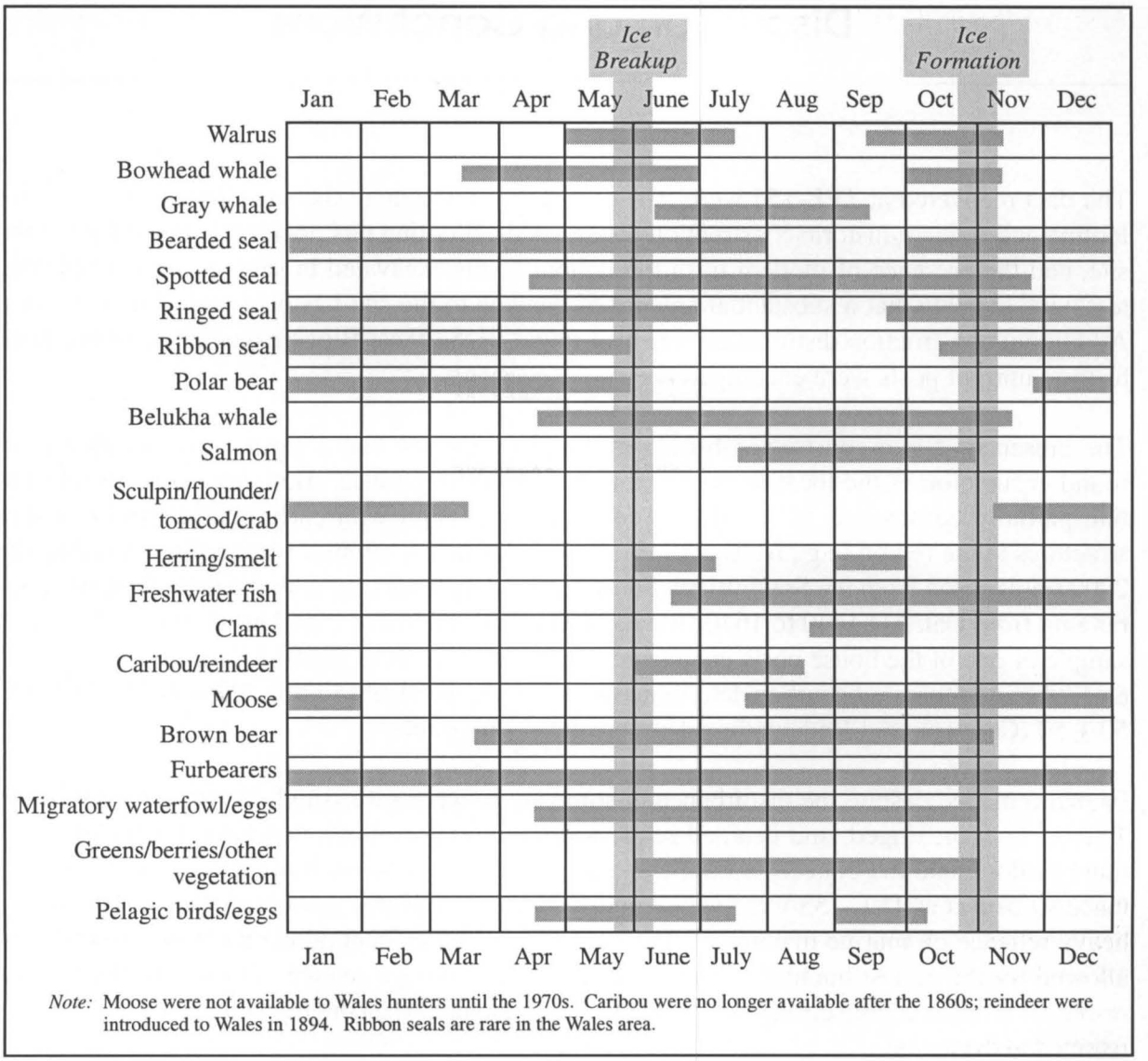
The data recovered at TEL-155 were fairly consistent throughout the site despite the extensive looting and modern/historic construction disturbances. Looting pits pockmark the surface of the site, and the presence of modern trash throughout levels excavated in several of the excavated test units indicate that a substantial amount of damage to the site has occurred in recent times. Additional construction disturbance was also found in the West Block excavation, where three historic upright posts were encountered.

The presence of two constructed houses at the site indicates that a permanent, possibly year-round occupation of the location occurred in late prehistoric times. Both houses were substantial, partially constructed of wood, and consistent in design with early contact period winter structures in the region (e.g., Nelson 1983). Two radiocarbon samples were collected during the 2000 field season from the South Block house feature (Appendix 1), with the most feasible result ranging from Cal. AD 1440 to 1640 (Beta 154500; Cal. BP 510 to 310; Uncal. 380 ± 40 BP). A sample of one of the house posts uncovered in the lower levels of the S13 E14 unit of 2002 was also submitted for a radiocarbon determination, however the results of this assay (BETA 170899), 50 ± 50 (Conventional Radiocarbon Age) are clearly unusable.

Faunal remains, despite the disturbance in some areas, were surprisingly consistent throughout TEL-155. Hair, ringed, and bearded seals; walrus; migratory fowl; and large terrestrial mammals predominate the collection (Appendix 2). Cetacean remains, however, are rare. Subsistence strategies at TEL-155 were varied and focused on seasonal resources (Figure 19), with a heavy reliance on marine mammals. The pack ice on Bering Strait during the winter would have allowed for the easiest hunting of species such as seals through sea ice. However, more varied resources were available during the spring, summer, and fall, when migrating fowl, fish, and whales returned to the region.

The artifacts are primarily subsistence-related, with components for seal hunting, trapping, fishing, and fowling (Appendix 3 and Figures 3.1–3.21). The recovery of a boat or blubber hook and several sled runner shoes additionally suggests that both transportation and subsistence acquisition were multiseasonal and not limited to land. Artifacts not related to subsistence included an antler comb and labrets. Several anthropomorphic and effigy figurines were also recovered; although these figurines are described as dolls by Nelson (1983), the burning of the lower extremities of one of the anthropomorphic figures may suggest a ritualistic or ceremonial usage. Ceramics from the site were predominately plain in decoration, with most of the decorated sherds classified as Seward Striated, which date from 550 AD to contact (Harritt 1994:420).

Historic artifacts from the site included various cartridge casings, nails, glass, a metal pick blade, and two trade beads, one of which was identified as a White Heart or Cornaline d'Aleppo trade bead sold by the Hudson Bay Company of Ft. Victoria, British Columbia, from 1825 to 1880 (National Bead Society website). Other historic materials, such as tarpaper and insulation, were also present. Cartridge casings of special interest include the following:



Note: Moose were not available to Wales hunters until the 1970s. Caribou were no longer available after the 1860s; reindeer were introduced to Wales in 1894. Ribbon seals are rare in the Wales area.

Figure 19. Seasonal availability of major resources in the Wales area (After Ellana 1983: Fig. 47).

- A single .22 cal. casing manufactured between 1890 and 1900.
- Two examples of .25-.20 cartridge casings manufactured between 1890 and 1931.
- Three examples of .44 cal. cartridge casings manufactured between 1883 and 1900.

It is important to note that all of the above cartridge casings were recovered from disturbed deposits. (See the Results section of this report for specific provenience information and references.)

Three human teeth were also recovered during the 2000 excavation of South Block; all were found in areas that had been disturbed by looting. The Native Village of Wales requested that the teeth be reburied near the area where they had been excavated. All three teeth were wrapped in aluminum foil and buried north of the excavation area.

Based on the artifacts, faunal remains, and structural remains found at TEL-155, several conclusions can be drawn concerning the prehistoric use of the site.

- Permanent, year-round occupation of the site occurred from around AD 1440 to 1640, based on a radiocarbon date from the South Block house. The information that is available does not indicate if occupation continued unbroken to historic contact.
- Use of the location as a permanent settlement during the historic contact period of the nineteenth century is indicated by the presence of trade items, with one example of a trade bead associated directly with a house floor.
- And, finally, the mixture of historic materials, such as the well-dated cartridge casings, indicates use of the TEL-155 area during the early twentieth century.

The use of the site therefore evolved from permanent late prehistoric and contact period settlements to a seasonal use location during the early twentieth century. It also seems clear that the number of inhabitants of the small settlement was probably never large, given the relatively small overall site area and since only two house structures were identified during the excavations. However, it is important to note that the erosion of the shoreline bluff may have removed additional structures prior to the current investigation.

As a whole, prehistoric and contact period TEL-155 faunal remains and artifacts reflect a seasonal subsistence strategy focused on the acquisition of marine mammals, supplemented by migratory fowl, fish, and terrestrial mammals. Only a belukha skull, a fragment of baleen, other fragmentary whalebones, and a handful of whaling implements were recovered. Although this suggests that whaling was either not an important component of the culture and that the few remains recovered were the result of scavenging, the occupants nevertheless undoubtedly participated in whaling activities with crews at the larger villages. This suggestion is supported by the recovery of two whale effigies, which indicate that whales and whaling played some role in the culture.

Additionally, ethnohistorical documentation of the region (Ray 1964, 1975) describes the whaling crews at Wales or Kingigan as being comprised of both Kingigan residents and residents of satellite villages. Undoubtedly the late prehistoric occupants of TEL-155 participated on whaling crews at Kingigan. Artifacts from the site indicate that other seasonal subsistence pursuits focused on marine mammals, fish, and birds. Examples of these artifacts include bola weights, netsinkers, bird and fish prongs, ice scoops, and fishhooks. Although most of the ceramics from the site were plain, the decorated sherds collected were highly diverse and, again, suggest the existence of an extensive trade network in the region.

Historic artifacts, such as cartridge casings and nails, were prolific and often intermingled with the prehistoric artifacts due at least in part to the extensive looting at the site. The brief oral history of the Tin City area (see Part II of this report) portrays the area as one in which multiple subsistence activities have been carried out into modern times. The identification of a shallow, dense, faunal scatter in Test Units S17 E20 and S16 E21 suggests that TEL-155 has served as an important historic location for hunting and caching marine mammal products. Although portions of the scatter may be attributable to the occupants of the prehistoric house structures, the

shallow depth of the scatter and the remains of a historic structure identified in the West Block illustrates that sea mammal hunting at the site was not limited to prehistoric times.

The recovery of one trade bead, in-situ, from the floor of the house found in Test Unit S13 E14 is clear-cut evidence of a permanent occupation of the site during the contact period of the latter nineteenth century. Information provided by the head stamps on recovered cartridge casings (see previous section) also indicates probable use of the location during the latter nineteenth century, with manufacture dates of 1883 and 1890 clearly identified by these items. Although the dates for manufacture of the same cartridge casings do not preclude their use during any part of the late nineteenth through twentieth centuries, it is nevertheless reasonable to suggest that they were deposited at the site sometime during the first decades of the twentieth century based on their recovery from buried, albeit disturbed, deposits.

Oxidized residues of ferrous metals and iron remnants in the collection suggest that active trade relationships with outside entities existed. These entities possibly included Siberian traders, such as the Asiatic Eskimo, during precontact times and Euro Americans, including Russian explorers or Americans such as Yankee commercial whalers and traders, during early contact times. The recovered beads also allude to extensive trade relationships and prolonged site usage, since the bead classified as a White Heart was sold during the 1800s by the Hudson Bay Trading Company of Ft. Victoria, British Columbia.

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Part II: Oral History

By

Carol Zane Jolles[1]

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Introduction

Carol Jolles and Herbert Anungazuk spent approximately two weeks in the Wales community during summer 2000. With the guidance of the Native Village of Wales, they identified four families as having had significant experience in the Tin City area: the Seetooks, Oxereoks, Sereadlooks, and Ongtowasruks. Three elders from these family groups offered to participate in the initial phase of the research: Elder Pxxx (who elected to remain anonymous), Faye Ongtowasruk (widow and current manager of the local reindeer herd), and Pete Sereadlook. Following the example of others who have engaged in place name and place experience research (see, for example, the work of Cruikshank 1990 and Thornton 1995), Jolles and Roger Harritt decided that it would improve the quality of data collection significantly if the elders could visit the site of their former activities in person, thus stimulating memories of experiences at various localities. Jolles was able to engage the assistance of the U.S. Air Force in bringing the three elders to Tin City.

The methodology used combined informal taped interviews and mapping of place names and activity locations with three elders. Jolles also interviewed Mrs. Ongtowasruk and Mr. Sereadlook at the Wales School and interviewed Mr. Sereadlook again in his home. The elders were paid for their time and when the project was completed, they received copies of the interviews and mapping work. The Native Village of Wales also received copies of the research.

The U.S. Air Force provided a truck and driver and also invited the elders, as its guests, to have lunch at the facility. On the drive to and from the Tin City area and during travel around the Tin City site itself, the elders pointed out subsistence sites they had used in their youth; the two men also discussed their work for the Lee Mining Company and U.S. Air Force. The elders also recalled experiences of others, including those of their ancestors in the Tin City landscape itself. The elders pointed out sites they considered to be important and whenever possible, a photo was taken of the indicated location (not all of the photos turned out, however, and, as a result, there are a number of photos that could be taken to improve documentation of the area).

As previously noted, both Mr. Sereadlook and Elder Pxxx worked as miners and as construction workers at Tin City in their youth. They pointed out various worksites and described their own experiences as workers and miners. All three elders had engaged in some trade at Lee's store, the two men more than Mrs. Ongtowasruk. She, on the other hand, is considered a local expert on greens in the area. One reason that more time was not spent with Mrs. Ongtowasruk was that the research took place at the height of picking time for greens and she was out on the land for much of the two weeks. She was also very involved in management of the current Wales reindeer herd, a responsibility she inherited from her late husband. Her familiarity with the resources found on the land meant that she was comfortable indicating areas that her family had once used for subsistence gathering. All of the elders were able to discuss the use of the land in and around the site and in some instances, pointed out areas where they or their relatives traveled some years ago to hunt, fish, and gather greens and berries. All three elders also noted that reindeer herding and loading the animals onto the Bureau of Indian Affairs transport ships had

taken place mainly before their time, although they had some recollection of it through stories and some supposed activity in the 1930s. The accuracy of this recollection has not been checked.

The Ride From Wales to Tin City

The July 26, 2000, trip to Tin City involved two trucks that were sent by the U.S. Air Force. On the trip, Faye Ongtowasruk and Herbert Anungazuk engaged in conversation in Inupiat focusing primarily on place names in the landscape. The names they identified were eventually added to a list of name terms placed on a map of the area developed by Roger Harritt, Herbert Anungazuk, and Amy Tomson.[2]

Using the Tin City Area: Elders Sereadlook, Ongtowasruk, and Pxxx

According to the elders, there have been three major uses of the area: generalized subsistence use, trade, and employment. Of these, only a few remaining subsistence activities currently take place. There has been no trade activity or employment for some time. As noted above, the site was once used periodically to load reindeer onto barges to be shipped south. Mrs. Ongtowasruk and her family presently manage a reindeer herd privately and ship out reindeer horn on a regular basis to the Asian market, but their herding is based in Wales. However, the herd wanders the tundra and can be seen on occasion foraging for grasses and lichens in the Tin City area. On the return trip from Tin City on July 26, 2000, for example, we were able to view the Ongtowasruk herd just beyond the main Tin City area.

[2] All Inupiat words, including place names, have been italicized. The only exceptions are given names and surnames of individuals.

Conversations with the elders occurred both in the truck during the trip to Tin City and in the individual interview sessions that followed. During the Tin City trip, I (Jolles) sat next to Elder Pxxx and was able to talk with him informally. The conversations/interviews described below are by individual elder.

Elder Pxxx

Most of the conversations with Elder Pxxx took place as we traveled along the road to Tin City and while we moved from landmark to landmark in and around Tin City itself. Elder Pxxx had not been to Tin City since the 1970s. In fact, he had believed that he would never again see the place in his lifetime. He talked about his work on the radar site known as "the Bubble" and his work for the Lee mining operation. He and Pete had sometimes worked as a team while employed by Richard Lee, the owner of Lee Mining Company, and he and Pete posed together in front of some of the machinery they had once used (Figure 20). The Tin City area seemed to bring a number of memories to mind.

I did not record Elder Pxxx in a private interview, but he spoke at length during the trip. Before we actually reached Tin City, along the road, he pointed out an area where the reindeer from the Ongtowasruk herd foals.

The Bubble

He also pointed out the peak area near the Bubble (Raydome), which he referred to as *Kingtarak* (high point). Elder Pxxx recalled that when he was first taken up near the peak, to work on construction of the Bubble (Figure 21), it was extremely foggy. He was unaware that he was being taken to the top where the slope breaks off steeply on the other side of the peak. The road in this precipitous area is

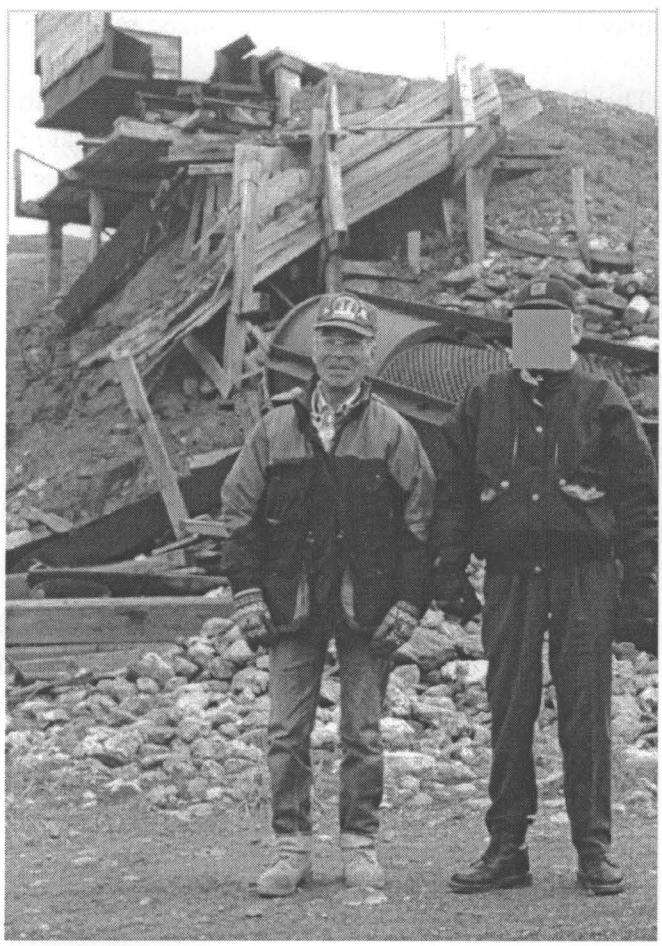

Figure 20. Elders Pete (left) and Pxxx in front of the ramp and chute where they worked together.

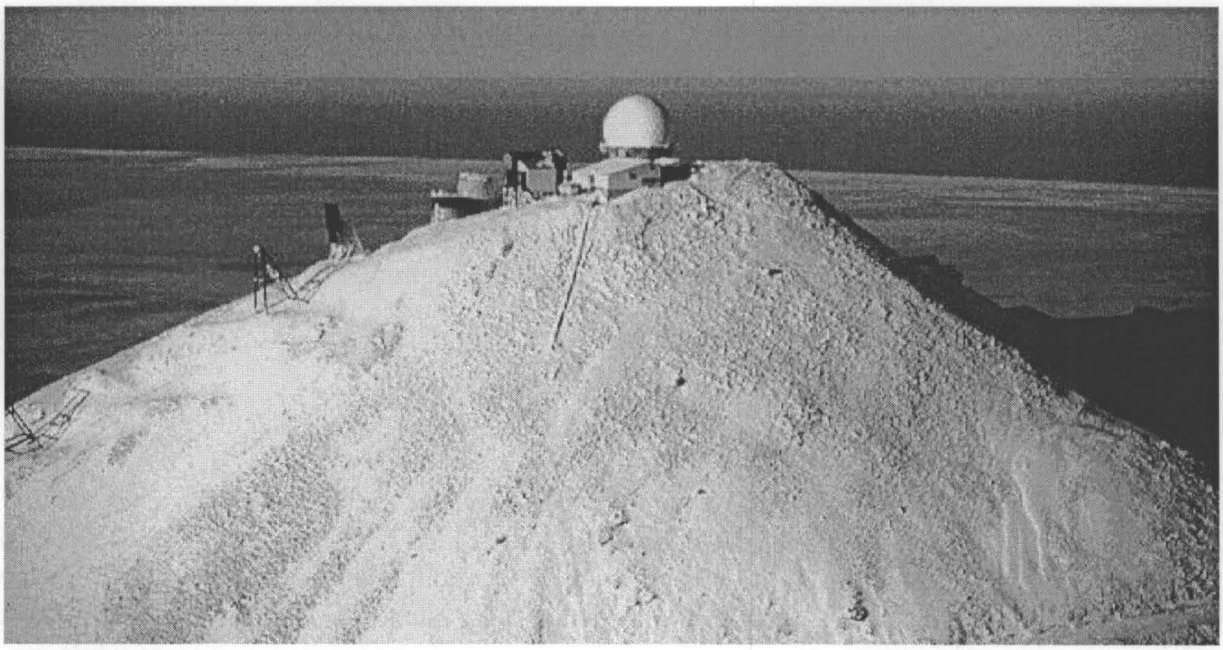

Figure 21. The Raydome at Tin City, where Elder Pxxx worked.

only wide enough for one vehicle to move easily. Elder Pxxx said that if he had known he was going up into this dangerous area, he would have told his boss that he did not want to go. However, he was up there before he realized where he was being taken.

The Bubble, which is part of the Aircraft Control and Warning System, was one of the first established in northwest Alaska. Elder Pxxx said that he worked on this system (on some type of tramway) all the way down (from the top of the slope to the bottom). This work was done for the U.S. Air Force.

Landmarks and Resource Areas

As we drove along, looking out to sea toward the south, Pete said that on a clear day it is possible to see all the way down to St. Lawrence Island from up on top of the ridge.

Elder Pxxx pointed to an area where sourdock is sometimes picked, along the ridges and down the slopes of the tundra meadows. As we moved along the road, farther to the southeast, we passed areas that are filled with salmon berries in the fall.

Lee Mining Company

We passed a drill left from recent work in the area. Elder Pxxx said that we were passing tailings left from the mining, along Goodwin Creek. Elder Pxxx then commented that some of the rocky slides are "natural" while others are tailings. This is the area where the creek flows across the road a bit.

We passed stacks of old lumber left over from the mining. Elder Pxxx and Pete both remembered driving trucks into the area past Goodwin Creek. All along the creek we could see tailings. (The mining was all open-pit mining.)

When the two men were working for the mining company, only the mining crew was present and there were seldom very many people at work—just the crew and their families. The first building we saw was the transmitter building, not much more than a cabin really, where a mustard gas container was found by a civilian employee working at the radar site only a few weeks earlier. Elder Pxxx pointed it out. Close to it were the remains of a bridge.

As we passed the transmitter building, I asked Faye where she went to pick greens in this area, and she pointed out across the hills and just behind us. She remarked that long ago (that is, when she was young), they used to come to do their picking on foot. She pointed out areas where sourdock was gathered.

