

THE UNIVERSITY OF CALGARY

REGIONALISM OF DORSET ART STYLE:

A COMPARATIVE ANALYSIS OF STYLISTIC

VARIABILITY IN FIVE DORSET ART SAMPLES

by

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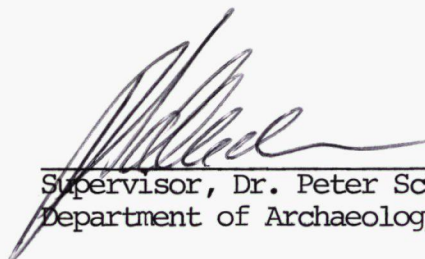
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Regionalism of Dorset Art Style: A Comparative Analysis of Stylistic Variability in Five Dorset Art Samples", submitted by Diane Lyons in partial fulfillment of the requirements for the degree Master of Arts.



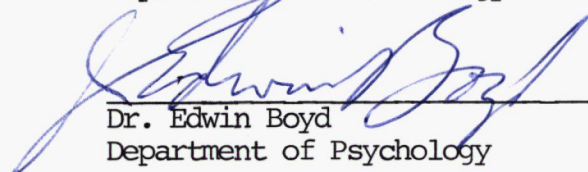
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ABSTRACT

The existence of regional art styles in Dorset art is tested using samples from Crozier Strait, Knud Peninsula, Igloolik, Button Point and Port-au-Choix. In order to compare these samples systematically and objectively, Dorset art style is defined in terms of stylistic and non-stylistic elements. The distribution of these elements in the five samples demonstrates certain patterns that are interpreted with the temporal proveniences of the site-areas as they are currently understood. The interpretation suggests that three regional styles are observable in the Middle Dorset period, and that a widespread style is represented in the Late period. Conditions which may have produced these patterns are discussed in terms of geographical, climatic and social factors.

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TABLE OF CONTENTS

ABSTRACT	Page iii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	ix
LIST OF FIGURES	xi
 CHAPTER	
1. INTRODUCTION	1
Theory and Approach	1
The Five Site-areas	3
Temporal Control	5
2. THE ORIGIN AND DEVELOPMENT OF DORSET CULTURE	9
Background to Current Theories and Models Concerning Dorset Cultural Origins	9
Current Theories and Models Concerning Dorset Cultural Origins	16
3. DORSET ART STYLE	23
Previous Research	23
Current Interpretations of Dorset Art	28
4. ANALYSIS OF DORSET ART STYLE	33
Nature of the Study Sample	33
Style	33
Stylistic Elements	35
Attributes	36
1. Simple Linear Motif	37
2. Complex Linear Motif	40
3. Skeletal Motif	45
4. Facial Features	62
5. Facial Markings	65
6. Shape	66
7. Means of Suspension	91
8. Pegging	94
9. Erotic Motif	95
10. Surface Colouring	96

Themes	96
Theme 1: Complete Naturalistic Forms	98
Theme 2: Head-and-Torso	98
Theme 3: Flattened A-shapes	99
Theme 4: Parts of Subjects	101
Theme 5: Markings on Harpoon Heads	102
Theme 6: Multicomponent Anthropomorphic Figures	103
Expression	104
Non-Stylistic Elements	105
Material	105
Technique	106
Summary of Stylistic and Non-stylistic Elements	109
5. COMPARATIVE ANALYSIS OF FIVE DORSET ART SAMPLES	110
Comparative Analysis of Stylistic Elements	110
Attributes	111
1. Simple Linear Motif	111
2. Complex Linear Motif	112
3. Skeletal Motif	112
4. Facial Features	117
5. Facial Markings	118
6. Shapes	119
7. Suspension	122
8. Pegging	125
9. Erotic Motif	125
10. Surface Colouring	126
Themes	127
Complete Naturalistic Themes	127
Head-and-Torso Theme	127
A-shaped Theme	128
Parts of Subjects	129
Motifs on Harpoon Heads	130
Multicomponent Anthropomorphic Theme	133
Expression	133
Comparative Analysis of Non-stylistic Elements	134
Material	134
Technique	135
Test and Interpretation of the Study Hypotheses	136
Hypotheses 1 and 2	136
6. DISCUSSION, CONCLUSIONS AND SUMMARY	142
Discussion and Conclusions	142
Summary	147

APPENDIX A	149
APPENDIX B	161
REFERENCES CITED	173

LIST OF TABLES

Table	Page
1 Total Sample Frequency of Material.	106
2 Scored Percentages of Simple Linear Motif in the Five Samples.	111
3 Scored Percentages of Complex Linear Motif in the Five Samples.	112
4 Scored Percentages of Skeletal Motif in the Five Samples.	113-116
5 Rank Ordered Scored Percentages of Skeletal Motif from Table 4.	116
6 Percentages of Open Mouth Facial Motif in the Five Samples.	117
7 Percentages of Facial Markings in the Five Samples	118
8 Percentages of Shape Categories in the Five Samples.	119-120
9 Percentages of Means of Suspension in the Five Samples.	122-124
10 Percentages of Pegging in the Five Samples.	125
11 Percentages of Erotic Motif in the Five Samples.	125
12 Percentages of Red Surface Colouring in the Five Samples.	126
13 Percentages of Complete Naturalistic Themes in the Five Samples.	127
14 Percentages of the Head-and-Torso Theme in the Five Samples.	127
15 Percentages of the A-shaped Theme in the Five Samples	128
16 Percentages of the Parts of Subject Theme in the Five Samples	129

17 Percentages of Markings on Harpoon Heads in the Five Samples.	130-132
18 Percentages of Multicomponent Anthropomorphic Themes in the Five Samples.	133
19 Percentages of Ivory, Bone, Antler and Wood in the Five Samples.	134-135

LIST OF FIGURES

Figure	Page
1 Location of the Five Site-areas	4
2 Temporal Distribution of the Five Site-area Samples	7
3 Locations of Places Mentioned in the Text	11

CHAPTER 1

INTRODUCTION

THEORY AND APPROACH

Stylistic variability has been used by archaeologists to infer social divisions within a culture (Deetz and Dethlefsen 1972; Binford 1972; Flannery 1976; Longacre 1972:255; Plog 1976, 1980:2-4; Pyne 1976). An underlying assumption of these studies is that the degree to which different groups share similar styles is determined by the intensity of their social interaction. Group interaction and consequently the distribution of stylistic elements are affected by many factors. Important factors which affected stylistic exchange in previous studies include the period and duration of time in which groups are in contact with one another (Deetz and Dethlefsen 1965); the degree in which art motifs are visible and mutually understood by people from different groups during contact situations (Plog 1976,1980; Wobst 1977); and the extent to which cultural patterns encourage artists to interact with each other (Friedrich 1970). Opportunity for group interaction would also determine the intensity of stylistic exchange occurring between groups. This factor would be affected by the sophistication of a culture's transportation systems; the ruggedness of environmental conditions in which groups lived such as geography and the weather; as well as population density within an area.

Chapter 2 examines theories and models which have been proposed

to explain the origin and development of Dorset culture. These explanations suggest that certain conditions may have existed in the Dorset period which affected the intensity of group interaction between peoples who shared Dorset culture. These conditions included the physical isolation of segments of the population over a period of time; population movements during periods of climatic change; multi-source areas for the origin of Dorset culture groups in various regions; and geographic barriers which inhibited regular contact between groups. As these conditions would inhibit social interaction it is reasonable to suggest that groups isolated by any of these ways would develop diverse styles. Therefore, two hypotheses were formulated stating that 1), regional styles of Dorset art did exist; or conversely that 2), regional styles of Dorset art did not exist. An aspect of art which makes it suitable for testing the existence of regionalism in Dorset art style is that art has been recovered from all areas of known Dorset culture territory.

Chapter 3 examines previous analyses of Dorset art. These analyses were confined to analogies between Dorset art motifs and circumpolar shamanism. While these approaches may explain the role and importance of Dorset art within the culture, they do not provide an objective and systematic means of discussing Dorset art style. In Chapter 4 a more objective means of categorizing Dorset art style is defined and presented in terms of stylistic and non-stylistic elements.

Chapter 5 examines the distribution of these elements in five site-area samples. A site-area often includes one or more Dorset art

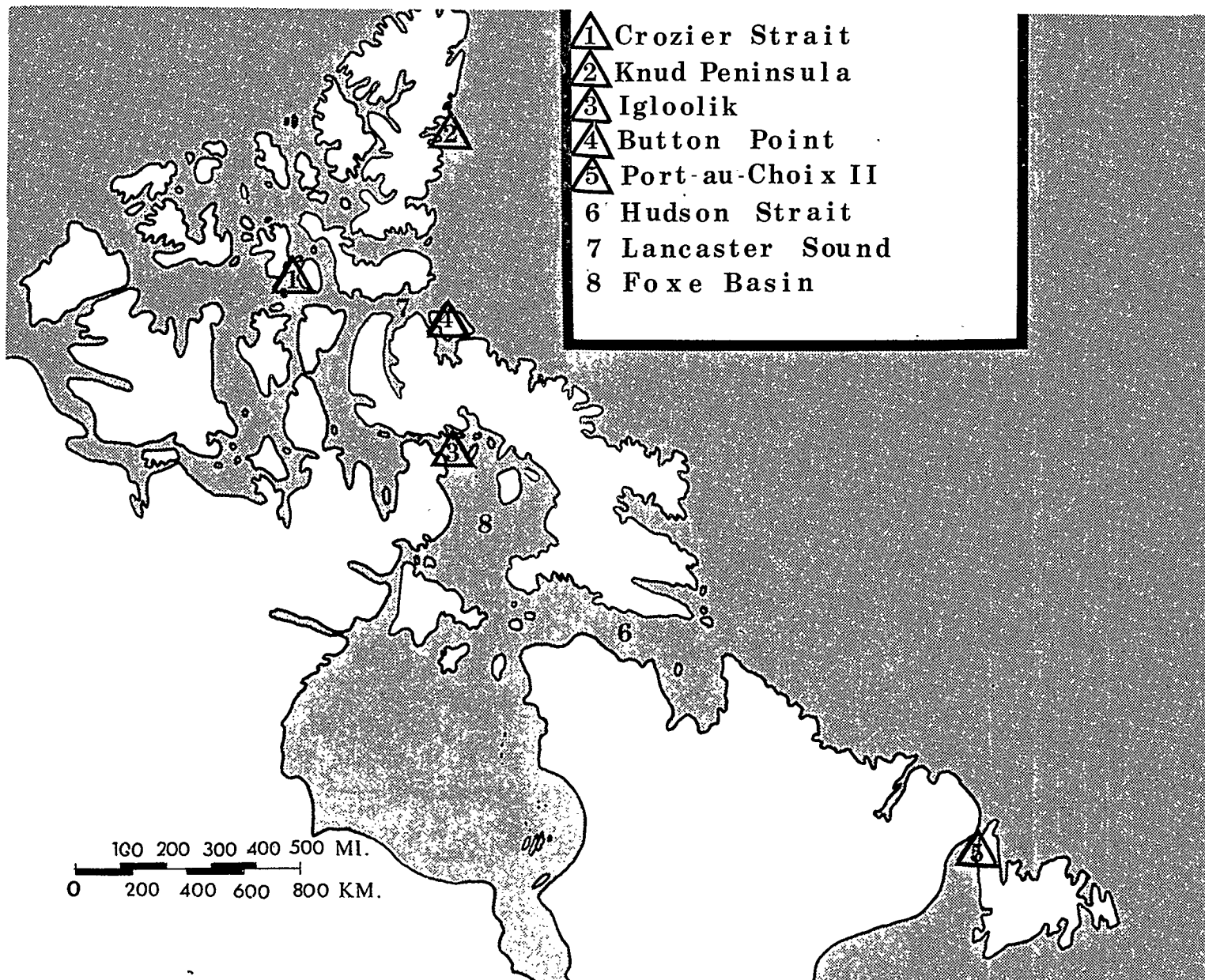
samples from sites which are located in close proximity to each other as it is uncommon for a single site to yield a large art sample. Figure 1 presents the location of the five site-areas. Variability in the distribution of stylistic and non-stylistic elements is measured by the relative differences in the percentages of each element as they are represented in each sample. Percentages of elements were compared rather than frequencies as the site-area samples varied considerably in size. For example Igloolik the largest sample, had 249 artefacts, and Crozier Strait, the smallest sample, had only 54 artefacts. Comparing the distribution of the percentages of elements between samples was more meaningful than comparing the frequencies as the latter were more apt to reflect sample-size differences than true stylistic variation between samples. The results of this analysis are presented in Chapter 5.

The Five Site-areas

The Crozier Strait, Knud Peninsula, Igloolik, Button Point and Port-au-Choix site-area samples were selected for regional analysis because they have produced sizable archaeological collections of Dorset art with known and dispersed geographical proveniences. The Crozier Strait site-area art sample was recovered from sites on Markham Point, Bathurst Island, excavated by Helmer (1980,1981). Art sampled from this site was concentrated in a longhouse structure and associated features.

The Knud Peninsula site-area is a combination of sites located on the eastern central coast of Ellesmere Island investigated by

Figure 1: Location of the Five Site-areas.



Schledermann (1978b, 1980). The art sampled was recovered from Dorset longhouse structures and as intrusive elements in Thule houses.

The Igloolik site-area combines sites located around Igloolik off the northeast coast of Melville Peninsula in Foxe Basin excavated by Rowley (1950) and Meldgaard (1955, 1960b). Art was recovered from graves, middens and Dorset houses.

The Button Point site-area, located on a small peninsula on the eastern corner of Bylot Island, was excavated by Rousseliere (1970, 1971, 1972, 1976, 1979). The sample was collected from a deep midden (Rousseliere 1976:50-51).

The Port-au-Choix site area on the northwest coast of Newfoundland forty miles south of the Strait of Belle Isle was excavated by Harp (1964, 1968, 1969/70). Art was recovered from house pits and nearby graves (Harp 1969/70:109).

Temporal Control

Relative terms such as Early, Middle and Late Dorset periods are not necessarily used consistently by researchers with coinciding absolute dates. Therefore, the terms of Early, Middle and Late periods are defined as:

Early Dorset circa 800 B.C. - 1 B.C.

Middle Dorset circa 1 A.D. - 500 A.D.

Late Dorset circa 501 A.D. - 1400 A.D.

Dates which have been recovered from site-areas indicate the following chronology. The Crozier Strait longhouse has four carbon-14

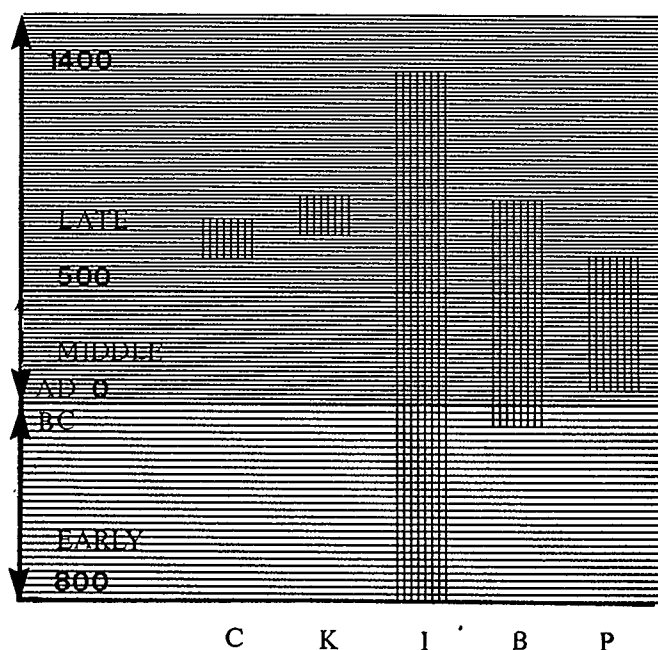
dates indicating a period of occupation with a mean date circa 700 A.D. (Helmer 1981:168-170). Longhouse structures and affiliated features from Knud Peninsula have produced five carbon-14 dates indicating a period of occupation ranging from circa 770 A.D. (GSC 2747, corrected date on willow) to circa 870 A.D. (Geochron 6070, charcoal) (Schledermann 1982:pers. comm.). The Igloolik sample is dated on beach ridge chronology (Meldgaard 1960b, 1960c, 1962) and carbon-14 dates from the 22 meter above sea level (a.s.l.) at Alarnerk (P-212:circa 454 B.C., antler; P-213:circa 960 B.C., ivory), and 8 meters a.s.l. at K'aersut (K-504 circa 1350 A.D., antler) (Wilmeth 1978). A date for Kikatee, which is chronologically like Abverjar, is dated by a sample from the 14 meter a.s.l. (NMC-21:circa 280 A.D.) (Wilmeth 1978). The artefacts collected by Meldgaard could in some cases be segregated into time periods by using both carbon-14 dates and the estimated beach ridge dates. There remains a great deal of uncertainty as to the accuracy of this procedure. The Rowley collection from the Alarnerk site is from the 4 to 22 meters a.s.l. and this collection cannot be differentiated into time periods. At best, it may be said that the collection from Igloolik appears to span the entire range of the Dorset continuum.

Button Point has not been dated as the midden from which the sample came was badly disturbed by frost heave, mixing the artefacts and the stratigraphy (Rousseliere 1976:50-51). Rousseliere has suggested that carvings from the "nearby" Nunguvik and Saatut sites may help date Button Point (Rousseliere 1976:54). Ten radiocarbon dates from

Nunguvik range from the Early period, circa 140 B.C. (S-1202, charcoal), to the Late period, circa 965 A.D. (S-1205, caribou bone), although six of these dates cluster in the Middle period (Rousseliere 1979: 23-24). Although these dates cannot positively establish Button Point in the Middle period, they do indicate that the vicinity was occupied during this time and produced art like that from Button Point. It is possible that the people at Nunguvik or their contemporaries produced the artefacts at Button Point.

The Port-au-Choix sample is well-dated indicating a Middle period of occupation circa 163 \pm 49 A.D. (P-692) to 589 \pm 50 A.D. (P-737) (Harp 1969/70:109). Figure 2 presents the time periods of occupation of the five site-areas.

Figure 2: Temporal Distribution of the Five Site-area Samples.



In all figures and tables the following key applies: C(Crozier Strait), K(Knud Peninsula), I(Igloolik), B(Button Point), P(Port-au-Choix).

The Crozier and Knud Peninsula samples are securely dated to the Late period as is the Port-au-Choix sample to the Middle period. Button Point may be from the Middle or the Late period although Rousseliere supports the former time reference. Igloolik is the most problematic site-area. Art is not absent from any period of the Dorset continuum at Igloolik although there is a marked increase in the quantity of art recovered after the Middle period and in the Late period than in the Early period (Meldgaard 1960a). Unfortunately, the two collections from the Igloolik area cannot be sufficiently separated into time periods in order to understand the development of art in this area. Certainly the material from Igloolik cannot be ignored in a discussion of regionalism in Dorset art style as it is the "type-site" of Dorset culture, has in quantity the largest archaeological collection of Dorset art, and is suggested to be the source of Dorset material culture style (McGhee 1976a). Because of these problems I have made the assumption that Dorset art located in a site-area represents the art style of that region, regardless of time period. This may be a dangerous assumption, but until temporal control over the Igloolik assemblage is realized, this is the only means by which this data can be compared with other areas.

CHAPTER 2

THE ORIGIN AND DEVELOPMENT OF DORSET CULTURE

BACKGROUND TO CURRENT THEORIES AND MODELS CONCERNING DORSET CULTURAL ORIGINS

Between 1921 and 1924 Knud Rasmussen organized and directed the Fifth Thule Expedition from Greenland westward across arctic Canada. The scientific objectives of the expedition included the study of the ethnology and archaeology of the central Arctic to further an understanding of Eskimo culture origins. Interpretations of the data by the team ethnologist, Kaj Birket-Smith, and archaeologist Therkel Mathiassen, conflicted.

Birket-Smith proposed a four-stage development of Eskimo culture: Proto-Eskimo, Palae-Eskimo, Neo-Eskimo, and Eschato-Eskimo stages. The Proto-Eskimo stage was based on an ancient circumpolar culture associated with lacustrine and riverine economies originating within the Mackenzie interior (Birket-Smith 1929:229-230). The Proto-Eskimo was typified by the Caribou Eskimo of the Barren Grounds who represented a survival group of this early stage. Other Proto-Eskimo groups came into contact with the Arctic coast and adapted to a seasonal marine economy which formed the stage of development Birket-Smith called Palae-Eskimo. This culture spread west along the arctic littoral to Alaska, where the maritime aspect of their economy became specialized.

This new level of maritime specialization Birket-Smith termed the Neo-Eskimo stage, represented by the Thule culture, which spread eastward from Alaska through the central Arctic to Greenland.

Birket-Smith's Eschato-Eskimo was a population of inland Eskimos who retained Palae-Eskimo features and migrated into the central regions after the Neo-Eskimo stage, producing an inverted cultural record apparent in Labrador, Cape York and along the Northwest Passage (Birket-Smith 1929:2). (Places mentioned in the text are located in figure 3).

Mathiassen did not recognize evidence which supported a Palae-Eskimo stage in the archaeological remains of the central Arctic (Mathiassen 1927:200-201). His interpretation concluded that the Neo-Eskimo stage was the oldest Eskimo stage represented in the Canadian Arctic. Furthermore, Mathiassen found that Neo-Eskimo Thule cultural remains were too developed to have originated in the central regions. He believed that the cradle of Eskimo culture would be found to the west in the Bering Strait region (Mathiassen 1927:201). He suggested that the Caribou Eskimo represented not a residual Proto-Eskimo stage but a population of Thule culture people who were enticed inland by the caribou herds and gradually lost their maritime adaptation (Mathiassen 1927:200).

In 1925 Diamond Jenness, while examining a collection of Eskimo artefacts from Cape Dorset, Baffin Island, identified a new culture which he named the Cape Dorset culture (Jenness 1925). In comparison to

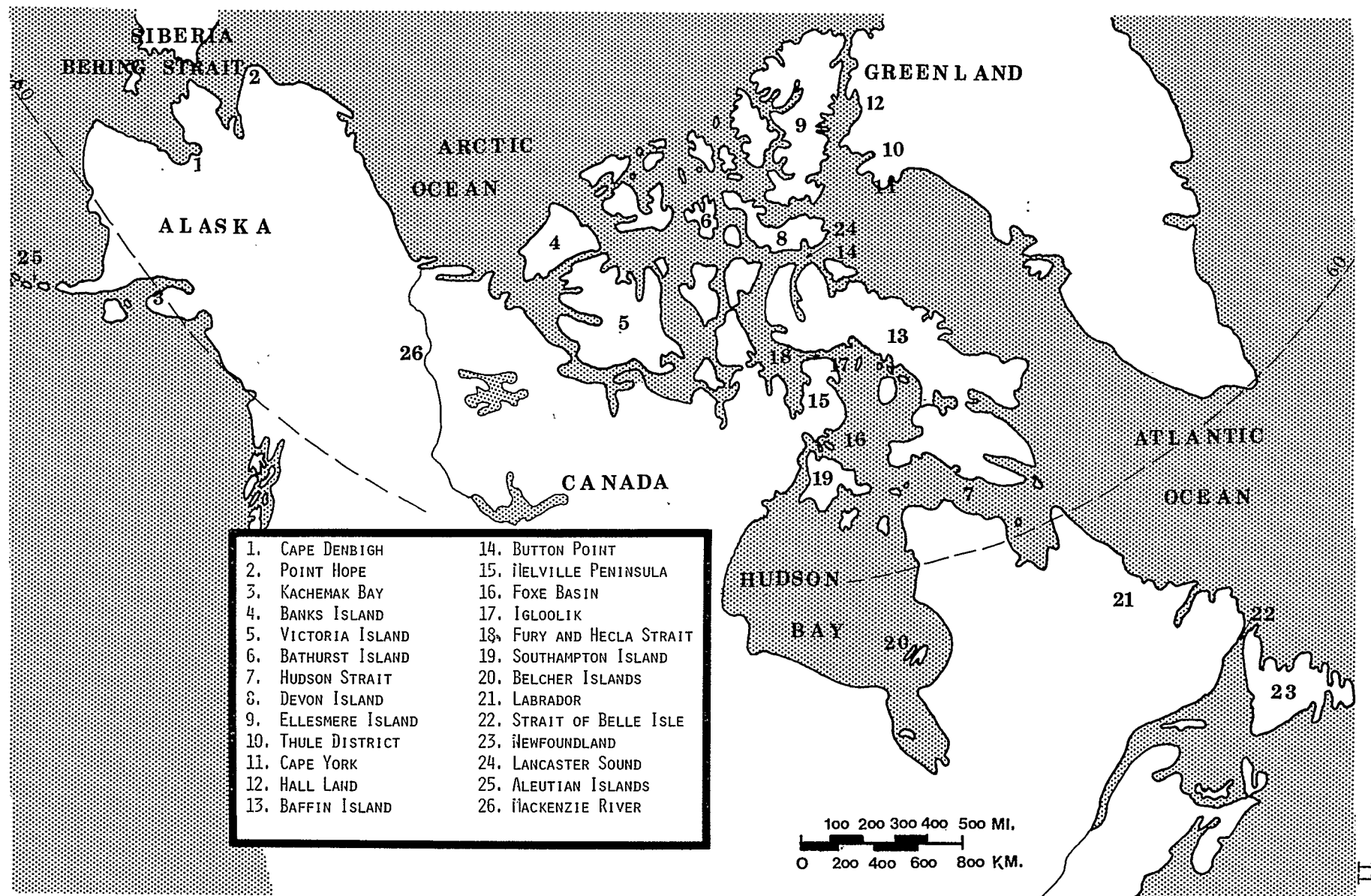


Figure 3: Locations of Places Mentioned in the Text.

other Eskimo culture collections in the National Museum in Ottawa, the Cape Dorset culture had a distinct appearance and technology. The ivory artefacts had a deeper, chocolate-brown patination. Using negative evidence, he inferred that the Dorset people did not possess dogs, bows or bow-drills nor the ability to hunt the whale, as did the more advanced Neo-Eskimo Thule culture phase (Jenness 1925:437; 1933:390-391). From these and other traits Jenness concluded that Dorset culture must be older than Thule culture (Jenness 1925:437; 1933).

