A Punuk Whale Bone Grave from Sivuqaq, St. Lawrence Island: Evidence of High Social Standing, AD 775-1020.

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Abstract: Cultural resource monitoring from 1991 to 1994 revealed 114 graves within the Gambell beach ridge plain; only one grave contained a sizable inventory of associated objects, classifiable within the Punuk phase. A single ^{14}C age on the driftwood grave cover placed the interment between AD 775 and 1020. The associated grave goods are anomalously elaborate for the Sivuqaq region and somewhat resemble the high status graves reported from Cape Dezhneva, Chukotka.

Keywords: Bering Strait archaeology, Mortuary Practices, Cultural Change

PROJECT HISTORY

Between 16 July and 15 August 1991, David P. Staley—then of the University of Alaska Anchorage's Arctic Environmental Information and Data Center (AEIDC, re-named as Environmental and Natural Resources Institute (ENRI))—conducted archaeological monitoring and data recovery associated with water and sewer improvements undertaken by the City of Gambell, Alaska. In 1991, twelve burials were disturbed by construction activities; six were directly observed and documented during monitoring (Staley 1991). In 1993 and 1994, Staley (1993a, 1994a) documented 102 additional burials during the course of monitoring.

THE ARCHAEOLOGICAL CONTEXT

On 23 July 1991 blading operations uncovered a large fragment of whalebone in the vicinity of a proposed sewer line between a manhole and House B46 in Gambell, Alaska (Figure 1). A lull in ground-disturbing activities on the next day allowed an opportunity for careful excavation of the area. Grave #7 (for the year 1991; hence, Grave 91-7) was found southwest of the whalebone fragment at a depth of 60 cm.

Excavation revealed a bone paste and crumb outline of an individual, a portion of the skull, two complete molars, fragments of left and right femurs, fragments of the right ulna and radius and two bones from the right hand. The body was extended, face-up, oriented north, with arms to the sides (Figure 2). Extreme wear on the molars (worn flat nearly to the gum line) indicates that the individual was probably an older adult. This person was between 165 and 180 cm tall. Although sex could not be determined from the skeletal remains, the associated artifacts suggest a male. The individual was interred with a variety of grave goods placed around the body (Figures 2, 3); including 89 items of finished stone and ivory artifacts and unfinished materials. Artifacts are listed and briefly described in Table 1. The vast majority of this assemblage consists of chipped stone debitage and raw slate with much of the remainder including weapon blanks, broken weaponry, and utilitarian tools. The most significant artifacts include five fragmentary harpoon heads, classifiable as III-a-x and V-a x types (Figure 3), with decorative motifs associated with the Punuk phase (cf. Collins 1937). Many of the grave goods were found in the vicinity of the individual's right hand (Figure 2). Although no artifacts were noted near the left hand, it appears that an ash pile was placed there.

A thin and slightly concave layer of decayed wood was found just above the skeletal remains. This layer covered a rectangular area 2.5 by 0.75 m and represents the remains of two driftwood logs used as the grave cover. Like the body, these logs were also oriented North/South. The remainder of the whalebone initially observed on the surface paralleled the decayed logs on the east. The proximal end of this whale rib rested at approximately 60 cm below the ground surface and tilted upward to the north.