We passed the remains of what Elder Pxxx describes as a ramp (described by me as a "bridge" above). He said that when they were working on the road, they loaded up their trucks from up above. The ramp was built by Richard Lee. I asked Elder Pxxx who the other men were on the crew. He mentioned Ernest Oxereok and Frank Oxereok, and also Andrew Seetook. The others came from Nome and Golovin and other places further south. Of course Pete Sereadlook worked too, but since he was sitting in the truck next to Elder Pxxx, no one thought to mention his name.

Elder Pxxx pointed out an area where they used to stockpile and strip mine. Elder Pxxx pointed out the tailings and other remains left by the Lost River Mining Company. The area where the mining took place was devoid of much tundra growth and looked desolate. Pieces of broken equipment lay everywhere along the way near the creeks.

Elder Pxxx pointed out a place used by some of the other mining companies as a "freezer" area.

We passed a series of roads, some higher up along the slope above Cape Creek, others down below. Elder Pxxx said that he used to drive along the road above the creek. When we were very near to the main buildings of the Tin City facility, Elder Pxxx pointed out a diesel fuel site. There were several fuel sites, plus several telecommunication site areas.

Elder Pxxx said he would point where he used to dump his truck. He commented to me that I would be able to see just how high it is—especially in the place where the tailgate on his truck stuck in the open lift position while dumping.

As we approached the main buildings, we passed a series of abandoned buildings that belonged to the Richard Lee complex. Since Lee died only a few days prior to our visit, it was unclear whether his grandson, David Lee, would inherit what remained of the Lee Mining interests at Tin City. There were many buildings on the site that were built in conjunction with the former mining operations.[3]

Elder Pxxx pointed out the old Lee store down below us near the shore. Some of the buildings were salvaged from older U.S. Air Force construction. We stopped higher up at the building that

[3] The brief history presented in Part I (on page 16) states that Lee acquired the building at the elevated location from the Air Force.

used to be Lee's home and also served as a store. Elder Pxxx and Pete commented that people from Wales visited Lee almost every day, in wintertime and summertime both. In fact, Lee's trading post was busy much of the time for shopping. Lee used to have a cup of tea with visitors, something that Pete and Elder Pxxx remembered. They would come in through the back part of the building to visit. The front part was used as the store area. This was also where Lee and men from Wales would bargain over a piece of ivory or an artifact, brought by Wales folks for trade. Elder Pxxx thought that the Lee home and store building were closed probably about five or six years ago. In the first few years Lee lived in the house with his wife; after she died, he stayed in the house alone. According to Elder Pxxx: "Still he was staying up in the house for years. I don't know how long."

I asked whether Lee had been a decent trader, giving good, decent prices, and Elder Pxxx explained that:

> . . . you would have to take his prices, on the ivory work, because we've got to eat and we couldn't charge anything at our Native store. They didn't buy any artifacts or carved ivory. And, for a while, most people depended on him from over there (IN WALES), because of no jobs or no post office or store and aides. There weren't that many aides in the school. So, life was tough at times.

I asked what kinds of things Lee sold in his store. Elder Pxxx said that Lee sold all kinds of groceries and some meat. Pete pointed out that the freezer was to the right of where we were standing, just inside one of the buildings that we were examining. Elder Pxxx explained that Lee had salvaged the freezer from the U.S. Air Force.

Elder Pxxx continued: "He (LEE) cut this building right in half." I asked if he and Pete had helped Lee and Elder Pxxx replied:

> Yeah. I was there. I was working for him then . . . . He hooked up two V-8s and hauled them down one at a time. Half of it and the next day half of it. Yeah. He was a smart old guy. The original buildings that he used to occupy down there, when they first came up.

Elder Pxxx said that he used to get water for the whole camp in 55-gallon drums, from up above. As we traveled, we observed a road that curves around and moves through the camp area. We passed through an area that was owned by the Lost River Mining Company; they were the last company to mine the area and left much of their equipment behind. We stopped the truck down at the bottom where there once was a bridge across. We walked across this area. Elder Pxxx and Pete pointed out the ramp where Elder Pxxx used to dump his loaded truck.

The two men pointed up to an area where there once was a chute with a screen and a washing plant. Elder Pxxx thought they made about $4 per day. From time to time, Lee asked him to work as a mechanic on the trucks when they broke down. We examined the piles of tailings near the broken down chute and the areas where motor oil was dumped. Both men described how they used to try to salvage tin scraps after the workday ended.

The remains of a piece of machinery turned out to be what Elder Pxxx called "the shaker," which was used just before the diggings were put through the washing plant. Elder Pxxx recalled working 12 hours a day and doing 24 loads.

Elder Pxxx recalled an old World War II era U-2 boat that sank along the shore while trying to get out of a heavy wind.

In the first years that Elder Pxxx worked at Tin City, he and his wife stayed in one of the cabins along the shore. Later, when his wife and family stayed in Wales, he lived in the bunkhouse. He noted that he ate quite well when his wife was doing the cooking, but the food was not nearly so good or so satisfying once he had to stay in the bunkhouse.

Elder Pxxx worked for Lee for about four years and said that this work really made a difference to him in those years. Although he did not work for Lee after that, he continued to come to Tin City to shop in Lee's store.

We walked to the cabins and looked inside. They are quickly disintegrating (Figure 22). Elder Pxxx recalled that they used a Coleman stove and a Coleman lamp when he lived in the cabins. He recalled that Lee had tried to charge the men for living in the cabins, but the cabins did not actually belong to Lee. There were two rows of cabins, but the front row of buildings had already fallen into the sea because of the erosion. The road, too, had disappeared. One of the buildings teetered on the edge of the embankment. The cabin once occupied by the Seetooks was gone.

Figure 22. Elders (left to right) Pete, Pxxx, and Faye examining the mining cabins where Pete and Pxxx used to live.

Beyond the cabins were the remains of the reindeer corral. We walked over to it, but there was some concern about Elder Pxxx, who had a heart condition and a bad leg. Elder Pxxx rested, then we moved to the corral area. Faye and Pete discussed the last time that the reindeer shipments took place and decided it might have been in the 1930s. They agreed that the ship used was the *Boxer.*

After examining the cabins and the old site of the Lee store, we got back into the truck to make our way up the slope. En route we drove past the big 6 x 6 truck with a large water tank on it that Elder Pxxx used to use when he was hauling water to the houses and to the camps. We drove to the steep slope that descends just below the main buildings. Faye commented that her sister used to pick a type of small sourdock that is very sweet on this slope. Faye recalled that she used to go down the slope with her husband. They used to stay in a tent. Even so, it was so windy that the gravel whipped across the area. From this vantage, we were able to see a number of seals and a sea lion and perhaps a beluga. This area, at the bottom of the slope, is used for rod and reel fishing. Faye recalled that Andrew Seetook had once set his fish-nets (presumably in this area) and had once caught a beluga in the net.

As we watched, we thought that we sighted a killer whale. Faye began to explain to our driver that it is forbidden for people to "play" with the killer whale because they "have some kind of spirit" and "even if you were inland, they would find you somehow" and something would happen to the person who did that. She recalled those from Wales who had done this and who had been lost.

Pete Sereadlook

Squirrel Trapping

Soon after I arrived in Wales to begin to record the experiences of the people of Wales in Tin City, I was privileged to spend time with Pete and Lena Sereadlook. Pete Sereadlook is the younger brother of Roy Sereadlook, whom I had met a few years before when I traveled north with Herbert Anungazuk, Roy and Pete's nephew. Herbert and I had spent several nights with Herbert's Uncle Roy in his home in Nome. This family connection helped open up the interview.

To return to Mr. Sereadlook, I was delighted to spend time with Pete and extremely pleased when he agreed to discuss place names in and around Tin City, as well as his recollections of squirrel hunting and trapping in the Tin City area. The first interview was on July 22, 2000. Toward the end of the interview, Herbert joined us and the two men conversed in Inupiat. During the interview, Pete and I sat at the dining table in Pete and Lena's main room. From the windows on either side of the table, one can look out to the long flat beach that fronts Wales and across Bering Strait. On very clear days it is possible to see Fairway Rock, a local marker, in the distance, and beyond that Little and Big Diomede Islands. The backdrop to these is the Russian coast 54 miles away. For much of the afternoon, though, fog enclosed the house and the village.

Our discussion began when I asked Pete to describe his first visits to Tin City. Mr. Sereadlook, who was born in 1930, was 70 years old in 2000. He noted that he had made his first trips to Tin

City with his father when he was in his teens, around the age of 16. This would have been just after World War II. Later, Pete intimated that some of his trips might have taken place earlier, during the early part of the war. The purpose of the trips was to trap squirrels. What stood out most vividly for Pete was the warmth of the squirrel parka *(parkie)* that his father wore and eating the squirrels after a day out on the trap lines. Squirrel trapping was exclusively a subsistence activity. The squirrels were cleaned and the skins prepared by Pete and his father. The body was given to his mother who boiled the meat.

I asked Pete if anyone still eats squirrel meat. (Ground squirrels can be seen everywhere in summer in the neighborhood of Wales. They are related to a larger species of marmot and are quite fat.) Pete said that no one eats them anymore. I had asked around the village soon after my arrival and had been told that no one ever ate them. The implication was that they never had been eaten. So, the role of squirrels as part of the local diet has slipped from local memory and is not recognized by the young. Pete noted that he had not eaten squirrel meat for many years. He stopped eating the meat when his parents died, just after the war. He recalled that the meat was "soft" and sometimes oily.

Wood Gathering

As a young man, Pete recalled that often he and his father or one of his uncles traveled by skin boat to Tin City and beyond to collect driftwood. Several places along the shore are natural collection points. It was common to travel there in good weather to load up the boats with driftwood to feed into the woodstoves that were used to heat their homes or occasionally for outside cooking. Today, most homes are heated with space heaters or oil furnaces. Wood is no longer in much demand. However, Pete noted that a few people still use woodstoves. His own son uses firewood for his sauna.

Working for Lee Mining Company

On the trip to Tin City, we saw houses where workers from Wales once lived while they worked for Lee Mining. Elder Pxxx had lived in two of the houses. Pete had at different times lived in the first one we came to.

Pete worked at Buck Creek. Tin City Mining, Lee Mining, and Lost River Mining all had sites in the Tin City area, but Pete had most to do with Lee Mining. In the wintertime, Pete says that he and the other men went around the mountain to Lee's to shop. In the summertime, they went by boat and walked up. Lee's house was on top of the rise, but the first store area was near to the shore (a boarded-up building later used for a mess hall). Later it was moved up higher. I asked Pete if he ever stayed in the bunkhouse that we had seen near the shore. Pete said that he tried to go home from work, rather than stay in the bunkhouse.

A phone was in one of the buildings on the shore. People used it to call Lee when they arrived to use the store. Lee kept a walk-in freezer for meat and bread and other perishables. He also kept gas and other necessary goods. People usually traded carvings even though, in Pete's memory, the prices Lee offered were sometimes cheap. But, it was a place to go when a person had no money, because trade was possible. Years before, people traveled by dog team to the store. Pete says that he gave up his dog team about 20 years ago—perhaps before—maybe in the 70s.

According to Pete, people from Diomede, Shishmaref, Brevig, and Teller all came to use Lee's trading post. I asked when Lee left and Pete said, "Not too long ago." It was when he went for a medical check up in Anchorage. He ended up staying for a while. It had become lonely at the trading post, too. (Edler Pxxx related previously that Lee remained in the house for years after the death of his wife.) When he did finally leave, he eventually went to live in the Pioneer's Home (a retirement facility in Anchorage). That is where he died, apparently only a few days before I arrived to begin interviewing, around the 20th of July 2000. A woman had run Lee's store for a while, but Pete did not recall who she was.

The U.S. Air Force

The U.S. Air Force came to Tin City in 1951.

I asked Pete about the dump area. It has moved a couple of times. We located a landfill and hypothesized that this could have been the dump. The dump was a place that people checked out regularly. He remembered going to the dump to see what was there. Pete remembered that Air Force personnel used to pull out "good stuff" and leave it along the side of the dump, so that people could find it easily. I asked whether Pete did this (went to Tin City to look for things) in winter sometimes and he said, "Yes." He did that when there was good weather.

The mines continued to operate until Lee, the last of the miners, retired approximately seven or eight years ago (around 1992 or 1993). Thus, for many years, the people of Wales interacted both with U.S. Air Force and mining personnel. I asked Pete whether military personnel visited Wales and he said they did, although not often. They traveled sometimes by truck. At Christmastime they came just to visit and to bring gifts for the children. Pete and his wife both recalled that the U.S. Air Force used to bring movies to show, both at Tin City and on special occasions at Wales.

I asked Pete if he took his children over to Tin City at Christmastime. He said he took his wife. His wife liked to go over to Tin City to watch the movies that the U.S. Air Force personnel ordered from Anchorage. The children also liked to watch the movies. He recalled going to the Christmas program that the children gave for the men at Tin City one time. So, children were sometimes taken over by snow machine. Snow machines first started in general use in Wales in the 1960s. Around the same time, Pete remembered seeing the first jets flying overhead.

I continued to question Pete about working in Tin City. I asked him if he recalled whether others in his family worked in Tin City at any time, either at mining or other tasks. I asked him specifically about dismantling the military buildings and Pete said that he also did this work. And, "when they build that site, lots of people worked from here: like my two brothers, dad, another (RECORDING NOT CLEAR) quite a few." I asked what Pete worked on and he said with the "shovel," for digging foundations, and with a jackhammer to break up the bedrock, 10 or 12 hours a day. Pete's comment on this was: "No coffee break, no smoke break."

After listening to this description, I asked him, "Did they pay you well? This was the U.S. Air Force you were working for at that time?" It turned out that the men did not work directly for the U.S. Air Force. They worked for a contractor. According to Pete, the name of the contractor for whom the men worked was "PK." This company was responsible for building the large,

main building that we had visited the day before. It contained numerous work areas as well as bunk areas and eating facilities for the U.S. Air Force staff. Pete remembered that they had been paid relatively decent wages for this work, although the work hours were long and the work was quite tiring.

The workers were men from Diomede (including one of the teachers), Teller, Shishmaref, and Nome working alongside the men from Wales. I asked Pete whether any of the Wales women did cooking in Tin City during the construction, but he said that women were not hired "over there." The contractors had their own cook. Again, I asked Pete if he stayed in Tin City while he worked there or did he come home each evening. This time, he said that he had stayed in Tin City. There were little shacks in which the men stayed. But the shacks were later torn down. They were situated not far from the worksite.

The men were required to perform very heavy labor. Pete worked only one summer, but others continued. Pete did foundation work and also installed siding. I asked him if he ever worked on the Bubble (Raydome), but he said, "No." Elder Pxxx worked on the Bubble, and Pete's brothers, Roy and Glenn, worked on the Bubble as well.

The earlier wood frame structures had been built and then torn down with the assistance of men from Wales, including Pete. The first structures were torn down in the 1950s. Then a second structure was built and finally a third area for holding fuel. The first power plant used to stretch all along the way, but this was pulled down by the men. They used to pump fuel from a small shack.

I asked Pete whether there was ever any kind of entertainment for the workforce, but he said, "No," except for the movies. Sometimes the men would walk here and there (to deal with their boredom). I asked if the men did any fishing while they were working in Tin City. Pete said they tried, but were not too successful.

Andrew, Frank, and Raymond Seetook lived along the beach. Along with them there was Ernest, then Elder Pxxx. Long ago, according to Pete, the planes used to land on the beach. Pete helped to clear the path. This was before they built the runway that is there today.

I asked Pete whether the miners used to visit in Wales. He said that they came over only once in a while. I then asked Pete if this was the time during which he worked at tearing down some of the earlier military buildings. Pete was unsure in what year the buildings were torn down. He had worked for Lee's before that time.

I (JOLLES) asked him: "Was that when you were staying in the little house?"
He answered: "No. We put a tent some place around here."
Jolles: "Oh, see. That's what I was wondering about. When did you live in a tent. So, that was when you were working at tearing this stuff down. Was she (PETE's WIFE) carrying your first child or your second child?"
Pete: "First."
Jolles: "But, she didn't stay the whole time? She went back over?"
Pete: "No. After we were done, we went back."

Pete pointed out that they used to walk up the hill to work. I asked him if his wife was able to do any greens picking when she stayed there. He said she was too busy, but he thought that she and some of the others did do some berry picking. Pete's wife continues to use this area for berry picking from time to time. This is an area that Faye Ongtowasruk pointed out during our trip as a greens and berry picking area. I asked Pete if he was talking about the small black berries and he nodded. He affirmed that Faye still picked there, too.

I asked Pete if he used to see people from Wales coming over to do picking while they were working. Then, I commented that it must have been hard for the men who did not have families. They could not bring along a wife to prepare meals and take care of clothing and that it was probably a bit lonely, too, without family close by. He did not answer.

I also wondered if there was some seal hunting done in the area, and Pete said they used to. He pointed to an area on the map where there is usually ice out off the shore—lots of shore-fast ice. The men had to walk way out. We had seen a number of seals in the water during our visit the day before.

Reindeer Operation

The Cape Reindeer Company hired men from Wales to help load reindeer onto the *Bear*[4] when it landed at Tin City. The company also gave out permits. Men were paid in food for their work. So, there would be lots of reindeer meat. Pete recalled the reindeer culling as a time when everyone was busy and it was very enjoyable.

By the 1950s Pete was in Nome working, trying to help his two sisters. Pete's three brothers tried to help with the family at this time, too. Pete's older brother, Roy, moved to Nome very early on. He said that he found it very hard when he lost his parents. Then, his two sisters relocated to California and married there. He said that they still get homesick. Pete said that Lena, his wife, went down to visit once.

Pete and I turned to the map and tried to locate the remains of the reindeer corral below a ridge at Tin City (Figure 23). There were a few sticks remaining. The beach line has changed substantially, however, toward the water's edge there was a large post, which indicated the loading dock remains. Small cabins, where Pete, Elder Pxxx, and Andrew Seetook and their families once stayed, have been lost to the erosion. I asked about tenting on the beach, but Pete did not recall this.

I remarked that it was interesting to see that the posts that mark the reindeer-loading area on the beach are still there, long after the practice of loading up the reindeer from that area has stopped. Pete says that this practice stopped, perhaps in his early years, "After I was born."

Old Dwellings

I asked Pete whether there were any recollections of people living in the Tin City area in the distant past. It seemed likely that not too many have lived there in the last 100 years—so far,

[4] Note from R. Harritt: The *Boxer* was previously named as the last ship to transport reindeer from Tin City in the 1930s.

Figure 23. The reindeer corral and loading dock area. Pictured are the three elders, Herbert Anungazuk, and the truck driver.

only a few ancient house sites have been uncovered. Pete noted that long ago there was mining in York—with lots of people there. Those people left. York is further south, 15 miles south of Wales.

Faye Ongtowasruk

On the day after the trip to Tin City, Faye Ongtowasruk and I followed up our trip with a taped interview in the Wales school. Faye and I sat in one of the classrooms with a map of the Wales-Tin City area spread out before us. Much of our conversation was devoted to confirming the names and locations of various points on the map, areas we had traversed on our trip to Tin City. In the course of our conversation, I learned that Faye was 71 years old.

Comments from the Tin City Trip

Faye described some of the greens that she picked and used as we traveled back from Tin City. A particular picking area was along the road just outside of Tin City proper and before the curve that would take us completely out of sight of Tin City. We passed a whole group of plants covered with pink flowers and long, pointed leaves (*eveq* [sp?]). She said she sometimes stored those in old peanut butter jars and served them with meat. She also pointed to a plant with white flowers that is commonly used, sometimes called "flower greens."

As we approached Goodwin Creek, Faye pointed out that this was a place for picking sourdocks. It was also a good place for picking *eveq*. She explained that, when she was young, all of the picking was done on foot and the greens were carried in gunnysacks with straps attached. Faye noted that in Shishmaref the women were still using sealskin pokes for carrying greens.

On the return trip, once we traveled to the Wales side of the mountain, the walking trails were marked by the community with rocks or, as we approached Wales, with raised poles.

Place Names

The first location we discussed was one that Faye referred to as *Kaliuveq*. She commented: "And, there's *Kaliuveq* someplace around there. *Kaliuveq*." We then discussed at some length how to spell this name.

I continued to look at the map and noted *Kaliuveq*. I asked Faye if this was a resource area of any kind and she replied that a long time ago, people went crabbing there. I remarked to Faye that Pete no longer remembered this as a crabbing location and she pointed out that "That's what Lady Oxereok's mom used to tell us. Crabbing. *Okaliumiut* . . .Spring time."

The second site we discussed was one where people sometimes pick sourdock. Faye called it *Atnuraaq*. We eventually settled on a spelling of *Aat-nu-raaq* (sp?). Faye identified its location by noting that from that particular location one could also see *Pugureuk* (sp?).

Faye continued to look at the map and picked out an area she called *Pugreruk*. However, she was unsure what place it was. She finally decided it was a lagoon. She said: "That's where sometimes reindeer stands and cool off."

I asked Faye if there were names for the greens-picking areas closer to Tin City. Faye then went over in her mind whether there were any names she could recall. She mentioned several names, but seemed unsure of their exact locations and of their spellings: *Auk nut? Siluqoq? Isaqi? Uuniat? Siunaq?* I then asked whether *Siunaq* was somewhere along the coastline and she replied that it was. We identified it as being between *Uuniat* and *Katslavaq*. As Faye looked at the map, she noticed *Qubrioq* and said: "That's where they put their seal net out, I think."

During the Tin City trip, we had passed the area where archaeologist Ryan Peterson and his crew had been excavating part of a site, and I asked Faye about it. The spelling we settled on was *Uqshoyak*[5], which Faye felt was "pretty close." I asked her about the family that once lived there, specifically when the family left that area. Faye replied: "Long time ago. Because I don't see anybody. But my grandma used to go camp there because they have some sort of little shack in there, that area, to put their tent." Faye noted that when she camped there with her grandmother they put up a tent inside of the small shack for protection from the weather. They used this shelter when they were picking greens. Faye told me about the kind of greens she used to

[5] *Uqshoyak* appears to be equivalent to the word *uqruyak*, a place name recently documented by Burch for the Wales area (Ernest Burch, pers. comm. to R. Harritt, August 2001).

pick from the slope above the excavation area and right around the excavation area itself. She called the greens *Aaqviaktuq.* She commented that they also pick sourdock there (Figure 24).

I asked her about the Inupiat name for Boulder Creek and she replied that it is called *Sulumaligoraq.* I again asked about place names for Tin City, and Faye concluded that many of the smaller locations within the Tin City area were just considered part of the region. As she said: "Maybe part of *Taparuq.* Part of Tin City." This led to a question about *Taparuq* itself. I asked: ". . . in the old days, what was *Taparuq?* Who was there?" Faye replied: "There was one lady named *Taparuq.* Roland Angnaboogok's niece. And then some people was named after where they was born, outside Wales."

We then focused on reindeer and I asked Faye if there was a name for the lake near the old corral area, but she could not recall one. I also asked if there was a name for the spot where the reindeer were taken onboard ship and she said: "No. But complete, everything, they call it *Taparuq.* That whole area." But *Taparuq* seemed to be used primarily to designate the area along the shore used for wood collection. Faye noted the areas already pointed out by Pete and commented:

> They would leave from Wales by boat and get woods that area . . . . But the woods (THE DRIFTWOOD) are fewer then when I was there (AS A YOUNG WOMAN), I don't know what year . . . . They're few! Maybe lots of it go out with high water. It really erosioned. From that water . . . .