Jenness' conclusion conflicted with the theories of the origin and development of Eskimo culture presented in the Fifth Thule Report. Mathiassen maintained that the Thule culture was the oldest culture in the central regions (Mathiassen 1927:200, 1930:595-605). He insisted that the Dorset culture was a peculiar, locally stamped phase of the Thule culture which did not represent a discrete culture in itself (Mathiassen 1927:165). This interpretation was discredited as archaeologists located Dorset culture throughout the eastern Arctic area in places as distant as Hall Land (Mathiassen 1928), Newfoundland (Howley 1915:329; Wintenburg 1938), Ellesmere Island and Devon Island (Lethbridge 1939), Foxe Basin (Rowley 1940), Southampton Island (Manning 1942), McClellan Strait (Leechman 1943), the Thule District (Holtved 1944) and Labrador (Bird 1945). This research led to the general acceptance of Dorset culture as a distinct culture older than Thule culture (Holtved 1944:62-63, 121-122; Collins 1937:316; Martin et

al. 1947).

Dorset origins, however, remained enigmatic. Neither Birket-Smith's nor Mathiassen's theory explained the presence of Dorset culture in the eastern Arctic (Jenness 1933:389-391). Several investigators referred to its strong Indian affinities (Collins 1940:570; Hoffman 1952; Jenness 1925:38, 1933:395; deLaguna 1946:109; Martin et al. 1947:505; Speck 1940), leading some to suggest that Dorset culture might have originally been an Indian culture (Collins 1937:373).

A considerable number of stylistic and typological similarities suggested a connection between Dorset culture and ancient cultures in Alaska, including Okvik-Old Bering Sea, Early Aleutian (Collins 1937:289; deLaguna 1947), Early Kachemak Bay (deLaguna 1934) and Ipiutak (Larsen and Rainey 1948). To Jenness, the evidence indicated that the Dorset culture stemmed from the same parent trunk as these ancient cultures but left western Alaska before the Old Bering Sea culture (OBS) reached its fullest development (Jenness 1940), a conclusion with which Collins agreed (1940:571).

The Denbigh Flint complex, discovered by Giddings in 1948 at Cape Denbigh, Alaska, was chronologically older than previously known arctic cultures (Giddings 1951,1964). This evidence renewed an interest in the origins of early cultures in the Canadian Arctic and Greenland. Similar industries have been located in coastal and inland Alaska (Campbell 1959; Irving 1951; Larsen 1952; Laughlin and Marsh 1954; Skarland and Giddings 1948), the Mackenzie region of Canada

(MacNeish 1951,1953,1954,1956a,1956b) , northern Manitoba (Giddings 1956b) and the Barren Grounds (Harp 1958, 1962). The Independence cultures of the High Arctic and Greenland (Knuth 1952,1954,1958,1967) and the Sargaq culture of west Greenland (Larsen and Meldgaard 1958; Mathaissen 1958; Meldgaard 1952) also shared traits with the Denbigh Flint complex. Irving characterized all of these culture variants as members of the Arctic Small Tool tradition (ASTt) on the basis of a common small-sized, finely-flaked stone tool industry (Irving 1953). Collins noted that the microlithic aspect of Dorset culture tied it into the Denbigh Flint complex and suggested that the Greenland ASTt aspect represented an intermediate stage between Denbigh-like complexes and Dorset culture, a stage to which he gave the name "Pre-Dorset" (Collins 1954:304).

ASTt shared many elements with the Paleolithic and Mesolithic material cultures of Europe (Collins 1951; Giddings 1964:243). Collins postulated that Eskimo culture, although not nearly as old as these periods in Europe, retained the technological and stylistic aspects of their material culture through a process of cultural retardation (Collins 1943,1953a,1953b,1963). Giddings suggested that the condition of cultural retardation was created through a mechanism of population spread (Giddings 1952). Peripheral areas such as those occupied by the Dorset culture became isolated from the culture centre in the Bering Strait region, and retained old cultural elements "as though for them time had stood still" (Giddings 1952:101).

In 1955 Meldgaard introduced a framework for the evolution of Dorset culture based on evidence from investigations in the Igloolik area. At the site of Alarnerk, Meldgaard unravelled a continuous five-stage development of Dorset culture between the 22-metre and 8-metre beach terraces (Meldgaard 1955). Material recovered from the Jens Munk site suggested that some elements of the earliest Dorset stage could be linked directly to Pre-Dorset elements (Meldgaard 1960b, 1960c, 1962). Through comparison of the Igloolik material with other Dorset culture evidence, Meldgaard proposed that Dorset culture expanded from south to north, from "...a possible source about 1000 B.C. somewhere in the triangle between the Great Lakes, James Bay, and Newfoundland...", retaining traits in Early Dorset which "smell of forest" (Meldgaard 1962:95). Archaeologists immediately began tying new data into Meldgaard's scheme in terms of Pre-Dorset and Early, Middle, and Late stages of Dorset culture (Collins 1955, 1956a, 1956b, 1957a, 1957b; Harp 1964a, 1964b; Larsen 1960a, 1960b; Larsen and Meldgaard 1958; Lowther 1960; Taylor 1958, 1959a, 1959c, 1960a, 1960b, 1962, 1963a, 1963b, 1967, 1968b). The results of their research led to general agreement among archaeologists that the Dorset culture evolved from Pre-Dorset culture around 800 B.C., underwent a progression of stylistic and technological changes, and became extinct during the early phase of Thule culture presence in the eastern Arctic circa A.D. 1000-1400 (Bandi 1969; Taylor 1968a, 1969). Chard (1959) and others (McGhee 1975, 1976b, 1978; Schledermann 1975, 1978a) have suggested that the ASTt occupation of the

arctic regions of Canada and Greenland involved two migrations, the earlier represented by Independence I sites in the High Arctic, and the later Pre-Dorset migration.

CURRENT THEORIES AND MODELS CONCERNING DORSET CULTURAL ORIGINS

A recent approach to arctic studies has been the development of causative models to explain culture change. Major cultural or stylistic shifts have been correlated to climatic fluctuations with limited success (Dekin 1972; Lantis 1954; McGhee 1970, 1972; Matthews 1975; Sabo and Jacobs 1980; Short 1978; Vibe 1967) and have encouraged several theories concerning Dorset culture origins and expansion.

The core area hypothesis (McGhee 1976a) divides the Paleoeskimo region into core and fringe areas. The core area encompasses a circular area which includes the High Arctic, central Arctic coast, Barren Grounds, west coast Hudson Bay, east coast Hudson Bay, Labrador and Newfoundland. The core area was thought to differ from the fringe areas in that it exhibits a temporal development of stylistic traits suggesting that the region was occupied continuously throughout the Palaeoeskimo period. Continuity of population and stylistic development cannot be demonstrated for longer than a 600 year period in fringe areas. The Dorset culture develops from Pre-Dorset in situ within the core area. McGhee suggests that periods of population expansion into fringe areas occurred as a means of alleviating population pressure within the core created by periods of climatic amelioration. The core area hypothesis

rests on five propositions including the suggestions that the fringe areas show no significant continuity or relationships to one another; that each distinct fringe area occupation was a "tribe" which lasted only a few centuries; and disappearance of populations from the fringe areas at various times represents the extinction of these tribes rather than abandonment or retreat of the population to the core area (McGhee 1976a:37-39).

The core area hypothesis has received considerable support from Fitzhugh (1972,1976a). Fitzhugh has suggested that the core area and central arctic regions are more stable than Greenland or Labrador because of the nuclear, rather than linear pattern of cultural geography (Fitzhugh 1972). In fringe areas, population is strung out along the coastline. Should one segment become extinct, population replacement can come from only two possible directions. The extinction of one segment can lead to the isolation and probable extinction of other segments, unlike nuclear settlement patterns which provide multiple directions for population replacement (after Fitzhugh, discussed in Arundale 1976:400-409). Fitzhugh (1972) suggests that this pattern of settlement may explain the Early Dorset regional variant in Labrador which he has called Groswater Dorset, as well as a Middle Dorset regional variant in Newfoundland.

Criticism of the core area hypothesis has produced alterations of the model and alternative theories on cultural change mechanisms. Arundale (1976) has remarked on major problems of population expansion

models. Ameliorating conditions do not promote population spread to all regions at all times. Warming conditions promoted expansion into the High Arctic, while cooling conditions encouraged expansion into southern regions such as Labrador and Newfoundland. Arundale suggests that the core area hypothesis makes more sense if the mechanism of population expansion is less dependent on expansion and contraction of resources in the core area, and more dependent upon the resource potential of the fringe areas (Arundale 1976:309).

Schledermann has pointed out that research in the High Arctic in the past few years suggests a more continuous level of occupation than previously was known (Helmer 1980; McGhee 1979,1981; Rousseliere 1976,1979,1981; Ruffman 1976; Schledermann 1975,1977,1978b). This is also true of fringe areas such as Labrador (Cox 1978; Fitzhugh 1976b, 1980,1981; Jordan 1980; Sutton 1981; Thomson 1981; Tuck 1975,1976) and the western Arctic (Arnold 1980; Muller-Beck 1977; Schledermann et al. 1975), which have undergone intensive research since the core-area hypothesis was formulated. Schledermann suggests that recent evidence indicates periods of fluctuating population density in the High Arctic, rather than extended periods of non-settlement and extinction (Schledermann 1977, 1978a,1978b). Occupations of specific areas in the High Arctic may have been short-lived, and are explained by a cyclical phenomenon of depleting primary resources in a region within a few generations which enforced the need for frequent relocation (Schledermann et al. 1975). During periods of climatic stress, groups in the High Arctic may have

congregated around polynyas which offered a concentrated year-round sea mammal resource base (Schledermann 1980). Furthermore, Schledermann states that we must be prepared to accept regional expressions which may conflict with stereotyped expectations of the core area manifestation or Early Dorset as represented at Igloolik (Schledermann 1980:47). Failure to recognize regional variants may confuse interpretation of in situ development of Dorset culture in fringe areas. Schledermann (1978a) suggests that Independence II represents the transitional Pre-Dorset to Early Dorset stage in the High Arctic. He believes it would be more useful to abandon the Independence II concept and use the late Pre-Dorset/Early Dorset terminology, as at present the former concept masks the continuity of development in this region (Schledermann 1978a:56).

Cox (1978) has noted several weaknesses in the core area hypothesis. First, homogeneity of culture has not been established in the core area and general acceptance of this continuity may have concealed regional variations within the core area itself. Furthermore, discontinuity of population in the fringe areas has not been established. Cox and others (Cox and Spiess 1980; Fitzhugh 1976b, Tuck 1975) have noted a strong affiliation of Pre-Dorset and Early Dorset artefact assemblages along the Eastern Arctic axis which includes the eastern High Arctic islands, northern Greenland, Baffin Bay and Davis Strait areas, and northern Labrador. Cox (1978) elaborates on these similarities. These areas share a similar environment characterized by mountains and a

fiorded coastline in contrast to the low relief of the central core area. Ice conditions of these two regions also promote two different seal hunting adaptations: open water or ice edge sealing along the eastern fringe, and breathing hole hunting in the central core area. The geographical barriers of the eastern axis would encourage a more north-south migration and communication route, and may have inhibited contact to the west. With the cooling climatic conditions present during the Early Dorset period, the core area Dorset people may have migrated south into Labrador and thus contributed core area Early Dorset traits to northern Labrador. Cox suggests that there may be more than one "core area" in the eastern Arctic and probably more than the two he has discussed. He proposes that it may be more profitable to place the emphasis on regional development within and outside the central core area without denying a high degree of cultural communication between some areas (Cox 1978:116).

In order to test present models of Dorset culture development and expansion it will be necessary to establish cultural chronologies in the fringe and core areas and examine data for regional expressions. As one step towards this future goal, this study will concentrate on an examination of possible regionalism in Dorset art style. Despite theoretical differences on the origin and development of Dorset culture, the models discussed above provide conditions under which regional art styles could occur. These conditions can be briefly summarized. McGhee's hypothesis allows for regional stylistic expressions within

fringe areas which are short-lived and do not return to influence the core area. Although the core area hypothesis implies that the source of style for Dorset culture came from the Igloolik region, other hypotheses suggest that there could have been several centres of style which developed individually due to 1), isolation; 2), in situ development from ASTt regional variants; and/or 3), trait diffusion caused by population movement during periods of climatic change. Schledermann's and Cox's conclusions suggest that, at least in the Early Dorset stage, regional stylistic development must have been widespread. Fitzhugh's model of linear settlement vs. nuclear settlement patterns suggest that more varied styles would develop along the rugged eastern coastline than in the western and central regions. The latter suggestion conflicts with the apparent affiliation of artefact assemblages along the eastern axis during the Early period as discussed by Cox (1978).

The question is whether regional stylistic development is supported by a study of observable regional styles in Dorset art. This study will test the following hypotheses:

Hypothesis 1: Regional styles of Dorset art did exist.

If regional styles of Dorset art did exist, then a heterogeneous pattern in the distribution of stylistic elements should be observable in the five site-area samples.

Hypothesis 2: Regional styles of Dorset art did not exist.

If regional styles of Dorset art did not exist then a homogeneous pattern in the distribution of stylistic elements should be observable in

the five site-area samples. To test hypotheses 1 and 2, it is necessary to define and describe Dorset art style so that the distribution of these elements in the five site-area samples can be observed and compared. Temporal factors also must be considered as variations between site-area samples could be the result of changes to a style through time as well as changes explained by regional diversification.

CHAPTER 3

DORSET ART STYLE

PREVIOUS RESEARCH

Jenness considered Dorset art style to be so culturally significant that he considered it as one of his five criteria for defining Dorset material culture (Jenness 1925,1929,1933). Mathiassen, whose opinions on Dorset culture contrasted with those of Jenness, suggested that Dorset art recovered from Button Point, Baffin Island, represented a peculiar local style of Thule culture which was the product of a single artist or a single "school" (1927:210-211). Mathiassen reconsidered his initial statements when art of the same style was discovered in Hall Land. He recognized that an actual style existed yet was unwilling to accept Dorset as a distinct culture and suggested that this style was "...probably a development from ornamentation of the Thule culture" (1928:215). In reply to Mathiassen, Jenness concluded that the crudeness of linear engravings in Dorset art suggests "the beginnings of Eskimo geometric art rather than degenerated versions of Thule patterns" (Jenness 1933:392). As field research confirmed the distinctiveness of Dorset culture, it also contributed a substantial collection of art dispersed throughout the known range of Dorset territory (Collins 1950,1955; Holtved 1944; Leechman 1943; Lethbridge 1939; O'Bryan 1953; Quimby 1940; Rowley 1940; Wintenburg 1938).

The antiquity and origins of Dorset art style were first sought in older cultures in Alaska. Collins noted several stylistic similarities between Dorset art and Old Bering Sea I (OBS) in the use of straight lines, long, oblique spurs, short detached lines, and mammal heads with ears carved in relief. Collins cautions that:

The possible significance of these resemblances is somewhat obscured by the fact that the ornamentation in both cases is very simple, and therefore of questionable value as indicating genetic relationship (Collins 1937:289).

Collins also noted the similarities between OBS I, Dorset and Paleolithic art, remarking that the simplicity of design precluded definite conclusions:

We can only point to the significant fact that in the two oldest known phases of Eskimo art - the Old Bering Sea and Dorset - the modern, stereotyped line and spur designs do not occur; that they were preceded by a related but more generalized ornamentation employing the same elements; and that the latter ornamentation seems to show closer stylistic affinities with Paleolithic art than with later styles in either America or Eurasia (Collins 1937:296).

DeLaguna discussed various ancient Eskimo stylistic features which Dorset shares with OBS, Ipiutak and Aleut art. These features included: angular dots in a line; the very ancient Eskimo feature, also characteristic of Dorset art, of short lines in groups combined in horizontal, vertical, oblique or random arrangements; simple spurred lines; long slanting lines; lines with short vertical spurs or oblique spurs; alternating lines with vertical spurs on either side; lines with paired oblique spurs; and double lines with alternating internal spurs (deLaguna 1947:220-261).

Although similarities in formal characteristics between Dorset and Ipiutak have been remarked upon (Larsen and Rainey 1948; deLaguna 1947), stylistic similarities suggest that Dorset art, being simple and primitive, is earlier than the ornate Ipiutak style. Though there may have been a common stylistic base for these two cultures, Dorset was not in contact with Ipiutak at the time of the latter's artistic florescence (Harp 1953:40). Unlike Okvik, Ipiutak and other ancient Alaskan cultures Dorset artists used ornamentation sparingly. Limbs of human figures were carved with care, the body was simplified and the proportions were not quite natural (Meldgaard 1960a:24). "Their sculptures appeal through form alone " (Meldgaard 1960a:25).

The relationships between Dorset and other prehistoric cultures in the Canadian Arctic and Greenland have also been explored. Comparisons of stylistic and formal aspects of Dorset art have been drawn with those of the Beothucks of Newfoundland (Harp 1964a; Jenness 1929; Marshall 1978; Wintenburg 1938), Sadlermiut of Southampton Island (Collins 1957a; Taylor 1959b), Manituik of the Belcher Islands (Quimby 1940), Angmagssalik of Eastern Greenland (Meldgaard 1976; Taylor 1968c), and affiliates of Alaskan Norton culture, found recently in the Mackenzie Delta (Arnold 1980:422). The Beothuck and Norton elements probably represent a case of trait diffusion through contact with Dorset peoples in these respective areas. Meldgaard suggests that:

The specific character of the Angmagssalik Eskimos, such

as certain traits in their rich and distinctive art, might be explained by such a cultural meeting at the time when the Dorset and Thule peoples mixed (Meldgaard 1976:34).

A similar argument has been made for the stylistic affinities between Dorset and the Sadlermiut and Maniituk cultures.

Meldgaard included art within his evolutionary scheme of Dorset culture at Igloodik. According to his interpretation, "plastic" art did not appear until Period III and did not become abundant until Period IV (1955:175). Furthermore, he concluded that Dorset art style evolved from simple naturalistic to stylized motifs:

Primitive art often develops in this direction. The emphasis on certain features often results in the elimination of others, so that realism is lost. The work becomes symbolic; the repetition of a few features is enough to produce the desired effect on the beholder, and the stylized form becomes almost magical. A further step in this development reduces shapes to conventional patterns, the origin of which even the artist has forgotten; the subject has become an ornament which is produced because that is the thing to do (Meldgaard 1960a:16).

There are several problems with this interpretation. Meldgaard failed to define what he considered to be art, naturalism and stylization. For example, the Igloodik collection contains several pieces which are incised in geometric motifs, and schematic faces from the Pre-Dorset period. In a later article Meldgaard states that only geometric engravings are preserved from Independence and Sarqaaq (1967:55). It can only be assumed that Meldgaard meant three-dimensional carved forms when he referred to "plastic" art and that he did not consider incised motifs in his evolutionary scheme. If this is so, it is difficult to understand how Meldgaard interpreted naturalism and

stylization. He illustrated the evolution of Dorset art with bear forms from Igloolik (1960a:15). His example of naturalistic art is a natural bear form which is incised with a pattern symbolizing the skeleton of the animal. This could be interpreted as a combination of natural and stylized motifs on the same artefact. If Meldgaard was using formal aspects alone (plastic art) to decipher stylistic evolution, then why has he relied on the repetition of the incised skeletal motif to identify spatulate objects as bears in the stylized range of his scheme? The intermediate step between natural and spatulate forms is represented by an A-shaped form which is not simply a bear, but a combination of bear, human, walrus and possibly seal motifs. Furthermore, research since 1955 has proven that stylized and natural forms can occur simultaneously (Collins 1956a,1956b; Harp 1964a; McGhee 1974/75; Taylor 1968b; Thomson 1981).

The temporal sequence for the evolution of Dorset art proposed by Meldgaard has not been substantiated. Subsequent research has recovered sculptured and engraved examples from Early Dorset and transitional Pre-Dorset/Dorset contexts (Arnold 1980; Collins 1956a,1956b,1957; Helmer 1980; McGhee 1976a: Fig.3h; Rousseliere 1964; Schledermann 1978b: Plate 1p; Taylor 1967,1968b; Tuck 1975: Plate 27i). Taylor has suggested that Dorset, as evolved Pre-Dorset culture, reflects a long-standing tradition of art in the Canadian Arctic (Taylor 1969,1971,1975). This proposition is supported by a growing awareness of Pre-Dorset art from Banks Island (Muller-Beck 1977). Giddings has suggested that the high

frequency of carving tools such as burins and burin spalls in the Denbigh complex may suggest an elaborate art style for this period (1956a:233-234). A comparable situation could be argued for Sarqaq, Independence and Pre-Dorset assemblages although these tools were as related to the manufacture of other artefacts such as harpoon heads.

CURRENT INTERPRETATIONS OF DORSET ART

Explanations as to the function of Dorset art within the ideological aspect of Dorset culture have provided new insight into Dorset art style by examining parallels between shamanic symbols in living circumpolar cultures and motifs in Dorset art. The shaman performed an important role in his or her community. Their tasks were to deal with the supernatural and negotiate with the spirits for the procurement of game in times of failure; to drive off evil spirits; to ensure good weather; to explore the future; to cure the sick; and to supply individuals of the community with strong amulets, songs or charms (Holtved 1962:23). In his or her endeavours the shaman was aided by helping spirits, especially bird and bear spirits (Blodgett 1978:64; Taylor 1971). The most powerful of these spirits in Greenland and Labrador was a large white bear called Tornarssuk or Tar(g)arssuk (Holtved 1963). Tornarssuk appeared before the initiate shaman, devoured him, voiding him of his flesh, and then regurgitated the bones. The shaman was reincarnated from his bones; through this experience he learned how to separate his soul from his body so that his soul could 'fly' into the spirit world and secure the needs of his community (Holtved

1963; Eliade 1964:474).

Shamanism is associated with a certain art style which symbolized these concepts. Shamanic art is mainly a hunter's art consisting almost exclusively of animals and a related x-ray style (Lommel 1967:70). Dorset art has been interpreted in terms of shamanic style and its symbolism although human figures are the most frequent form. Taylor suggests that the concept of Tornarssuk may be evident in Dorset bear carvings. Next to humans, bears are the most common subject in Dorset art, but "... they are thin with thick necks unlike the real bears, fat with thin necks" (Taylor 1971). The shaman's method of curing by blowing or sucking to extract elements causing illness is associated with the o-shaped mouth found on many anthropomorphic figures (Blodgett 1978:182; Taylor 1963a:25). Swinton has remarked that in almost all bear figures the open mouth is apparent, symbolic of the magical quality of the shaman's breath (Taylor and Swinton 1967:43). The concept of "soul flight" is associated with bird motifs (Eliade 1964:480; Prokofyeva 1972:129) or harpoons (Blodgett 1978:90) which aided the shaman's soul in its flight into the spirit world. The occurrence of similar motifs in Dorset art is reported by Swinton (Taylor and Swinton 1967:41), McGhee (1980a: 22) and Taylor (1975:476), especially in the case of bears which are often portrayed as though in flight (Taylor 1975:477).

Shamanic art commonly depicted the transformation of the shaman into an animal form. Transformation reasserted the closeness of the shaman's relationship with animals in that he could become one with and communicate with their spirits (Blodgett 1978:77). The concept of

transformation is accomplished in Dorset art by combinations of animal and human attributes in a single form (Harp 1964a:114; Taylor and Swinton 1967:45). The transformation of the shaman is also symbolized by the x-ray style, which refers to an incised motif representing the skeleton, superimposed onto an animal or human form such that the internal and external properties of the body are perceived simultaneously (Meldgaard 1960a:24). Swinton has suggested that the x-ray design is not the skeleton of the inner form projected to the surface but is rather a "... symbolic form to provide supernatural power" (Taylor and Swinton 1967:41). He suggests that the hollows in some figures, such as certain Dorset bears and birds, represent the divestment of the shaman's flesh and blood; in his transformation he can see himself as a skeleton, separate his soul from his body and 'fly' (Taylor and Swinton 1967:43).

Carved figures in wood with holes and often slivers through their chests have been interpreted as spirits of shaman who had to be 'killed' (Taylor and Swinton 1967:41) or as other unspecified forms of effigy magic or witchcraft (Rousseliere 1976). Interest in the grotesque was an essential part of Dorset shamanism. Dorset artists often depicted malformed human figures (Collins 1974/75:59). Many other artefact classes have been interpreted as part of the Dorset shaman's tool kit, including false teeth, masks (Rousseliere 1970,1971), multiple face 'staffs' (Blodgett 1974:ii) and tubes (Taylor and Swinton 1967:45). McGhee suggests that the high incidence of shamanic symbols in Dorset art indicates an intense involvement of these peoples in shamanism, a phenomenon which occurs in times of crisis (1980 :22).

Swinton has speculated that the figures and motifs used by shaman could only be made by the shaman or his assistant, since their power and magic derived from the fact that they not only represented but contained the spirits they depicted (Taylor and Swinton 1967:41). The specialist artist-shaman concept has been rejected by other investigators on archaeological and stylistic grounds (Rousseliere 1976:52; McGhee 1974/75:143; Jordan 1979/80:415).