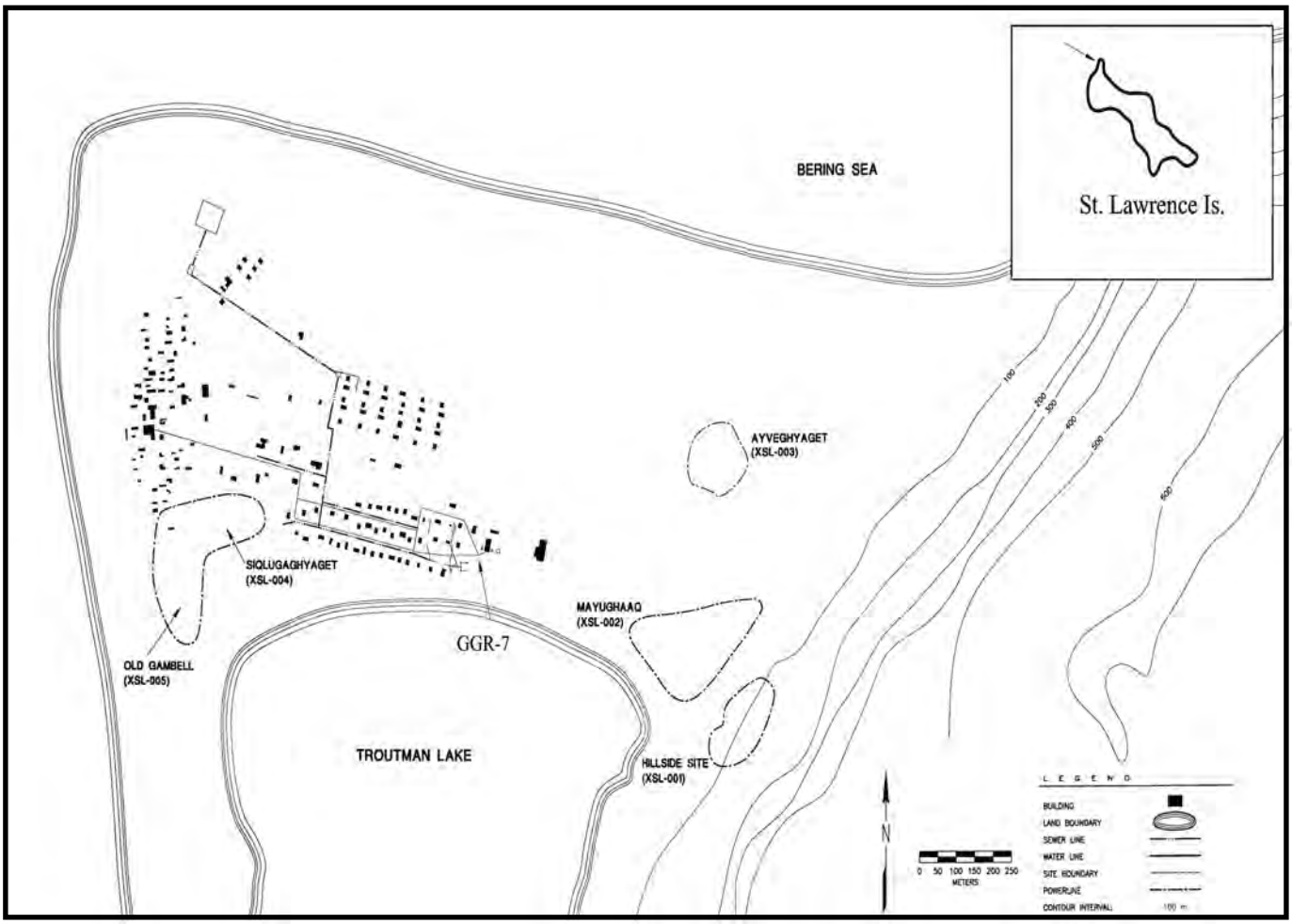

Figure 1. Map of Gambell indicating area of Grave 91-7 (inset of St. Lawrence Island).

This bone was probably a grave marker. A radiocarbon sample from the wood grave cover yielded a ^{14}C age of 1140±60 BP (Beta-46510), calibrated, within 2σ, to the calendar intercept ranges of AD 727-738 and AD 774-1018 (using the Oxcal probability option for the University of Washington data).

COMPARISONS AND SIGNIFICANCE OF THE PUNUK WHALE BONE GRAVE

The significance of this find was unappreciated at the time of its discovery, prior to the publication, dissemination and, more importantly, translation, of the results of the Swiss research of the late 1960's-1970's (Bandi 1984, 1995; Bandi and Blumer n.d.; Bandi and Blumer 2002; Bandi and Bürgi 1972; Blumer 2002). From the perspective of 2004, however, the find is remarkable because so few of the graves in the Mayughaaq cemeteries, southeast of Gambell, contained *any* burial goods or artifacts that could be defined to a particular style or archaeological culture. Of the >360 burials within 25 km of the Gambell or Sivuqaq (named for the prominent bedrock bluff) vicinity (Kitngipalak to Dovlayaq), few graves contained any significant amount of grave goods, although about half had at least one artifact. Multiple burials at Kitngipalak were more frequently provided with offerings (Bandi and Blumer 2002:35). The Swiss investigations encountered whalebone or driftwood structures in half of the burials (n=49) (as calculated from Bandi 1984). Graves were frequently accompanied by either unburnt (n=19) (Bandi 1984:63) or burnt offerings of animals: e.g., the ash concentrations observed in or adjacent another 18 graves (G XV, G 3, 4, 10, 13, 15, 16, 19, 21, 22, 26, 30/1, 38/1, 39, 40, 42/4, 42/18 and 42/16). Staley (1994b) calculated that 13% of the AEIDC/Mariah sample of graves (n=114) contained one or more grave goods, 6% were associated with just a container ("casket") or a marker, and only 5% had both grave goods and a container.