Figure 24. Elders Faye and Pete on the slope where Faye used to pick greens with her grandmother.

I comment and Faye confirms: "So . . . . all along there where the erosion is now, there used to be wood." And, she says: "They used to even get them by boat, skin boat. Summertime. Some of the ladies would fill up their gunnysack."

I (JOLLES) asked: "For the smaller kind?" (KINDLING WOOD)
Faye said: "That don't need cutting."
Jolles: "Now, did you ever follow your mother over here?"
Faye: "No. But my sister did. But then when I'm old enough, I start to go around with my husband. We used 3-wheeler or 4-wheeler."
Jolles: "So, when would that have been? About?"
Faye: "Around 40s, 50s. Fifties mostly."

We looked carefully at the name for the dwelling under excavation, and I asked Faye the meaning of the word *Uqshoyak.* She thought it might refer to oil, but it was not familiar to her. We reviewed several other words that had been recorded by Herbert Anungazuk the previous day. They included *Niilingeq* and *Milaqutaq,* which apparently refer to a mound near a boulder.

I asked Faye about other places she went to for greens and berries, both in the present and the past. She noted that she often went along the creeks. She located *Tasuq* on the map and *Kaluqtoq.* She noted that *Tasuq* referred to a lagoon. She recalled a place near *Kaluqtoq*, *Aluikaligoraq.* The name designates a green similar to sourdock. She thought that it was "Some place . . . that has a bay." This is close to a spot on the map with a star on it. It is also a place where Faye had been "stuck" for a while. She said:

> Yup. We pick all around there. And by the pond. We even make open fire. I don't know which one (WHICH POND). Maybe this one. That's where we make open fire. (FAYE POINTED TO ONE OF THE SMALL PONDS ON THE MAP.) To make tea and this is the creek where we get water from. . . . Goodwin Creek. That's part of this creek.

We continued to discuss landmarks, including the old transmitter building, which Faye called "White Head." I remarked: "That's the one where they found the mustard gas (LEFT OVER FROM THE DAYS DURING OR FOLLOWING WORLD WAR II WHEN THE SITE WAS MORE HEAVILY UTILIZED BY THE MILITARY). No? And, Faye answered: "Yeah. I think. There's some old things in there. But we never go through it. . . . There's *Kimigoq,* too, near White Head, those real big hills, long hills. They got sourdocks, too. We reach those too when we go pick sourdocks." Faye also described a collection of tar and creosote-treated logs that once stood in the area, but people had long since made use of them.

Faye remarked that it was actually possible to pick greens all along the way from Tin City to Wales. She indicated the areas where the hill slopes up from beyond the road were especially good places to pick greens.

Toward the end of our conversation, I asked Faye about the small number of birds I had seen. She replied: "There used to be lots of birds back here: snipes and northern phalaropes, snipes, jack snipes." There are far fewer birds than there once were.

I asked Faye if she had learned how to cook squirrel when she was young. She said, "No," but she had trapped them when she was a girl and she had gone with her grandmother to Tin City to trap them. Her grandmother had used the skins for *parkies* and slipper liners. She described how she had learned to kill the squirrels by "putting their heart down," a method that is also used to kill auklets. It separates the heart from its connecting vessels and does not disturb the skin itself. Faye commented that squirrel *parkies* were extremely warm and light. Faye commented that long ago, the auklets could be found on Razorback Ridge behind the village, but somehow a shaman had done something to make the auklets leave. I asked whether she recalled the men going to Tin City to hunt ducks and other waterfowl, but she said that the main blinds appeared to be along the lagoon to the north of the village.

Preliminary Conclusions

It is important to point out that more work needs to be done with the elders who participated in the first stage of the research to double check names and spellings and to review content. In addition, other families need to be included in the research. Even though much more work is needed, it does seem clear that traditionally the Wales community made extensive use of the Tin City area for trapping, collecting firewood, gathering significant amounts of greens and berries, and fishing. The mines, which were present from the turn of the century on, provided employment for men from Wales and also made trade goods available to families on a regular basis. After establishment of the U.S. Air Force Tin City facility in 1951, men continued to come into the area for employment, not only with the mining companies but with the U.S. Air Force. The Wales community in general continued basic subsistence use of the area during that time. Some traditional practices such as squirrel trapping and collection of driftwood for stoves ceased, because no one made squirrel *parkies* anymore and few people continued to use woodstoves. However, even today a few men collect wood for home use. Fishing continues sporadically and greens and berry picking also continue on a very regular basis. The reindeer herd moves through the Tin City area as well.

References

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Appendices

Appendix 1: Radiocarbon Dating Results

Samples submitted for radiocarbon dating were selected on the basis of their association with cultural features or stratigraphic position. Three radiocarbon dates were obtained as part of the Tin City investigation. Surprisingly, charcoal was scarce in the undisturbed deposits at TEL-155. Two samples were large enough to obtain a date using standard dating techniques, the other was too small and required the Accelerator Mass Spectrometry dating technique. The results of the three assays follow.

Sample CH002

This sample was collected from South Block, S10 E0, level 5. It is possible that some of the upper disturbed deposits had infiltrated this level, therefore making the association of this sample questionable. On the other hand, the sample was significantly shallower than CH006 and may represent later activity at the site.

Beta-154499
Analysis: Standard Radiometric Assay
Material/Pretreatment: (charred material): acid/alkali/acid
2 Sigma Calibration: Cal AD 1650 to 1960 (Cal BP 300 to 0)
13C/12C Ratio: -23.8 o/oo
Conventional Radiocarbon Age: 130 ± 60 BP

Sample CH004

This sample was collected from S13 E14, level 5, NW quad, X 55, Y 40, 95 centimeters below datum. It was collected from undisturbed deposits of the house floor.

Beta-170899
Analysis: Standard Radiometric Assay
Material/Pretreatment: (wood): acid/alkali/acid.
2 Sigma Calibration: Outside of calibration range.
13C/12C Ratio: -26.0 o/oo.
Conventional Radiocarbon Age: 50 ± 50 BP.

Sample CH006

This sample was collected from South Block, S11 E1, level 4, clearly within the west trench feature. The context of the sample was very secure and represents the best charcoal sample from

the site, albeit a small one. The age range indicated seems feasible and most accurately characterizes the feature.

Beta-154500
Analysis: Accelerator Mass Spectrometry
Material/Pretreatment: (charred material): acid/alkali/acid
2 Sigma Calibration: Cal AD 1440 to 1640 (Cal BP 510 to 310)
13C/12C Ratio: -24.4 o/oo
Conventional Radiocarbon Age: 380 ± 40 BP

Appendix 2: Faunal Analysis Results

Tables

Faunal Analysis Results

The 2000 faunal remains recovered from TEL-155 were analyzed by Grover (2000); the faunal remains from the 2002 field season were analyzed by Singer (2003). The results are summarized below and in Tables 2.1–2.6. The complete reports from both analyses are on file at the Environment and Natural Resources Institute.

Summary

Faunal remains from TEL-155 consist of 13,986 specimens including mammal, bird, fish, gastropod, and bivalve species. The majority of identified fauna was mammalian (91.3%; N=12,772), and represented mainly by pinniped remains (Singer 2003:1). At least six different species of pinnipeds in the collection have the highest percentage (47.4% of pinnipeds) classified as walrus *(Odobenus rosmarus).* Other identifiable mammalian species of smaller frequencies included caribou *(Rangifer sp.);* wolves, dogs, or coyotes *(Canis sp.);* arctic fox *(Alopex lagopus);* beaver *(Castor canadensis);* Arctic ground squirrel *(Spermophilus parryii);* black bear *(Ursus americanus);* white whale *(Delphinapterus leucas);* baleen whales *(Mysticeti);* Alaska vole *(Microtus miurus);* and unidentifiable small rodent (Singer 2003:1).

Avian remains represented 6.9% (N=961) of the total collection, with identified species including alcids, scoters (*Melanitta* sp.), white-winged scoters *(M. fusca),* surface-feeding ducks (*Anas* sp.), surf scoters *(M. perspicillata),* gulls (*Larus* sp.), teal *(Anas* c.f. *crecca),* common murre *(Uria aalgae),* rhinoceros auklet (*Cerorhinca monocerata*), Canada goose *(Branta canadensis),* anatids, glaucous gulls *(Larus hyperboreus),* and Cassin's auklet *(Ptychoramphus aleutica)* (Singer 2002). Additional species included King Eider *(Somateria spectabilis),* cormorants *(Phalacrocorax),* puffins (*Lunda* sp.), geese (*Branta* sp.), ptarmigan (*Lagopus* sp.), albatross (*Diomedia* sp.), and ravens *(Corvus corax)* (Grover 2000).

Few fish remains were recovered in the TEL-155 collection (0.1%) and were mainly unidentified. The few identifiable species included Pacific halibut *(Hippoglossus stenolepis),* Pacific cod *(Gadus macrocephalus),* and sculpin (*Myoxocephalus* sp.).

The remaining portion of the collection was composed of invertebrates, which included bivalves, gastropods, and molluscans. Identified species of molluscans included neptunes (*Neptunea* sp.), macomas (*Macoma* sp.), Arctic surf clam *(Mactromeris polynyma),* and cockles (*Clinocardium* sp.) (Singer 2003).

Heat and other types of cultural alteration were noted by Singer (2003) on 230 pieces of bone from the 2002 field season collection. Most of the observed heat alteration was to large or unidentified mammalian remains (84.1% of heated bone); other cultural alteration—including flaking, drilling, and bone tools—was restricted to marine or unknown mammals (98.1% of worked bone).

Table 2.1. Faunal remains from disturbed levels of all units excavated in 2000 and 2002 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
AVES			**804**
Alcidae			
Brachyramphus marmor	Marbled Murrelet	2	
Cerorhinca monocerata	Rhinoceros Auklet	3	
Uria aalge	Common Murre	15	
Aethia sp.	Auklet	8	
Fratercula sp.	Puffin	3	
Alcidae	Auks, Puffins, Murres	14	
Anatidae			
Anas sp.	Surface Feeding Ducks	24	
Anas cf. *crecca*	Common Teal	2	
Anser sp.	Goose	13	
Larus sp.	Gulls	3	
Branta canadensis	Canada Goose	2	
Melanitta fusca	White-winged Scoter	73	
Melanitta perspicillata	Surf Scoter	3	
Melanitta sp.	Scoters	22	
Somateria spectabilis	King Eider	226	
Anatidae	Ducks, Geese, and Swans	17	
Corvidae			
Corvus corax	Common Raven	6	
Diomedeidae			
Diomedea sp.	Albatross	4	
Gavidae			
Gavia immer	Common Loon	1	
Gavidae	Loon	1	
Laridae			
Larus hyperboreus	Glaucous Gull	1	
Larus sp.	Gulls	12	
Phalacrocoracidae			
Phalacrocorax sp.	Cormorants	73	
Phasianidae			
Lagopus sp.	Ptarmigan	23	
Aves	Unidentified Bird	253	

Table 2.1. *(Continued)*

Taxon	*Common Name*	*Count*	*Total*
PISCES			**35**
Hippoglossus stenolepis	Pacific Halibut	1	
Gadus macrocephalus	Pacific Cod	2	
Pisces	Unidentified Fish	32	
INVERTEBRATES			**73**
Bivalvia			
Mytilus edulus	Blue Mussel	1	
Clinocardium sp.	Cockle	1	
Bivalvia	Unidentified Bivalve	18	
Gastropoda			
Neptunea sp.	Neptunes	15	
Gastropoda	Unidentified Gastropod	21	
Mollusca	Unidentified Shell	17	
MAMMALIA			**8941**
Medium Mammal		14	
Large Mammal		749	
Unknown Mammal		1541	
Terrestrial Mammals			
Artiodactyla			
Rangifer sp.	Caribou	112	
Artiodactyla	Unidentified. Cloven-hoofed Mammals	1	
Bovidae			
Ovis sp.	Sheep	1	
Carnivora			
Canis sp.	Dogs, Wolves, Coyotes	43	
Alopex lagopus	Arctic Fox	58	
Canis familiaris	Dog	99	
Ursus arctos	Brown Bear	1	
Canidae	Dogs, Wolves, Coyotes, Foxes	8	
Carnivora	Unidentified Carnivores	2	
Cervidae			
Alces alces	Moose	1	

Table 2.1. *(Continued)*

Taxon	*Common Name*	*Count*	*Total*
Terrestrial Mammals *(continued)*			
Rodentia			
Castor canadensis	Beaver	1	
Spermophilus parryii	Arctic Ground Squirrel	78	
Microtus miurus	Alaska Vole	2	
Rodentia	Unidentified Rodent	4	
Large Terrestrial Mammal		6	
Medium Terrestrial Mammal		4	
Small Terrestrial Mammal		2	
Marine Mammals			
Cetacea			
Delphinapterus leucas	White Whale	1	
Mysticeti	Baleen Whale	1	
Cetacea	Unidentified Whale	253	
Delphinidae			
Delphinidae sp.	Porpoise	1	
Pinnipedia			
Callorhinus ursinus	Alaska Fur Seal	8	
Erignathus barbatus	Bearded Seal	63	
Eumatopias jubata	Northern Sea Lion	8	
Phoca hispida	Ringed Seal	123	
Phoca largha/vitulina	Spotted/Harbor Seal	2469	
Odobenus rosmarus	Walrus	165	
Pinnipedia, Seal		641	
Pinnipedia, Large		16	
Phocidae	Hair Seal	2001	
Unidentified Marine Mammal		464	
UNIDENTIFIABLE BONE		3	**3**
TOTAL			**9856**

Table 2.2. Faunal remains from shovel tests excavated in 2002 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
MAMMALIA			**22**
Large Mammal		20	
Medium Terrestrial Mammal		1	
Unidentified Mammal		1	
Marine Mammals			**52**
Pinnipedia			
Pinnipedia, Seal		30	
Phocidae	Hair Seal	22	
TOTAL			**74**

Table 2.3. Faunal remains from undisturbed deposits outside of east and west features of South Block excavated in 2000 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
AVES			**37**
Alcidae			
Brachyramphus marmor	Marbled Murrelet	1	
Fratercula sp.	Puffin	2	
Anatidae			
Somateria spectabili	King Eider	16	
Anas sp.	Surface-feeding Ducks	2	
Anser sp.	Goose	1	
Gavidae			
Gavia immer	Common Loon	1	
Laridae			
Larus sp.	Gulls	1	
Phalacrocoracidae			
Phalacrocorax sp.	Cormorants	6	
Phasianidae			
Lagopus sp.	Ptarmigan	1	
Aves	Unidentified Bird	6	

Table 2.3 *(Continued)*

Taxon	*Common Name*	*Count*	*Total*
PISCES			**11**
Myoxocephalus sp.	Sculpin	2	
Pisces	Unidentified Fish	9	
INVERTEBRATES			**5**
Bivalvia			
Bivalvia	Unidentified Bivalves	4	
Gastropoda			
Gastropoda	Unidentified Gastropod	1	
MAMMALIA			**458**
Unidentified Mammal		17	
Terrestrial Mammals			
Artiodactyla			
Rangifer sp.	Caribou	5	
Carnivora			
Alopex lagopus	Arctic Fox	2	
Canis sp.	Dogs, Wolves, Coyotes	15	
Rodentia			
Spermophilus parryii	Arctic Ground Squirrel	7	
Marine Mammals			
Cetacea			
Cetacea	Unidentified Whale	14	
Phocidae			
Callorhinus ursinus	Alaska Fur Seal	2	
Erignathus barbatus	Bearded Seal	3	
Odobenus rosmarus	Walrus	14	
Phoca hispida	Ringed Seal	9	
Phoca largha/vitulin	Spotted/Harbor Seal	274	
Phocidae	Hair Seal	56	
Unidentified Marine Mammal		40	
TOTAL			**511**

Table 2.4. Faunal remains from the fill in east and west features in South Block excavated in 2000 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
AVES			**3**
Anatidae			
Somateria spectabili	King Eider	3	
PISCES			**1**
Pisces	Unidentified Fish	1	
INVERTEBRATES			
Bivalvia			**3**
Mytilus edulus	Blue Mussel	3	
MAMMALIA			**80**
Unidentified Mammal		2	
Terrestrial Mammals			
Artiodactyla			
Rangifer sp.	Caribou	5	
Carnivora			
Alopex lagopus	Arctic Fox	4	
Ursus arctos	Brown Bear	2	
Rodentia			
Spermophilus parryii	Arctic Ground Squirrel	1	
Marine Mammals			
Phocidae			
Erignathus barbatus	Bearded Seal	1	
Odobenus rosmarus	Walrus	1	
Phoca hispida	Ringed Seal	2	
Phoca largha/vitulin	Spotted/Harbor Seal	52	
Phocidae	Hair Seal	6	
Unidentified Marine Mammal		4	
TOTAL			**87**

Table 2.5. Faunal remains from house feature in Unit S13 E14 excavated in 2002 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
AVES			**10**
Anatidae			
Melanitta fusca	White-winged Scoter	4	
Aves	Unidentified Bird	6	
INVERTEBRATES			**3**
Gastropoda			
Neptunea sp.	Neptunes	2	
Mollusca	Unidentified Shell	1	
MAMMALIA			**172**
Unidentified Mammal		24	
Large Mammal		26	
Terrestrial Mammals			
Artiodactyla			
Rangifer sp.	Caribou	2	
Carnivora			
Canis sp.	Dogs, Wolves, Coyotes, Foxes	1	
Rodentia			
Spermophilus parryii	Arctic Ground Squirrel	1	
Marine Mammals			
Cetacea			
Cetacea	Unidentified Whale	1	
Phocidae			
Odobenus rosmarus	Walrus	4	
Pinnipedia, Seal		35	
Phocidae	Hair Seal	77	
Unidentified Marine Mammal		1	
TOTAL			**185**

Table 2.6. Faunal remains from faunal scatter in Units S17 E20 and S16 E21 excavated in 2002 at TEL-155.

Taxon	*Common Name*	*Count*	*Total*
AVES			**83**
Alcidae			
Uria aalge	Common Murre	4	
Ptychoramphus aleuticus	Cassin's Auklet	1	
Anatidae			
Anas sp.	Surface Feeding Ducks	4	
Branta canadensis	Canada Goose	2	
Melanitta fusca	White-winged Scoter	15	
Melanitta perspicillata	Surf Scoter	1	
Melanitta sp.	Scoters	11	
Anatidae	Ducks, Geese, and Swans	3	
Ardeidae	Herons and Bitterns	1	
Laridae			
Larus sp.	Gulls	4	
Aves	Unidentified Bird	37	
PISCES			**3**
Hippoglossus stenolepis	Pacific Halibut	1	
Pisces	Unidentified Fish	2	
INVERTEBRATES			**112**
Bivalvia			
Macoma sp.	Macomas	1	
Mactromeris polynyma	Arctic Surf Clam	1	
Gastropoda			
Neptunea sp.	Neptunes	69	
Gastropoda	Unidentified Gastrapod	39	
Mollusca	Unidentified Shell	2	
MAMMALIA			**3005**
Medium Mammal		1	
Large Mammal		237	
Unidentified Mammal		479	

Table 2.6. *(Continued)*

Taxon	*Common Name*	*Count*	*Total*
MAMMALIA *(Continued)*			
Terrestrial Mammals			
Artiodactyla			
Rangifer sp.	Caribou	12	
Carnivora			
Canis sp.	Dogs, Wolves, Coyotes	14	
Alopex lagopus	Arctic Fox	4	
Canidae	Dogs, Wolves, Coyotes, Foxes	2	
Ursus americanus	Black Bear	1	
Rodentia			
Spermophilus parryii	Arctic Ground Squirrel	6	
Small Terrestrial Mammal		3	
Medium Terrestrial Mammal		3	
Large Terrestrial Mammal		3	
Marine Mammals			
Cetacea			
Cetacea	Unidentified Whale	2	
Pinnipedia			
Erignathus barbatus	Bearded Seal	3	
Odobenus rosmarus	Walrus	24	
Phoca vitulina	Harbor Seal	2	
Pusa hispida	Ringed Seal	11	
Phocidae	Hair Seal	1156	
Pinnipedia, Large		2	
Pinnipedia, Seal		1017	
Unidentified Marine Mammal		23	
UNIDENTIFIABLE BONE		2	**2**
TOTAL			**3205**

Appendix 3: Artifact Analysis Results

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Artifact Analysis Results

The artifact collections from TEL-155 were analyzed at the Environment and Natural Resources Institute (ENRI). As established in the cooperative agreement, a conservator reviewed the collection and a small selection of the more fragile organic objects were treated and reconstructed. Recommendations from this review are not summarized in the current report, but are on file at ENRI (Shah 2003).

The collection is curated at the University of Alaska Fairbanks (UAF) Museum. A selection of the artifacts comprise a temporary educational exhibit in Wales, Alaska, that was installed in October 2003. The location of each object is documented on a tracking form that is also on file at ENRI. Displayed artifacts will eventually be curated at the UAF Museum with the rest of the collection.

Summary

The collections from TEL-155 consisted of 2,145 objects, 48% of which were prehistoric fragmentary ceramics. Most of the ceramic sherds are undecorated (70.5%), although Seward Striated, Yukon Line-Dot, Yukon Lined, and St. Lawrence Corrugated wares are represented (see the artifact type descriptions that follow, Tables 3.1–3.8, and Figures 3.1–3.21).

The remainder of the collection consists predominantly of worked materials—such as ivory and bone—and debitage (16.9%), subsistence-oriented tools (12.2%), and historic/modern objects (8.4%). Non-subsistence, decorative items—such as labrets, beads, and combs—represent .7% of the collection; the remainder are unidentified objects or curated materials.

Artifact Type Descriptions

The following type descriptions include many that were established previously by Harritt (1994:385) as well as new additions to the prior classifications. The classes defined below include only those that are represented in the 2000 and 2002 TEL-155 collections. *Note: In cases where the present class designations differ from those previously defined in Harritt's (1994) classification, cross-references are presented in italics. Classifications that were not previously defined by Harritt (1994) are denoted as "NEW."*

1. Abrader

   A single stone that was used for smoothing purposes was recovered. One side shows extensive wear from use. Striations are clearly visible on the flattened surface. Total = 1. Material unknown.

2. Adze blade

   Triangular celt-shaped blade, in outline, with a beveled cutting edge asymetrically located closer to the ventral side than the dorsal. Blade was attached directly to the handle without use of a socket. Total = 1. Material: jade/jadite.

3. Adze handle

   Only a section of an adze handle is represented. It is a distal end broken off where the handle begins to narrow toward the proximal end to which the head would have been attached (Figure 3.9). It has three holes drilled through it to facilitate attachment. Total = 1. Material: antler.

4. Adze head

   This adze component has a socket to receive a blade; it is lashed to the distal end of the handle (Nelson 1983: Pl. 39, nos. 10, 14) (Figure 3.9). Examples are triangular in outline with a rectangular socket; presumably a celt-shaped blade with a triangular outline and flat cross-section fit into this type of socket. Total = 1. Material: antler.

5. Anthropomorphic figurine

   The basic form is a stylized torso and head with an oval outline. Both examples are carved, with facial features, including eyes and nose clearly discernable (Figure 3.10). One figure was intentionally carved without arms. The second figurine is partially burned on the left side and broken at the torso, although portions of the right arm and the entire head and upper torso are present. Total = 2. Material: wood.