Other interpretations attributed to Dorset art include its function as grave art (Taylor and Swinton 1967; Taylor 1968b, 1971, 1975; Harp 1968), hunting magic (Meldgaard 1960, 1967; Taylor 1975), protective weapon amulets (Harp 1964:116, 1968, 1974/75), bear cult (Larsen 1969/70; McGhee 1974/75; Taylor and Swinton 1967; Taylor 1975), walrus cult (Taylor and Swinton 1967; Meldgaard 1955, 1960a), and human fertility motifs (Taylor 1975; Rousseliere 1971).

Regional analysis of Dorset art has been attempted only for Newfoundland (Harp 1969/70) and Labrador (Jordan 1979/80). Harp concluded that Newfoundland Dorset art was unique in its extreme conventionalism and lack of human figures. It functioned mainly as hunting magic. The typical Dorset skeletal motif was de-emphasized and incision on amulets in Newfoundland was purely ornamental (Harp 1969/70:121). Jordan (1979/80:415) came to a similar conclusion on examination of the Labrador Dorset art material, which was stylistically closer to Newfoundland art than to other areas of the Dorset culture; he particularly noted the marked absence of art and artefacts associated with shamanistic activities

such as amulet boxes, sucking tubes, killed human figures, shaman's teeth, and toy kayaks with skeletal motif (Jordan 1979/80:415).

From a study of 125 Dorset art pieces from a wide geographic range of Dorset culture Taylor concluded that:

These observations should suffice to indicate the broadly-spread commonality of Dorset art. I expect that future work will not only reinforce it but also that it will indicate regional variations. Temporal variation is another sizable question.

I think all workers would agree that Newfoundland Dorset appears to be a regional variant of the culture and probably of its art (Taylor and Swinton 1967:40).

The existence of "regional variants" in Dorset art style can only be proven or disproven if the style can be more objectively defined and systematically examined.

CHAPTER 4

ANALYSIS OF DORSET ART STYLE

NATURE OF THE STUDY SAMPLE

Dorset art style is defined from a study of 895 art pieces from archaeological sites and collections located throughout the Canadian arctic, Labrador, Newfoundland and Greenland. In Chapter 5, 585 of these artefacts from five site-area samples are compared in order to test regional variability in Dorset art style. A larger number of artefacts was used to define the general culture style in order to become thoroughly familiar with the range of variability within the art and to use the additional material as a comparative data base for the results of the analysis presented in Chapter 5.

STYLE

"Style" has been defined by many researchers with sometimes compatible but often conflicting results. Schapiro (1962) suggests that style is part of historical processes, while others feel that style is a functional tool for the development of group cohesion and identity (Binford 1962); or is an aspect of material culture that reflects the traditional stylistic choices of a particular group which apart but in conjunction with the function, determine the shape of an artefact (Dunnell 1978; Sackett 1977). Overriding the theoretical and methodological differences were the conclusions that 1), any given style is particular to a specific culture at a particular point in

time, and 2), that the style of a culture is made up of a unique combination of ways of producing artefacts which cannot be duplicated by another cultural group. As assumption of the latter point is that style is part of learned in-group behaviour.

Based on these conclusions, I suggest that regional sub-groups which develop within a culture are detectable through stylistic differences in their art. These differences may be reflected in ways of producing a particular motif which is different from the "normal" means of producing that motif in the culture style. Regional groups may also exhibit a new range of motifs in addition to those of the culture style, or they may demonstrate marked preferences for some motifs over others. When such regional variations are detected, they may be discussed as regional styles.

In order to test the existence of regional styles in Dorset art, it is necessary to define Dorset art style. Schapiro (1962:280) suggests that only traits which characterize a particular style can be considered as stylistic. He does not include technique, material or subject matter strictly as aspects of style as they are not unique to a style and are only significant in terms of the conception of forms (Schapiro 1962:280). For this reason I have divided the traits of Dorset art into two groups which are stylistic and non-stylistic elements. Stylistic elements include the concepts of the art which are the attributes, themes and expression. Non-stylistic elements include the medium in which concepts are executed which are material and technique. Stylistic and non-stylistic elements are referred to collectively as elements.

STYLISTIC ELEMENTS

The problem of defining stylistic elements is as difficult as defining the term "style". To my knowledge, there is no existing system for breaking down the characteristics of a style that is directly transferable from one classificatory system to another. I found it necessary to develop a system by using the concepts of Plog (1982) and Schapiro (1962) whose theoretical biases are different. The result is not directly compatible with their approaches to the categorization of styles but I believe that through incorporating their ideas, a system has been developed which categorize the data for the comparative tests in Chapter 5, and also enhances our current understanding of Dorset art style.

Stylistic elements are the attributes, themes and expression. I have used Plog's (1980:41) definition of attributes which are described as the fundamental units of an art style. He equates attributes with conscious and sub-conscious decisions of the artisan during the process of manufacturing and decorating an artefact (Plog 1980:41-42). Attributes are independent variables which have a set of alternate choices from which the artist can select (Plog 1980:41). Alternate choices, called attribute states, must have the property of substitutability (Plog 1980:41-42). Attributes (or motifs) in this study may fall short of Plog's definitions in that they may not be independent variables. For example the attributes simple linear motif, complex linear motif and skeletal motif could be considered as a single attribute e.g. linear

motifs. I separated these three motifs primarily because skeletal motif is discussed as a specific motif by Dorset art historians (see chapter 3) and there appears to be a difference between what is discussed as skeletal motif and what is understood as seals. To reduce the degree of subjectivity involved in this approach, criteria were set for each attribute so that any motif could be categorized systematically. For the most part, I believe that the categories determined from the 895 artefacts are replicable.

Themes are groups of attribute-states and attributes which recur in a conventionalized format, suggesting that these concepts were meaningful to the Dorset artist and possibly to other members of the community. A third element of style is the expression. Schapiro (1962: 283) describes the quality of an art style as the expression by which all traits of a style were adapted to a dominant feature which makes one style distinct from another.

Attributes

Nineteen attributes were observed in the study, of which ten were used for regional analysis. These ten were selected on the basis that they were either characteristic of a site-area or were attributes which occurred frequently enough in the site-area sample to be statistically meaningful. The remaining nine attributes described in Appendix A, are important in understanding certain themes. References for artefacts illustrated in Chapter 4 and in Appendix A are found in Appendix B. To conserve space, variable lists are not necessarily exhaustive.

1. Simple Linear Motif

Lines were usually distributed in parallel or oblique arrangements relative to the longest axis of the artefact.

Lines frequently radiated from a corner, edge or perforation.

Series of parallel short lines located perpendicular to an edge were typical of Dorset art.

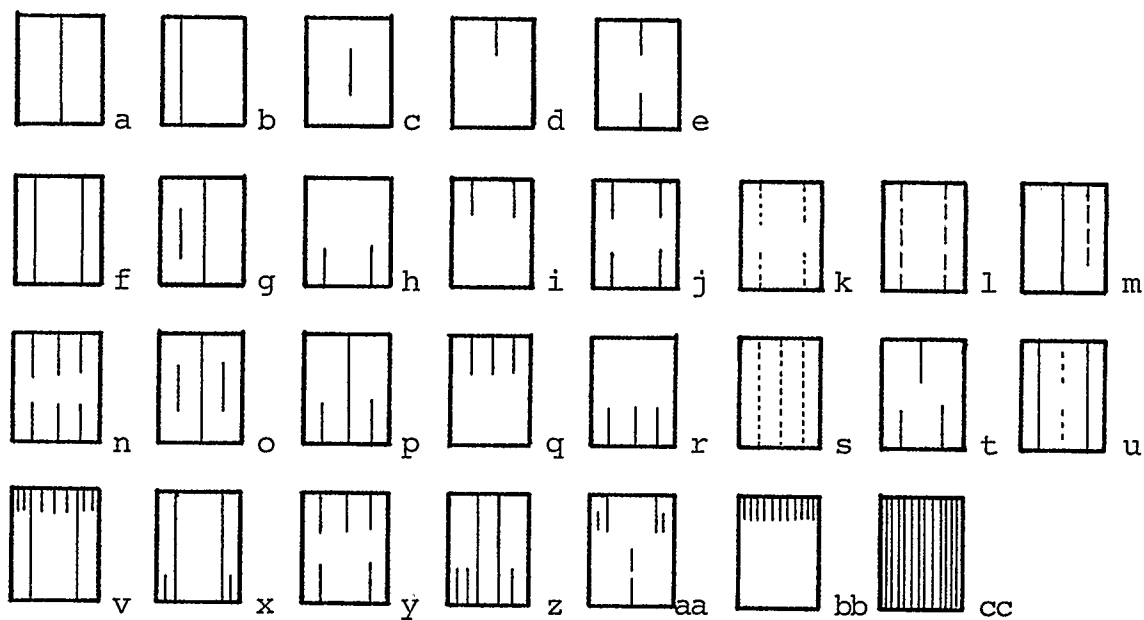
Attribute states

1 i. Lines incised parallel to the longest axis.

Example



Variables



(1. Simple Linear Motif continued)

1 ii. Lines incised perpendicular to the longest axis of the artefact.

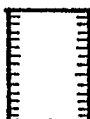
Example



Variables



a



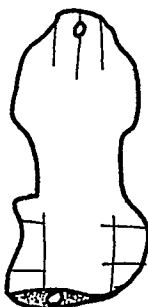
b



c

1 iii. Lines incised perpendicular and parallel to the longest axis of the artefact.

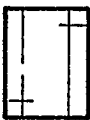
Example



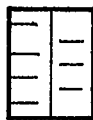
Variables



a



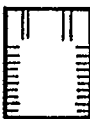
b



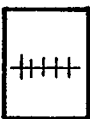
c



d



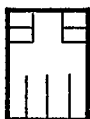
e



f



g

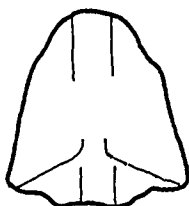


h

(1. Simple Linear Motif continued)

1 iv. Lines incised parallel and diagonally to the longest axis.

Example



Variables

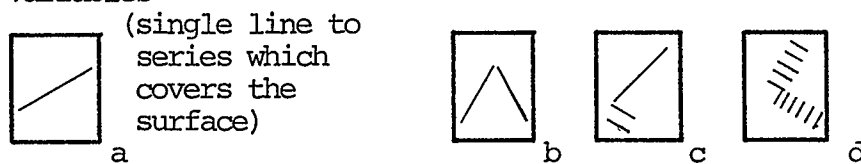


1 v. Lines incised diagonally across the artefact.

Example



Variables

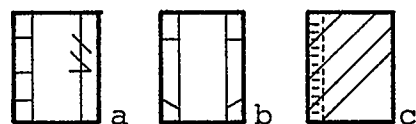


1 vi. Lines incised parallel, perpendicular and diagonal to the longest axis.

Example



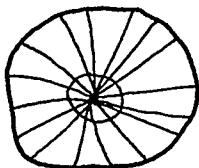
Variables



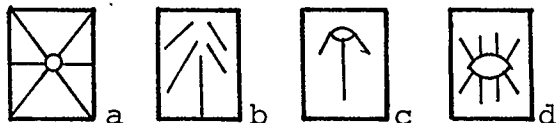
(1. Simple Linear Motif continued)

1 vii. Lines radiating from a corner, edge or perforation.

Example



Variables



2. Complex linear motif

These forms usually represented a recognizable but stylized form. Forms were geometric; curved lines were rare. Seal, caribou, human faces, sun, sled (?), and tetraforms were incised onto box-ends, box-sides, fragments, harpoon heads, handles, and foreshafts. Combinations of X's, crosses, cross-hatching occurred. Other motifs were used representationally such as fine lines on the backs of birds which indicated the feathers.

Attribute states

2 i. Seal

Example



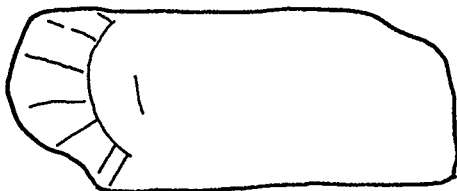
Variables



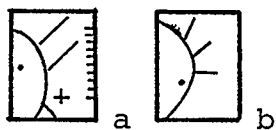
(2. Complex Linear Motif continued)

2 ii. Suns

Example

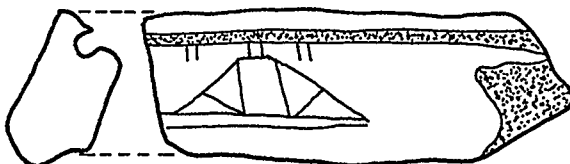


Variables

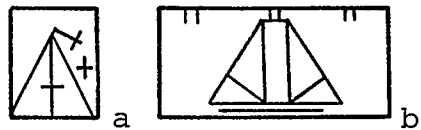


2 iii. Tetraforms

Example

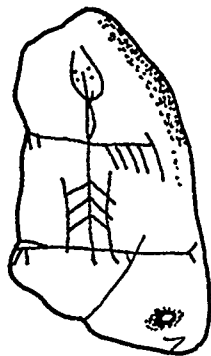


Variables



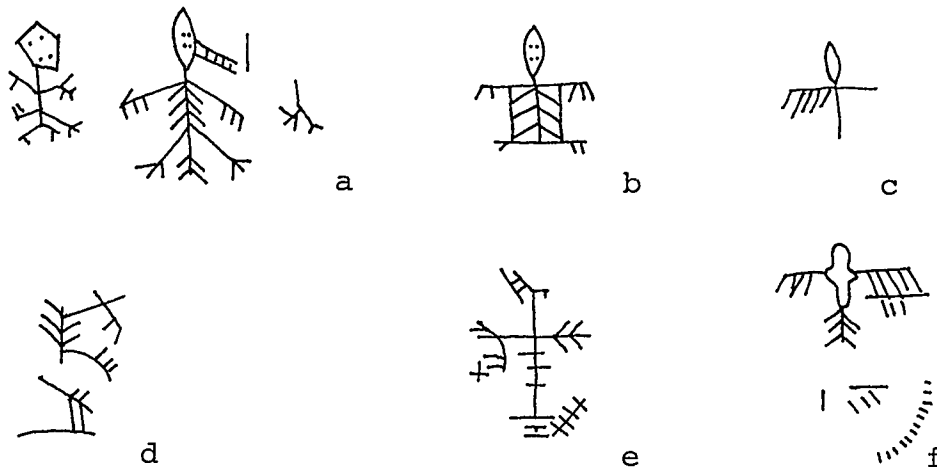
2 iv. Bird-people

Example



(2. Complex Linear Motif continued)

Variables

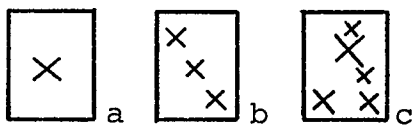


2 v. X's

Example

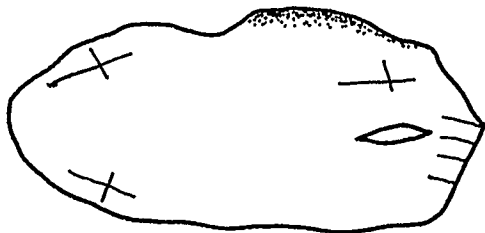


Variables



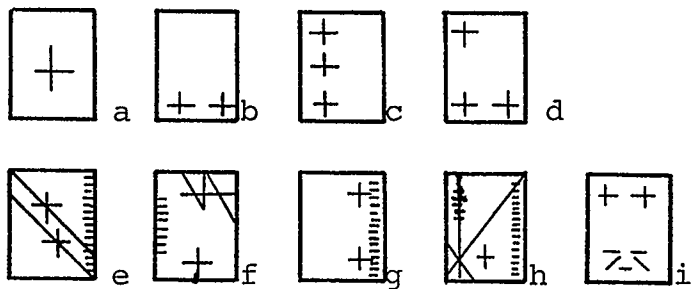
2 vi. Crosses and linear motif

Example



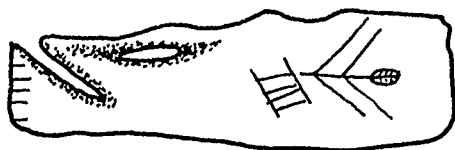
(2. Complex Linear Motif continued)

Variables

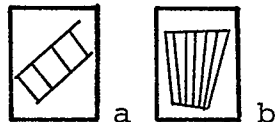


2 vii. Sleds

Example

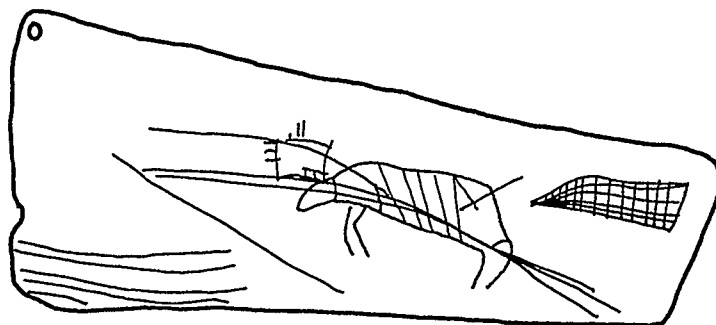


Variables



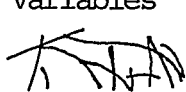
2 viii. Caribou

Example



(2. Complex Linear Motif continued)

Variables



a



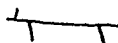
b



c



d



e



f



g



h



i

2 ix. Cross-hatching

Example



Variables (n/a)

(2. Complex Linear Motif continued)

2 x. Incised clothing

Example



Variables (n/a)

2 xi. Feathering

Example



Variables (n/a)

3. Skeletal Motif

Fourteen elements were combined to produce skeletal motif, two or more of which had to be present to represent this concept. Single elements were considered as simple linear motif, complex linear motif, or facial markings. Skeletal motif was applied to naturalistic forms, and the locations of the markings were used to interpret recurring symbols. For example, an X on the head was interpreted as a head marking and was

(3. Skeletal Motif continued)

used to orient the motif on non-representational objects. The motif was applied to part or all of an object, being either continuous around the form as a single motif, or represented by separate motifs on each surface of the object. Elements may or may not overlap, so that a head element could be cross-cut by a vertebral element. Each element should be treated as a separate attribute as elements cannot be substituted for each other; however, to form skeletal motif two or more attributes had to be present and for this reason all elements were treated together.

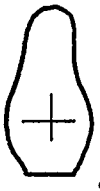
3 i. Head

Attribute states

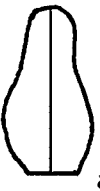
a) X's



b) Crosses



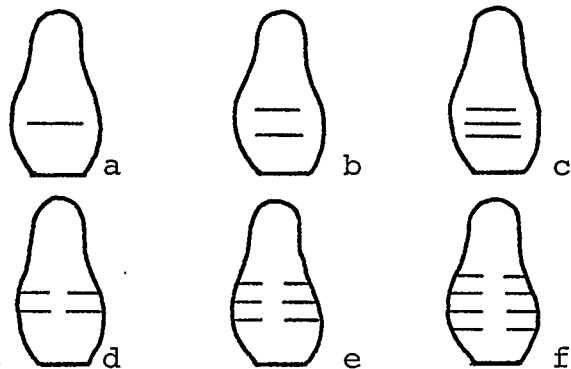
c) Vertical lines



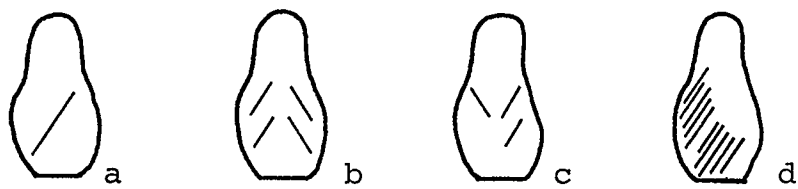
Skeletal Motif

(3i. Head continued)

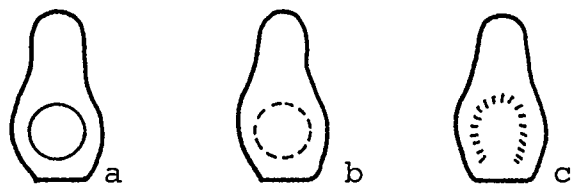
d) Horizontal lines



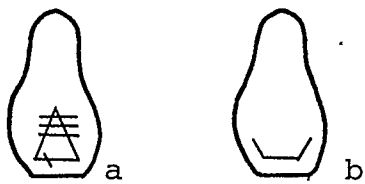
e) Diagonal lines



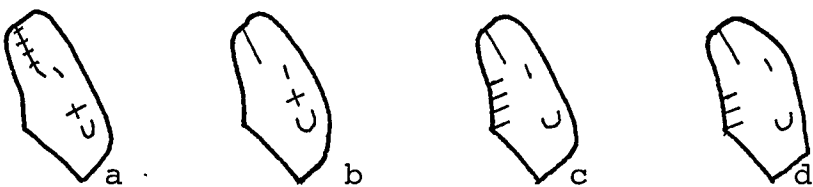
f) Circles



g) Other



h) Profile

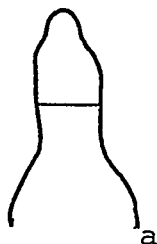


Skeletal Motif

3 ii. Neck

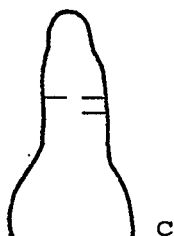
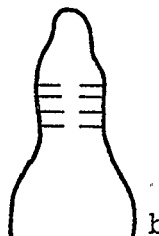
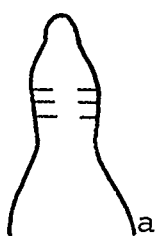
Attribute states

a) Horizontal lines

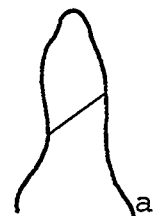


Line incised across the neck perpendicular to the longest axis of the artefact. One to ten parallel lines occurred. This marking may or may not cross the vertebral line.

b) Horizontal lines in pairs

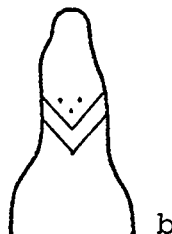
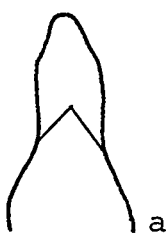


c) Diagonal lines

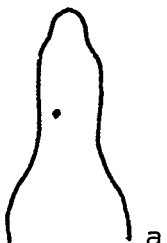


Lines incised diagonally across the neck. One to five parallel diagonal lines may occur in this attribute-state.

d) Chevrons



e) Dots



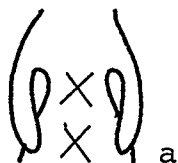
Dot incised on the throat. One-, two- or, six-dot combinations occurred in the sample as well as a random pattern of dots over the neck area.

Skeletal Motif

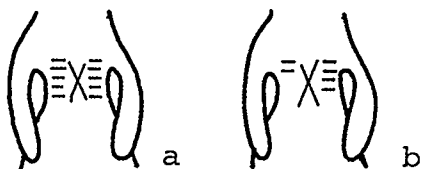
3 iii. Ribs

Attribute states

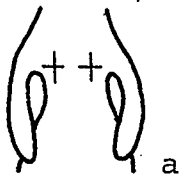
a) X's



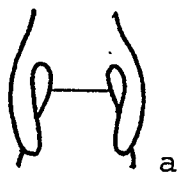
b) X's and horizontal lines



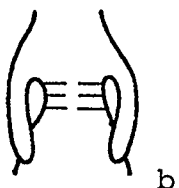
c) Crosses



d) Horizontal lines



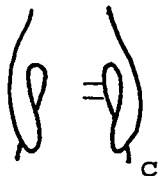
Lines incised perpendicular to the longest axis representing the ribs; occurred in series of one to sixteen or more parallel lines.



Lines incised in pairs perpendicular to the longest axis on either side of the thoracic cage. These occurred in regular pairs in combinations of 2,4; 5,8; 11,13; and 13,14.

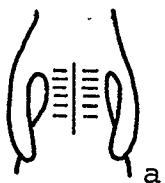
Skeletal Motif

(3 iii. Ribs continued)



Parallel lines incised perpendicular to the longest axis off one side of the thoracic cage, in combinations of 2, 4, and 7.

e) Horizontal and vertical lines



f) Diagonal lines



Diagonal lines across the thoracic cage, either a single line or a series of parallel diagonal lines in groups of two to ten.

g) Chevrons



Chevrons pointing toward the head, occurring singly or in a series of two to ten chevrons.



Irregularly matched chevron pairs occurring in combinations of 2,3; 2,4; 3,4; 3,5; 4,5; 4,6; 5,1; 5,3; 5,4; 5,6; 7,6; and 7,10. Similar to attribute state 5, these chevrons point toward the head.



Chevrons which point away from the head in series of 3, 4, and 14 chevrons.

Skeletal Motif

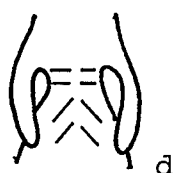
(3 iii. Ribs continued)



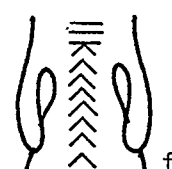
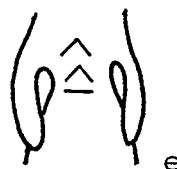
Irregularly matched chevrons pointing away from the head, in combinations of 3, 4; 4, 2; and 5, 6.



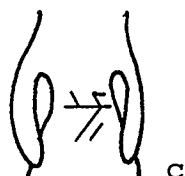
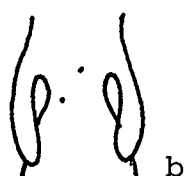
Chevrons to one side of the body.