Because so few of the Sivuqaq region graves contained any artifacts or offerings, ethnic and temporal inferences remain tentative (Bandi 1984; Bandi and Blumer 2002:38; Staley 1991, 1993a, 1994a). The definition for graves as Punuk (Early to Punuk-Thule) is often based only on spatial associations i.e. proximity to the Mayughaaq

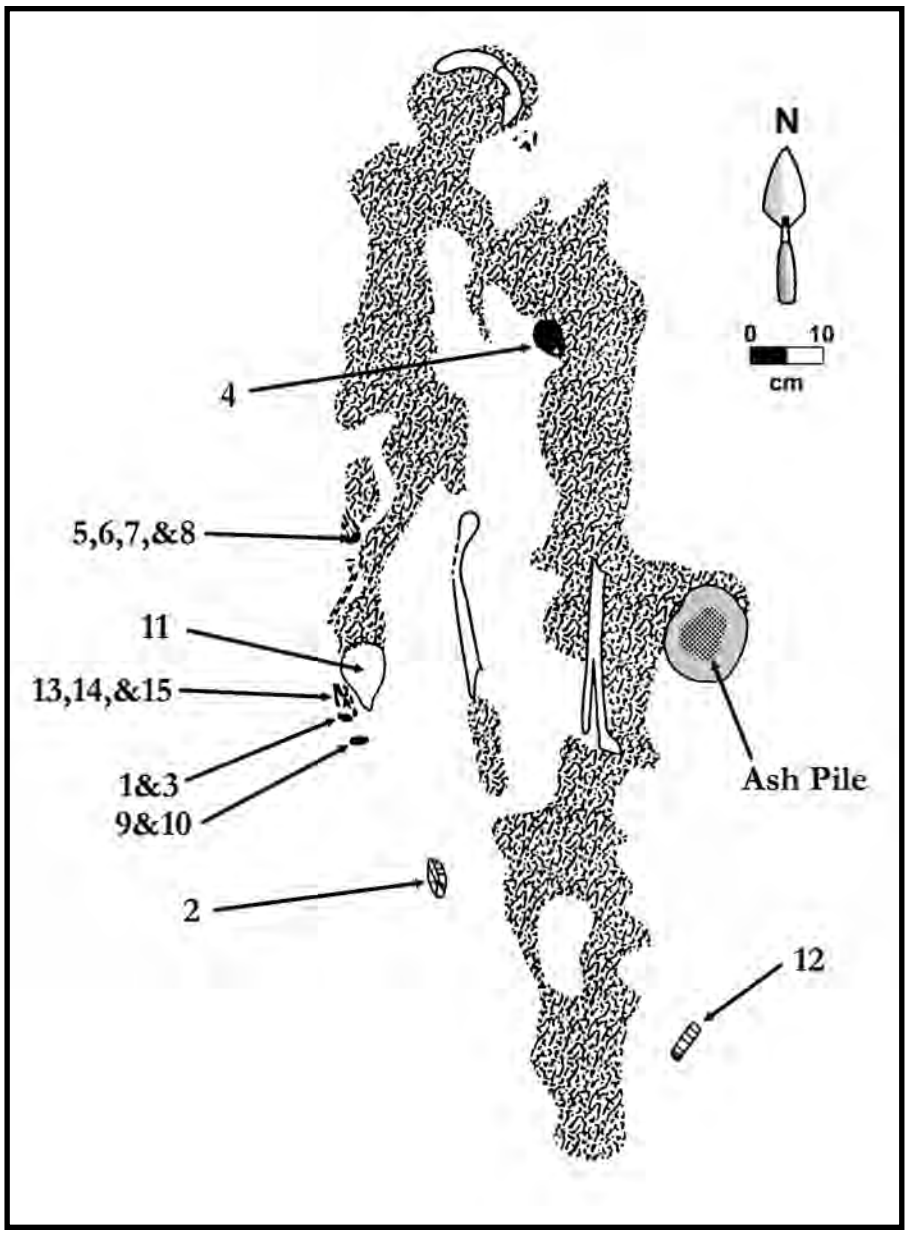

Figure 2. Plan view of Grave 91-7, offerings numbered (cf. Table II).

site. Punuk burials were more frequent than any other time period represented by burials with diagnostic artifacts, a fairly weak conclusion in view of the low number (n=16, out of 363 total, or 4.4%) of graves with diagnostic artifacts. Poor preservation accounts for some of the differences—many burials preserved only as "bone paste" and no other organic fragments (Staley 1991, 1993a, 1994a).