6. Antler, cut

   This type designates pieces that have one or more cut marks; cuts may define one edge. Pieces may intergrade with "curated material." Total = 14. Material: antler.

7. Antler, flake

   This designates chips removed from green antler and is the antler equivalent to "bone flake." The general form is an elliptical section of cortex with a percussion bulb on the ventral side. The presence of percussion bulbs indicates they were produced as a result of green percussion fracturing. Total = 1. Material: antler.

8. Antler, worked

   Worked antler is a catchall classification consisting of antler fragments that have been carved, chopped, drilled, or any combination of the three. No clear tool form or use is discernable. These artifacts also vary widely in size prohibiting any further description. Total number = 13. Material: antler. *This classification is equivalent to Harritt's (1994:387) "Antler, cut."*

9. Armor plate

   One incomplete example of an armor slat was recovered. It is made of antler and has a pattern of drilled holes that indicates use as armor. Total = 1. Material: antler.

10. Arrowhead base

    This classification is represented by the proximal tang end of an arrowhead or possibly a bird blunt (Figure 3.1). All examples in the collection have sustained significant damage to the distal end, prohibiting specific type assignment. Total = 3. Material: antler. *NEW.*

11. Arrowhead

    This form is designated as a "fish-arrow barb" in some collections (i.e., Giddings 1964: Plt 9, 10–19; Giddings and Anderson 1986: Plt. 1g) (Figure 3.1). The primary characteristics of this form are pin-shaped or wedge-shaped base and relatively small, and sometimes close-set unilateral barbs. Total = 1. Material: ivory.

12. Awl

    Examples from the collection consist only of casual tools; these are broken, fortuitously sharp, bone sections showing use-wear on their pointed ends. Presumably, the wear resulted from their use as perforating implements. Total = 2. Material: bone.

13. Baleen fragment

    Surprisingly, only a single baleen artifact was recovered from the excavation. It is a relatively large, unworked fragment. No clear indication of cutting can be found on the poorly preserved specimen. Total = 1. Material: baleen.

14. Bead

    Two glass trade beads were recovered from the excavations. One is a grey-blue, hand-rolled seed bead (Figure 3.11). The second is classified as a White Heart or Cornaline d'Aleppo bead, which was sold by the Hudson Bay Trading Co., Ft. Victoria, British Columbia, from 1825–1880 (National Bead Society website). Total = 2. Material: glass.

15. Biface

    This type includes all sections and fragments, or amorphously-shaped pieces that cannot reasonably be assigned to a more specific type. All are chipped rock with sufficient bifacial modification to produce a beveled or sharpened edge. Intergrades with "retouched flake." Dimensions are highly variable. Total = 3. Material: chert, quarzite, and slate.

16. Birch bark

    The birch bark in the collection has not been modified. It was probably transported to the site from the beach. It is naturally curled. Total = 1. Material: birch bark. *This classification is equivalent to Harritt's (1994:411) "Material, curated."*

17. Bird blunt

    Two examples of this type were recovered. In both examples, the proximal end is tapered to allow for insertion into an arrow shaft. The distal end is slightly bifurcated but was certainly blunt and not intended to penetrate flesh (Figure 3.9). Total = 2. Material: antler and bone. *This classification is equivalent to Harritt's (1994:387–388) "Arrowhead, variety III."*

18. Bird spear prong

    This example is similar to a bird arrow. The only recovered prong in the collection is unilaterally barbed with a thick, teardrop-shaped cross-section and missing the distal end (Nelson 1983: 152, Pl. LIX). Total = 1. Material: ivory. *NEW.*

19. Blubber hook/boat hook

    The single specimen is a bone hook that would have been fastened to a handle. It may have functioned as a type of blubber hook, or as a boat hook as seen in Nelson (1983: Plate 80, 3). Total = 1. Material: bone. *This classification is equivalent to Harritt's (1994:407) "hook."*

20. Bola weight

    Several examples of bola weights were recovered. The form includes a variety of slightly different shapes and degrees of finishing (Figure 3.6). Some are crude chunks of walrus bone with a single hole drilled for attachment of a cord. Others are more fully formed (Giddings and Anderson 1986: Pl. 55, K, and 3H). Total = 19. Material: bone, ivory, and antler. *NEW.*

21. Bone chip

This type differs from the percussion-produced bone chips described by Harritt (1994). Bone chips are the by-product of chopping with an adze or similar implement. Total = 29. Material: bone.

22. Bone, cut

This type is the bone equivalent to the "cut antler" type. Bone examples have one or more cut marks, either narrow incising or saw marks; cuts may define one edge. Intergrades with "curated material." Dimensions are highly variable. Total = 74. Material: bone.

23. Bone, drilled

This type represents bone sections that show evidence of drilling. These artifacts intergrade with "bone, worked" or "bone, used." Dimensions are highly variable. Total = 1. Material: bone. *NEW.*

24. Bone, worked

Worked bone is a catchall classification category for antler fragments that have been carved, chopped, drilled, or any combination of the three. No clear tool form or use is discernable. These artifacts also vary widely in size. Total = 22. Material: bone. *This classification combines Harritt's (1994:390) "bone, cut," "bone, ground," and "bone, used" classes.*

25. Bottle

Examples of this type in the present collection are composed entirely of fragments, therefore the designation is based on the relative size of the vessel as indicated by diameter. In this respect bottles are considered to have generally smaller diameters than jars. The collection has fragmentary examples only. May intergrade with jars (none in the present collection are so designated). Total = 5. Material: glass.

26. Bow fragments

Examples in the collection include three segments of presumably the same bow. Size, color, and shape all suggest that they belong to the same implement. One piece has a small protrusion from the end (an "ear") to facilitate the attachment of the bowstring (Figure 3.12) (Nelson 1983: 154, Pl. LX). Total = 3. Material: wood. *NEW.*

27. Bow splice

A single example of this type was recovered. The small roughly rectangular piece of antler was carved flat on one broad face and the opposing face was slightly convex; the cross-section is plano-convex. The convex side was intentionally roughened on the ends and has a slightly raised lip on the end to prevent the sinew from sliding off. This item was used to reinforce the union between multiple pieces of bow components (Giddings and Anderson 1986: Pl.48 n,o). Total = 1. Material: antler. *NEW.*

28. Button, modern

A single modern button constructed of plastic was recovered in the disturbed levels. It had four holes and is an off-white color. Total = 1. Material: plastic. *NEW.*

29. Can

Only fragments of tin-plated steel cans comprise this type. Both rim and body fragments are included. Total = 7. Material: tin-plated steel.

30. Cartridge brass

Discharged firearm cartridges (Figure 3.21). Head stamps in the collection include: .22 cal, WRA Co. 44 WCF, WRA C. 20-20 WOF, 42 DEN, S W I T, 2 HORNET WW SUPER, EW 43, SUPER SPEED 30-30 WIN, Super X, HI SPEED U, H, U, Rem, WRA Co. W.C.F. 25-20, and SL 43. In one instance two empty cartridges were found jammed together. Total = 32. Material: brass.

31. Ceramic, modern

A single fragment of white ware comprises this type. The specimen is hand painted and possesses a faint red and green design. Total = 1. Material: ceramic. *NEW.*

32. Clinker/slag

This culturally produced material is sand and/or sod that has been soaked with sea mammal oil and subsequently burned. Examples in the collection are only a sample of the overall amount encountered. Total = 49. Material: clinker. *NEW.*

33. Comb

The single example in the collection is in excellent condition (Figure 3.11). It is constructed of antler and is decorated. Two drilled holes are present in the handle and many lines have been incised into the broad surfaces. Some of the teeth remain in the comb. Total = 1. Material: antler.

34. Copper fragments

Fragments of copper sheeting resembling the type used as sheathing on nineteenth century wooden ships comprise this type. None of the examples show modification for use as a tool or any clear wear marks. Total = 3. Material: copper. *NEW.*

35. Dish

Both examples of this type in the collection meet the basic definitional criteria of having an oval to sub-oval concavity that has been carved into a solid section of wood (Figure 3.5). Dish forms vary in the treatment of the bases. These range from only very crudely finished bases that resemble a slightly modified board, to being fully formed rounded to sub-rounded shapes. Total = 2. Material: wood.

36. Drilled tooth/amulet

One specimen is a small canine from an unknown animal that has a single hole drilled through the root. The other specimen exhibits parts of two holes drilled at a 90° angle to one another (Figure 3.11). The second specimen was made from a caribou or reindeer incisor. Total = 2. Material: animal tooth. *This class is equivalent to Harritt's (1994:414) "pendant."*

37. Effigy, animal

Two animal effigies were recovered from the site (Figure 3.10). The first is a whale with both flukes and pectoral fins present. This example is carved from wood and is nearly complete, with only slight damage to the head. The second example represents a seal or whale. This effigy is pecked to form from sedimentary rock and is plano-convex in profile. The third example is antler and resembles the outline of a seal lying on a surface. Total = 3. Material: wood, sedimentary rock, and antler.

38. Ellipsoid scraper

This designates a trend in the form of casually made unifacial scrapers. The primary defining attribute is the elliptical to sub-elliptical outline, found in combination with the unifacial manufacturing technique, and a plano-convex cross-section. Total = 1. Material: chert.

39. End blade

Only one example of a slate end blade was recovered (Figure 3.15). It is typical of the style that would be inserted into a small harpoon head. Both sides were ground sharp and the base was slightly thinner than the rest of the blade to facilitate insertion into the harpoon head. The end blade is nearly complete with only slight damage along the base. Total = 1. Material: slate. *This class is equivalent to Harritt's (1994:407) "insert blade, harpoon."*

40. Fire-cracked rock

Two specimens are included in the fire-cracked rock category. Both were recovered from disturbed deposits. Both specimens had turned pink and dark gray from the firing process. Total = 2. Material: cobbles.

41. Fishhook body

Six fishhook bodies that no longer possessed their barbs were recovered. All six were distinctly different in shape (Figure 3.8). Five specimens were constructed from ivory and one from bone. The bone specimen had a fragment of an iron hook remaining at one end. All specimens had a single hole for line attachment and one or two holes or slots for barbs. Unfortunately, five of the six specimens were recovered from disturbed deposits. Notably one of the specimens has retained a small portion of an iron fishhook. Total = 6. Materials: ivory (5), bone (1). *This classification is equivalent to Harritt's (1994:400) "fishhook."*

42. Fishhook barb

The examples in the present collection are consistent in form with ethnographic examples from the Bering Strait area, and with archaeological specimens recovered from Western Thule contexts at Cape Krusentern (Bockstoce 1977: Fig. 39, no. 72; Giddings and Anderson 1986: Plt. 21; Nelson 1983: Plt. 69, 11). The proximal end is a flattened, tapered tang; the medial portion swells in cross-section toward the distal end. The distal end tapers to a conical tip. Total = 3. Material: ivory.

43. Fish lure

One fishing lure carved out of ivory was recovered (Figure 3.6). It was shaped like a small fish with a hole in the tail for suspension and a series of three grooves in the mouth area for additional attachments. The eyes were drilled and inset with small pieces of ivory. Total = 1. Material: ivory. *NEW.*

44. Flake, blade-like

The general form can be described simply as a flake that is longer than it is wide; therefore it resembles a blade in its outline. The best examples have parallel sides, but these may grade into sub-rectangular forms that approach having trianguloid outlines. The majority of the examples from the region are triangular or trapezoidal in cross-section and, rarely, pentagonal. Total = 1. Material: unknown mineral (mica-like).

45. Flake, ground

This type designates debitage that has at least one ground facet. Examples of ground flakes may also show use-wear, in which case they are designated as "used flakes." Dimensions are highly variable. Total = 1. Material: slate.

46. Flake, retouched

In following convention, this type is defined simply as a flake showing limited modification (chipping) representing retouch or sharpening of a fortuitously sharp edge. Total = 4. Material: slate, quartz, and chert.

47. Flake, used

In following conventional use of this designation, lithic chips that show evidence of use-wear, such as small chip scars along a fortuitously sharp edge are assigned to this type. Other evidence may include reduction of an edge as a result of rubbing or grinding during use as a cutting or scraping implement. Virtually any type of lithic material may be used in this way. Microblades are not included under this type. Dimensions are highly variable. Total = 9. Material: slate, sedimentary, shale, and quartz.

48. Flaker

This type typically refers to a rod or shaft-like piece of antler, ivory, or wood, sometimes mounted in a handle, and used to remove pressure flakes during the production of lithic tools (Nelson 1983: Figure 26). The one example from the collection represents an expedient version of this tool, in which the sharpened distal end of an antler tine was used. The proximal end of the tine retains its natural form, resulting in a cross-section more plano-convex than round. Total = 1. Material: antler. *NEW.*

49. Float, net

A wooden object resembling a net float was recovered from the surface. Its age is unclear and no additional specimens were recovered in the buried deposits. Total = 1. Material: wood.

50. Fur fragment

Fur/skin is also very rare in the collection. Two small specimens were recovered from the features at the deepest levels of the South Block. The species from which the fur came from was not determined. Total = 2. Material: fur. *This class is equivalent to Harritt's (1994:410) "material, curated."*

51. Glass, window

Several piece of modern window glass were recovered from disturbed areas at TEL-155. All were clear or slightly tinted green. Total = 8. Material: glass.

52. Glass, container

Glass fragments that were formerly parts of various containers were recovered in various shapes, sizes, and colors. Two fragments exhibit mold seams, and the remaining pieces all appear to have been the result of recent glass technology (i.e. pressure molds). Total = 24. Material: glass. *This classification is consistent with Harritt's (1994:390) "bottle."*

53. Graphite

This includes unmodified sections and sections showing use attrition from rubbing. Rubbing, in some cases, may have produced notches in the edges of the piece(s). Presumably, graphite

was used in prehistoric times in Bering Strait in one of the same ways it is now used—as a lubricant. One suggested prehistoric use was as a coating for bowstrings (Giddings and Anderson 1986:62). Total = 5. Material: graphite.

54. Grinding stone

In following convention, this type designates larger rocks that show attrition from primary use as a grinding implement. Fragmentary pieces show signs of purposeful use as grinding implements. Although virtually any form might be used for this purpose, most tend to be elongate and slab-like. This form differs from whetstone with respect to relative size, whetstones being smaller than grinding stones, and relative intensity of use; many whetstones have been substantially reduced in overall width and thickness by rubbing. Total = 4. Material: sedimentary and slate.

55. Hammerstone

Several examples of hammerstones were found, each with a slightly different use pattern. These vary from slight battering on one end to battering on all edges with additional use of the broad surfaces. All hammerstones in the collection were made of naturally rounded beach cobbles. Total = 9. Material: metamorphic, igneous, siltstone, and sedimentary cobbles.

56. Handle

This type includes several handles or possible handles of different form with the exception of clear-cut "adze handle" forms. One specimen consists of a slightly curved piece of antler with both ends worked and a hole drilled in the center. This specimen may represent a drag handle or a handle for a bow drill cord. The remaining specimens are composed of wood/wood fragments that were either parts of handles or possibly shafts. Total = 5. Material: bone, bone/antler? and wood.

57. Harpoon head base

A single base of a closed socket style of toggling harpoon head comprises this type. The spur is present, as well as part of the hole in which the foreshaft is inserted (cf. Dumond 2000:23). Other than the traits mentioned, there are no other indicators of a specific harpoon head type. Total = 1. Material: antler. *NEW.*

58. Harpoon head (preform)

A preform clearly in the shape of a small toggling harpoon head is represented in the collection. No holes have been drilled, but the barb is clearly defined, as is the distal end in which the blade would have been inserted. The preform was too incomplete to suggest a particular style. Total = 1. Material: antler. *NEW.*

59. Harpoon ice pick

The single example in the collection is unfinished, however the tang end of it is complete. It is a very robust and large implement that would require a substantial harpoon shaft for attachment (Nelson 1983: P. LXVII, Fig. 10). Total = 1. Material: ivory. *NEW.*

60. Harpoon finger rest

This type consists of a small fragment of ivory that is rectangular in plan view. In one profile view it is slightly curved at one end and the opposing end is broken. Classification as a finger rest is tentative. *Equivalent to Harritt's (1994:406) "harpoon rest."* Total = 1. Material: ivory. *NEW.*

61. Insert blade, arrow

This version of the basic trianguloid insert blade form is chipped to shape, and has a straight to slightly convex base. Cross-sections are lenticular to diamond-shaped. This type is distinguished from the serrated insert blade by its simple, straight, bifacially prepared edges, and from the ground, harpoon insert blade by its flaked manufacture technique. Giddings and Anderson (1986: 95, Pl. 56g–h, n) note that this form may have been used as harpoon inserts as well as in arrowheads (also Anderson 1988: Fig. 115a–d). Total = 1. Material: chert.

62. Ivory chip

Equivalent to "antler flake" or "bone chip." The general form is elliptical with a percussion bulb on the ventral side. Total = 29. Material: ivory. *NEW.*

63. Ivory, cut

This is the ivory equivalent of the cut antler and cut bone types. Examples of this type have one or more cut marks; cuts may define one edge. Intergrades with curated material. Dimensions are highly variable. Total = 12. Material: ivory.

64. Ivory, worked

Worked ivory is a catchall classification consisting of ivory fragments that have been carved, chopped, drilled, or any combination of the three. No clear tool form or use is discernable. These artifacts also vary widely in size. Total = 13. Material: ivory. *This class includes examples that would be equivalent to Harritt's (1994:408) "Ivory, cut."*

65. Knife blade

This type is represented by a single specimen that is sharpened along the entire length of the prepared edge; the opposing spine side has been grooved and broken. The blade is an unusual shape for an ulu, a man's knife, or other traditional shapes, but it is complete. Total = 1. Material: slate. *This classification is equivalent to Harritt's (1994:62) "ground fragment."*

66. Knife (blade fragment)

This type encompasses various sizes and shapes of ground slate objects that have a portion of at least one cutting edge remaining, but are not complete enough to allow more specific classification (Figure 3.15). Total = 6. Material: slate. *This classification is equivalent to Harritt's (1994:62) "ground fragment."*

67. Knife handle (crooked)

Two specimens are included in this type. One example (Figure 3.9, UA2000-68-6) is a complete handle in excellent condition. It is grooved to facilitate blade insertion. Two small, finely drilled holes are also present for blade attachment, perhaps for a metal blade. The opposite end has a hole drilled in it for the attachment of a suspension cord. The other specimen (Figure 3.9, UA2002-70-31) was fragmentary and consists only of the end in which the blade would have been inserted. The blade slot is stained an orange-red color, indicating the former presence of an iron blade. Total = 2. Material: bone (1); antler (1). *This classification is equivalent to Harritt's (1994:395–396) "Composite knife handle."*

68. Labret

The general form is rounded-off and plug-like with a flange or lip on the proximal end (Figure 3.11). Ethnographically documented examples of labrets describe their use as personal adornments; they were inserted through perforations at the corners of the mouth, or through a

perforation in the lower lip (Nelson 1983: 44–50, Pl. 22, 23, 25). The plug version of labret has been found in archaeological contexts as well, dating to as early as Nukleet times (Giddings 1964: Pl. 30; Giddings and Anderson 1986: Pl. 6m). Total = 2. Material: ivory.

69. Lancet

This type describes a thin, narrow, ground biface with a rough, unfinished base (Figure 3.15). Total = 1. Material: slate. (Nelson 1983:18–24, Pl. LVII6) *NEW.*

70. Leister prong

This form of prong was used in spearing fish or birds. In fish spears, one to three of these prongs were lashed, trident-like, to the end of a long shaft (Nelson 1983: Pl. LXVII; 3, 5, 6). Bird spears typically consisted of a center prong and three side prongs, mounted at the mid-point of the shaft around its circumference, which project outward in order to catch the neck or wings of birds (Dumond 2000:52). *NEW.*

Variety I

This variety applies to center spear prongs (Figure 3.1). These prongs are typically long, straight, and unilaterally or bilaterally barbed (Dumond and Collins 2000:51; Nelson 1983: Pl. LIX). Total = 2. Material: ivory.

Variety II

This variety functioned as side spear prongs. These prongs are typically longer than Variety I, with a slight natural curve or obliquely cut tang, and unilateral or bilateral barbs (Dumond and Collins 2000:52).

71. Lithic debitage

Describes any non-utilized lithic waste derived from the production of stone tools. Size and material are highly variable. Total = 86. Material: chert, slate, metamorphic, sedimentary, rhyolite, igneous, and siltstone. *NEW.*

72. Marlin spike

Three examples are represented. All three are constructed out of rib sections. Two specimens clearly show evidence of polishing from use, while the other has no evidence of rubbing. Total = 3. Material: bone.

73. Material, curated

This designates a broad category of objects and a wide variety of materials. Included are exotic, unmodified materials, and modified sections and pieces that represent material intended for use in the manufacture of artifacts. Examples include unmodified antler or bones found in contexts that suggest purposeful maintenance for future use, or antler and bone sections that represent the initial material reduction stages of manufacture. Such objects are not sufficiently modified to indicate an intended use or form, nor have they been used as rudimentary implements. The same criteria apply to rock, wood, and other organic materials. Some objects in this category may intergrade with "unidentified objects" and "ground" and "cut" materials of various types. Dimensions are highly variable. Total = 57.

74. Metal fragment

This type is a broad category that includes a diverse group of iron artifacts that vary greatly in size and shape. All specimens are moderately to severely oxidized. Total = 42. Material: iron.

75. Nails

All nails included in the collection were recovered from the disturbed layers of the deposits. All sizes of nails are included in this type. Total = 46. Material: iron. *NEW.*

76. Needle

One possible needle is included under this type (Figure 3.1). Both ends are slightly damaged and no hole or groove is present to facilitate sewing. (Bland 2002:89, 9.1; Giddings 1964:72–73, Pl. 29, 3–4) Total = 1. Material: ivory. *NEW.*

77. Net shuttle

Examples of this type are all from two large net shuttles that were recovered in poor condition (Figure 3.14). One of the shuttles recovered was in association with a metal fragment, but it is unclear how the iron was related to the shuttle. (Nelson 1983: Pl. LXXIII, Fig. 8–28. Total = 2. Material: wood/iron. *NEW.*

78. Net sinker

The basic form is a relatively flat, usually water-worn, pebble to cobble-size rock (~50–100 mm) that has at least one notch worked into the surface to facilitate lashing the weight to the lower edge of the net (Figure 3.7). Notches on otherwise unaltered pieces are usually in the middle portion of the rock. *Equivalent to Harritt's (1994: 412) "Netsinker, Variety II."* Total = 27. Material: sedimentary and quartz-like cobbles.

79. Peg

This type is represented by three examples (Figure 3.9). Two are made of bone and were carved so that they slightly taper longitudinally. One specimen shows evidence of battering on the proximal end to hammer the peg into place. The pegs could have served several different functions, but they are the style used to fasten sled runner shoes to sled runners. The third example was fashioned from a broken sled runner shoe, with one section of the shoe remaining intact while the opposite end was carved into a cylinder, as a stage in manufacture. Total = 3. Material: bone and antler.