Chevrons and horizontal lines



h) Other



3 iv. Vertebral column

Attribute states

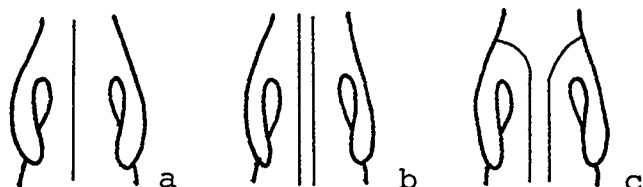
a) Crosses



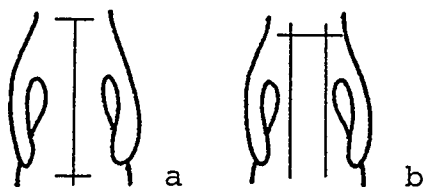
Skeletal Motif

(3 iv. Vertebral column continued)

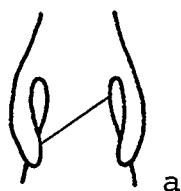
b) Vertical lines



c) Horizontal and vertical lines



d) Diagonal lines

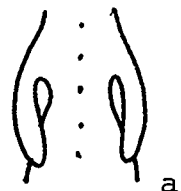


One to three parallel diagonal lines
were used to indicate the vertebral column.

e) Chevrons



f) Dotted lines



Single or series of angular dots could
be used to indicate the vertebral column.
Combinations of 3, 5, 6, 10 occurred in
the sample.

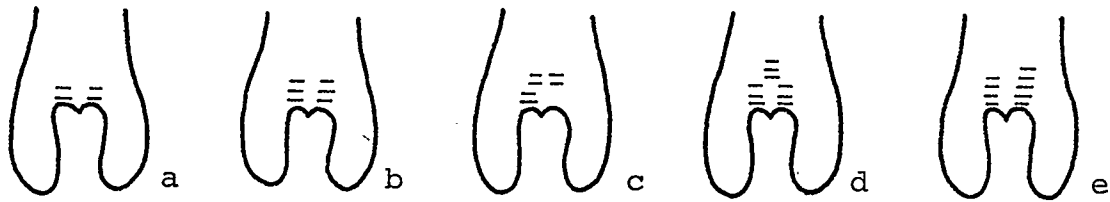
Skeletal Motif

3 v. Tail

(This element is found at the base of the vertebral column and should not be confused with Hip markings which cover either the entire area, or are to the left and right of the vertebral column).

Attribute states.

a) Horizontal lines



Lines incised perpendicular to the longest axis of the artefact occur as a single line or as a series of two to eight parallel lines.

b) Diagonal lines



Diagonal lines in series of parallel lines in combinations of one to three.

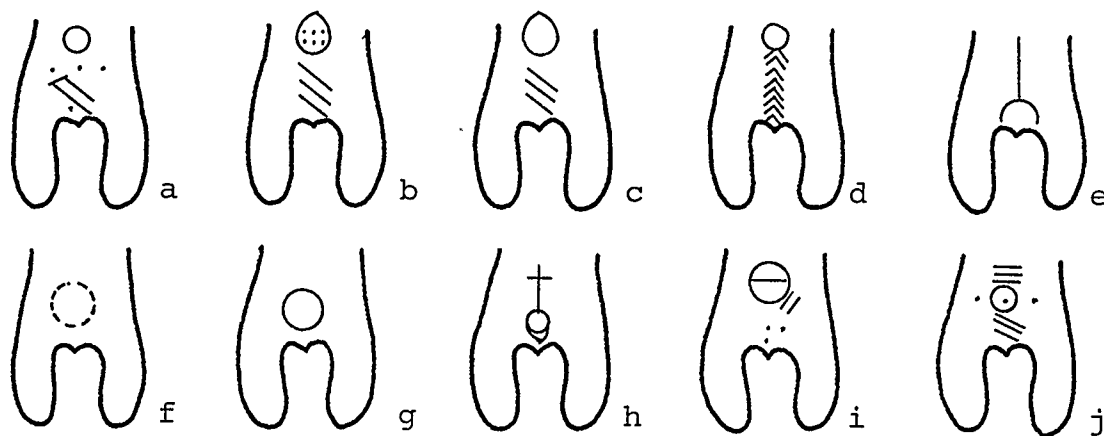
c) Diagonal, horizontal and vertical lines



Skeletal Motif

(3 v. Tail continued)

d) Circles, horizontal lines, diagonal lines and dots



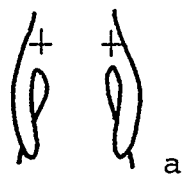
3 vi. Shoulder

Attribute states

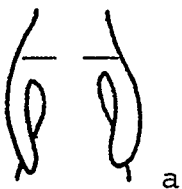
a) X's



b) Crosses



c) Horizontal lines



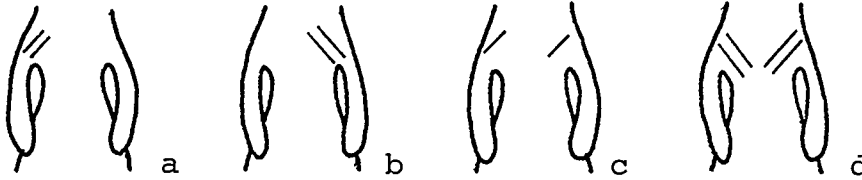
Skeletal Motif

(3 vi. Shoulder continued)

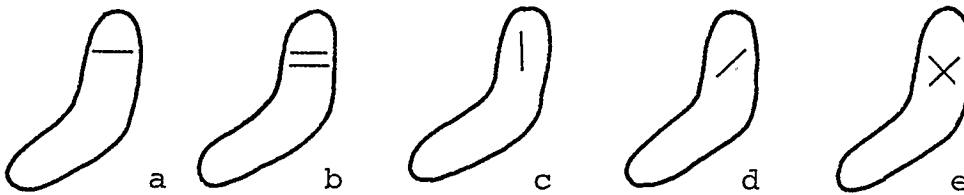
d) Horizontal and diagonal lines



e) Diagonal lines



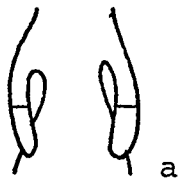
f) Profile



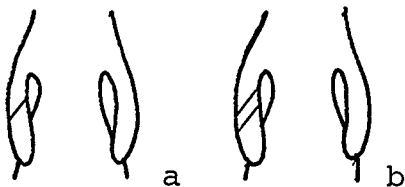
3 vii. Elbow

Attribute states

a) Horizontal lines



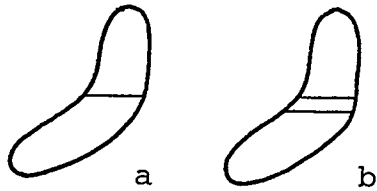
b) Diagonal lines



Skeletal Motif

(3 vii. Elbow continued)

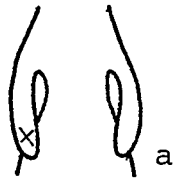
c) Profile



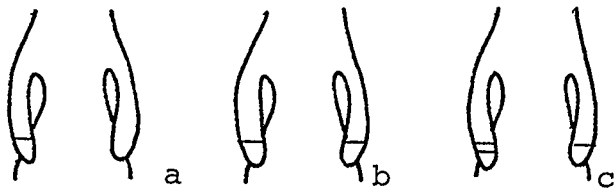
3 viii. Wrist

Attribute states

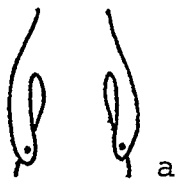
a) X's



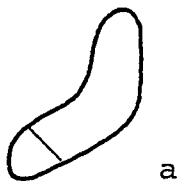
b) Horizontal lines



c) Dots



d) Profile

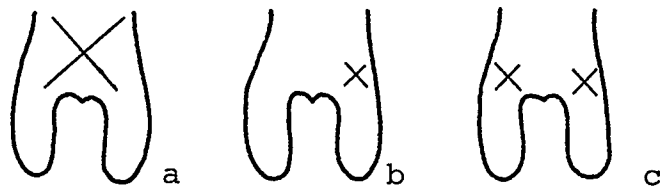


Skeletal Motif

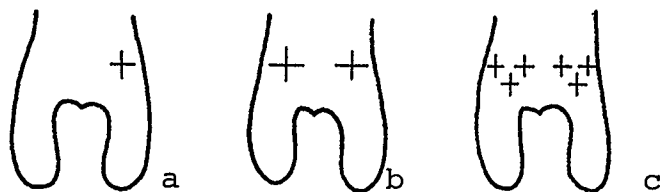
3 ix. Hip

Attribute states

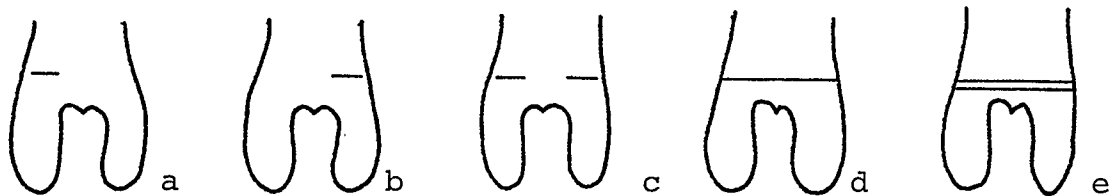
a) X's



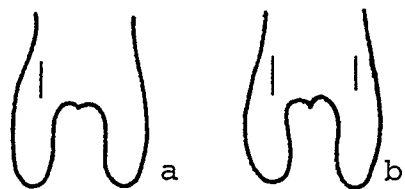
b) Crosses



c) Horizontal lines



d) Vertical lines



e) Diagonal lines



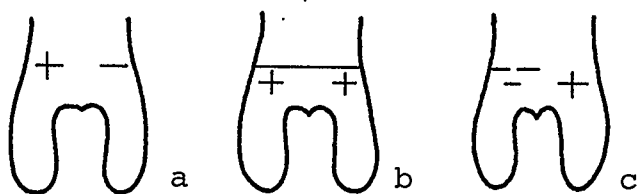
Skeletal Motif

(3 ix. Hip continued)

f) Dots



g) Combinations of the above



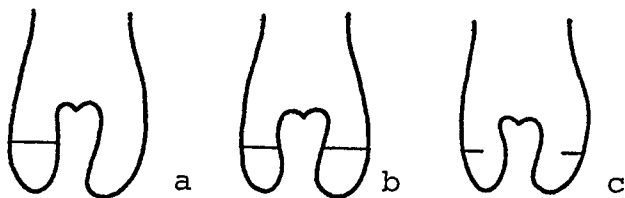
h) Profile



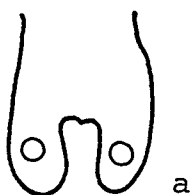
3 x. Knee

Attribute states

a) Horizontal lines



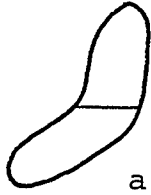
b) Circles



Skeletal Motif

(3 x. Knee continued)

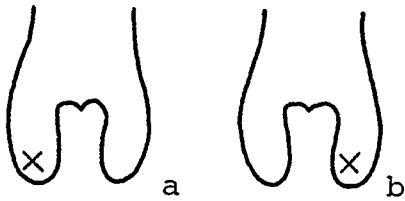
c) Profile



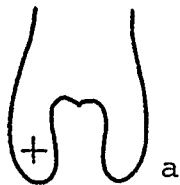
3 xi. Ankle

Attribute states

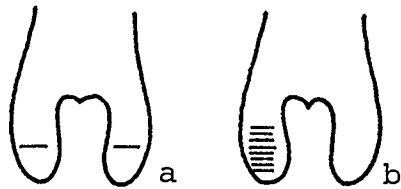
a) X's



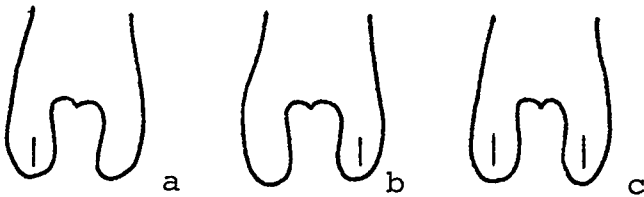
b) Crosses



c) Horizontal lines



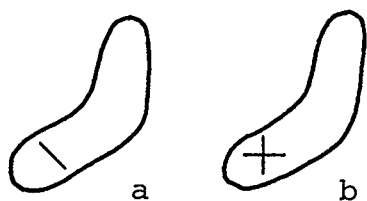
d) Vertical lines



Skeletal Motif

(3 xi. Ankle continued)

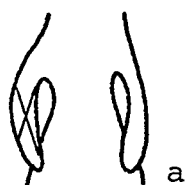
e) Profile



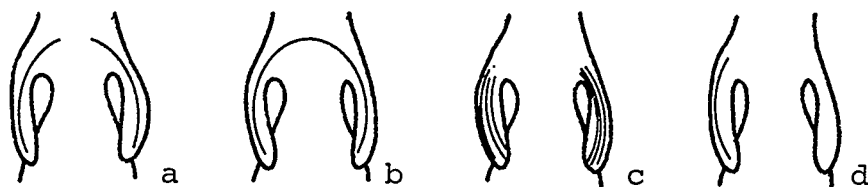
3 xii. Forelimb

Attribute states

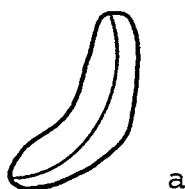
a) X's



b) Vertical lines



c) Profile

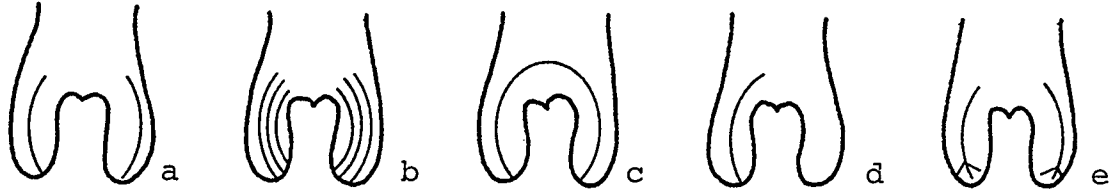


Skeletal Motif

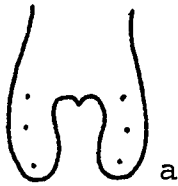
3 xiii. Hindlimb

Attribute states

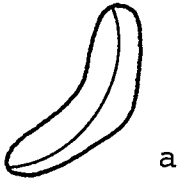
a) Vertical lines



b) Dots



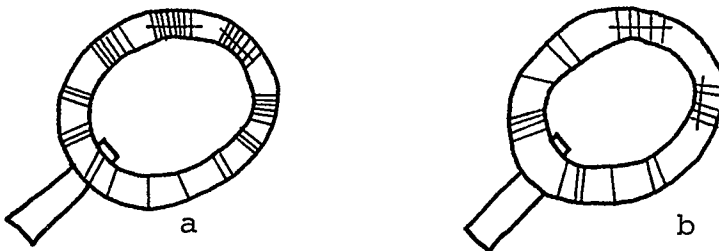
c) Profile



3 xiv. Skeletal Motif other

Attribute states

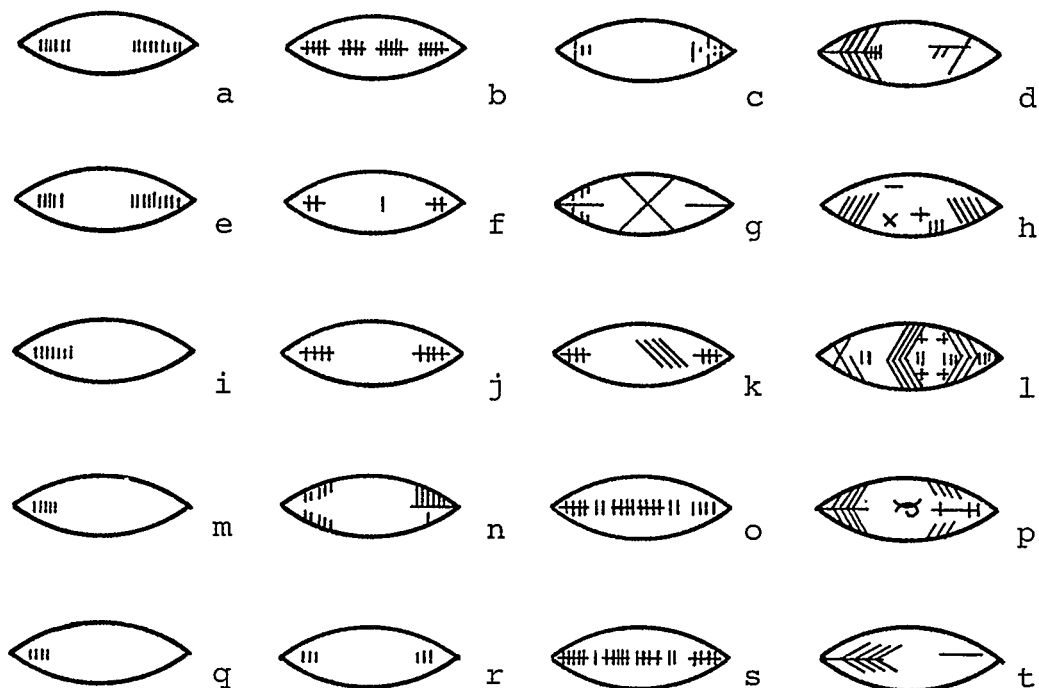
a) motifs on drum rims only



Skeletal Motif

(3 xiv. Skeletal Motif Other)

b) motifs on "kayaks" only



4. Facial Features

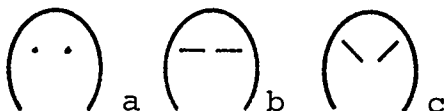
Facial features were applied to the heads of human and animal forms. They were also used as a separate motif on amorphous fragments, amulet box ends and sides, tubes, bodies of bears, and harpoon heads. Features were incised, excised or cut out of the matrix and were either flat or fleshed out with basrelief detail. A

(4. Facial Features continued)

face was produced using various combinations of attribute states or was represented by a single feature such as the eyes.

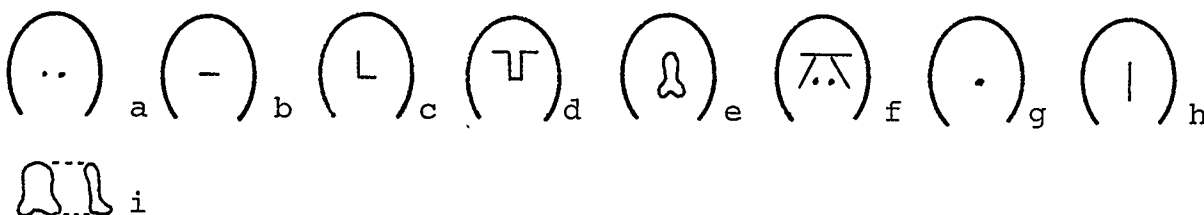
Attribute states

4 i. Eyes



4 ii. Nose/Nostrils

Nostrils were often indicated by incision or excision even when the nose was carved in relief. Other noses were carved in basrelief or were carved separately.

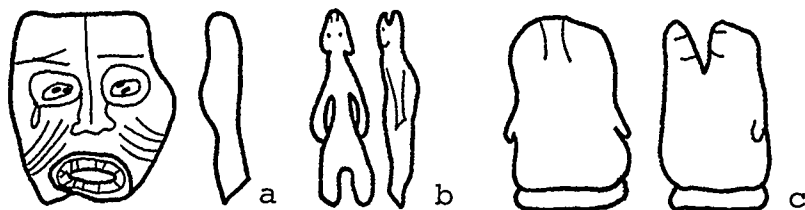


4 iii. Mouth

a) The mouth was indicated by an incised or excised line or dot;



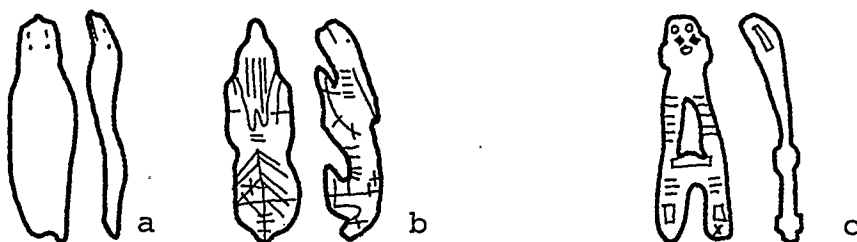
b) or the mouth was stylized as an O-shaped mouth or open mouth, exposing the teeth on anthropomorphic forms and an open slot often accompanied by linear incision suggesting stitching marks (Jordan 1979/80: 403) or teeth on zoomorphic forms.



(4. Facial Features continued)

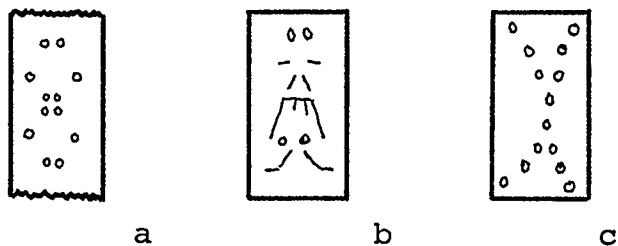
4 iv. Ear

The ear, when present was indicated by incised or excised dots on forms. Bears and land mammals normally had ears carved in basrelief or into stylized flanges on the side of the head.



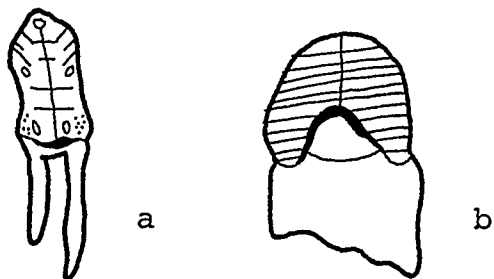
4 v. Mirror image faces

This attribute state was produced in openwork on thin-walled or flat forms. Faces were connected by a shared feature such as the mouth or forehead.



4 vi. Whiskers

Whiskers on walrus and seal were indicated by fine lines or dots on the muzzle.

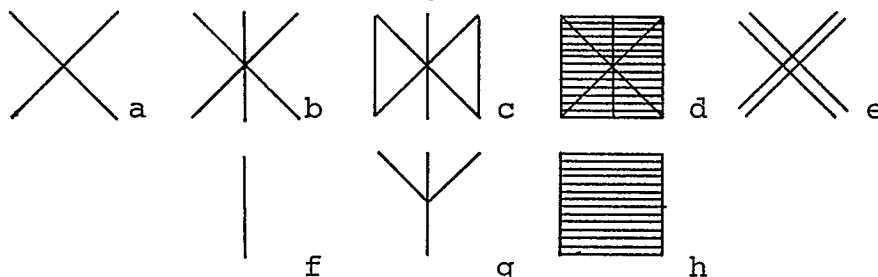


5. Facial Markings

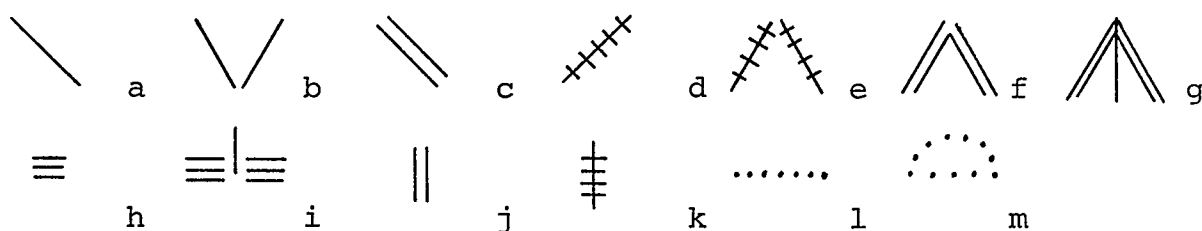
Facial markings were markings superimposed over the facial features. These could represent tattoo marks, labrets or had other symbolic meaning. The most commonly occurring attribute state was markings associated with a central X. A less elaborate but similar marking was used for the head in skeletal motif and it is suspected that the two markings were associated with the same concept. Unlike individual skeletal motif elements however, facial markings occurred alone and were only found superimposed over faces on masks, miniature masks, multiple faces and harpoon heads; a single example was found on the back of a whale effigy.

Attribute states

5 i. Central-X and markings which cover the entire face:



5 ii. Forehead markings

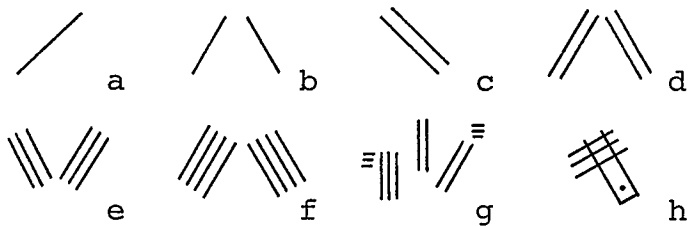


(5. Facial Markings continued)

5 iii. Marks around the eyes



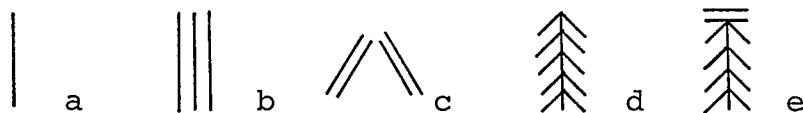
5 iv. Marks on the cheeks



5 v. Marks above the mouth



5 vi. Marks on the chin



6. Shape

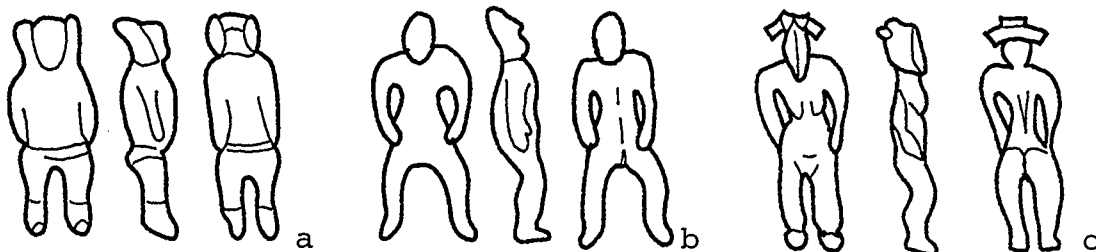
Shape categories were determined by recognizable subjects such as humans and animals. Non-representational shapes were previously named in the literature such as spatulas, box ends, sides and tubes. Attribute states were determined according to specific shape similarities which often cross-cut categories for example the attribute state of head-and-torso are found in bear, seal, walrus and anthropomorphic categories.