One purported, but undated, Punuk burial contained so many weapons points that Bandi and Blumer (2002:33) consider the internee a casualty of war. In addition to Grave 91-7, at least two other Gambell graves contained a bounty of decorated Old Bering Sea (OBS) III objects and iron (Bandi and Blumer n.d.; Collins 1937:64-65). However, one grave was discovered by non-archaeologists and its documentation is limited.

Can archaeologists conclude that wealth and status were differentiated at Sivuqaq? Clearly, a few individuals were more honored than others, if not on the scale in Chukotka. If burial offerings translate into the residue of sacrifices or communal feasting, then Sivuqaq peoples may have had abundant surplus goods. Instead of burying high status artifacts, Sivuqaq residents may have believed that status was measured in sacrificed food—possibly according feasting a higher honor than among other Bering Strait peoples. Burial practices apparently differed considerably across Anadyr Strait—or the nature of society differed even more dramatically, in view of the re-used whalebone and driftwood precincts (family crypts) and very richly appointed burials at Ekven and Uelen (Bronshtein 1993; Bronshtein and Dneprovsky 2002; Bronshtein and Plumet 1995; Leskov and Müller Beck 1993; Levin 1964; Mason 1998). Analyzing the published Ekven data, Mason (1998:257ff, Table 3) concluded that three OBS graves, ca. 1%, contained a disproportionate amount, roughly 66%, of the total harpoon heads (n=39). Winged objects were also comparatively rare—occurring in only 10 graves out of >300. Thus, the status differentials at Ekven were as pronounced as on Sivuqaq.

Mayughaaq cemetery precincts have produced 18 graves dated within AD 700 and 1200 (Bandi 1984; Staley 1991, 1993a, 1994a, this paper, Table II). Six interments predominantly older than AD 1020, based on two sigma values, while eight are predominantly younger than AD 970, some as young as AD 1300. Four graves equally likely dated between AD 850 and AD 1200. Nearly all of the dated cemetery graves contained one or more whalebone (16 of 18, 88%) and half (50%) had used wood for supports or a grave box. Only four cemetery graves (22%) had artifacts with diagnostic designs, three with Punuk or Thule attributes, one with Old Bering Sea motifs. Otherwise grave goods were comparatively rare; six had none and five only had a single object or two.

Table I. Associated artifacts from Gambell Grave 91-7; numbered to locations in Figure 2.

Artifact	Description
Chipped Stone	
1. Debitage	28 flakes of five different cryptocrystalline material types, all <3 cm
2. Flake Knife	5.7 x 2.4 x 1.1 cm jasper-like material, two lateral edges and terminus showing edge damage.
3. Biface fragment	Crudely worked, steep edge, 3.7 x 2.8 x 1.2 cm, Gray green argillite.
Ground Stone	
4. Blade	Possible pendant, beveled along single edge, three drill holes in triangular configuration.
5. Unworked "raw" Slate	43 pieces, ten >3 cm largest dimension.
6. Slate blade	5.0 x 4.2 x 0.2 cm, single edge beveled.
7. Slate End blade	8.0 x 4.9 x 0.6 cm, beveled both faces.
8. Slate End blade blank	3.1 x 2.5 x 0.3 cm, roughly chipped and ground
9. Pumice abrader	3.1 x 2.5 x 0.3 cm, roughly chipped and ground.
10. Palette	6 x 5 x 1 cm, rectangular, one face smoothly ground concave.
11. Vesicular Basalt Sinker	13 x 11 x 6 cm, hole drilled though end.
Ivory	
12. Rod	5.5 x 1.0 cm End faceted.
13. Harpoon Head fragments	5, all approximately 8 cm, all have raised bosses as design elements, open with open socket, end blade slot parallel with a round line, single lateral spur and two rectangular lashing slots with Punuk design elements such as a raised boss with ellipse or "eye" similar to Collins (1937) type III-a-x, four are Collins type V x: All are closed socket, symmetrical single spur, round line holes, three with parallel slots, one with a perpendicular slot, Punuk design elements including one with a raised boss with ellipse or eye design near line hole
14. Arrowhead fragments	2 bases, roughened shaft, both approximately 4 x 1 cm.
15. Unidentified	Flat rectangular piece, 10.5 x 2.0 x 0.4 cm. A series of 12 drill holes along edge, similar to a "toy" piece photographed by Collins (1937:Pl. 59:11, pp. 413-414).