80. Pick

Objects with pick-like attributes are relegated to this type (Figure 3.12). The critical attributes in this respect include an elongate form having a prepared, pointed distal end; cross-sections range from round to lenticular. All of the examples have a slight lengthwise, dorsal-ventral curve, and are most consistent with those designated as "root picks" in Nelson's ethnographic collection (1983: Pl. 33b; compare with i.e., Giddings and Anderson 1986: Pl. 8f, Pl. 22o). Archaeological examples have been recorded from Cape Denbigh and Cape Krusenstern. Collections from the Bering Strait area have a fairly broad range of forms designated as picks (Giddings 1964: Pl. 21; Giddings and Anderson 1986: Pl. 8g–j, m). Total = 3. Material: bone, ivory, and metal.

81. Pointed object

This designates a category of unidentified objects in the collection to a more specific degree. Pointed objects have one end that has purposefully been fashioned into a point. The actual forms range from fragments and sections of organic materials that are casually modified to fully formed objects. Also included are extremely decayed or exfoliated pieces that are unidentifiable remains of specific implement types. Total = 5. Material: bone and ivory.

82. Pot/pottery

In following conventional use of this category, pottery refers to fragments of clay vessels fired in an oxidizing atmosphere and includes a wide variety of component materials besides the requisite clay. Components materials include but are not limited to feathers, grasses, fur, gravel, and sand used in various combinations as temper.

Current knowledge of pottery from the Bering Strait area is for the most part based on Wendell Oswalt's (1953, 1955) thorough studies, and his formulation of a rudimentary classification system. Subsequent analyses, such as Griffin and Wilmeth's (1964) study of ceramics from Iyatayet, and Lucier and VanStone's (1992) analysis of Kotzebue Sound pottery, draw heavily on Oswalt's work. Oswalt's designations and age ranges for the individual wares are used in the present analysis as well, but are augmented by the subsequent studies mentioned above and Harritt's (1994) data.

Discussions of the different pottery types found during the course of the fieldwork are presented in the descriptions of each site's test results. These will not be repeated here; but it is important to note that attributes that were recorded previously, such as specific combinations of decoration and vessel shapes, were found in new combinations in examples in the present collection (Oswalt 1955:32).

In the present study, in cases where new combinations are found or a new decorative motif is discovered, the classification ascription is based on the primary type of decoration present, rather than variations in vessel shapes (compare with Oswalt 1955:32). Although these new expressions of pottery technology are lumped under original *types* that are defined by Oswalt (1955), future analysis will undoubtedly establish clear-cut varieties for each of Oswalt's types. A useful broad designation employed during the present analysis was the use of *ware* categories, a broad category designation also used by Oswalt (1955), but not formally defined by him. These can be employed in cases where a fragment possesses sufficient decorative or temper attributes to assign a ware category such as "St. Lawrence" ware, a category that designates fragments with sand/feathers or coarse sand/gravel or grass temper, but lacking the identifiable surface decoration to assign the fragment to a type such as "St. Lawrence Corrugated." Identifications under the "Plain" category include fragments without exterior and/or interior surfaces and examples with smooth, undecorated intact surfaces.

The following ware/type definitions are derived from Harritt (1994). Additional remarks on specific temper combinations and rim styles are also included. The descriptions of the Plain and Hooper Bay striated pottery have been added.

Ware: Plain

Decoration: None, some specimen display slight smoothing striations on their exterior surface, but not a discernable design.

Temper: Highly variable combinations including primarily coarse sand and gravel, but also fiber, burned bone, and feather.

Rim design: Many are rounded or squared with an exterior bulge and exhibit diagonal lines or a variation of the diagonal lines that looks like a pie crust. Relatively few examples have either an exterior or interior sloping facets.

Remarks: All fragments that did not exhibit any exterior design were classified as plain. In reality, some of these specimens would be placed in other categories if they were more complete.

Ware: St. Lawrence

Type: St. Lawrence Corrugated

Decoration: Horizontal lines sometimes superimposed.

Temper: Sand/feather, sand/feather/gravel.
Rim design: No rims present in the collection.
Remarks: The single example in the Tin City collection possesses only coarse sand temper. Oswalt Age Range: 2300–contact. Harritt range: 500–300.

Ware: Seward
Type: Seward Striated (Figure 3.17)
Decoration: Horizontal lines in vertical series.
Temper: Sand only, sand/feather. The temper combinations observed in previous reports are evident in the majority of the Seward Striated, but organic matter and burned bone is included in some specimens in the collection (cf Harritt 1994).
Rim design: Rims are usually squared or rounded with an exterior bulge and diagonal lines or pie crust-like scalloping. One specimen has a scalloped, pointed edge with a pronounced interior lip. Other examples also possessed interior bulges, exterior sloping facets. Rim treatments are very diverse within this type.
Remarks: The Tin City collection contains a relatively large amount of this type making it very unique in this regard. Oswalt Age Range: 550–contact. Harritt range: 500–300.

Ware: Norton
Type: Norton Check-stamped (Figure 3.16)
Decoration: Check-stamped paddle impressions separated by small spaces.
Temper: Sand/rock bits/fiber.
Rim Design: No rims present in the collection.
Remarks: The two Tin City examples are both from disturbed deposits. Temper and design are consistent with the type description except for the absence of fiber temper. One of the examples has undergone smoothing after paddling. Oswalt Age Range: 2050–1500. Harritt range: ~100 years before present (1 fragment from a disturbed context).

Ware: Yukon
Type: Yukon Lined (Figure 3.18)
Decoration: 1–7 relatively wide lines, encircling the vessel near the rim.
Temper: Sand only, sand/gravel (Feather temper is also present in one specimen).
Rim design: Squared; rounded; squared with exterior bulge and diagonal lines.
Remarks: Specimens possessing a single thin line with no other design elements are also included in this category. Oswalt Age Range: 400–contact. Harritt range: 500–300.

Ware: Yukon
Type: Hooper Bay Shell Striated
Decoration: The striations appear to have been made by shell used in a rocker fashion.
Temper: Sand/gravel.
Rim design: No rims present in the collection.
Remarks: One fragment of Oswalt's Hooper Bay shell striated pottery was recovered. Analogous specimens have only been found at Hooper Bay, Alaska. Perhaps the fragment is more likely a piece of Seward-Striated pottery that has deteriorated to some degree resulting in a false classification. Oswalt Age Range: 1500–contact.

83. Preform (bone/antler, ivory, slate)
This category included pieces that have been modified by slight to moderate carving and/or chopping to create a preform of a specific implement. A single ivory preform is a tusk section

that has been split and carved at both ends (Figure 3.2). Three longitudinal grooves are also present. This ivory section was likely a preform for small ivory points or perhaps needles. Larger sections of antler that match this description are frequently found. The antler preforms of this style are used to make antler arrowheads. Slate specimens have been grooved and snapped to create a preform that would have presumably been worked into blades or points. One specimen also exhibits chipping. *This class would include some items that would be assigned to Harritt's (1994:404) "ground fragment."* Total = 11. Material: bone (3); antler (1); ivory (4) and slate (3). *NEW.*

84. Scoop, ice

This type, also known as "sieves" or "strainers" is a widespread implement in the Bering Strait area (Figure 3.13). The form was used historically for removing ice chips and chunks from newly opened ice-fishing holes, and also were used to keep the opened holes ice-free during fishing (Bockstoce 1977: Fig. 40; Nelson 1983: 174–175, Pl. 67, 7). Total = 4. Material: antler and bone.

85. Scraper, bone (metapodial)

Two fragments of caribou/reindeer metapodial bones that were cut longitudinally and subsequently used as scrapers are in the collection. Total = 2. Material: bone. *NEW.*

86. Shaft fragments

Shaft fragments is a broad type that includes many wooden artifacts that are circular to ovular in cross-section. This group consists of fragments that were likely portions of arrow shafts. Total = 46. Material: wood. *This classification is equivalent to Harritt's (1994:423) "shaft."*

87. Slate (flakes)

This type consists of a general group of slate flakes. All flakes are simple waste material and none exhibit any retouching or wear from use. Total =13. Material: slate. *This classification was treated by Harritt (1994:481) as part of a "lithic debitage" category.*

88. Slate, unmodified

This type designates unmodified slate, an exotic material at the site, that was transported to the site presumably for manufacturing tools such as ulus. Total = 9. Material: slate. *This classification is equivalent to Harritt's (1994:410–411) "material, curated."*

89. Sled runner shoe

This designates the sled component that lines the lower edge of the runner and actually contacts the snow and ice (Figure 3.2). Ethnographic accounts of the item indicate that the "...runners of the larger sleds...(were) commonly shod with thin, flat strips of bone..." (Nelson 1983:207). Archaeological examples of sled runners are widespread in western Alaska. The basic form is slat-like with drilled holes through the broad faces, placed at intervals along the length. Cross-sections of used examples are plano-convex as a result of use-wear. The attrition process polishes the lower face while the runner side remains relatively rough. Total = 17. Material: bone, ivory, and antler.

90. Spoon

This type is consistent with the general, conventional definition for the form. The first example from the collection is a large, shallow tear-dropped shaped bowl carved from wood

(Figure 3.4). The second example is much smaller, with a deeper, oval bowl, also carved from wood. Both examples are missing handles. Total = 2. Material: wood.

91. Stone, grooved

A single specimen comprises this type. It consists of a beach cobble that has a slight longitudinal groove on one of its broad surfaces. It is possible that it could have been used as some sort of a whetstone. Total = 1. Material: unidentified. *NEW.*

92. Stone, incised

This type consists of water-worn pebbles with incised lines or grooves on one or more surfaces. Total = 1. Material: sedimentary.

93. Stone, notched

This designates rocks or fragmentary rocks that have a single crude notch worked into one edge. Rocks with more than one notch would be designated as either a net sinker or as an unidentified object. Those with symmetrical, finely chipped notches would be designated as spokeshaves. Dimensions are highly variable. Total = 2. Material: sedimentary.

94. Stone, unmodified

This type consists of a variable grouping for lithic materials that exhibit no modification or wear. Total = 40. Material: sedimentary, metasedimentary. *This classification is equivalent to Harritt's (1994:410–411) "material, curated."*

95. Trap component

The one example of this type consists of a small hollow bone (avian) with the proximal and distal ends removed (Figure 3.1). A small hole was drilled laterally through one side of the tube near the proximal end. Ethnographic examples (Nelson 1983:124; Pl. LI, 4) document this component as the noose section of a marmot or arctic ground squirrel trap. Total = 1. Material: bone. *NEW.*

96. Toggle

Toggle is a functional type for fasteners of various forms. One specimen may represent a device used to gather cordage, on a sled (Figure 3.9). The other example is a small grooved and drilled item that may have been used as a fastener. (Nelson 1983: 61, Fig.17 and Pl. LVI) Total = 2. Material: ivory (1); antler (1). *NEW.*

97. Thumbnail scraper

A subset of the uniface type. Outline is elliptical, ovoid to irregular. Differs from unilateral scraper in that it lacks a tang and is smaller in general. Profile is plano-convex. Length = 1.4–2.35 cm; width = 1.5–1.9 cm; and thickness = 0.5–0.6 cm. (Dumond 1981: 207) Total = 2. Material: jade, siltstone. *NEW.*

98. Two-handed scraper

Examples of this type consist of longitudinally bisected bones, where the cut edges of the bone are rounded from use as a scraper. Similar two-handed scrapers are described by Stanford (1976:145, Plates 31a–f; or pg. 182, Plate 71a–b). Total = 2. Material: bone. *NEW.*

99. Ulu

Prior uses of this designation have been applied to a general form of implement with a variety of outlines. Other terms used for the same form include "women's knife," "semi-lunar knife," and "transverse blade" (Figure 3.15). Previously documented variations in ulu outlines range from the well-known crescent or lunate form with a curved cutting edge and a more-or-less straight spine, to a variation on the lunate form that has one or more obtuse corners and a point formed by the cutting edge and the spine; a third version has a tang-like projection on the spine (cf. Giddings 1964: Pl. 16, 7-15; Giddings and Anderson 1986: Pl. 34a-d; Stanford 1976: Pls. 42, 53). The general shape of the implement dictates to a large extent the manner in which the blade is held and the cutting motions are made—transverse to the arm and body of the user; hence the designation "transverse blade" that sometimes appears in the literature. Another general blade form is an elongate, relatively narrow version that has been found hafted in a fashion consistent with that of the sideblade, characteristic of Norton culture. In a different typology, Harritt designated this version as "ground sideblade" (i.e., Harritt 1988: Pls. 9,11); but in many reports these are assigned the ulu designation (i.e., Giddings and Anderson 1986: Pl. 34).

The defining attributes of all ulus in the collection are a relatively broad, flat implement form; a curved cutting edge; manufacture by the stone-grinding technique; and the almost exclusive use of slate as the material of manufacture. Total = 3. Material: sedimentary and slate.

100. Unidentified object

This designates a general category of whole and fragmentary objects. These include fragmentary items of a wide variety of materials and manufacture techniques whose original forms are not identified. Also included are apparently whole items that are not identified as recognizable components of a composite implement, or as examples of identified implements. Examples of this type intergrade with curated materials; cut antler, bone, and ivory; and ground fragments. Dimensions are highly variable. Total = 74. Material: antler, bone, chalk/limestone-like, iron, ivory, plastic, lithic, sandstone, sedimentary, shale, slate, tooth, unknown, and wood/copper/paper.

101. Wedge

Ethnographic examples of this implement are made of a number of materials including wood, bone, antler and ivory, and ". . . vary considerably in size . . ." (Nelson 1983:88, Pl. 39). The essential attributes of the wedge form are a beveled distal end that is suitable for splitting, and a strong shaft that will bear the stress of being hammered into wood, bone, and other hard materials (Figure 3.3). Total = 4. Material: antler and bone.

102. Whetstone

This designates a wide range of forms with characteristic ground facets, presumably produced as a result of grinding related to sharpening implements or other types of material reduction activity by grinding (Figure 3.3). Larger whetstones intergrade with "grinding stones," especially in forms that are relatively broad and flat, or slab-like. Total = 21. Material: sedimentary, shale, slate, igneous, and various lithic materials.

103. Wood chip

This type is composed of wood chips that were the resultant debris from adze use. Individual examples of this type were recovered as well as a large sample that was not individually counted due to the fragile nature of material. Total = 14+. Material: wood.

104. Wood, cut

Included under this designation are sections and fragments bearing one or more cut marks. Marks may be made by a sharp edge, or may be represented as a formed segment of edge. Intergrades with worked wood and unidentified object. Dimensions are highly variable. Total = 3. Material: wood.

105. Wood, worked

Worked wood is a catchall classification consisting of fragments that have been carved, chopped, drilled, or any combination of the three. No clear tool form or use is discernable. These artifacts also vary widely in size. Total = 32. Material: wood. *This class would include some examples that would be classified as Harritt's (1994:431) "wood, cut."*

106. Wood, unmodified.

This type includes pieces or fragments of wood that were imported to the site. None display any modification. Total = 26. Material: wood. *This category would be included in Harritt's (1994:410–411) "material, curated."*

Table 3.1 Artifacts from South Block excavated in 2000 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Disturbed Levels					
Antler, worked			5		5
Arrowhead base			2		2
Awl		1			1
Biface		1			1
Bola weight			9		9
Bone chip			3		3
Bone, worked			6		6
Button (modern)				1	1
Can			7		7
Cartridge (shell casing)			5		5
Ceramic (modern)				1	1
Cobble (unmodified)	1				1
Comb		1			1
Copper fragments			1		1
Drilled tooth, amulet		1			1
Fire-cracked rock	1				1
Fishhook (body)		5			5
Fishing lure		1			1
Glass, window				4	4
Glass, container				7	7
Graphite	3				3
Hammerstone	2				2
Handle		2			2
Harpoon head base	1				1
Harpoon ice pick		1			1
Harpoon finger rest		1			1
Ivory, worked		6			6
Knife (blade fragment)	5				5
Labret		1			1
Marlin spike		1			1
Metal fragment			10		10
Nails			25		25
Needle		1			1
Net shuttle (fragments)		14			14
Net sinker	6				6
Peg		2			2
Pottery					
Plain				163	233
Seward Striated				61	
Textile Impressed				1	
Yukon Lined				7	
Norton Check-Stamped				1	
Preform (antler/bone)		3			3
Preform (slate)	2				2
Scraper, bone (metapodial)		1			1
Slate (flakes)	2				2
Slate, unmodified	8				8
Sled runner shoe		4			4
Spoon (no handle)		1			1
Stone, unmodified	1				1

Table 3.1 *(Continued)*

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Disturbed Levels *(continued)*					
Toggle		1			1
Unidentified object				2	2
Whetstone	2				2
Wood, worked		7			7
Wood, unmodified		1			1
TOTAL					**412**
Undisturbed Levels					
Abrader	1				1
Anthropomorphic figure		1			1
Antler, worked		1			1
Birch bark		1			1
Bone, worked		2			2
Bone chip		1			1
Bow fragments		3			3
Handle fragments		4			4
Harpoon head preform		1			1
Ivory, worked		2			2
Knife blade	1				1
Marlin spike		2			2
Preform (slate)	1				1
Pottery					
Plain				50	63
Seward Striated				10	
Yukon Lined				3	
Shaft fragment		3			3
Slate, flake	4				4
Slate, unmodified	1				1
Sled runner shoe		2			2
Spoon (no handle)		1			1
Stone, unmodified	1				1
Toggle		1			1
Ulu, blade	1				1
Unidentified object		1			1
Wood, chips		14			14
TOTAL					**113**

Table 3.1 *(Continued)*

Tool	Material				Total
	Lithic	Organic	Metal	Other	
East and West Features					
Antler, worked		1			1
Baleen fragment		1			1
Bone, worked		1			1
Dish		1			1
Effigy, animal		1			1
Fishhook body		1			1
Fur fragment		2			2
Graphite	1				1
Knife handle (crooked)		1			1
Leister prong		1			1
Marlin spike		1			1
Preform (bone)		1			1
Preform (ivory)		1			1
Pottery					
Plain				3	7
Seward Striated				4	
Scoop, ice		1			1
Shaft fragments		39			39
Slate, flake	1				1
Spoon (bowl only)		1			1
Stone, grooved	1				1
Wood, chips		sample			sample
Wood, worked		24			24
TOTAL					**88**

Table 3.2. Artifacts from West Block excavated in 2000 and 2002 at TEL-55.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Adze handle		1			1
Adze head					1
antler		1			
Antler, cut		7			7
Antler, worked		3			3
Arrowhead base					1
antler		1			
Arrowhead					3
Variety II					
ivory		1			
Variety III		1			
bone		1			
Bead				1	1
Biface					1
slate	1				
Blubber hook/boat hook		1			1
Bola weight					5
antler		1			
bone		4			
Bone, chip		10			10
Bone, cut		54			54
Bone, flaked		23			23
Bone, worked		12			12
Cartridge			12		12
Clinker				4	4
Cobble fragment	5				5
Debitage					28
chert	1				
igneous	2				
rhyolite	1				
sedimentary	2				
siltstone	2				
slate	20				
Effigy, animal					1
sedimentary	1				
End blade	1				1
Fire-cracked rock	1				1
Fishhook barb					1
antler		1			
Flake, ground					1
slate	1				
Flake, retouched					3
quartz	1				
slate	1				
unknown	1				
Flake, used					3
slate	2				
quartz	1				
Flaker					1
antler		1			

Table 3.2. *(Continued)*

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Grinding stone					1
sedimentary	1				
Hammerstone					4
igneous	1				
metamorphic	1				
sedimentary	1				
siltstone	1				
Ivory, chip		28			28
Ivory, cut		8			8
Knife handle					2
antler		2			
Labret					1
ivory		1			
Lancet					1
slate	1				
Leister prong		1			1
Material, curated					59
antler		1			
ivory		2			
mica, schist	3				
metal			42		
other				9	
slate	2				
Net sinker					15
quartz related	1				
sandstone	1				
schist	1				
sedimentary	7				
beach cobble	5				
Peg					1
antler	1				
Pick					2
bone		1			
metal			1		
Pointed object					4
bone		4			
Pottery					
Plain				422	550
Seward Striated (?)				120	
St. Lawrence Corrugated				2	
Yukon Line-Dot (?)				6	
Scoop, ice					1
bone		1			
Sled runner shoe					9
antler		2			
bone		6			
ivory		1			
Stone, incised					1
sedimentary	1				
Thumbnail scraper					1
jade	1				

Table 3.2. *(Continued)*

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Trap component					1
bone		1			
Two-handed scraper					1
bone		1			
Ulu					2
slate	2				
Unidentified object					51
antler		22			
bone		13			
ivory		1			
sedimentary	7				
shale	2				
siltstone/limestone	1				
tooth		1			
unknown				4	
Wedge					2
antler		1			
bone		1			
Whetstone					10
igneous	1				
sedimentary	6				
shale	1				
slate	2				
TOTAL					**940**

Table 3.3. Artifacts from faunal scatter in Units S17 E20 and S16 E21 excavated in 2002 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Antler, cut		1			1
Antler flake		1			1
Awl					1
bone		1			
Bird spear prong					1
ivory		1			
Bola weight					1
bone		1			
Bone, cut		2			2
Bone, drilled		1			1
Cartridge, brass			1		1
Center Leister prong					2
ivory		2			
Clinker/slag				2	2
Debitage					44
slate	34				
chert	2				
metamorphic	8				
Ellipsoid scraper					1
chert	1				
Fishhook barb					2
ivory		2			
Flake, blade-like					1
mineral	1				
Flake, retouched					1
chert	1				
Flake, used					5
sedimentary	3				
shale	2				
Hammerstone					1
chert	1				
Insert blade, arrow					1
chert	1				
Ivory, cut					1
Ivory, flaked					1
Material, curated					6
wood		1			
other	1	1	1	2	
Pointed object					1
bone		1			
Pottery					
Plain				138	170
Seward Striated (?)				22	
St. Lawrence Corrugated (?)				5	
Yukon Lined				4	
Yukon Line-Dot				1	
Scoop, ice					1
bone		1			1
Sled runner shoe					1
bone		1			
Thumbnail scraper					1
siltstone	1				

Table 3.3. *(Continued)*

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Ulu					1
sedimentary	1				
Unidentified object					10
antler		1			
bone		4			
chalk/limestone				1	
ivory		1			
sedimentary	1				
slate	1				
wood		1			
Whetstone					3
slate	1				
sedimentary	2				
TOTAL					**266**

Table 3.4. Artifacts from Unit S14 E7.5 excavated in 2000 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Antler, worked		1			1
Armor plate		1			1
Cartridge (shell casing)			2		2
Cobble fragment	1				1
Fishhook (body)		1			1
Ivory, worked		1			1
Metal fragment			1		1
Pottery					
Plain				15	
Seward Striated				16	
Yukon Lined				1	32
Wood, worked		1			1
TOTAL					**41**

Table 3.5. Artifacts from Unit S11 W7 excavated in 2000 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Antler, worked		2			2
Biface	1				1
Bone, worked		1			1
Cartridge (shell casing)			3		3
Cobble, unmodified	4				4
Copper fragments			2		2
Drilled tooth, amulet		1			1
Glass, window				3	3
Glass, container				19	19
Ivory, worked		2			2
Metal fragment			1		1
Nails			4		4
Net sinker	2				2
Pottery					
Plain				31	41
Seward Striated				7	
Yukon Ware				2	
St. Lawrence Corrugated				1	
Sled runner shoe		1			1
Unidentified object				2	2
TOTAL					**89**

Table 3.6. Artifacts from Unit S13 E14 excavated in 2002 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Disturbed Levels					
Antler, worked		2			2
Anthropomorphic figurine					1
wood		1			
Bola weight					1
ivory		1			
Debitage					9
slate	9				
Flake, used					1
sedimentary	1				
Grinding stone					2
sedimentary	2				
Ground debitage					1
slate	1				
Handle					1
bone		1			
Material, curated					9
birch bark		1			
other	7			1	
Net sinker					3
Variety II					
quartz	1				
sedimentary	2				
Pottery					69
Plain				44	
Seward Striated				14	
St. Lawrence Corrugated				3	
Yukon Line				7	
Yukon Line-Dot				1	
Unidentified object					4
bone		2			
ivory		1			
wood		1			
Wedge					2
bone		1			
antler		1			
TOTAL					**105**
House Feature					
Bead				1	1
TOTAL					**1**

Table 3.7. Artifacts from Test Unit 1 excavated in 2002 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Antler, worked		2			2
Bola weight					1
ivory		1			
Bone, cut		13			13
Flake, retouched					1
slate	1				
Grinding stone					1
sedimentary	1				
Materials, curated	1				1
Pick					1
ivory		1			
Pottery					2
Plain				2	
Stone, notched and ground					1
sedimentary	1				
Unidentified object					2
antler		1			
sandstone	1				
Whetstone					1
sedimentary	1				
TOTAL					**26**

Table 3.8. Materials from shovel tests and surface collecting in 2000 and 2002 at TEL-155.