(6. Shape continued)

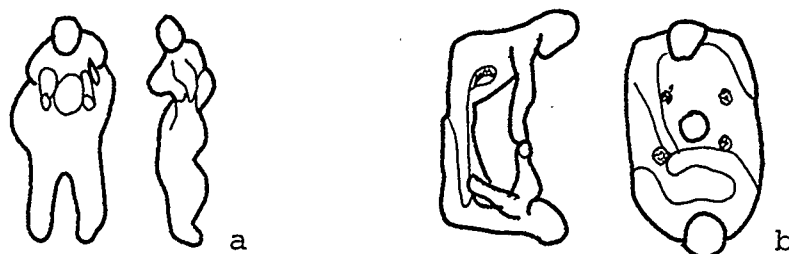
Attribute states

6 i. Anthropomorphic Figures

a) Complete human figures, naturalistic features



b) Complete human figures, more than one individual represented naturalistic features

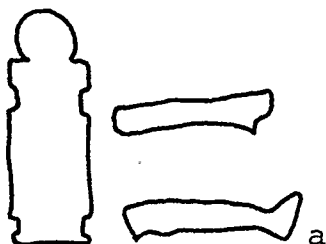


c) Complete human figures, stylized features



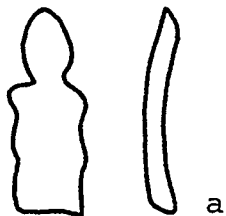
d) Complete human figures, multicomponent parts

These figures were made of five separate parts: four limbs and a head-and-torso section. All forms were wooden. Only human forms were made in this manner. Erotic motif occurred almost exclusively with this form.



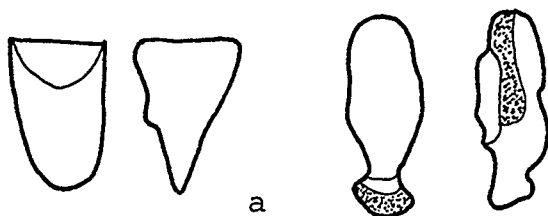
(6. Shape continued)

e) Head-and-Torso human figures



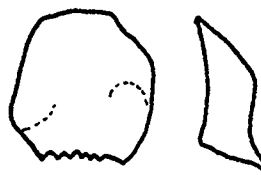
a

f) Anthropomorphic heads: solid



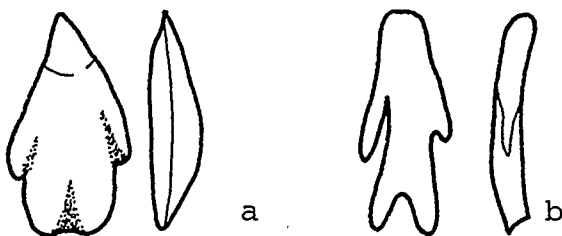
a

b



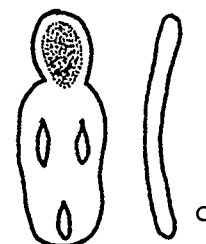
c

g) A-shaped anthropomorphic forms



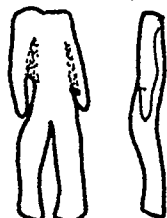
a

b



c

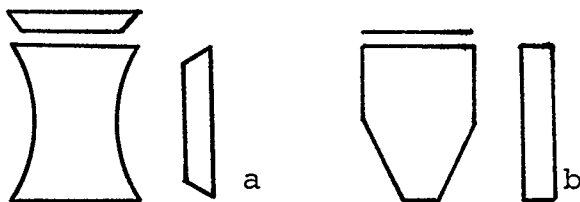
h) Decapitated human figures



a

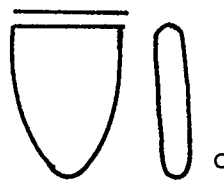
i) Miniature anthropomorphic masks

(Flat upper margin)

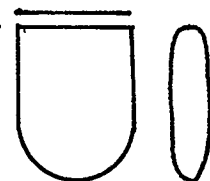


a

b



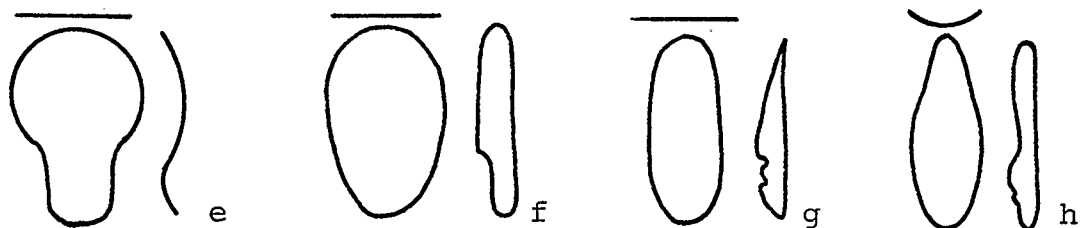
c



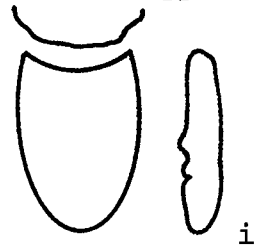
d

(6. Shape continued)

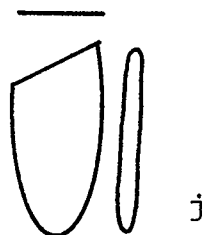
(Convex upper margin)



(Concave upper margin)

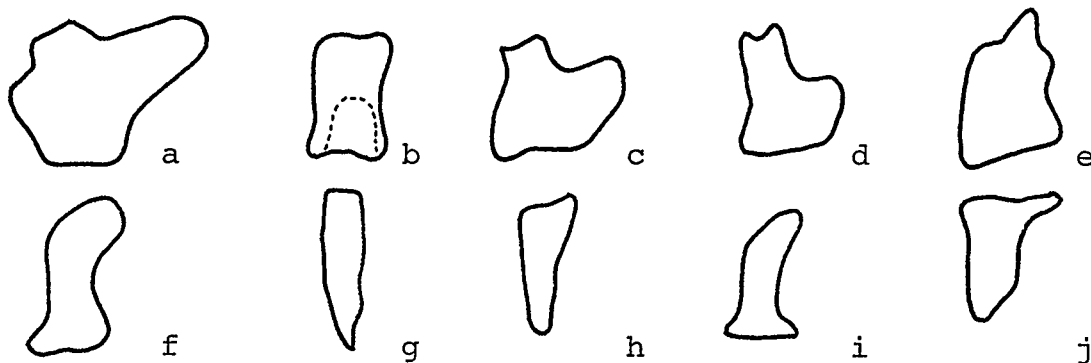


(Angular upper margin)



j) Multiple faces

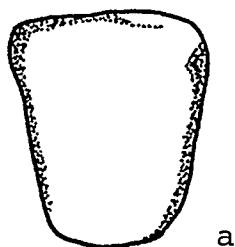
The shape of this form varied individually but all were carved with miniature mask-like faces which covered most of the surface. Blodgett (1974) specifically discussed the style of these forms and suggested that they were used as staffs in head-lifting ceremonies.



(6. Shape continued)

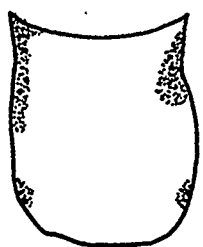
k) Full face masks

(Convex upper margin)



a

(Concave upper margin)



b

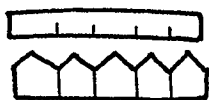
(Mouth covers)



c

l) Shaman's teeth

These teeth were presumably worn in the mouth or were part of now disintegrated wooden masks.



a



b

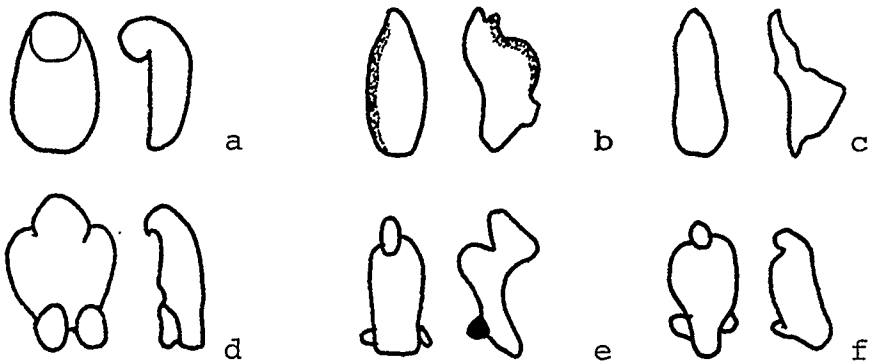


c

(6. Shape continued)

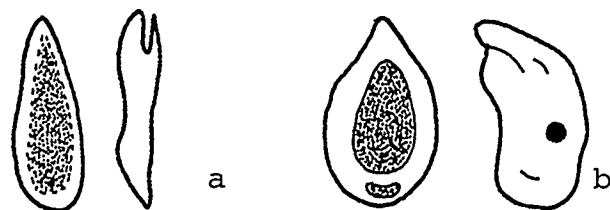
6 ii. Avifauna

a) Birds nesting on the ground

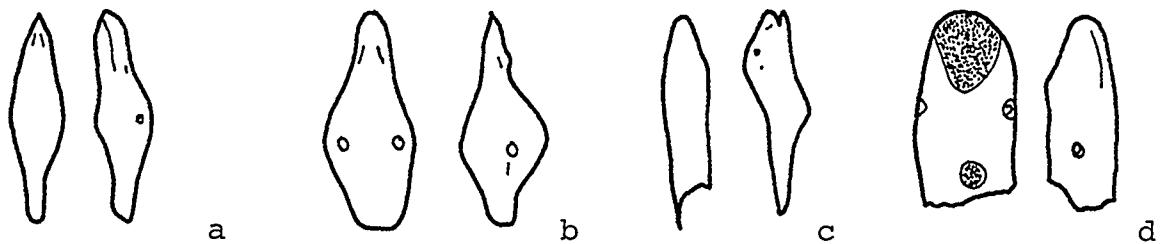


b) Bird heads

(Hollow)

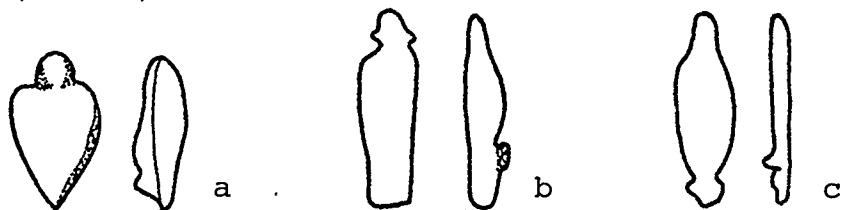


(Solid)



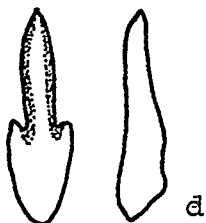
c) A-shaped birds

(falcons)



(6. Shape continued)

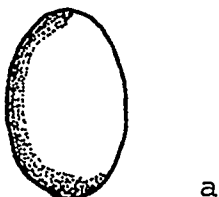
(Other A-shaped birds)



d) Decapitated birds



e) Eggs

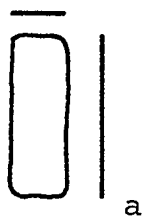


6 iii. Containers and tubes

a) Amulet-box sides

Amulet-box sides were tied together to form tubes. One specimen from the Cambridge collection retained copper wire which was used to tie two sections together through perforations located in the corners.

(Edges unmodified)



(6. Shape continued)

(Lateral edges modified)



b



c



d

(One end modified)



e



f



g

(Aberrant form)



h

b) Amulet-box-ends

Amulet-box-ends are believed to have been inserted into the ends of tubes made of several amulet-box-side pieces. They were held in place by grooves at the ends of side sections and were tied to the sides through perforations.

(Edges unmodified)



a



b



c

(Ends modified)



d



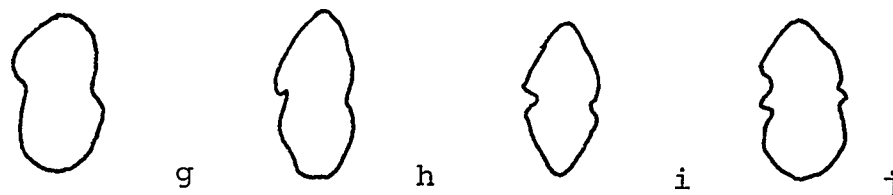
e



f

(6. Shape continued)

(Lateral edges modified)



c) Amulet-boxes, sucking-tubes, needlecases

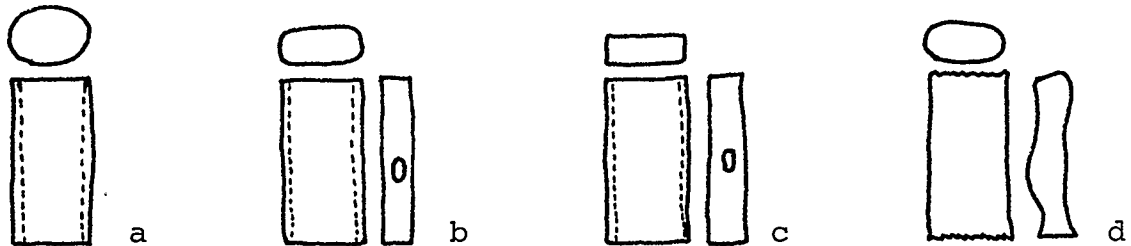
The function of these tubes is unknown. Swinton calls these forms shaman's sucking tubes (Taylor and Swinton 1967:45). Collins (1957a) and Meldgaard (1960a) have suggested that they were needlecases; Taylor's data would indicate that they were used as amulet boxes (1968b: 79). Collins (1957a:25) suggested that the knobs on the sides of certain forms represented the ears on animals. The 'eared' forms in the sample occurred in Late Sargaq/Early Dorset sites and may be related to forms which occurred in Late Dorset. The latter have rectangular holes in the centre of the sides which I suggest could be vestigial 'ears'.

(Tubes, open both ends, symmetrical)

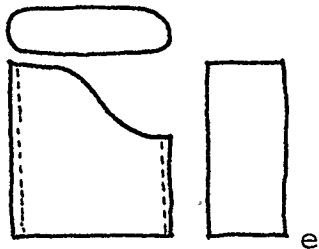
c and e were conventionalized forms associated with split animal figures wrapped around the sides of the tube, the heads forming the corners. When these forms were walrus, the central area of the wide sides sometimes had excised single or mirror-image anthropomorphic faces oriented along the longest axis, frequently emphasized with incised detail. This form had a perforation below the interlocking tusks. If the animals were not walrus, a circular and usually perforated

(6. Shape continued)

concavity was located in the centre of the wide faces.

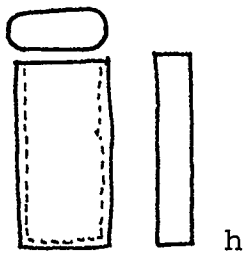


(Tubes, open both ends, asymmetrical)

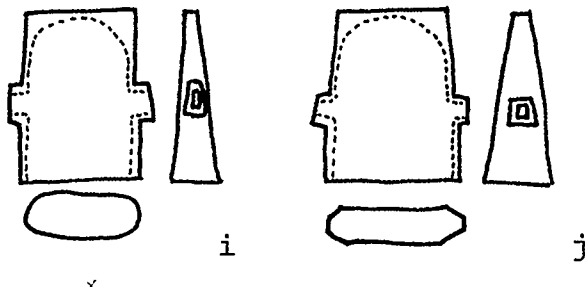


(Tubes, closed one end, symmetrical)

Only one example of this type of container occurred. It was plain, but contained three walrus carvings and was placed in a grave.



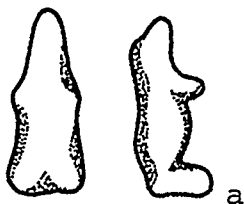
(Tubes, closed one end, eared variety)



(6. Shape continued)

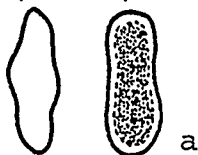
6 iv. Land Mammals

a) Complete caribou forms, naturalistic features

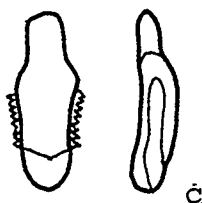
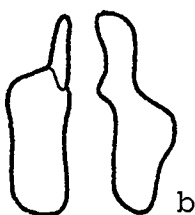


b) Caribou heads

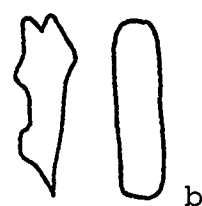
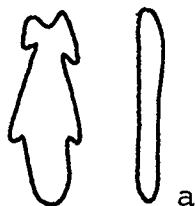
(Hollow)



(Solid)

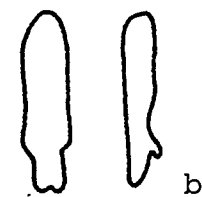
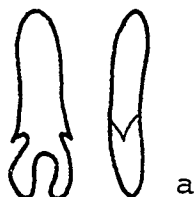


c) Flattened A-shaped caribou forms



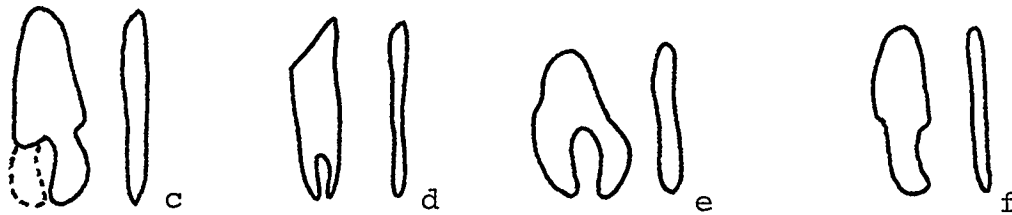
d) Caribou hooves

(Rounded)



(6. Shape continued)

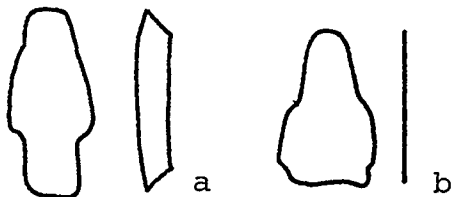
(flat)



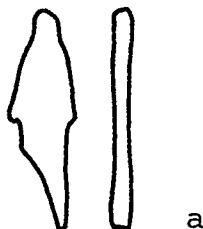
e) Wolf Heads

Wolves were depicted only by the head; complete wolf carvings are unknown. Jordan (1979/80:403-404) differentiates stylized wolf heads from bear heads by the shape of the snout and ears. Wolves have long snouts and tapered ears whereas bears have short snouts and small rounded ears. Furthermore, Jordan suggests that, "The tapered ears and streamlined rendition of this amulet created the illusion of a running wolf or flying wolf spirit". (1979/80:404).

(Solid)



f) Wolf head at the end of a stick

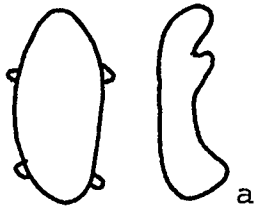


(6. Shape continued)

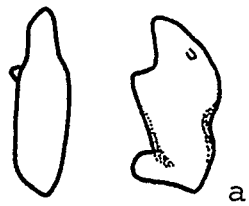
g) Complete Fox



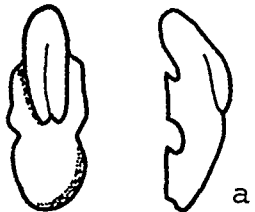
h) Wolverine



i) Muskox

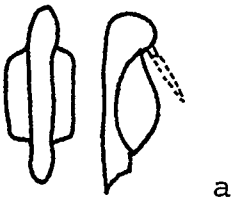


j) Arctic hare



6 v. Insects

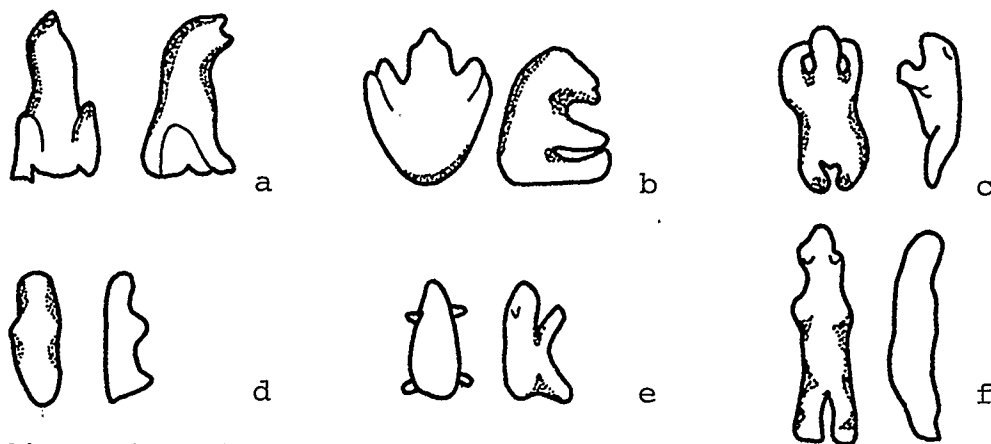
a) Mosquito



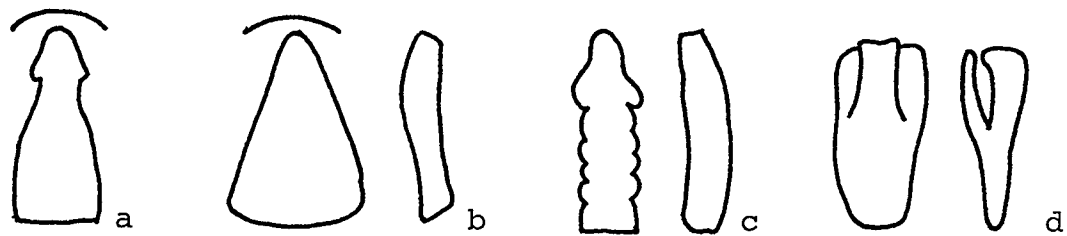
(6. Shape continued)

6 vi. Sea Mammals

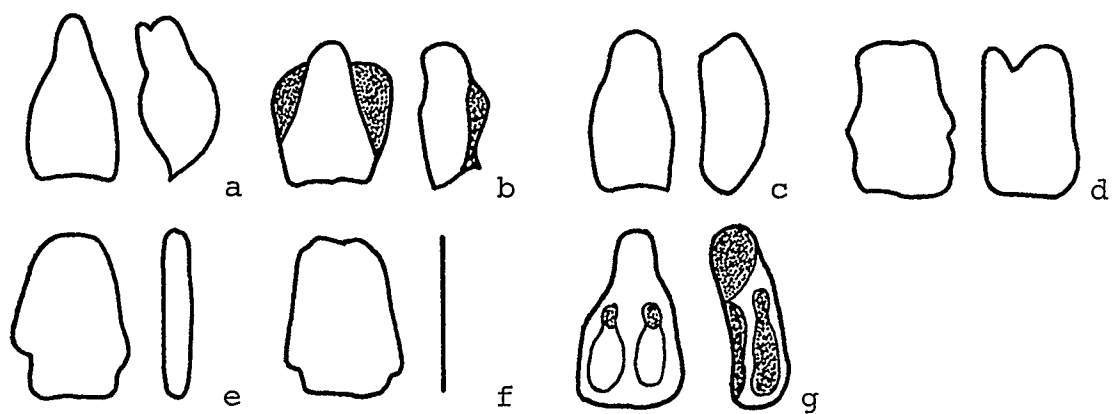
a) Complete bear forms, naturalistic features



b) Head-and-torso bears



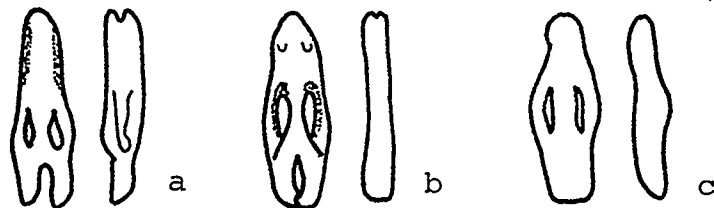
c) Bear heads (solid)