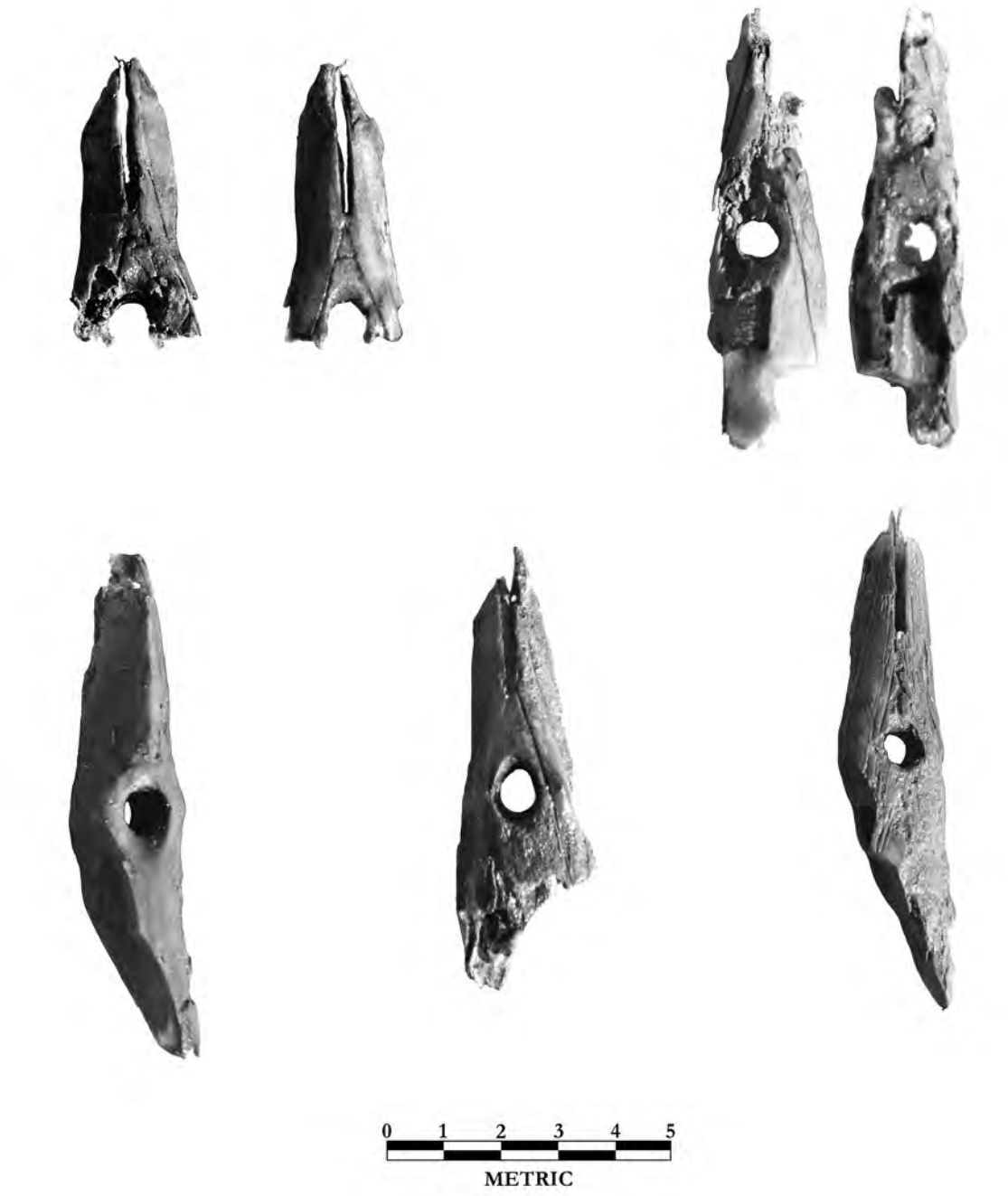

Figure 3a. Associated diagnostic artifacts from Grave 91-7. Punuk Harpoon Heads, Collins' Type III-a-x ("Sicco"), location #13 in Figure 2.