Tool	Material				Total
	Lithic	Organic	Metal	Other	
Shovel Test 2					
Cartridge			1		1
TOTAL					**1**
Shovel Test 3					
Unidentified object					1
antler		1			
TOTAL					**1**
Surface Collections: All					
Adze blade	1				1
Antler, worked		2			2
Bone, worked		2			2
Bow splice		1			1
Float, net		1			1
Hammerstone	2				2
Handle		1			1
Knife handle (crooked)		1			1
Pottery					14
Plain				2	
Seward Striated				10	
Norton Check-Stamped				1	
Yukon Lined				1	
Scraper, bone (metapodial)		1			1
Slate (flake)	1				1
Sled runner shoe		3			3
Whetstone	5				5
Wood, worked		1			1
TOTAL					**36**

Artifact Illustrations

Figure 3.1. Selected projectile points and tools *(facing page).*
UA2002-70-8: Bird spear prong.
UA2002-70-17: Unidentified object.
UA2002-70-13: Arrowhead base.
UA2000-68-19: Point fragment.
UA2000-68-10: Needle.
UA2002-70-6: Arrowhead, variety II.
UA2002-70-18: Trap component.
UA2002-70-10: Leister prong, variety I.
UA2000-68-23: Unidentifed object.

Figure 3.2. Sled runner shoes and unidentified object *(facing page).*
UA2002-70-9: Unidentified object, possible animal effigy.
UA2002-70-4: Unidentified object.
UA2000-68-7: Ivory preform.
UA2000-68-4: Harpoon head preform.
UA2002-70-21: Sled runner shoe.
UA2000-68-53: Sled runner shoe.
UA2000-68-16: Sled runner shoe.

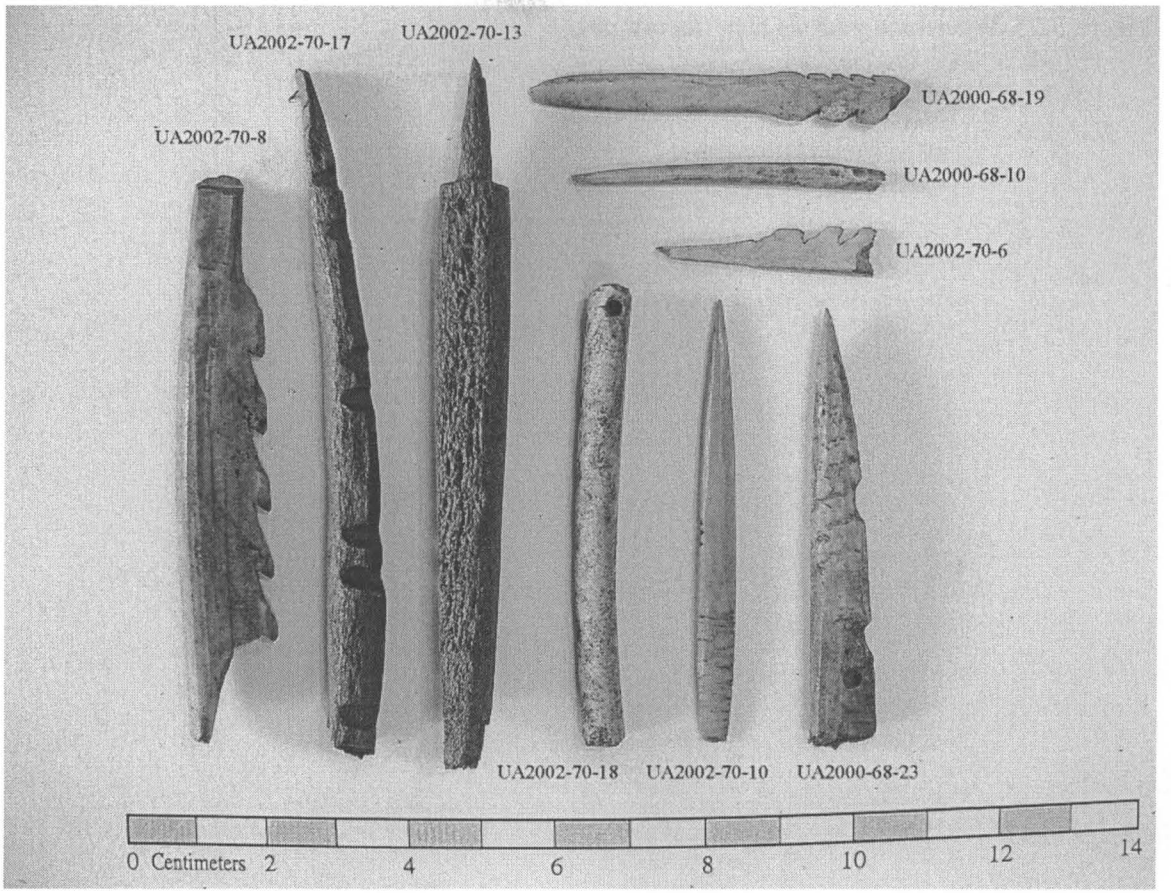


Figure 3.1. Selected projectile points and tools *(see previous page).*

Figure 3.2. Sled runner shoes and unidentified objects *(see previous page).*

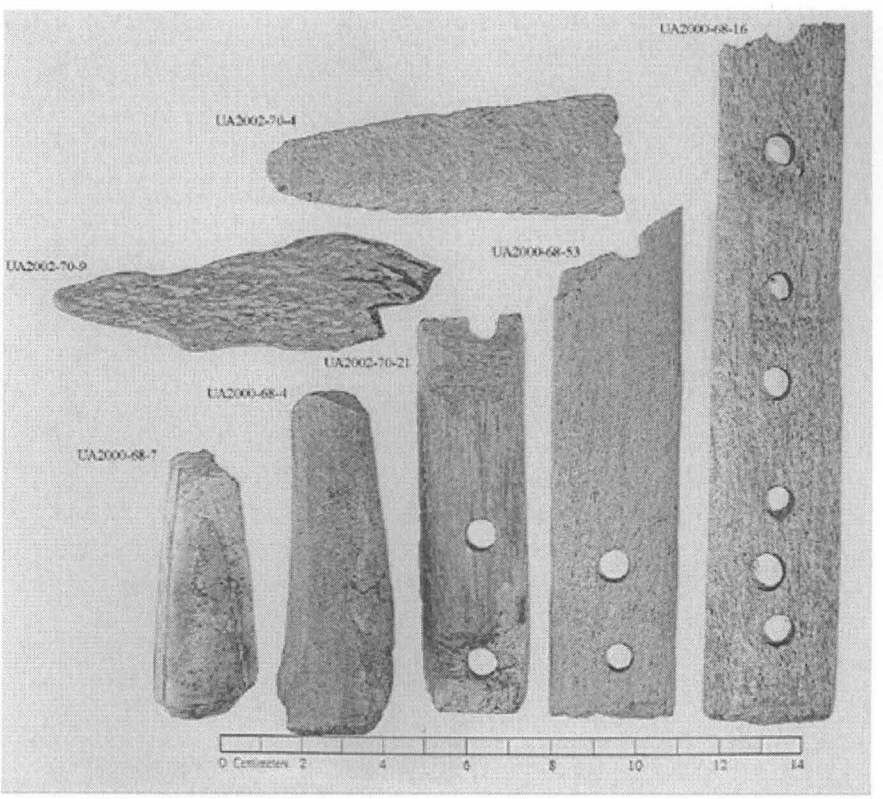


Figure 3.3. Whetstone and wedges *(facing page).*
UA2002-70-2: Wedge.
UA2000-68-13: Whetstone.
UA2002-70-7: Wedge.

Figure 3.4. Dish and spoons *(facing page).*
UA2000-68-8: Spoon.
UA2000-68-40: Dish.
UA2000-68-20: Spoon.

Figure 3.3. Whetstone and wedges *(see previous page).*

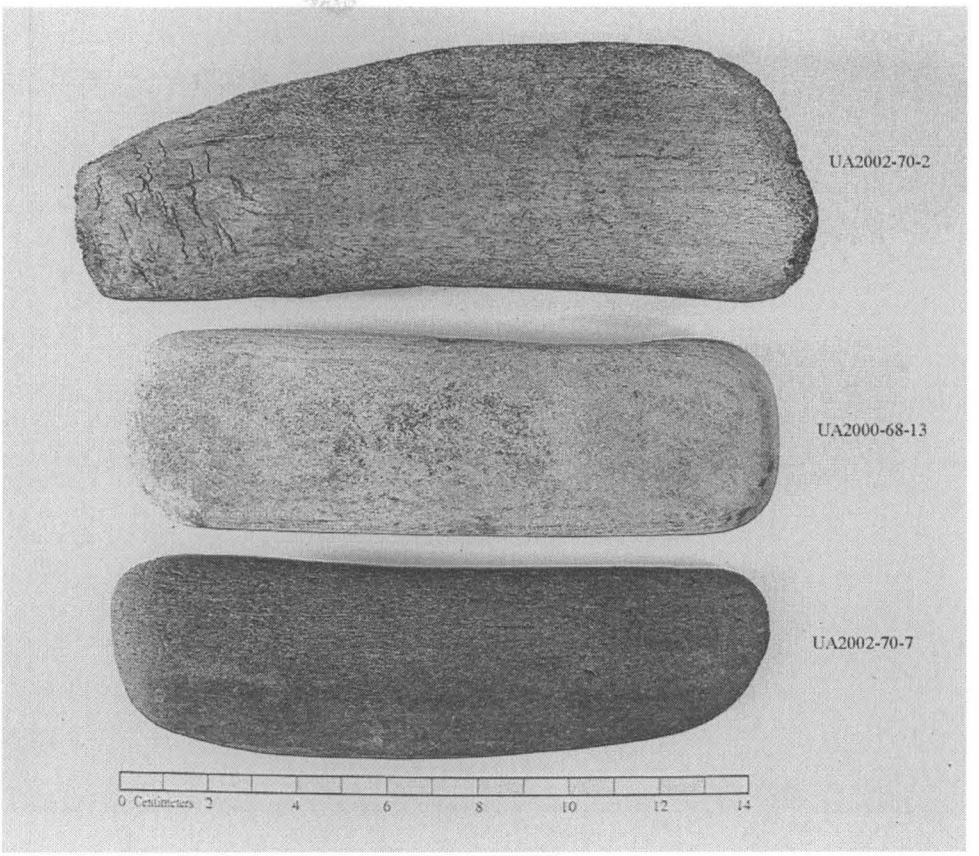


Figure 3.4. Dish and spoons *(see previous page).*

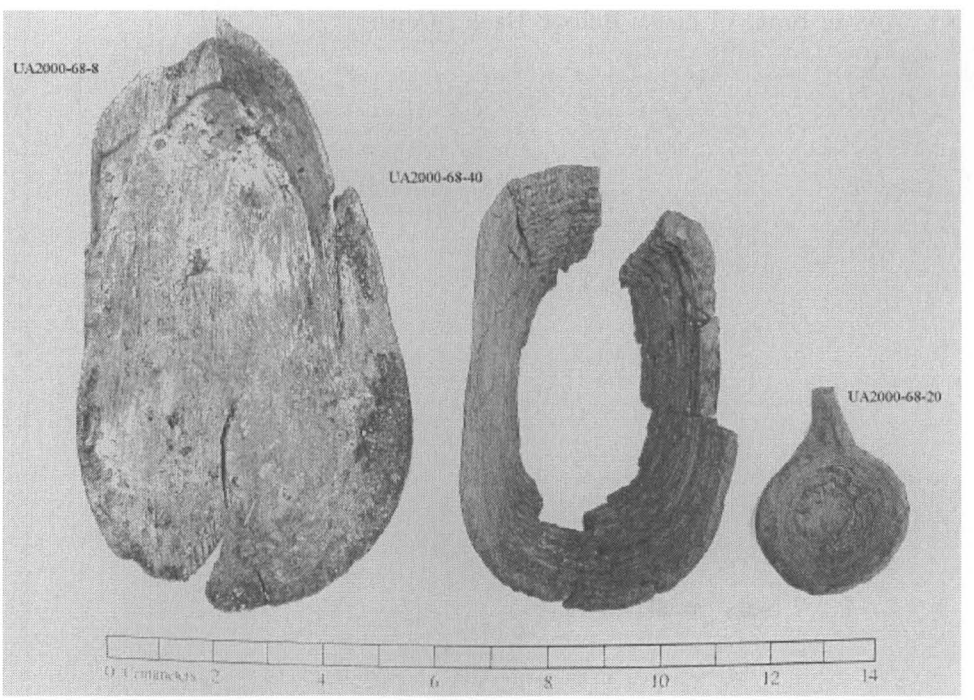


Figure 3.5. Dish.
Above: Front of dish. Below: Back of dish.

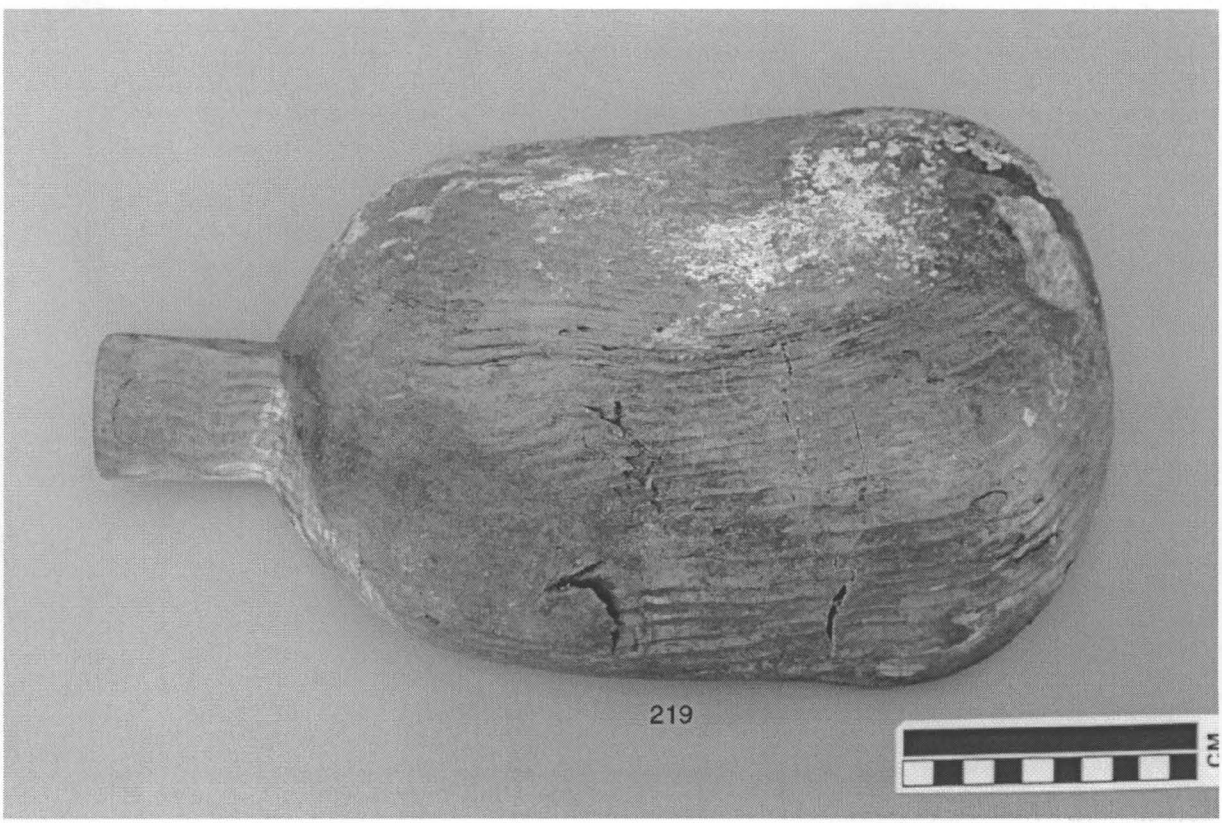


Figure 3.6. Fishing lure and bola weights.
UA2002-70-26: Unidentified object, possible bola weight.
UA2002-70-20: Bola weight.
UA2000-68-17: Fishing lure.
UA2000-68-11: Bola weight.
UA2000-68-15: Bola weight.
UA2000-68-51: Bola weight.

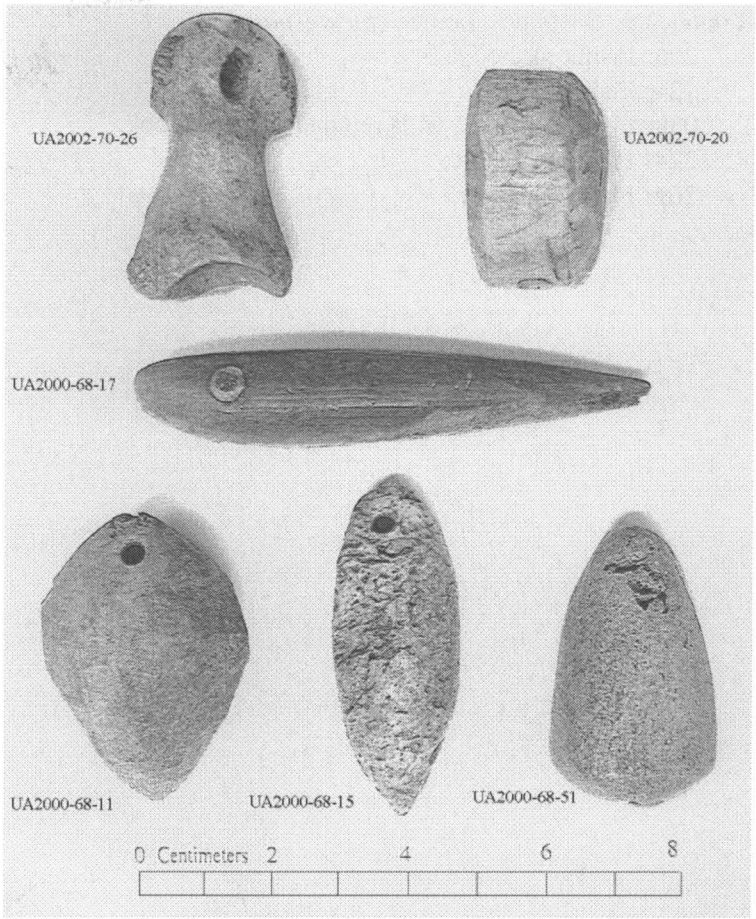


Figure 3.7. Net sinkers and various organic objects.
UA2000-68-45: Bone preform.
UA2000-68-46: Net sinker.
UA2000-68-47: Net sinker.
UA2000-68-52: Worked bone.

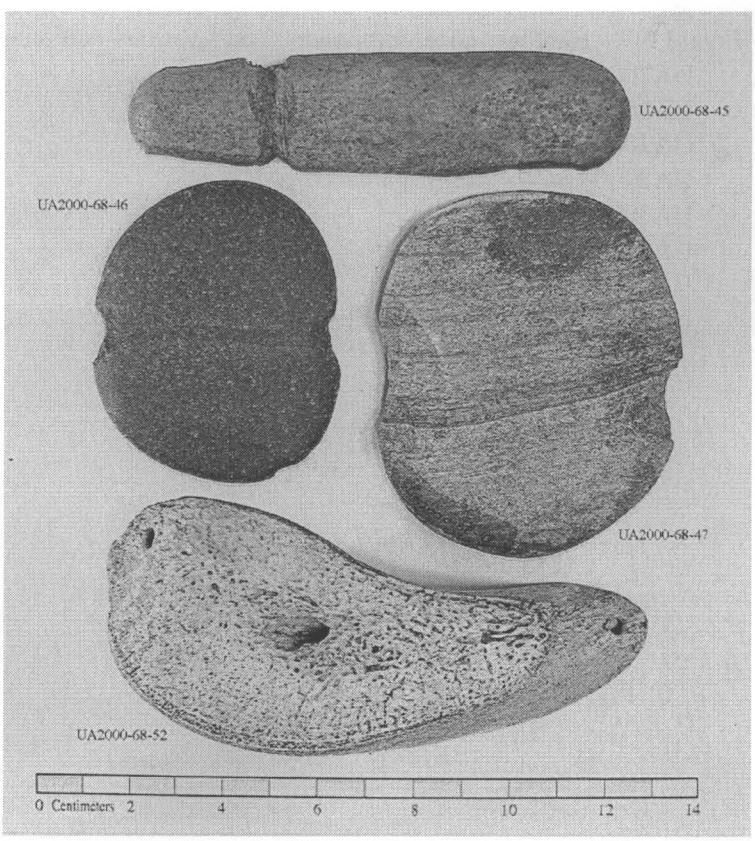


Figure 3.8. Fishhook bodies *(facing page).*
206: Fishhook body.
124: Fishhook body.
058: Fishhook body with remnant of iron hook.
224: Fishhook body.
269: Fishhook body.

Figure 3.9. Handles, adze components, and various equipment *(facing page).*
UA2000-68-6: Crooked knife handle.
UA2002-70-32: Adze head.
UA2000-68-21: Adze handle.
UA2000-68-49: Toggle/gatherer.
UA2000-68-64: Handle.
UA2002-70-19: Bird blunt.
UA2002-70-25: Peg.
UA2002-70-31: Knife handle.