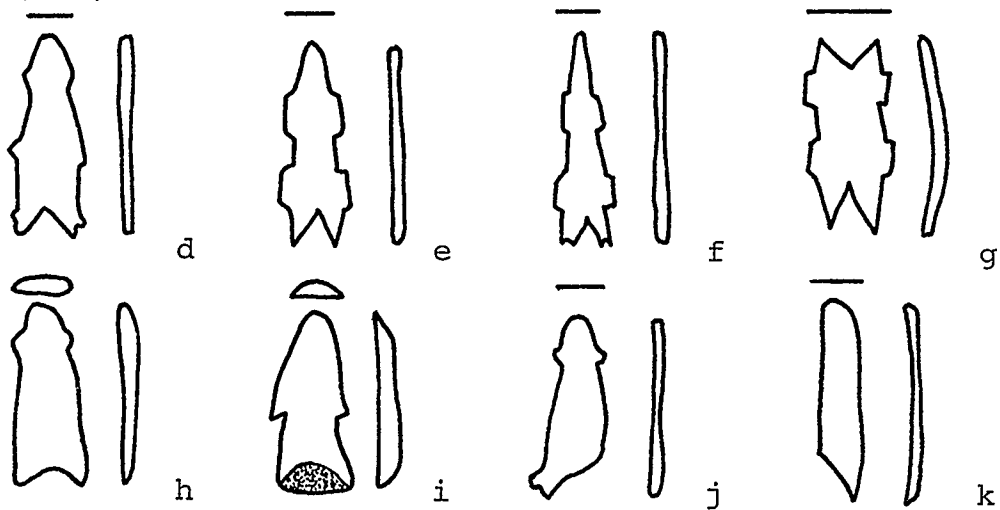
(6. Shape continued)

d) Flattened A-shape bear forms

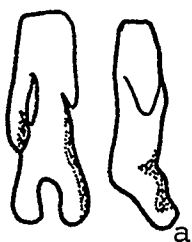
(Naturalistic features)



(Flat)

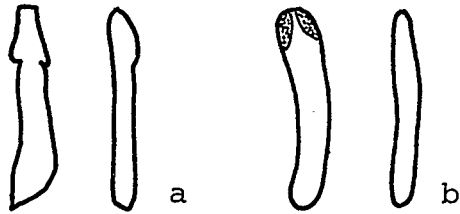


e) Decapitated bear

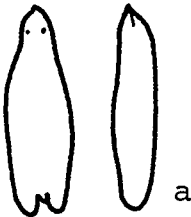


(6. Shape continued)

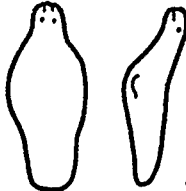
f) Bear head at the end of a stick



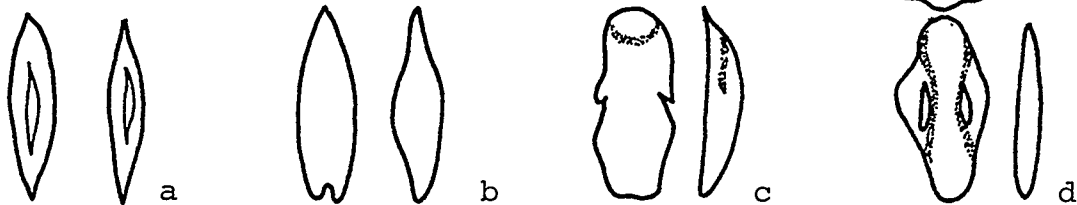
g) Swimming complete seals, naturalistic features



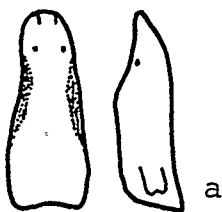
h) Seals lying on ice, naturalistic features



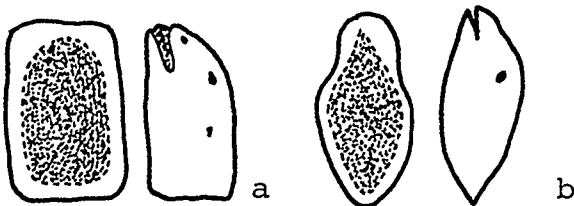
i) Stylized seal forms



j) Seal head-and-torso forms

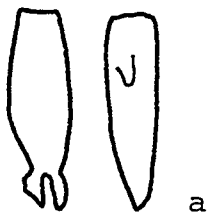


k) Seal heads (hollow)



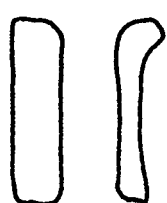
(6. Shape continued)

l) Decapitated seals

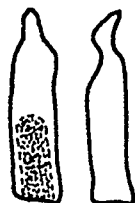


a

m) Seal head on the end of a stick

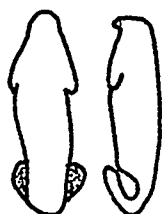


a

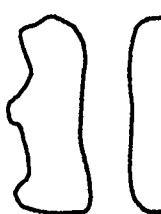


b

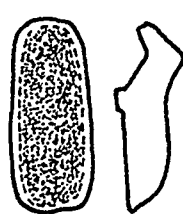
n) Complete walrus forms, naturalistic features



a

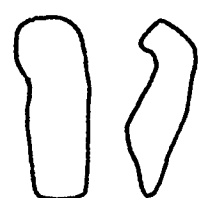


b

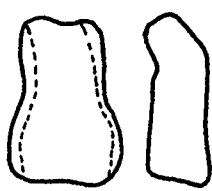


c

o) Walrus head-and-torso

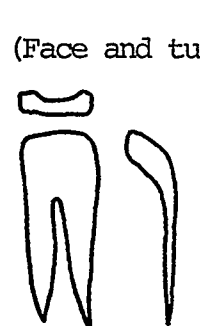


a

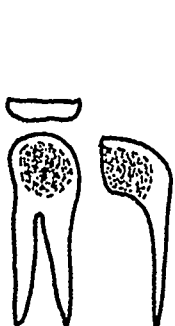


b

p) Walrus maxilla



a

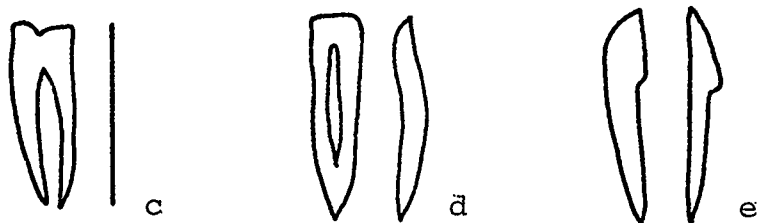


b

(Face and tusks)

(6. Shape continued)

(Tusks)

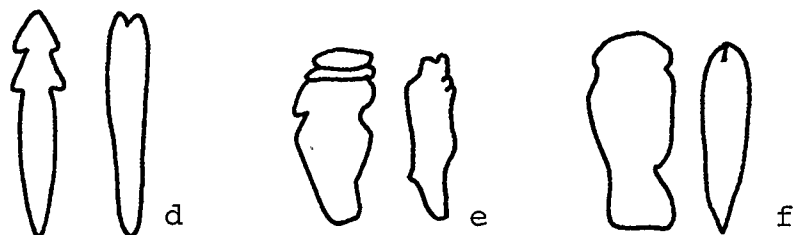


q) Fish

(Stylized, flat forms)



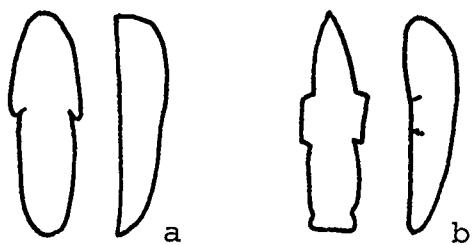
(Naturalistic, rounded forms)



r) Whales

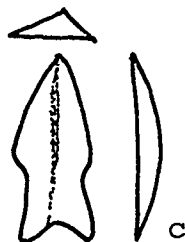
Species-recognizable whales were rare; only a bowhead and a beluga were distinguishable. Other forms in this category may not be whales as they were highly stylized. A keiled form recurred, the base of which was interpreted as representing flukes.

(Naturalistic, rounded features)



(6. Shape continued)

(keiled forms)



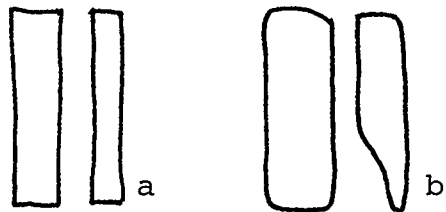
s) Whelk shell



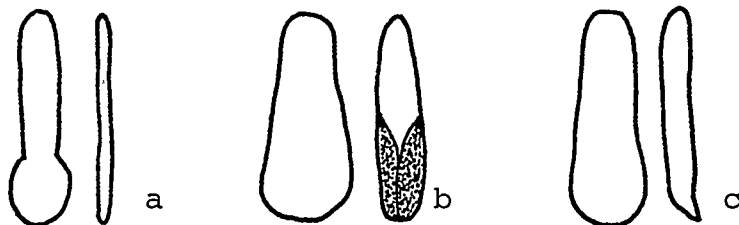
6 vii. Spatulas

The function of these objects is unknown. They were usually covered in skeletal motif.

a) Rectanguloid, blocky shape

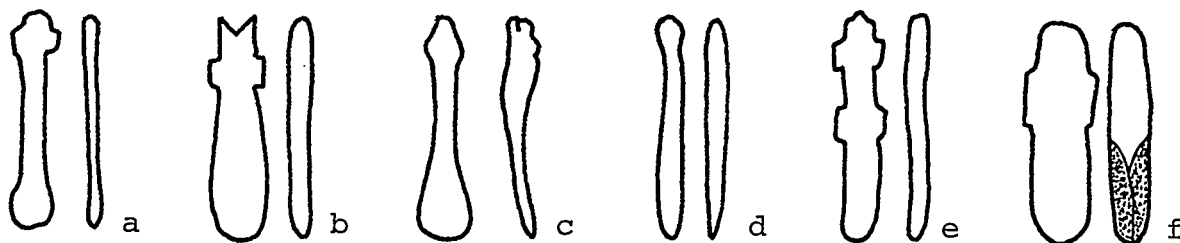


b) Spoon-shaped distal end, proximal end unmodified

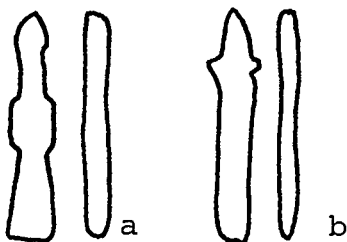


(6. Shape continued)

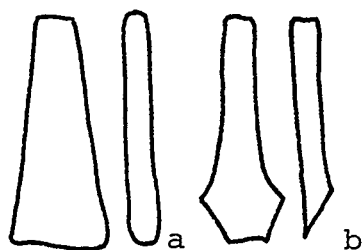
c) Spoon-shaped distal end, proximal end modified



d) Angular distal end, proximal end modified

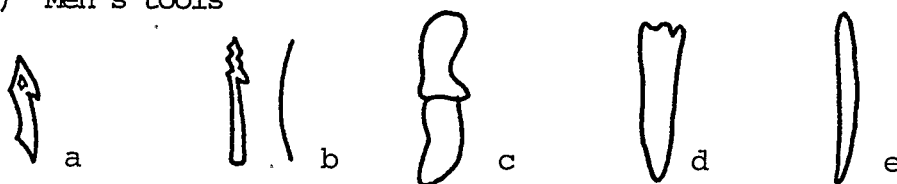


e) Angular distal end, proximal end unmodified



6 viii. Tools other than harpoon heads

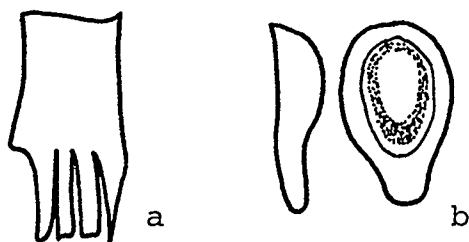
a) Men's tools



b) Women's Tools

One comb was part of the sample. A human face in relief and excised facial features was worked on the handle. Bloore (1971/72:63) suggested that this was not a comb but a hand and wrist from which the thumb, rather than a tine, was missing.

(6. Shape continued)



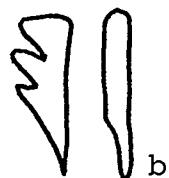
c) Comb-like objects

These objects resemble combs, especially the larger combs found in Ipiutak culture which Larsen (1969/70:33-34) has suggested were used in bear-cult activities.

(Back unmodified)



(Back modified)



d) Drum Rims

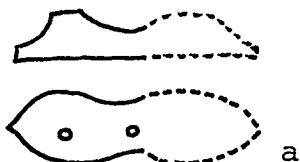
The hoops and handles of small drums were all made of wood; one or more sides of the hoop were incised with skeletal motif. They were sometimes stained red.



(6. Shape continued)

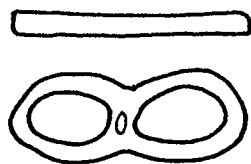
e) Miniature snow goggles

(Rounded, naturalistic)



a

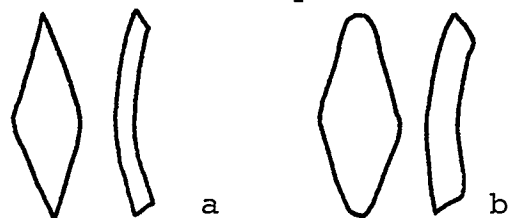
(Flat, stylized)



b

f) Kayaks

These forms resembled kayaks in form. Rousseliere (1972:17) has suggested that these artefacts were used as part of bear cult ceremonies rather than representing kayaks, on the basis that skeletal motif was incised on the convex surfaces. Recently he has suggested that these forms are replicas of skis (1979:27-28).

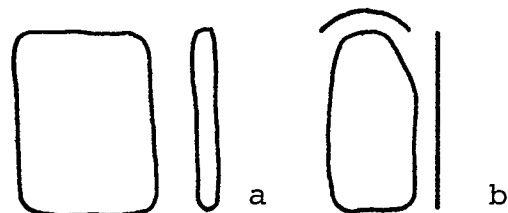


a

b

6 ix. Pendants

(Rectanguloid)



a

b

(6. Shape continued)

(Round or oval)



c

(Single flange, symmetrical)



d



e



f



g

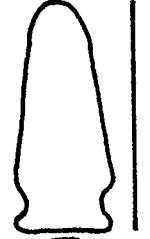
(Multi-flange, symmetrical)



h



i



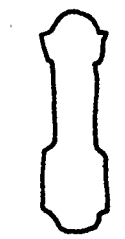
j



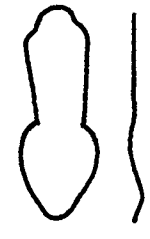
k



l



m



n



o

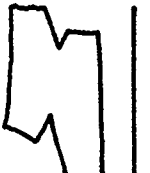
(Unusual forms)



p



q



r



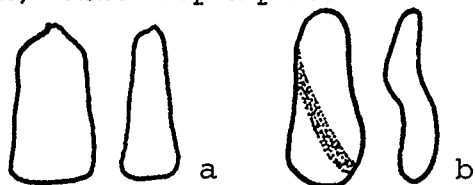
s



t

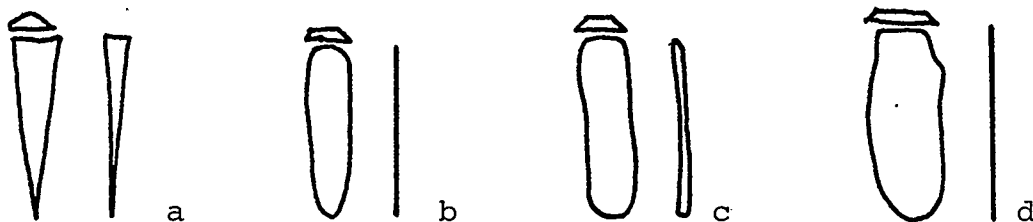
(6. Shape continued)

b) Lobe-shaped pendants



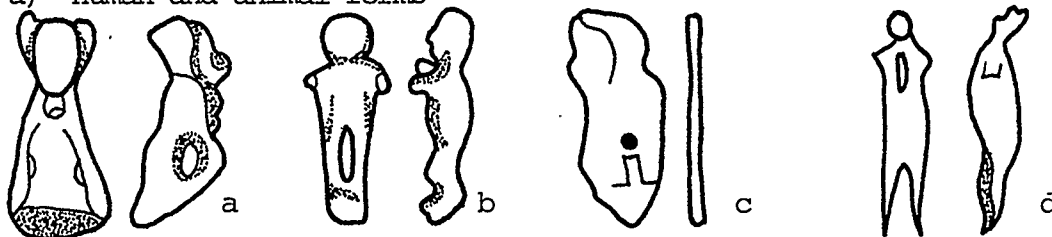
c) Tooth-pendants: Fox, bear, seal canines and bear molars

d) Flat tongue-shaped pendants

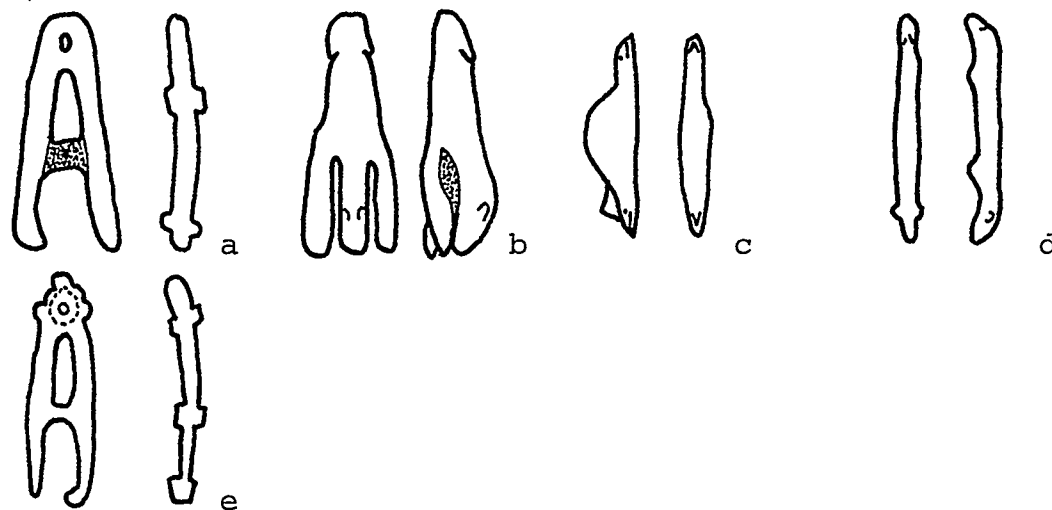


6 x. Combination or Transformation Figures

a) Human and animal forms



b) Animal and animal forms



(6. Shape continued)

c) Animal and Weapon



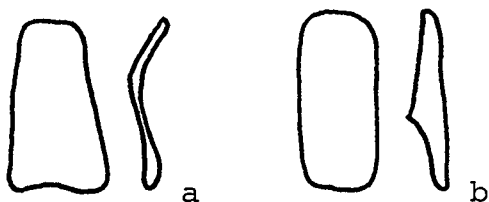
6 xi. Harpoon Heads and Harpoon-shaped amulets

a) Functional harpoon heads were determined according to Meldgaard's typology (Schledermann 1982, pers. comm.).

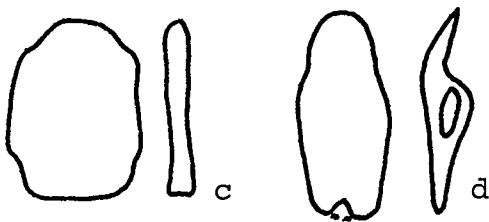
b) Miniature harpoon heads were determined according to Meldgaard's typology (Schledermann 1982, pers. comm.).

c) Harpoon-shaped amulets

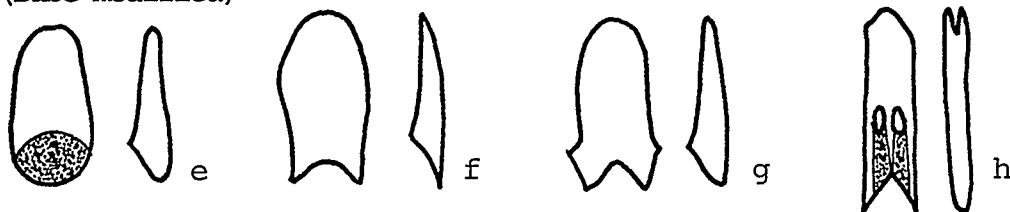
(Edges unmodified)



(Lateral edges modified)



(Base modified)



7. Means of Suspension

Objects were usually attached to a secondary object by perforation, socketing or lashing. Suspension holes, the most common means of attachment, were cut into objects in a variety of formats illustrated below. In some cases the means of suspension was material and category specific, e.g. wooden objects were usually lashed; human figures most often were free-standing.

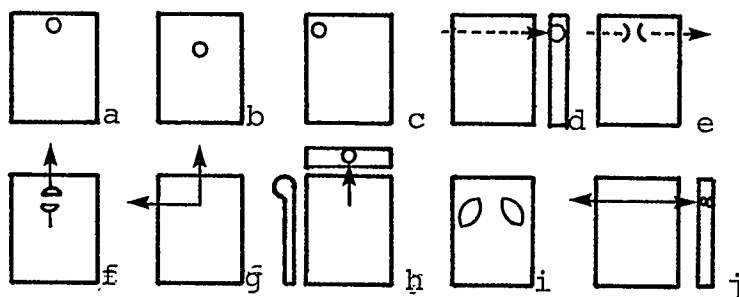
Attribute states

7 i. Perforation for suspension

More than one perforation may be apparent at any given area discussed below. Generally, anthropomorphic and zoomorphic carvings were perforated in one area only. Flat objects such as flat pendants, amulet box ends and sides were perforated in more than one area so that they could be attached rigidly to another object. This suggests that a round suspended form was likely worn as a pendant, while flat forms were pendants or button-like forms.

a) Suspended by the proximal end or head so that the artefact hung right side up.

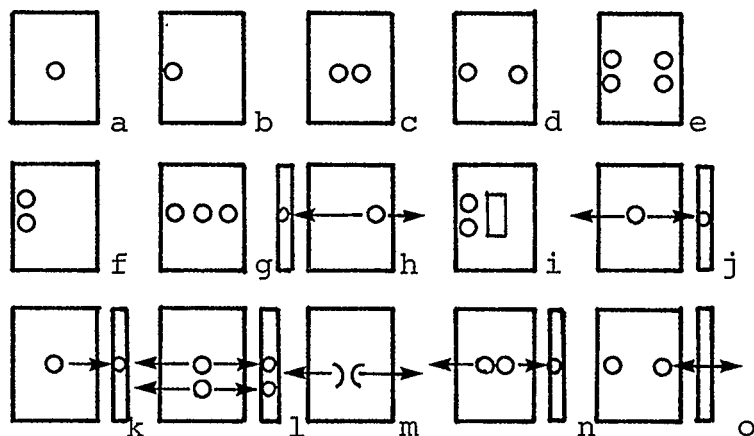
Variables



(7. Suspension continued)

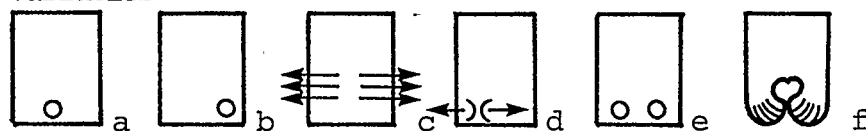
b) Perforated through the central area of the body.

Variables



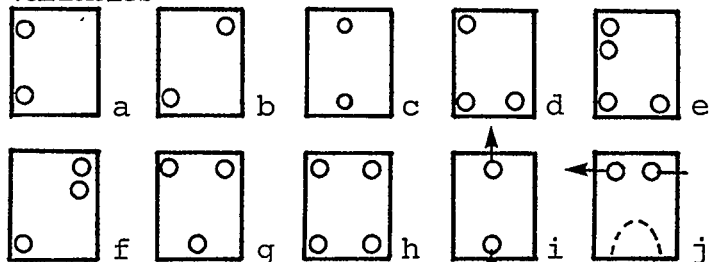
c) Suspended by the distal end or feet so that the artefact hung upside down.

Variables



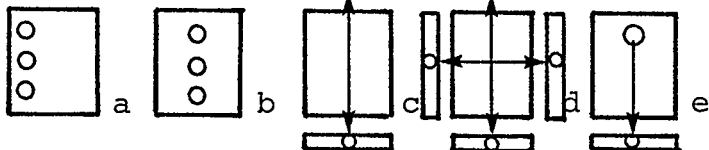
d) Perforated through the proximal and distal ends.

Variables



e) Proximal, distal and central areas perforated.

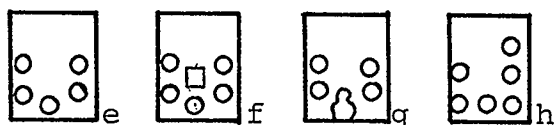
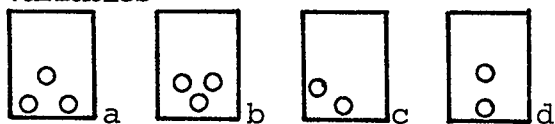
Variables



(7. Suspension continued)

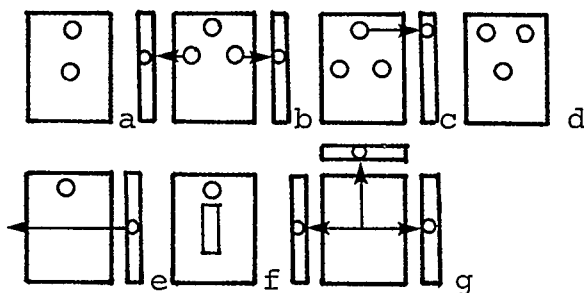
f) Central and distal areas perforated.

Variables



g) Proximal and central areas perforated.

Variables



7 ii. Decoration of a functional object or a copy of a functional object whose means of suspension may be meaningless to the art form.

7 iii. Forms lashed or tied to another object by means of a groove excised around the distal end of the form.

7 iv. Free-standing, with either a flat base or no apparent means of attachment.

7 v. Inserted into another object by means of notching, or a groove. This included amulet box ends and limbs of attribute state iii.