The ethnic complexities or, alternatively, the rapidity of change in the Sivuqaq region are evident in three possibly contemporaneous graves (Table II). Its contemporary (AD 715-750, 765-1025), G 42/16 had Thule motifs: a Y-shaped line that frames and issues from the line hole (Bandi 1984:50, Pl. 28:3,4), in contrast to the Punuk motifs within Gr 91-7. Possibly within years or decades, or even centuries later (AD 970-1340), OBS objects were deposited in the twin grave G 24 (Bandi 1984:43, Pl.68). Several questions remain: Where the three internees contemporaries or descendents, were the artifacts curated heirlooms, or is OBS anomalously young at the Mayughaaq cemetery?

Two other contemporaneous graves also contained a fair amount of offerings, although not as extensive as Grave 91-7. Its contemporary, the adult male in G 42/16, had two harpoon heads and a single cobble scraper (Bandi 1984:50; Pl. 28). A young woman in G38/1 (dating as early as AD 876 to 1189) warranted five Punuk harpoon heads and an engraving tool (Bandi 1984:46, Pl. 22). The placement of harpoon heads within a female burial may

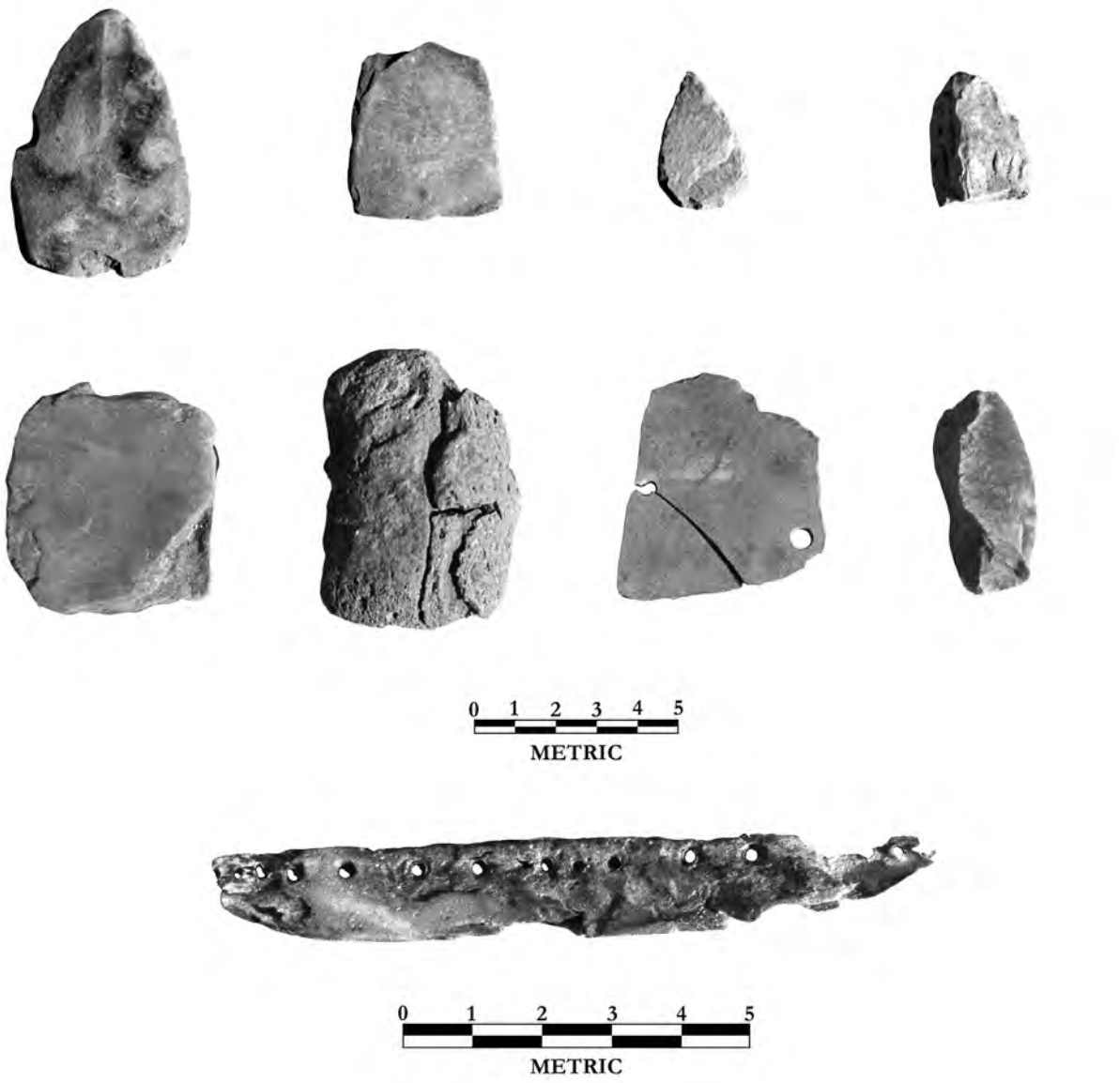

Figure 3b. Associated diagnostic artifacts from Grave 91-7, as located in Figure 2. Upper row: Slate blade (#7); Slate blade fragment; Worked triangular flake; Biface fragment (#3). Middle row: Pallete (#10); Pumice abrader (#9); Beveled blade, possible pendant (#4); Slate flake. Bottom row: unidentified ivory piece (#15)

reflect participation in hunting, a circumstance worthy of future research. Based on the extant data, few people at Mayughaaq during the late 1st millennium A.D. warranted any grave goods—roughly one in five, a finding that may indicate a basic difference in status between its prehistoric residents. Quite significantly, though, whalebones were a frequent accompaniment or marker. The OBS grave, stratigraphically earlier than early Punuk House 3 (Collins 1937:64) that dated between A.D. 645-945 (Blumer 2002:73), was more elaborate with a panoply of artifacts, including two needle cases, harpoon heads, socket pieces and possibly a winged object—as well as matted skins over the body (Collins 1937:64-65).