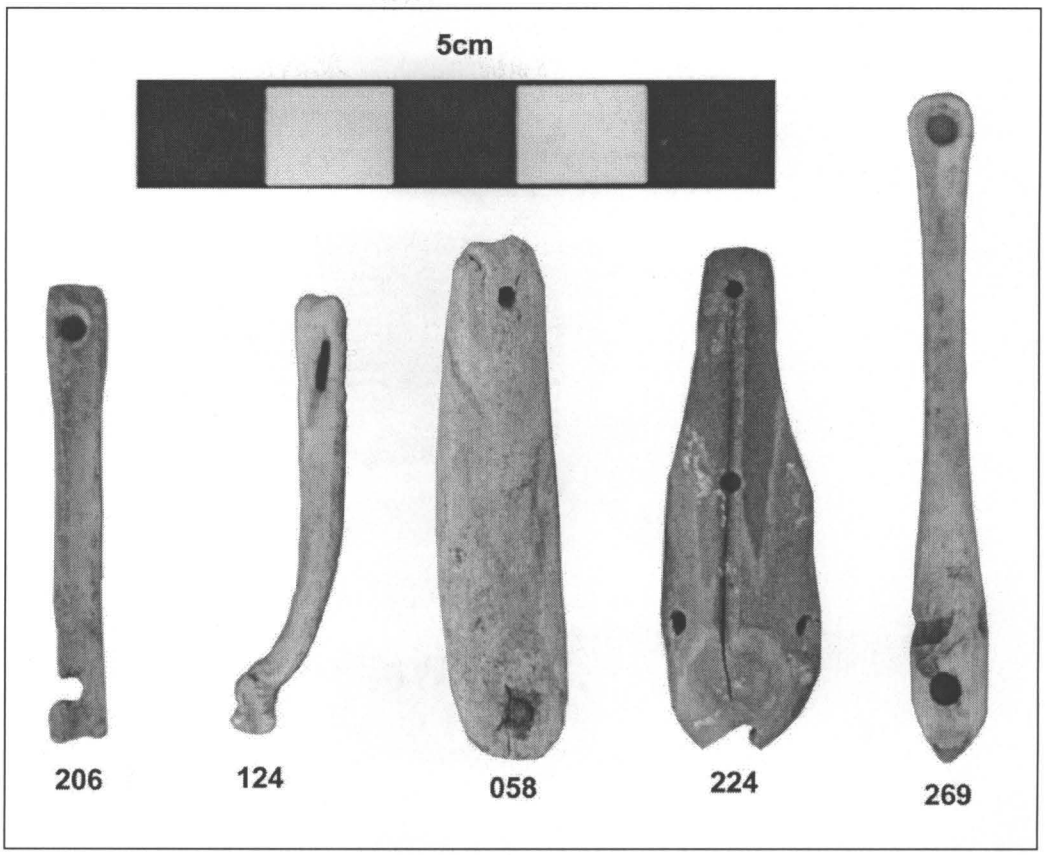


Figure 3.8. Fishhook bodies (*see previous page).*

Figure 3.9. Handles, adze components, and various equipment (*see previous page).*

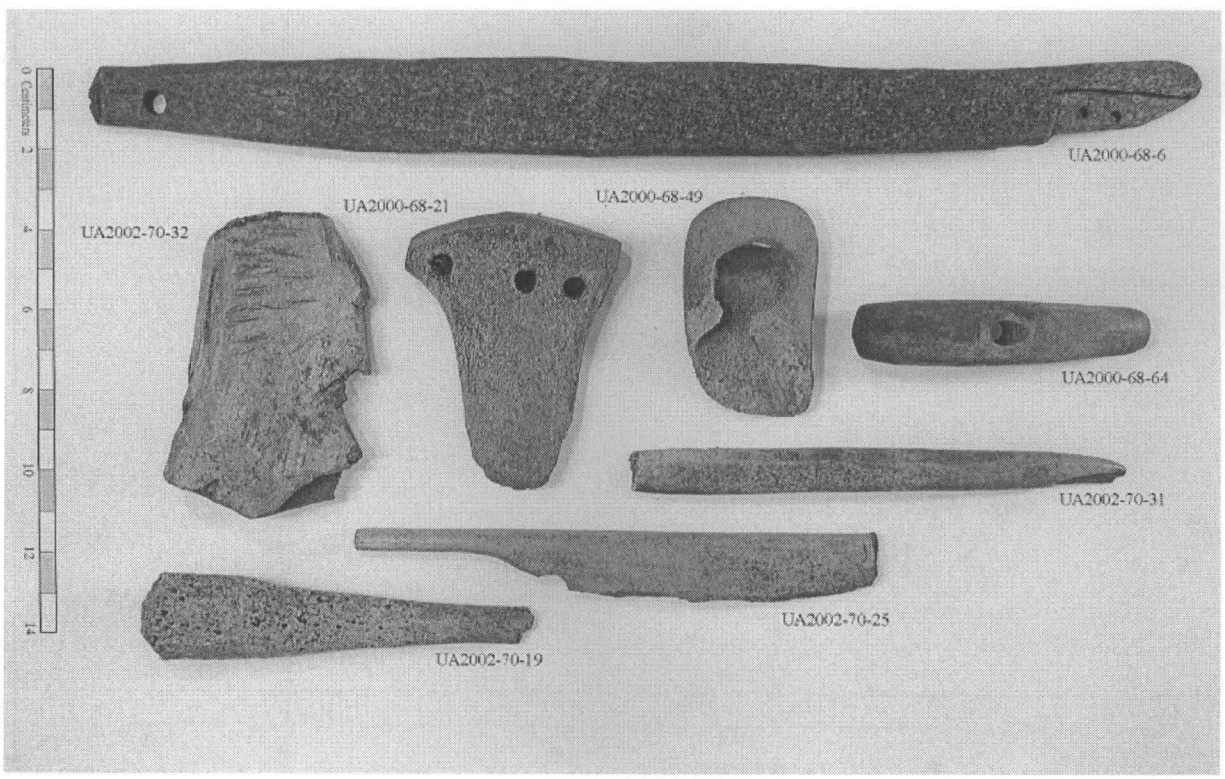


Figure 3.10. Effigy figurines *(facing page).*

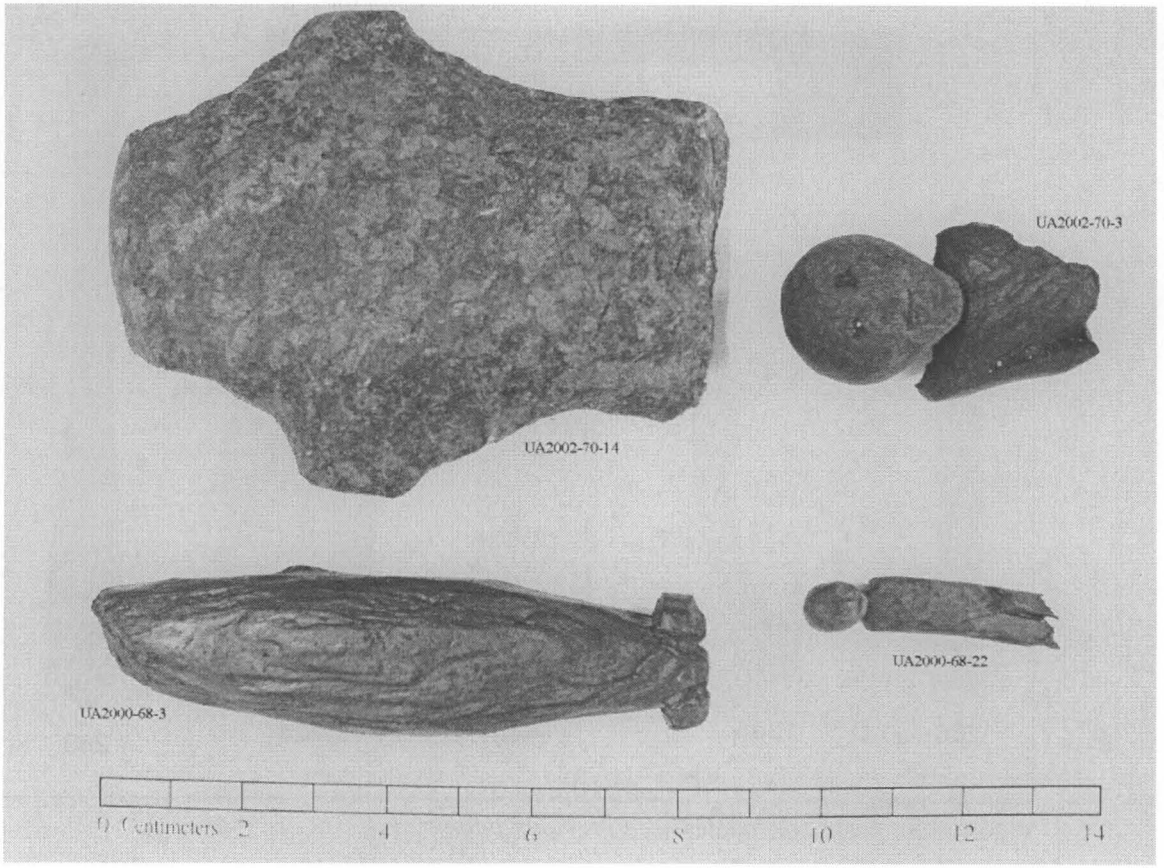


Figure 3.11. Decorative items. *(facing page).*

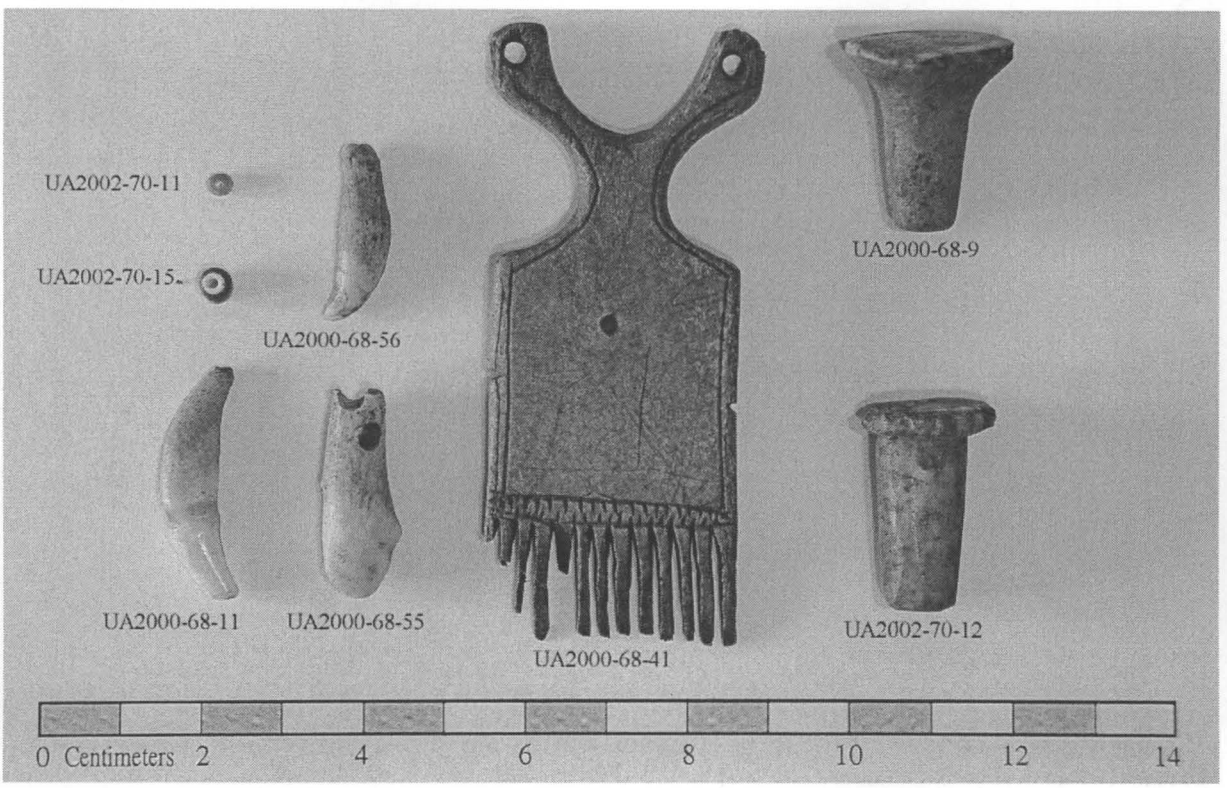
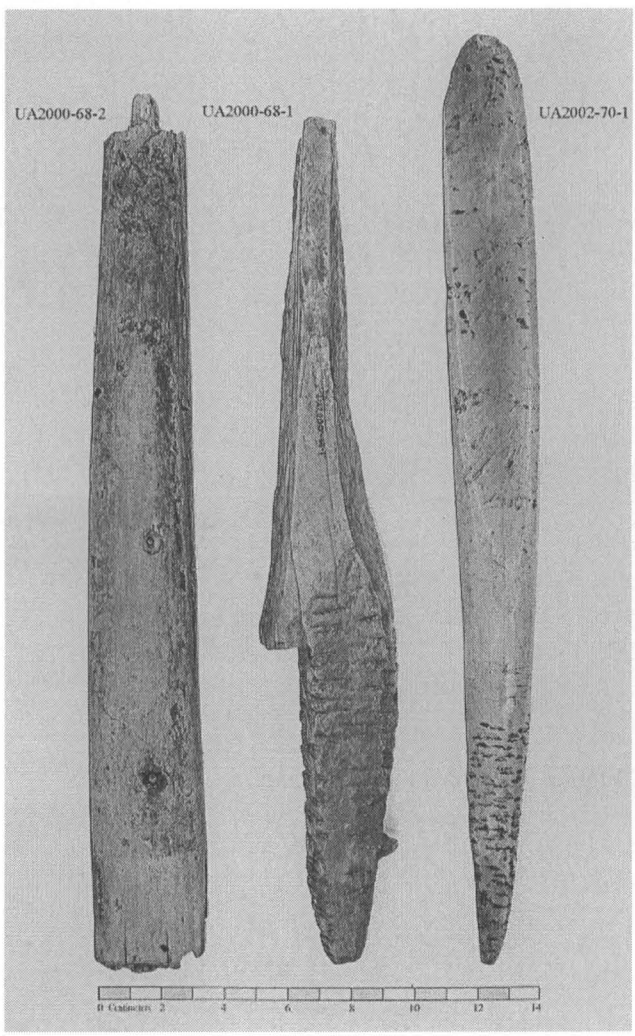


Figure 3.10. Effigy figurines *(see previous page).*
UA2002-70-14: Animal effigy.
UA2002-70-3: Anthropomorphic figurine.
UA2000-68-3: Animal effigy (whale?).
UA2000-68-22: Anthropomorphic effigy.

Figure 3.11. Decorative items *(see previous page).*
UA2002-70-11: Aqua trade bead.
UA2002-70-15: White Heart trade bead.
UA2000-68-56: Drilled tooth amulet.
UA2000-68-11: Unmodified canine.
UA2000-68-55: Drilled tooth.
UA2000-68-41: Antler comb.
UA2000-68-9: Labret.
UA2002-70-12: Labret.

Figure 3.12. Picks and bow.
UA2000-68-2: Bow fragment.
UA2000-68-1: Harpoon ice pick.
UA2002-70-1: Root pick.



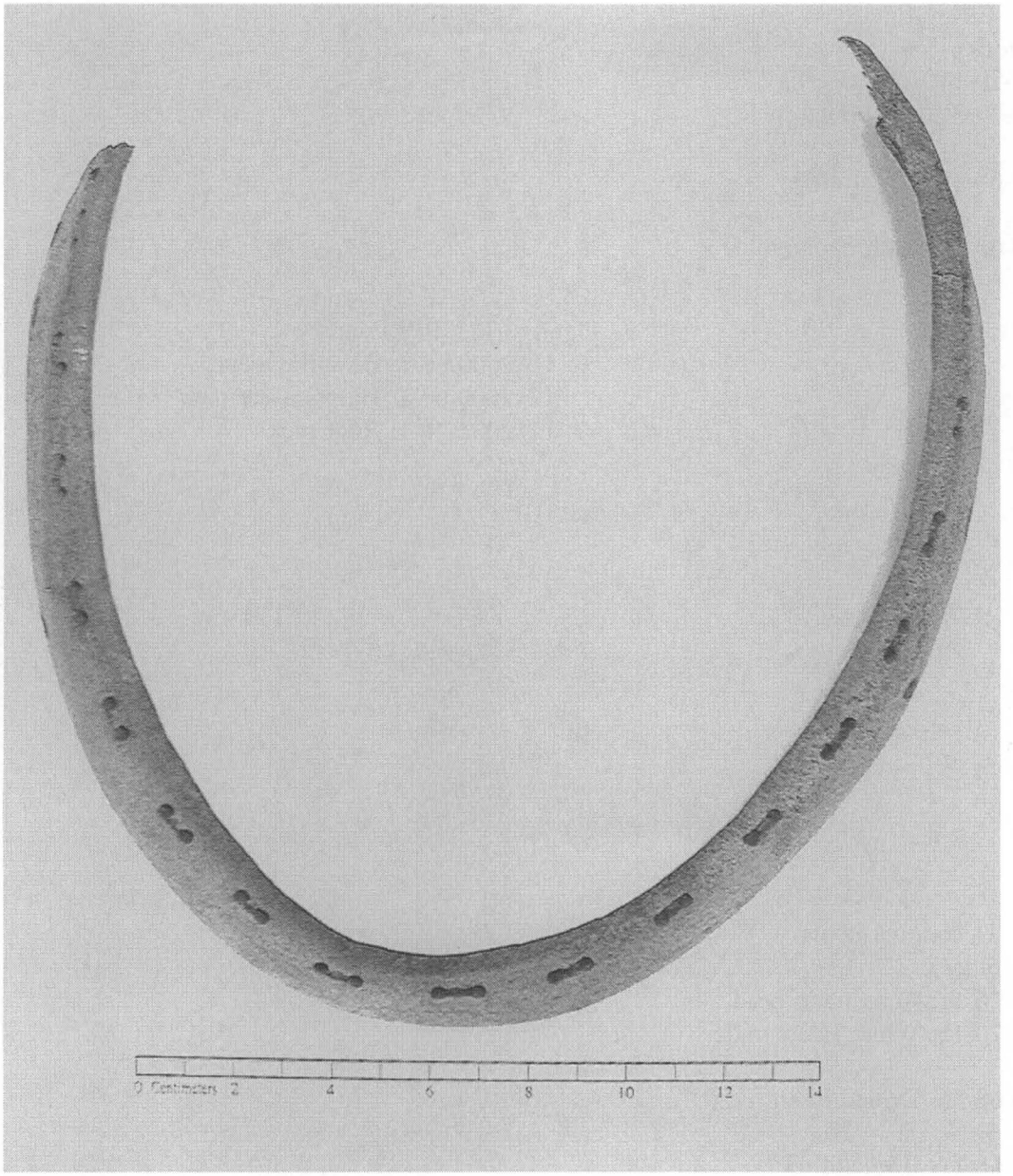


Figure 3.13. Antler ice scoop.

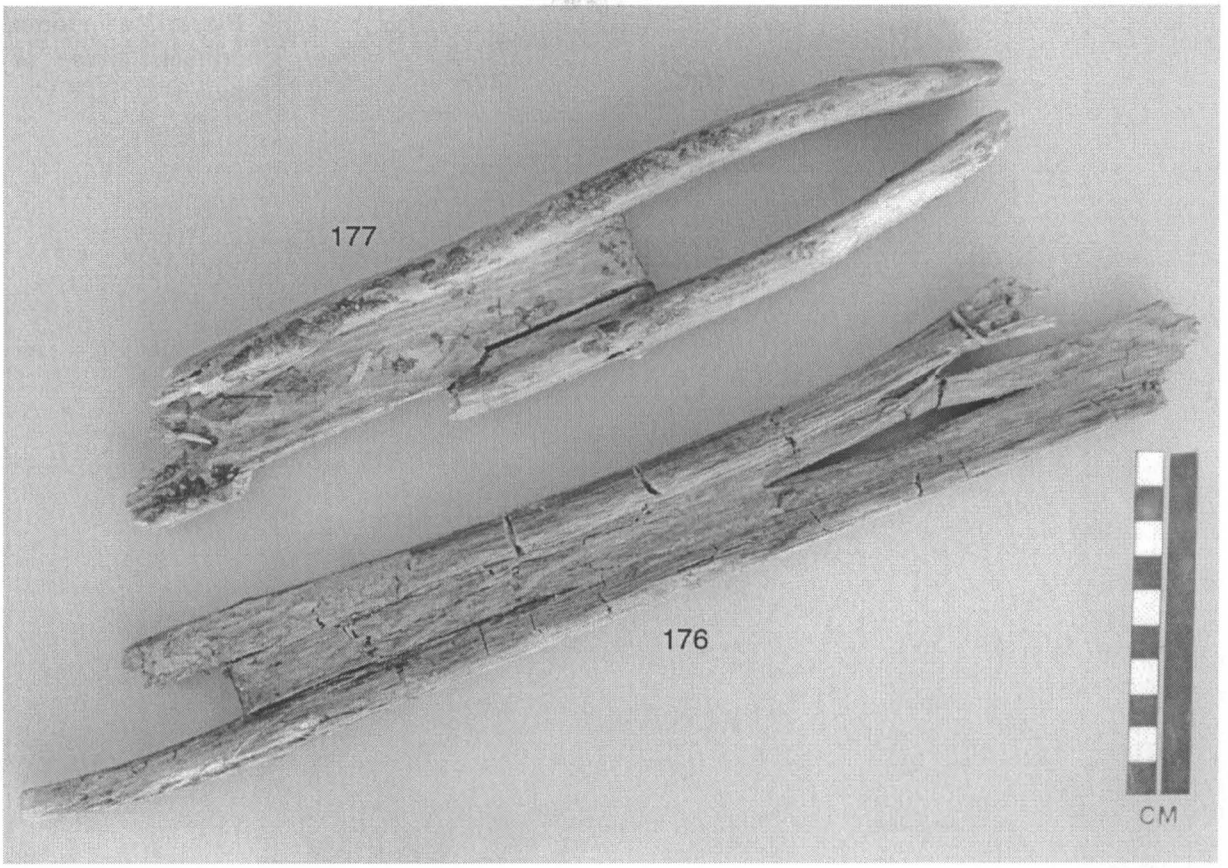


Figure 3.14. Wood net shuttles.