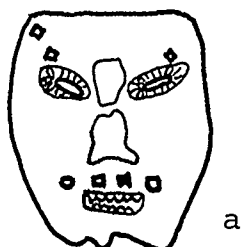
7 vi. Worn on the face or in the mouth.

8. Pegging

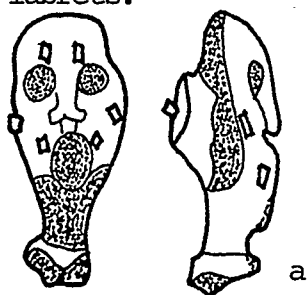
Pegs were inserted into wooden objects.

Attribute states

8 i. Pegs inserted into full face masks were believed to have held fur eyebrows and moustaches in place (Rousseliere 1970:20). This theory was supported by the fact that the area between pegs lacked the colouring which was applied to the rest of the face.

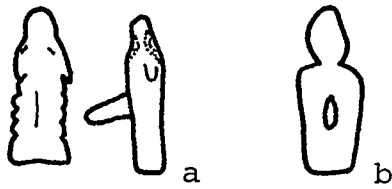


8 ii. Pegs were inserted into human heads and may have been used similarly to pegs in masks. As well, pegs above the lip could represent labrets.

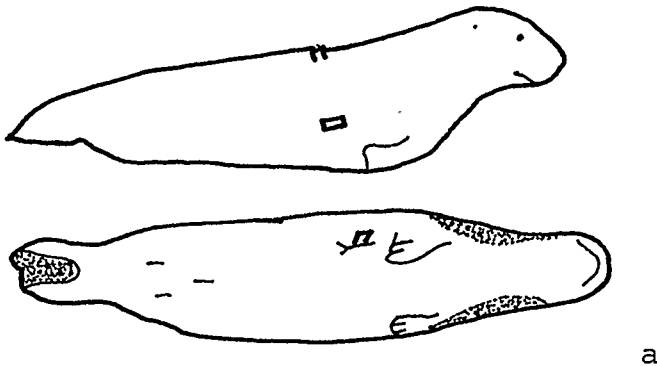


8 iii. Pegs or slivers were also inserted into the chest cavity of human and bear forms and are believed to represent the symbolic killing of the form or the effigy (McGhee 1974/75:137; Rousseliere 1976:51; Taylor 1975:478; Taylor and Swinton 1967:41). Often only the hole left by the sliver is apparent. Jordan (1979/80:412) has likened pitting of the chests of soapstone figures from Labrador to this concept.

(8. Pegging continued)

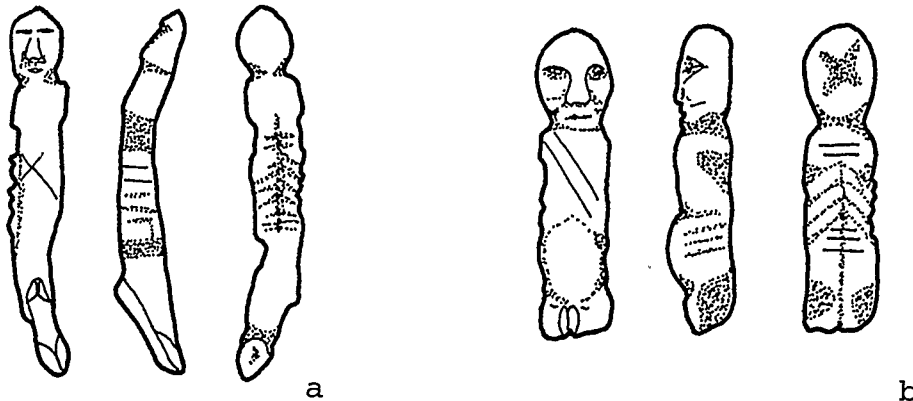


8 iv. A seal carving has pegging of the body cavity but not in the conventional form of 'killing' discussed above.



9. Erotic motif

Erotic motifs were rare in Dorset art. The few examples recovered were interpreted as figures associated with fertility rites (Rousseliere 1971:20). Motifs in the study sample included exaggerated genitalia on anthropomorphic figures including a pregnant figure. Carpenter (1973:112) reports a carving of a female figure copulating with a bear.



10. Surface Colouring

Occasionally carvings were coloured red or black. This practise was best preserved on wooden artefacts which absorbed the colouring agent. Rousseliere (1976:52) suggested that in the Button Point collection red was reserved for bear and anthropomorphic forms and black for seals. This standard does not hold elsewhere, although the use of colouring is rarely found outside of Button Point. For example, a soapstone bear carving from Labrador was rubbed black with soot (Jordan 1979/80:410), and red pigment covered the exterior surfaces of soapstone vessels from Igloodik (Rowley 1940:495) and McClellan Strait (Leechman 1943:373).

Themes

Dorset art forms were often created in conventionalized formats. These formats involved the use of certain attribute-states with specific shape categories. The repetition of these stylistic formats in collections from different geographic areas of Dorset territory suggest that these formats were meaningful to Dorset carvers. These meaningful forms are called themes. Shape was used as a constant to describe themes as every object had a shape. Therefore, themes are referred to by the name of the shape associated with an attribute cluster. The meanings of these themes will never be known although the identical treatment of human and bear shape categories suggest there was a conscious connection between these categories in Dorset culture. Specifically human and bear shapes were treated alike in complete naturalistic forms, head-and-torso, and A-shaped themes. Characteristic of many bear and human categories were

the application of red surface colouring; the unique practise of inserting pegs into the chest; and creating forms with multicomponent parts. Erotic motif was only associated with human categories in the study sample although a carving involving a bear and a woman has been cited from the literature (Carpenter 1973:112). Human and bear categories had the most varied set of attribute states and together formed 21% of the shape categories. This suggests that there was some importance placed upon and connection between bear and humans in the ideology of the carvers for them to have produced so many of these particular forms in so similar a manner. Other shape categories were produced similarly to bear and human categories in certain themes, although the consistency and frequency of these likenesses were not as significant. These categories included those of caribou, walrus, seal and bird forms. The creation of these categories in the conventions surrounding human and bear categories suggests that these subjects were ideologically or mythologically related.

Specific attributes were also of importance in several themes especially grooving, gouging and socketing of the ventral surface, skeletal motif, central-x facial markings, inverted faces, open mouths and pegging in the chest which have been interpreted as shamanic symbols. The harpoon head was also of importance in Dorset art as both a commonly incised tool and as a shape-motif for other forms. Miniature harpoon heads; harpoon-shaped amulets and possibly A-shaped forms of all categories derived their shape from the harpoon head.

Six themes were significant in comparing the collections from the

five site-areas. Nine attributes, which were not used in regional comparisons in Chapter 5 are important in defining these themes and are described in Appendix A.

Theme 1: Complete Naturalistic Forms

Most anthropomorphic and zoomorphic categories were represented in natural shapes. These shapes were plain or incised with skeletal motif. Complex linear motif applied to such forms was representational, indicating teats on mammals, feathers on birds, and clothing on humans. Limbs of humans, bears and land mammals were carved in three dimensions; limbs of sea mammals and fins on fish were carved in relief. Suspension was usually by perforation although bear and human forms were often free-standing.

Motifs in Dorset art have been interpreted by analogy to ethnographic accounts of circumpolar shamanism (Blodgett 1978; Larsen 1969/70; McGhee 1978; Taylor and Swinton 1967). Following these interpretations, complete naturalistic carvings could represent the shaman's spirit-helpers or were used as effigies in hunting magic. Complete human and bear categories included standing figures with knees bent, heads tilted back, hands pressed to the flanks and mouths open. This motif replicates the ecstatic trance in which the shaman entered the spirit-world (Eliade 1964).

Theme 2: Head-and-Torso

This theme was principally restricted to human, bear, walrus and seal categories. It was a common theme in human and bear categories

but rare in those of seal and walrus. Consequently, conventions in this theme are based on human and bear forms. Human and bear head-and-torso forms were associated with pegs inserted in the chest; red surface colouring; open-mouths; and were free-standing.

This theme could relate to the shaman's symbolic death for the purpose of healing a member of his or her community. Supernatural powers were achieved through death and reincarnation of the shaman's body from his bones (Eliade 1964:62-63). In effect, the shaman died every time he was required to travel into the spirit-world to negotiate for the needs of his community. Head-and-torso forms may represent the sympathetic killing of the shaman or his spirit-helper's body to free his soul for such purposes (Blodgett 1978:205). Rousseliere (1976:51) suggested that such forms could have been used in witchcraft. O-shaped or open mouths are associated with the shaman's practise of healing with the special powers of his breath (Holtved 1962:24). Open mouths on animal figures believed to be the shaman's helping-spirits would relate to this practise as well (Taylor and Swinton 1967:43).

Theme 3: Flattened A-shapes

Human, bear, bird and caribou categories were included in this theme. The shape was common particularly in the bear category and was associated with skeletal motif, carved limbs and suspension by perforation. Bear forms usually had inverted anthropomorphic faces excised or incised on their belly with or without a superimposed central-x facial marking. Human and bear forms were grooved or

socketed on the ventral surface; likewise birds had lens-shaped gouges on the ventral surface.

These attributes have been interpreted by analogy to the shaman's symbolic soul-flight. Shaman in circumpolar cultures contacted the spirits by means of their supernatural ability of flight, when their souls left their bodies and flew into the spirit-world (Blodgett 1978:89-91; Eliade 1964:477). Harpoons and spirit-helpers assisted the shaman in this endeavour (Blodgett 1978:90-91). A-shaped bears, birds and caribou were associated with this concept by their resemblance to harpoons and helping-spirits. The features of the harpoon head were created with the following combination of attributes:

- a) Two parallel gouges along the longitudinal axis of the ventral surface of the chest; or
 - b) Forelimbs were carved close to the body, the hand attached or carved close to the flanks leaving two loops on either side of the body between the limbs and the torso.
3. The mouth of bear and caribou forms was an open slot in profile like a blade-slot.
 4. Limbs were carved in a single plane so that the form was flat in profile, providing an A-shaped outline.
 5. Sockets and grooves excised from the belly of human and bear forms represented the harpoon socket.

The resemblance of falcons to harpoon shapes was discussed by Swinton (Taylor and Swinton 1967:43).

Bears were the most frequently occurring A-shaped forms. On the body of flat A-shaped bears was an inverted anthropomorphic face superimposed with a central-x type facial marking. This human form was analogous to three aspects of the Tornarssuk myth which was described in a previous section. The shaman was carried by Tornarssuk to the spirit-world which is represented by the human face on the back or belly of the bear. Tornarssuk ate the initiate and then regurgitated the reincarnated shaman. The inverted face would then represent the shaman in the belly of the bear. As the shaman must die to enter the spirit-world, the inverted face could be symbolic of death as the inversion of life (Carpenter 1973:147).

Theme 4: Parts of Subjects

Human, bear, caribou, bird, wolf, walrus and seal heads were all represented by natural and stylized carvings of parts of their form such as heads, masks, tusks and hooves. These forms were often modified on the ventral surface with gouges, grooves, sockets and basrelief motif. They were either rounded representational shapes or flat, stylized cut-out forms.

A simple explanation for these forms would be that parts or all of a form were used to identify a specific spirit-helper. More complex ideas may be involved. For example, iron deer hooves were worn on the right boot or "boot of the sun" of Enet shaman and were associated with other symbolism (Prokoyevka 1972:143). This is not to suggest that Dorset artists carved caribou hooves to be worn in the same manner as

those of the Enet's, but this example does indicate the complexities of shamanic art and the hazard of interpreting motifs from a culture whose symbolism will never be understood.

Theme 5: Markings on Harpoon Heads

Anthropomorphic, zoomorphic and simple linear motifs were applied to harpoon heads. Anthropomorphic and zoomorphic motifs were restricted to an area above the linehole, while simple linear motifs could be applied to any area on the harpoon head.

The meaning of such motifs has been open to speculation. The placement of these particular motifs support Jordan's suggestion (1979/80:401) that the symbol and the area to which it was applied had a specific meaning to Dorset individuals. It is proposed that anthropomorphic forms found on the tips of harpoon heads were symbols representing the shaman and were placed on the harpoon heads as hunting magic. In support of this suggestion are the following data:

1. Face markings with the central-x recurred on independent faces carried on the bodies of flying bears and on harpoon heads, as well as over the faces of full and miniature masks. Miniature masks and flat A-shaped bears were especially associated with this marking. For example miniature masks frequently have o-shaped mouths which were discussed as symbolic of healing by the powers of the shaman's breath. The inverted face and marking on A-shaped forms have been interpreted with reference to the shaman's symbolic flight,

and the Tornarssuk myth. This suggests that a human face with this facial marking could symbolize the shaman.

2. A bird-person motif was incised at the tip of an harpoon head. This same motif was found on amulet box ends and was analogous to Siberian shaman whose ceremonial costumes were designed to create the "image of the shaman-bird" (Prokofyeva 1972:129).

Harpoon-shaped amulets resemble harpoon heads but are flat, non-miniaturized replicas. They were incised with the same motif as functional harpoon heads and had sockets or grooves excised on the ventral surface or through the middle of the artefact. Harp (1974/75:40) suggested that these amulets and a copper amulet from the Richmond Gulf area were part of a supernatural weapon concept. The practise of placing special symbols on harpoon heads and similarly shaped amulets may have been an attempt to improve the owner's hunting success by magic.

Miniature replicas of functional harpoons with vestigial or no sockets were characteristically plain, although a few examples had incised simple linear motif. These forms may have been worn as hunting amulets or for other purposes. For example, McGhee (1980a:22) has suggested that shaman used miniature harpoon heads as part of healing by pretending to suck out the harpoon head from his patient and thereby extract the ailment.

Theme 6: Multicomponent Anthropomorphic Figures

Anthropomorphic figures were the only ones made with separate limbs and head-and-torso sections. These forms were associated with erotic

motif more often than were other human forms in the collection. They were all free standing, had basrelief facial features, and were affiliated with red surface colouring and incised skeletal motif.

Skeletal motif is interpreted as an intrinsic part of the shaman's ritual death and reincarnation (see page 29). The association of these forms with erotic motif may indicate their involvement in fertility practices (Rousseliere 1971). As with head-and-torso themes, these figures are affiliated with symbols identified as part of the shaman's symbolic death for particular purposes which in these examples, could be the improvement of human fertility.

Expression

Expression has been defined as a quality by which all traits of a style are adapted to a single feature which makes it unique from other styles. The discussion of themes suggested that archaeologists and art historians have considered the expression of Dorset art as shamanic. However, shamanic concepts were not unique to Dorset culture, if in fact analogies to shamanism are not coincidental. What makes Dorset art different from other cultural styles is the structuring of themes by particular attribute-clusters and the overall conception of all of the forms. The conception of a form aside from attribute-clusters discussed previously, rests on the technical aspects used to create the art product. The visual impact comes first from the small scale of the objects and the precision in which proportions of forms were replicated. Naturalism of forms was never taken to an extreme. For example, birds

had beaks ending as small blunted tips and their feet were carved usually as small blocks. All natural shapes display proportions which are exact but fine detail is absent.

Stylized forms were equally important in Dorset art expression. Flat cut-out shapes with cleanly cut edges, and limbs represented by symmetrical flanges were modified with incised, excised and openwork motifs. Other forms combined natural forms with stylized motifs.

Complex linear motifs were geometric with a few simple lines indicating the animal's outline and often including the internal skeleton. Again, proportions were emphasized rather than representational details of the subject. Swinton (Taylor and Swinton 1967:45) has likened this aspect of Dorset art expression to twentieth century German expressionism, "Their form emphasizes content, vigour, and involvement (as opposed to style, elegance, and detachment)."

It would be difficult to synthesize the expression of all forms to a single dominant feature. However, it is characterized by compactness of size; exactness of natural proportions and symmetry.

NON-STYLISTIC ELEMENTS

Non-stylistic elements include material and technique used in producing art pieces.

Material

Dorset artists used materials available from the local environment. Table 1 indicates the frequencies of specific materials in

the total sample. Harp (1974/75), recovered a copper amulet from the Richmond Gulf area, the only copper specimen of Dorset art reported. Thompson has since identified additional soapstone carvings from Shuldham Island that were not available at the time of the study (Thomson 1981:5-25; 1982). Ivory was the material preferred by Dorset carvers and accounted for over half of the material surveyed.

Table 1: Total Sample Frequency by Material.

MATERIAL	FREQUENCY	PROPORTION OF THE SAMPLE
1. Ivory	497	55.4%
2. Bone	153	17.1%
3. Wood	130	14.5%
4. Antler	84	9.4%
5. Soapstone	15	1.7%
6. Tooth	9	1.0%
7. Chert	3	0.3%
8. Burned bone	2	0.2%
9. Schist	1	0.1%
10. Burned ivory	<u>1</u>	<u>0.1%</u>
	<u>895</u>	<u>100.0%</u>

Technique

With the exception of petroglyphs located at Wakeham Bay (d'Anglure 1962; Taylor 1963a) Dorset art was an art mobilier.

Undoubtedly, the size determinant of carvings was related to the nomadic lifestyle of Dorset people as well as to the limitations imposed by an artefact's function and the raw material used. Most forms were attached to other objects by suspension, lashing or socketing which again would have restricted the size of the object. Stylistic factors were also involved as it was characteristic of Dorset art to miniaturize carved forms such as masks, harpoon heads, birds, bears, weapons, combs and needlecases, into identical but smaller-than-average replicas.

Dorset art was essentially a carved art. Three-dimensional figures were produced in two form categories: flat stylized forms which were plate-like in profile and expressed a motif by outline; and rounded or blocky forms which were either naturalistic or stylized. Certain techniques were either used with carved forms or as motifs by themselves including basrelief, incised and excised design.

Basrelief is the shaping of forms so that they are raised from the background material. Dorset artists used this technique to emphasize physical features on anthropomorphic and zoomorphic forms as well as creating individual themes on tubes, handles and multiple faces. On some pieces, a raised lip was formed around a perforation.

Incision was the most frequent technique applied to three-dimensional carvings or as two-dimensional motifs by themselves. Incision involved cutting into a matrix to produce a two-dimensional

motif. Incisions on wood carvings were sometimes so deep that the sides appeared billowed. The depth of incision on these wooden carvings probably was accentuated by erosion. On other materials incisions range somewhat in accuracy and depth:

DEPTH OF INCISION	FREQUENCY ON INCISED FORMS
1. scratchy and shallow	59.5%
2. shallow and controlled	23.0%
3. deep firm incision	17.5%

"Punched" motif was typically used to mark facial features, nipples, and spots on animal skins, and to form geometric patterns. These angular dots were produced by a blow from a blunt instrument, such as the corner of a burin-like tool. Although there were exceptions, incised and excised motifs were generally more crude than motifs created in three-dimensional forms.

Excision is a technique whereby the matrix was cut away to produce a design. Designs were cut through the matrix as well, producing openwork motifs or pits, gouges, grooves and sockets in negative relief.

The surfaces of bone, ivory, antler and stone carvings were highly polished. Two ivory artefacts in the sample have a faceted finish. The surface finish on wood art was not easily assessed as the material eroded more readily than stone, ivory or bone, but it appears cruder than carvings made from harder materials.

SUMMARY OF STYLISTIC AND NON-STYLISTIC ELEMENTS

Stylistic and non-stylistic elements are used to test regionalism in Dorset art in a comparative analysis of material from five site-areas. Attributes represent the simplest and most probable level at which samples will vary from each other. Hundreds of attributes and attribute-states were demonstrated from which Dorset artists could choose to create an art object. Themes involve more complex concepts which combine attributes and attribute-states into meaningful forms. Variability between samples at the level of themes suggests that the artists who produced the site-area sample were specializing in the ways in which they put concepts together. This suggests that when samples vary at the level of themes there is a more significant difference than if they vary only at the attribute level. Expression is a grosser level of generalization dealing with a few features which characterize a particular style. If variability is detected at the level of expression the differences between samples is considered great.

Non-stylistic elements unlike stylistic elements are less prone to the problems of subjectivity in determining categories and may provide supporting evidence to any regional variability detected in the distribution of elements in the site-area samples.

CHAPTER 5

COMPARATIVE ANALYSIS OF FIVE DORSET ART SAMPLES

The five site-areas described in Chapter 1, produced a total of 585 artefacts of which a sample of 54 were recovered from Crozier Strait, 75 from Knud Peninsula, 249 from Igloolik, 97 from Button Point, and 110 from Port-au-Choix. Percentages of stylistic and non-stylistic elements in each of the five samples are compared in the following tables. Using a comparative analysis, patterns are observed in the distribution of elements between samples. These patterns are used to assess regional variation. Comparative rather than statistical analysis is considered most appropriate for examining the data because differences between samples when large, could be observed without statistical tests, and when small, were unreliable as they could reflect sampling error rather than regional variability. The study hypotheses, formulated in Chapter 2, are tested with the results of the comparative analysis.

COMPARATIVE ANALYSIS OF STYLISTIC ELEMENTS

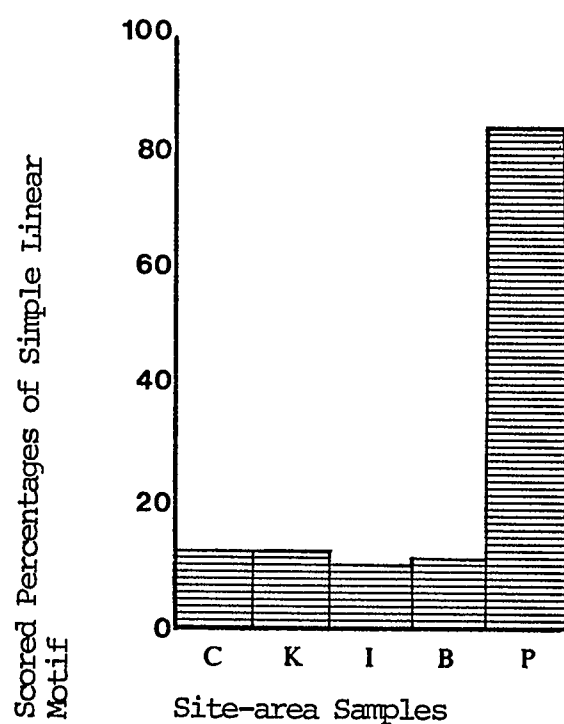
Certain tables present a scored percentage. The scored percentage indicates the relative occurrence of the motif in the samples rather than the percentage of artefacts to which it was applied. A scored

percentage is tabulated in the following manner. Artefacts have a maximum of four sides: dorsal, ventral, left and right sides. Each side is described individually so that a particular artefact could be counted a maximum of four times. Scores are obtained by adding the percentages of motifs on all sides.

Attributes

1. Simple Linear Motif

Table 2: Scored Percentages of Simple Linear Motif in the Five Samples

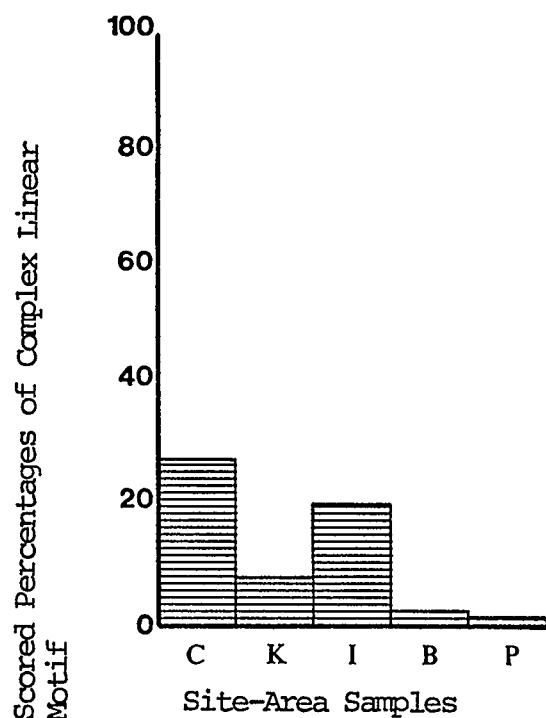


This motif is most often applied to two-sided objects. Table 2 presents scored percentages which indicate that simple linear motif is considerably more important in the sample from Port-au-Choix than in

the other four samples.

2. Complex Linear Motif

Table 3: Scored Percentages of Complex Linear Motif in the Five Samples



Complex linear motif also is applied most often to two-sided objects. A comparison of scored percentages in the samples presented in table 3 indicates that this motif is considerably more important in the samples from Crozier and Igloolik. It is of little importance in the other three samples.

3. Skeletal Motif

Skeletal motif is often applied to four-sided objects. The scored

percentages of the fourteen elements which form skeletal motif, are rank ordered in Table 5 to show the relationships between samples more clearly. Inferences on regional trends are drawn from these two sets of tables.