Although Gambell Grave 91-7 was well provided with grave goods compared to others at Sivuqaq, the grave goods remain modest compared to those in some OBS graves and to a few of those in Siberia. Ironically, the modern economic balance is reversed: Modern Gambell residents are much better provisioned ("wealthy") than their Siberian cousins. The Siberians have roughly equal and modest tools with one or two families having slightly more or better tools, etc.—although consumer goods are doubtless entering Provideniya in higher amounts since 1991. At the other end of the world system, most of the Americans at Gambell have four-wheelers, high-powered guns, electronic appliances, televisions, and the occasional computer.

Table II. Graves in the Mayughaaq area dated between AD 700 and 1200.
[Sources: **G** series: Bandi 1984; **Gr** 91, 93, 94 series: Staley 1991, 1993a, 1994a). ^{14}C ages are on wood, unless otherwise specified by *italics*, which indicate that whale bone samples were used. Calibrated ages from Blumer 2002 and Staley 1991, 1994a). Whale bone ages were corrected following the 720 yr marine carbon value established by Dumond and Griffin (2002).].

	AD 700-1000			**AD 950-1200**	
G 2 Male, mature	1040±90 BP (B-2431 **AD 810-845,** **855-1225**	Slate Blades (n=6) for Harpoon Heads Whale Bone Wood supports	**G VIII** No bones	840±70 BP (B-890) **AD 1035-1045,** **1150-1350**	Whale jaws, scapula, wood, no other artifacts
G 42/1 Female Adult	1270±70 BP (B-2852) **AD 645-900,** **920-945**	Wood, Whale Mandible Superstructure Fairly sizable inventory, sled runner/mattock, slate points	**G X** Male 14-17 yr old	780±50 BP (B-894) **AD 1160-1175,** **1180-1305,** **1365-1390**	1 weathered slate-like tool
G 42/12 Child—teeth only	1070±70 BP (B-3216) **AD 775-1065,** **1085-1125,** **1135-1160**	Worked wood and ivory	**G 14** Female, Older adult	950±90 BP (B-2860) **AD 975-1285**	Whale mandibles; 1 retouched flake
G 42/15 Female adult	1160±80 BP (B-3219) **AD 685-1020**	Whale rib, wood cover Lithic flakes Wood, ashes	**G 16** Adult, Child	940±60 BP (B-2862) **AD 1045-1385**	Whale mandible, walrus bone, Wood, Ash offering, No artifacts
G 42/16 Male adult	1130±70 BP (B-3210) **AD 715-750,** **765-1025**	Wood planks, whale rib 2 **Punuk/Thule** harpoon heads, cobble scraper	**G 24** Male – young adult; Female adult	850±70 BP (B-2434) **AD 970-1345**	Whale mandible, wood Extensive grave goods **OBS** winged object, scraper, slate spearhead, disc with OBS.
G 40 Male adult	*1820±80 BP* *1100±80BP* *(B-2869)* ***AD 717-748*** ***766-1045*** ***1088-1122*** ***1138-1156***	Whale mandible, rib, wood superstructure; 1 Slate knife; ash concentration	**G 38/1** Female Yg adult	*1550±60 BP* *830±60 BP* (B-2876) ***AD 876-1189***	Whale Mandible, Bone Needles, Skin, Five **Punuk** harpoon heads, Engraver