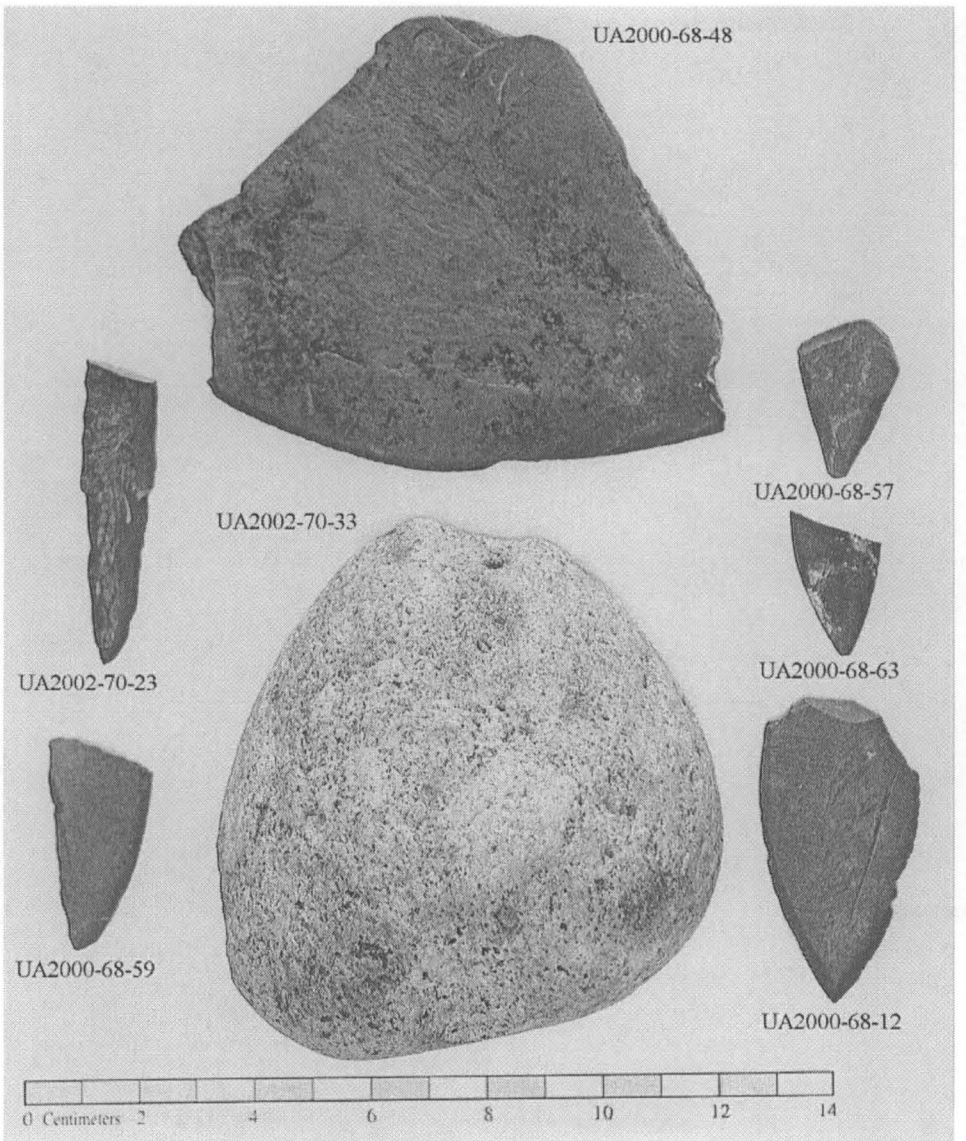


Figure 3.15. Lithic artifacts *(facing page).*

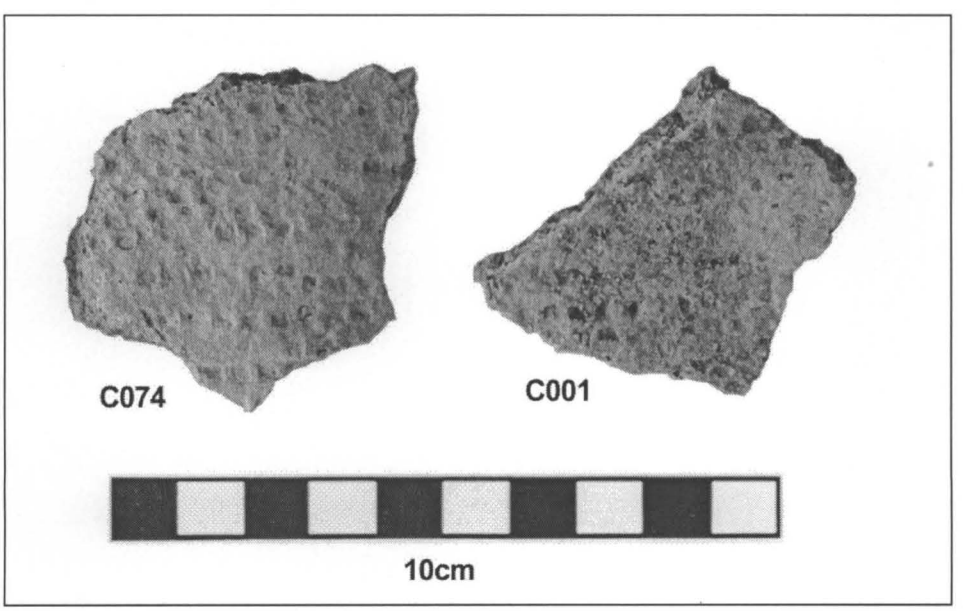
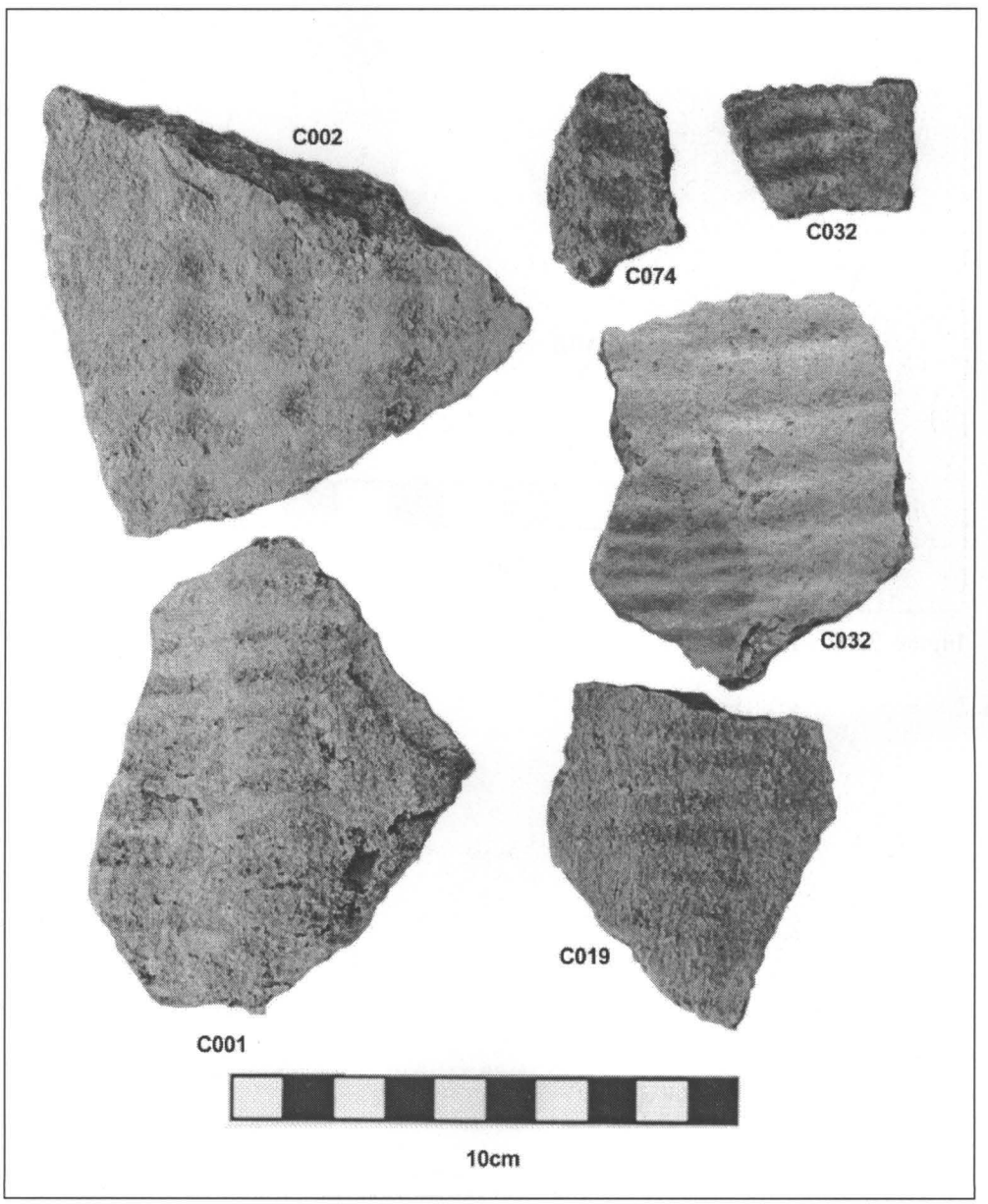


Figure 3.16. Norton Check-Stamped pottery (both examples).

Figure 3.15. Lithic artifacts *(see previous page).*
UA2000-68-48: Ulu blade.
UA2002-70-23: Lancet.
UA2002-70-33: Hammerstone/grinding stone.
UA2000-68-59: Knife blade fragment.
UA2000-68-57: End blade point tip.
UA2000-68-63: End blade fragment.
UA2000-68-12: End blade.

Figure 3.17. Seward-Striated pottery (all examples shown).



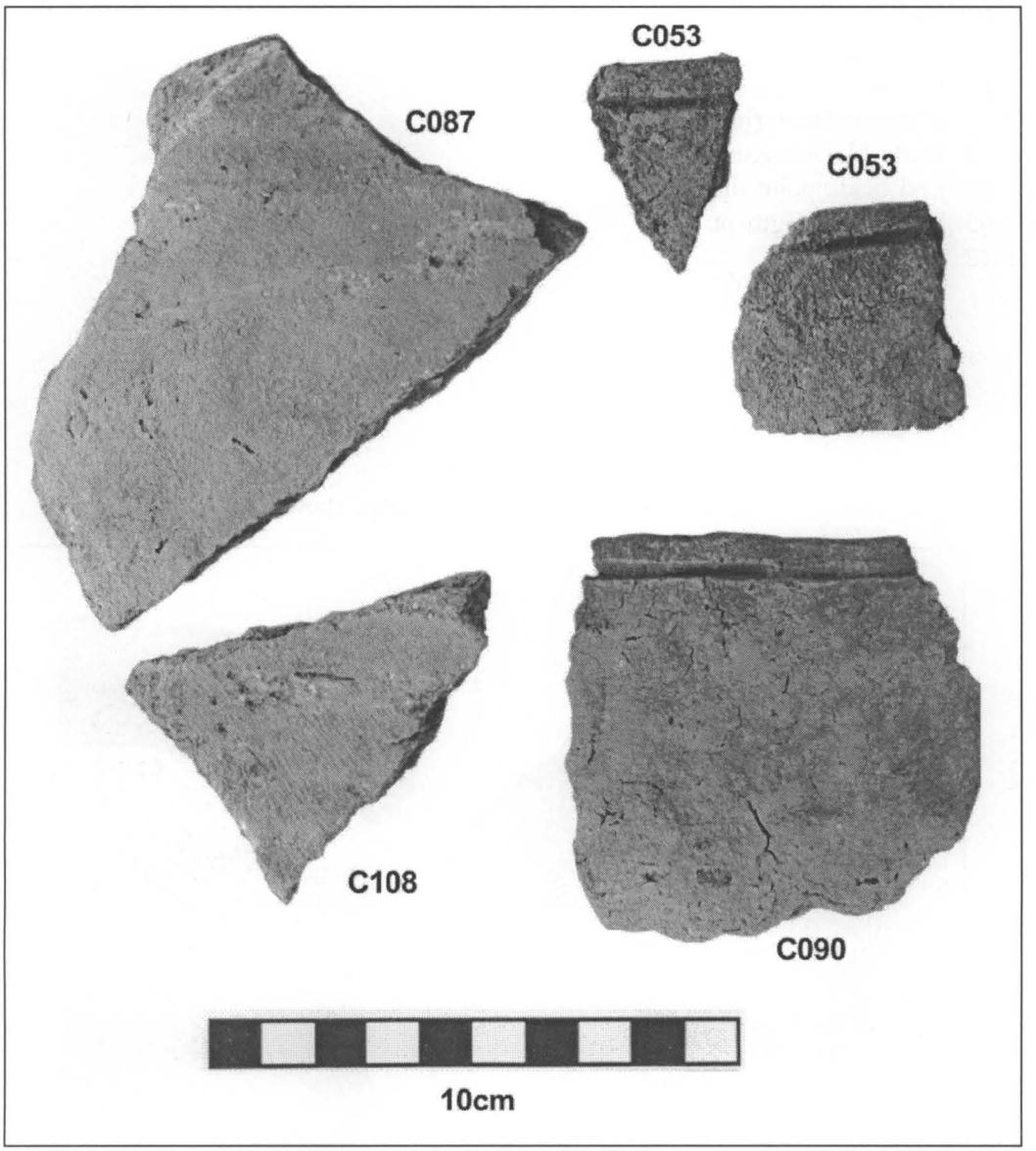


Figure 3.18. Yukon-Lined pottery (all examples shown).

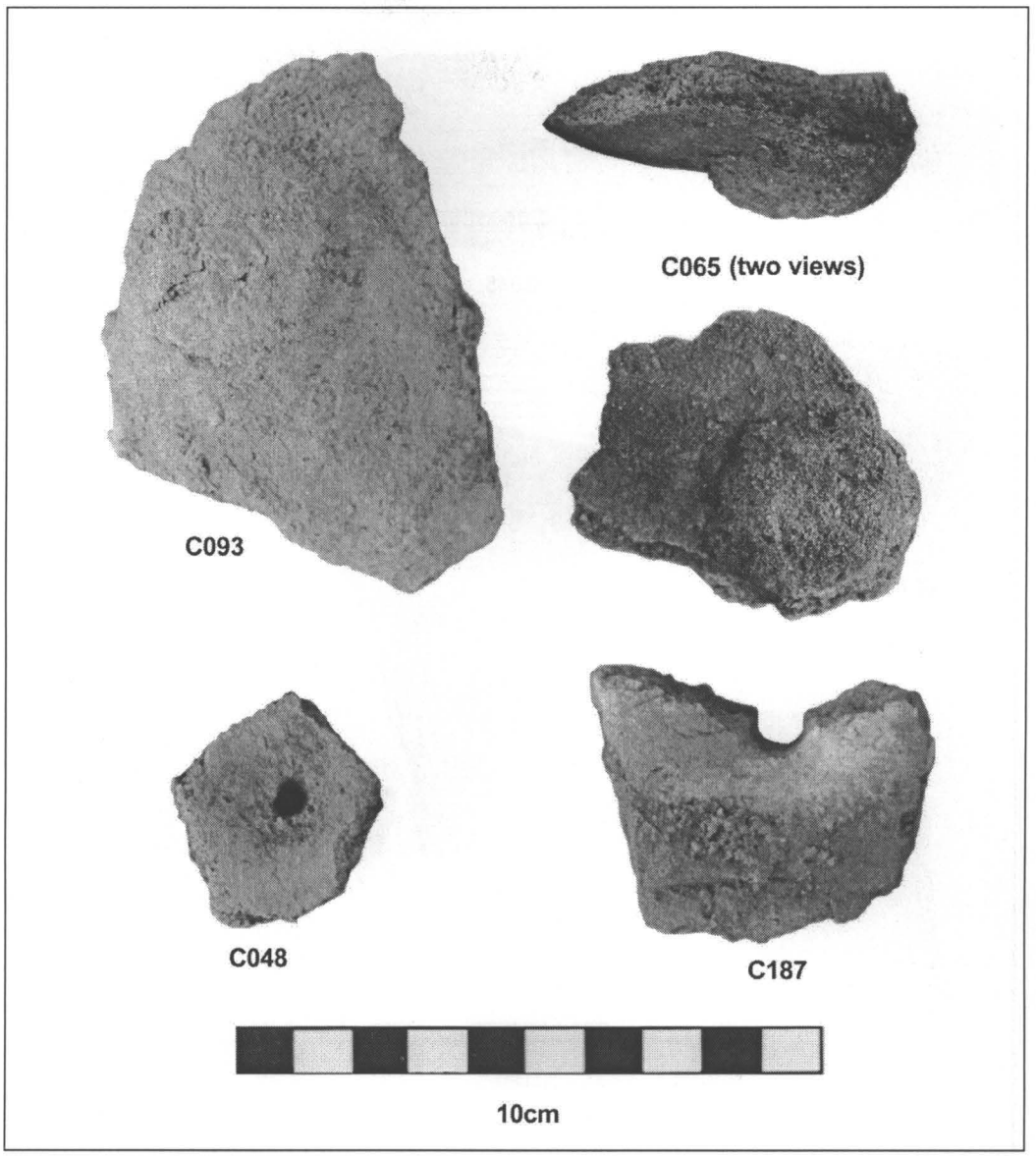


Figure 3.19. Examples of TEL-155 pottery suspension holes and appendages.
C093: Base fragment of conical pot. Interior of fragment (not visible) contains residue.
C065: Bulbous appendage without suspension hole.
C048: Perforated pottery fragment.
C187: Fragment with a suspension hole classified as Seward Striated.

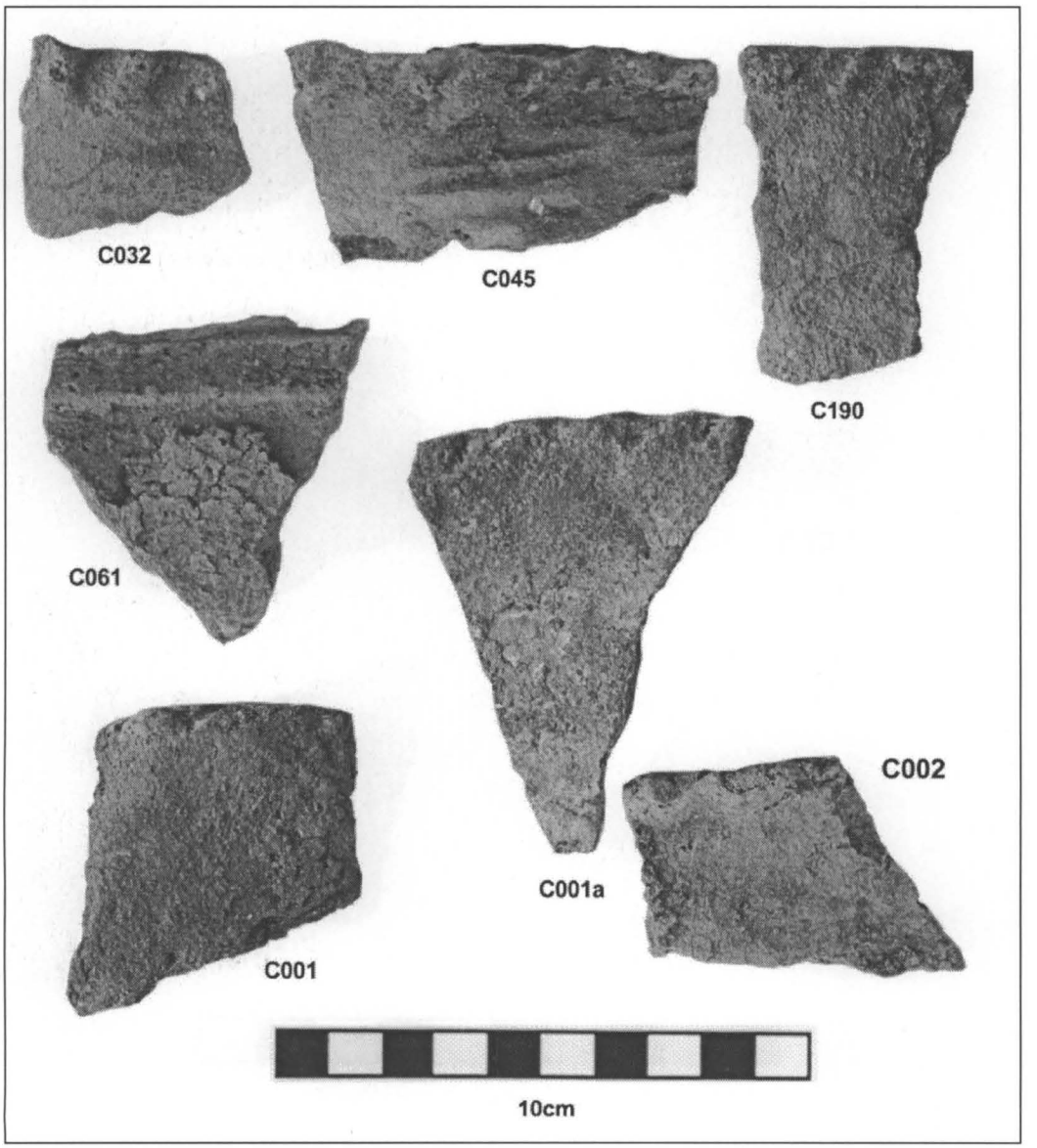


Figure 3.20. Examples of TEL-155 pottery rim sections.

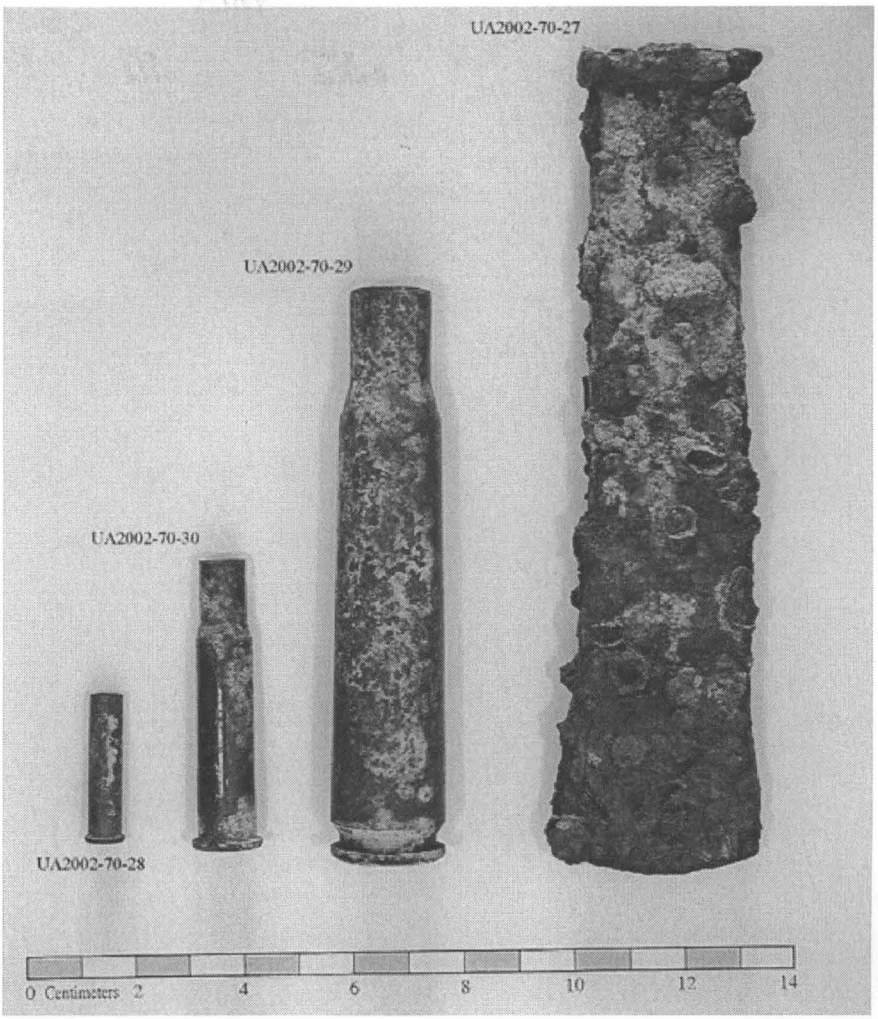


Figure 3.21. Historic TEL-155 artifacts.
UA2002-70-28: Cartridge, .22 caliber.
UA2002-70-30: Cartridge, unknown caliber.
UA2002-70-29: Cartridge, .30 caliber.
UA2002-70-27: Pick axe.