	AD 700-1000			AD 950-1200	
Gr 91-7 Male, Young adult	1140±60 BP (Beta-46510) **AD 727-738; AD 774-1018**	Whale mandibles; 5 **Punuk** harpoon heads, slate blades, ash concentrations, pumice abrader, flake knife, biface fragment, ivory arrowhead shafts	**G 58** Male adult mature	980±60 BP (B-2850) **AD 985-1220**	Whale mandibles, walrus rib, animal bones, rod shaped wood.
Gr 93-4 Old adult	1310±90 BP (Beta-57399) **AD 540-900 920-950**	Driftwood marker No associated. Funerary objects: one ivory flake	**G59** Male adult	940±70 BP (B-2856) **AD 1000-1265;** and 970±50 BP (B-2855); **AD 1000-1010; 1015-1215**	Whale mandible, ribs, wood, walrus ribs. No burial goods.
			Gr 94-67 Young Adult	910±60 BP (Beta-66843) **AD 1010-1250**	No super-strucuture or box. Two slate blades (4-5 cm width) "placed" over the body
			Gr 94-78 Adult, elder	1280±60 BP (Beta-66845) **AD 1020-1260**	Organic sediments indicate offerings, no other goods

CONCLUSIONS

The results of the 1991 monitoring operation indicate the potential for a single discovery to amplify and test archaeological preconceptions. One expectation would be that the social stratification and hierarchy arose during the development of organized whaling during Punuk, as Collins (1937) might have argued—if he had recovered a significant number of burials. The contribution and intensity of whaling during OBS and Punuk on St. Lawrence Island cannot yet be determined in the absence of data any more sophisticated than the qualitative statements on the archaeofauna by Collins (1937:247ff). However, very successful and large-scale whaling had developed by the latest centuries BC on the Chukchi Peninsula (Dinesman et al. 1999; Mason 1998).

The early 1990's cemetery data indicated to Staley (1994b) that Punuk was stratified but not as strongly as during OBS with comparatively less wealth in the hands of fewer individuals during the Punuk culture. Two other graves may support this supposition: A richly endowed OBS grave (Bandi and Blumer (n.d.), as well as the mummified and well-provided for OBS internee uncovered by Collins (1937:64-65). However, the proportion of OBS graves on St. Lawrence Island with significant grave goods is still quite low in contrast to the situation on the Chukchi Peninsula (Mason 1998). Excluding taphonomic biases, several factors might explain this situation: (a) Sivuqaq had fewer high status shamans, warrior or whaling captains; (b) St. Lawrence mortuary practices favored status display by feasting rather than by depositing prized possessions; (c) descendents removed and recycled high status objects after deposition; (d) population increase or other social changes decreased surplus available for disposal in burials during Punuk as compared to OBS. Poor and middle economic classes were roughly equal in size during the OBS with wealth then being more broad

based. During Punuk, "the population of the lowest ranking swells, the middle ranking contracts, and the highest ranking remains constant" (Staley 1994b).

In addition, the second author's belated discovery of the 1991 report in the files of the Office of History and Archaeology highlights the untapped potential of the gray literature and its contributions to the greater labor of synthesis. The successes of the original monitoring should encourage the community to participate in archaeological enquiry (cf. Staley 1993b).

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