Table 4: Scored Percentages of Skeletal Motif in the Five Samples

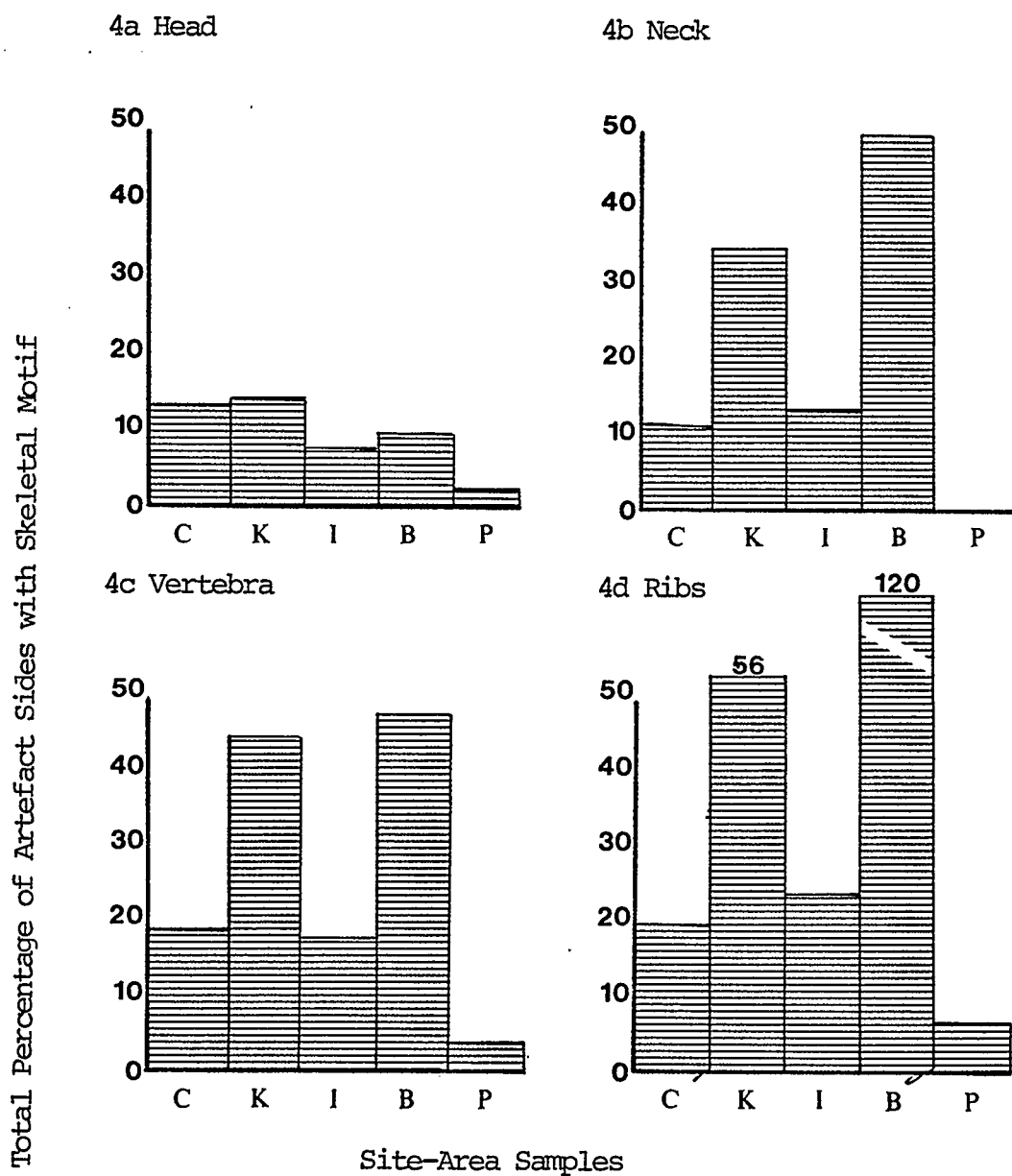
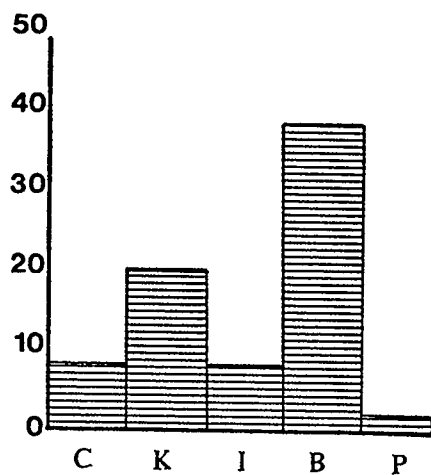


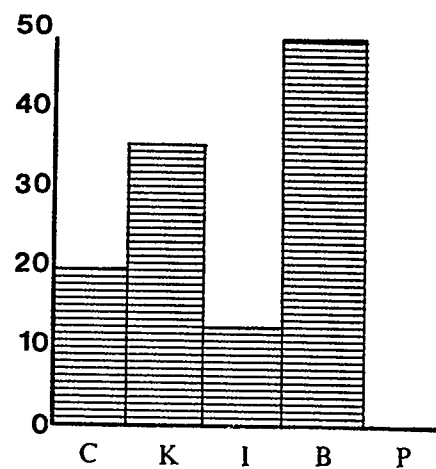
Table 4 continued

Total Percentage of Artefact Sides with Skeletal Motif

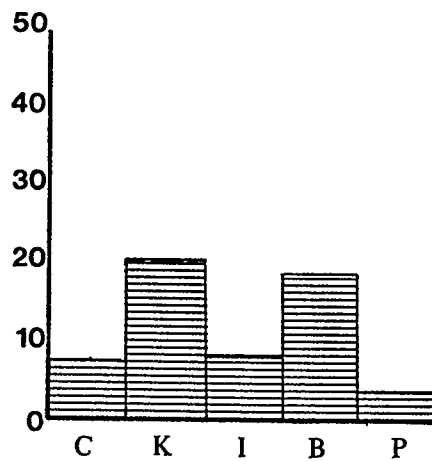
4e Tail



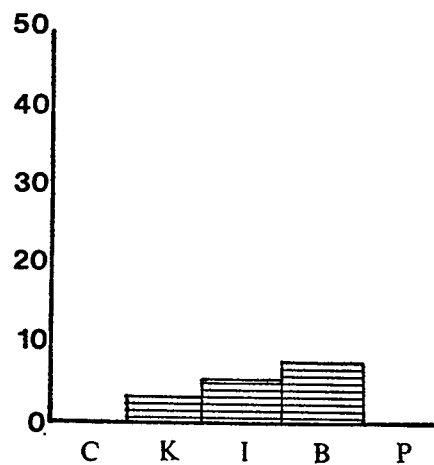
4f Skeletal Motif: Other



4g Hip



4h Knee



Site-area Samples

Table 4 continued

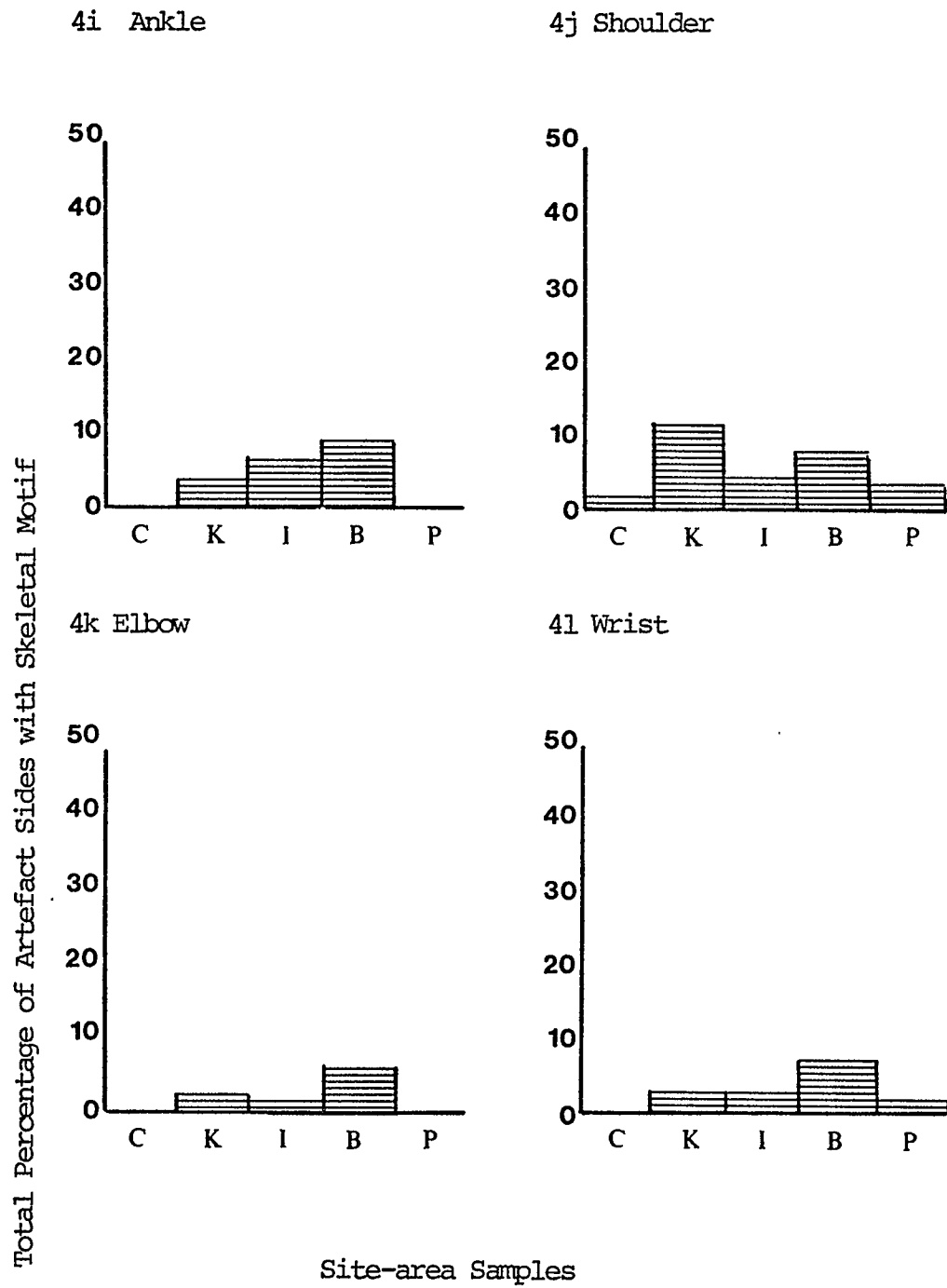


Table 4 continued

4m Forelimb

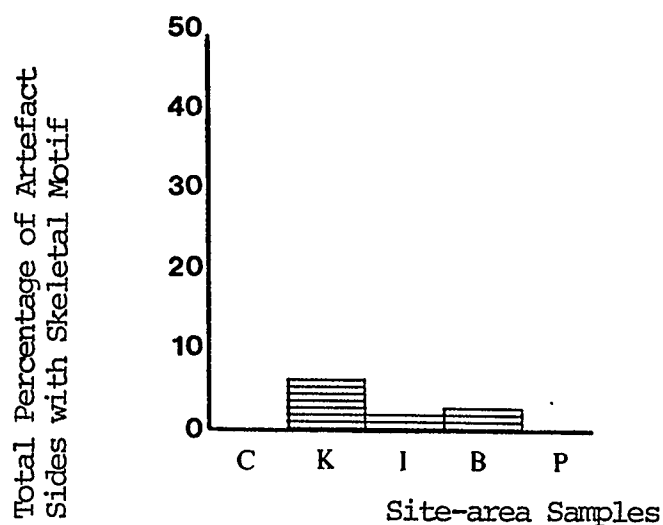


Table 5: Rank Ordered Scored Percentages of Skeletal Motif from Table 4.

	SKELETAL MOTIF MARKINGS													
	Head	Neck	Vertebra	Ribs	Tail	Other	Hip	Knee	Ankle	Shoulder	Elbow	Wrist	Forelimb	Hindlimb
Ranks	1.	K	B	B	B	B	K	B	B	K	B	B	K	K
	2.	C	K	K	K	C	B	I	I	B	K	I	B	B
	3.	B	I	C	I	C	-	I	K	I	I	K	I	I
	4.	I	C	I	C	I	-	C	-	P	-	-	-	-
	5.	P	-	-	P	P	-	P	-	C	-	-	-	-

Site-area samples rank-ordered from 1 (most frequent occurrence of skeletal motif markings in a sample) to 5 (least frequent occurrence of skeletal motif markings in a sample). (-) denotes the absence of the motif in a sample for a particular rank.

Tables 4 and 5 indicate four patterns in the distribution of skeletal motif. Eight of the fourteen elements (head, neck, vertebra, ribs, tail, hip, forelimb, hindlimb), demonstrate a pattern which indicates a greater importance of the motif in the Knud Peninsula and Button Point samples. Percentages of skeletal motif restricted to the body (head, neck, vertebra, ribs, tail, hip), demonstrate a pattern which indicates these motifs are of comparable importance in the Crozier and Igloolik samples. The extensive use of the motif which includes elements on the limbs (shoulders, elbows, wrist, knees, ankles, forelimbs and hindlimbs), are of like importance in the Knud Peninsula, Igloolik and Button Point samples. Skeletal motif is not important in the Port-au-Choix sample.

4. Facial Features

The analysis of themes in Chapter 4 suggested that open mouths are especially important in anthropomorphic and zoomorphic forms. Therefore this feature is used for comparative analysis.

Table 6: Percentages of Open Mouth Facial Motif in the Five Samples.

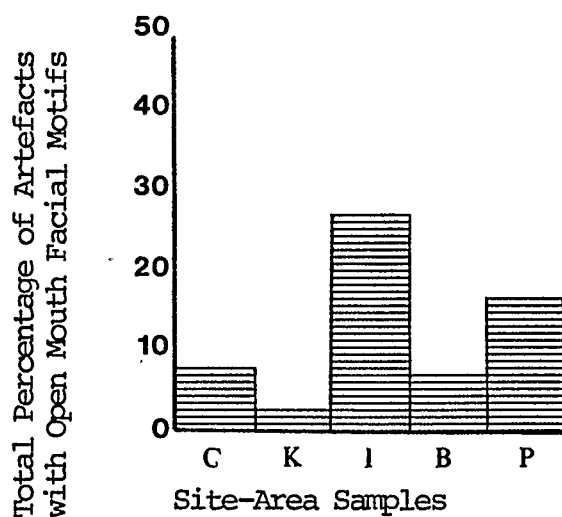


Table 6 illustrates that in consideration of the percentage of artefacts in the five samples which could have open mouth motif, the motif is of greater and similar importance in the Igloolik and Port-au-Choix samples, and of little comparative importance in the other three samples.

5. Facial Markings

Table 7: Percentages of Facial Markings in the Five Samples.

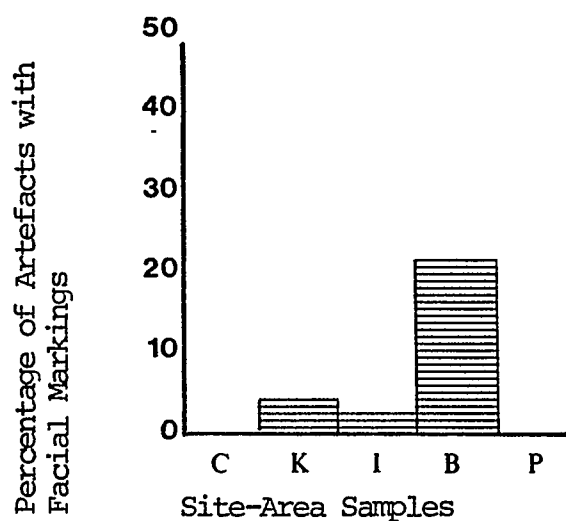


Table 7 illustrates the importance of facial markings at Button Point. This attribute is of minor importance in the Knud and Igloolik samples and absent in the samples from Crozier and Port-au-Choix.

6. Shapes

Table 8: Percentages of Shape Categories in the Five Samples.

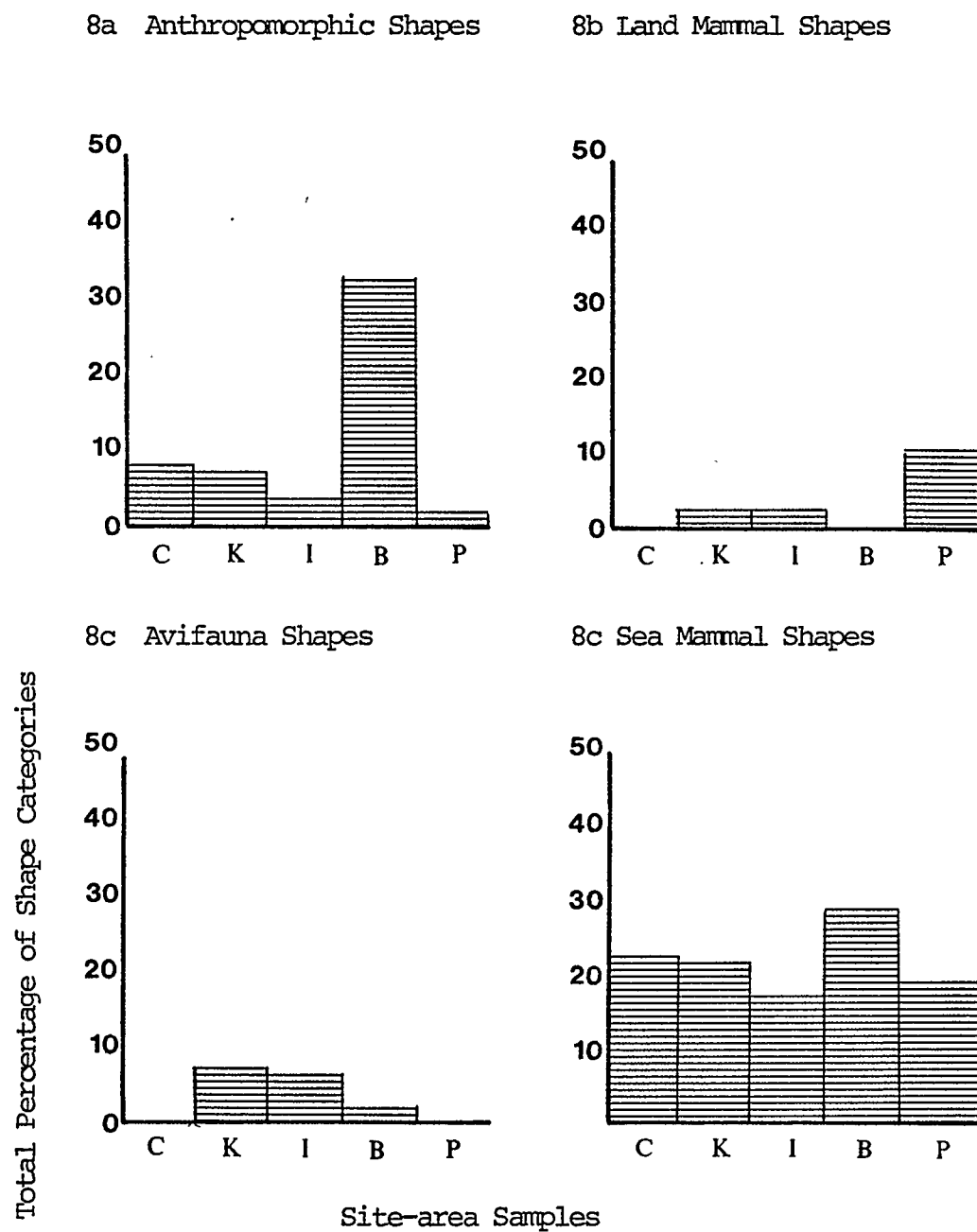
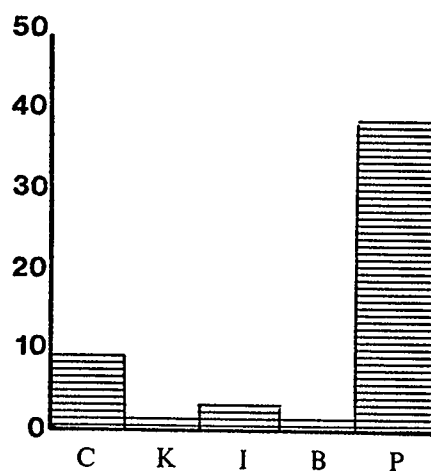
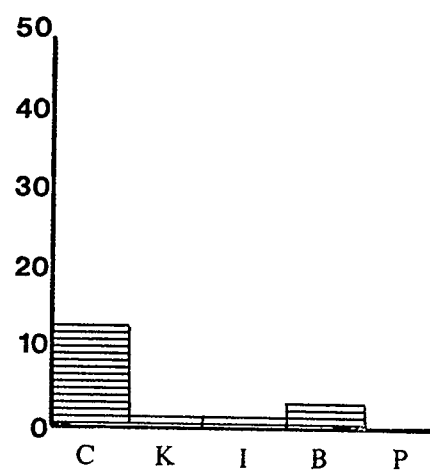


Table 8 continued

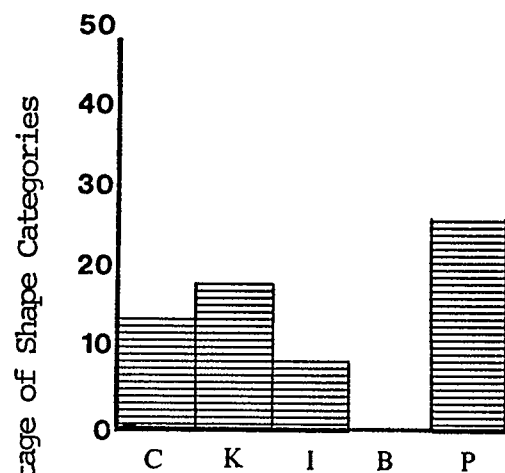
8e Pendants



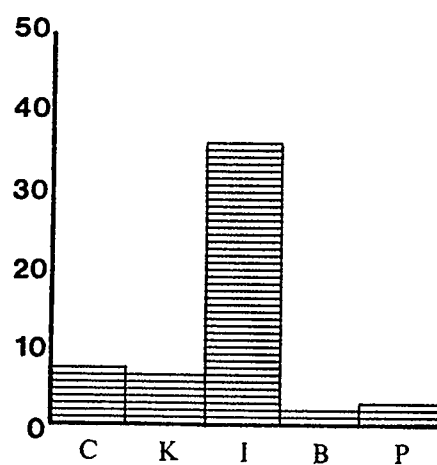
8f Incised/Excised Fragments



8g Harpoon Shapes



8h Container and Tube Shapes



Percentage of Shape Categories

Site-Area Samples

Table 8 illustrates the percentages of shape categories in the five samples. To interpret these eight graphs a relative scale describing the predominance of shapes is defined as of minor importance (0-5%), of moderate importance (5-20%) and of major or dominant importance (20-100%) in each sample. Sea mammal shapes is the only category of moderate or major importance in all five samples and therefore cannot be used as a characteristic attribute for determining regional stylistic differences.

The Crozier sample is not dominated by a particular shape category other than sea mammals. Anthropomorphic forms, pendants, incised/excised fragments, harpoon heads, containers and tubes are of moderate importance; and land mammal carvings and avifauna forms are absent.

The Knud Peninsula sample is not dominated by a particular shape category other than sea mammals. Anthropomorphic forms, avifauna, harpoon heads, containers and tubes are of moderate importance; land mammals, pendants and incised/excised fragments are of minor importance. No shape categories examined are absent from the sample.

The Igloolik sample is dominated by containers and tubes; avifauna and harpoon head shapes and sea mammals are of moderate importance; anthropomorphic, land mammals; pendants and incised/excised fragments are of minor importance. No shape categories examined are absent from the sample.

The Button Point sample is dominated by anthropomorphic forms

and sea mammals; has no shapes of moderate importance; avifauna, pendants, excised/incised fragments, containers and tubes are of minor importance; and land mammals and harpoon head shapes are absent.

Pendants and harpoon heads are of major importance in the Port-au-Choix collection. Land and sea mammals are of moderate importance; anthropomorphic forms and containers and tubes are of minor importance; and avifauna and incised/excised fragments are absent in the sample.

7. Suspension

Table 9: Percentages of Means of Suspension in the Five Samples .

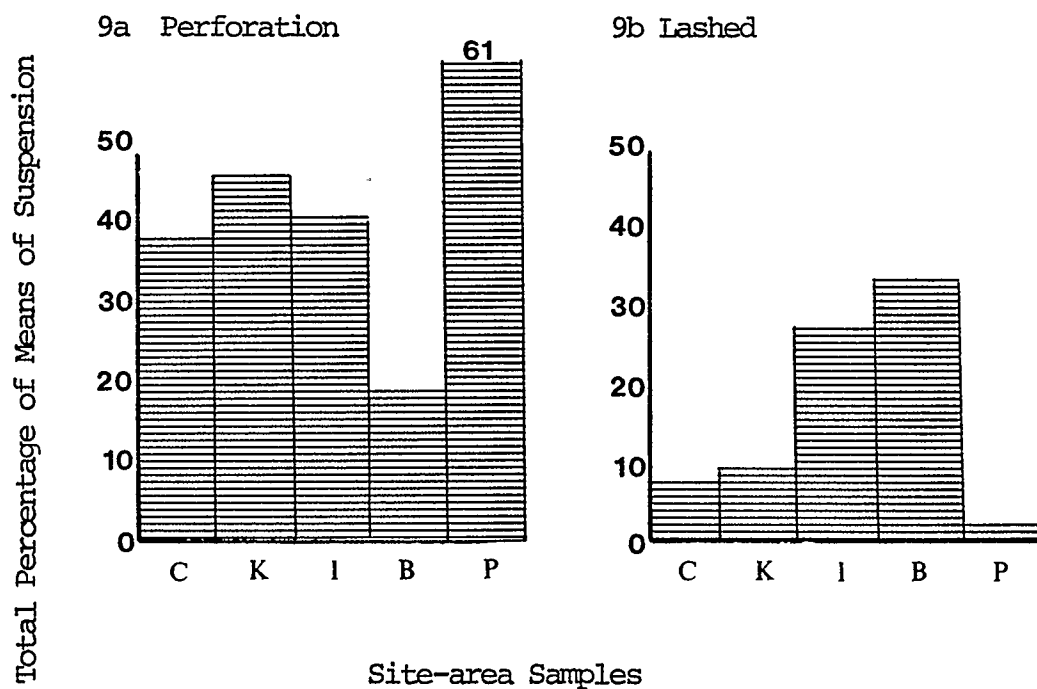
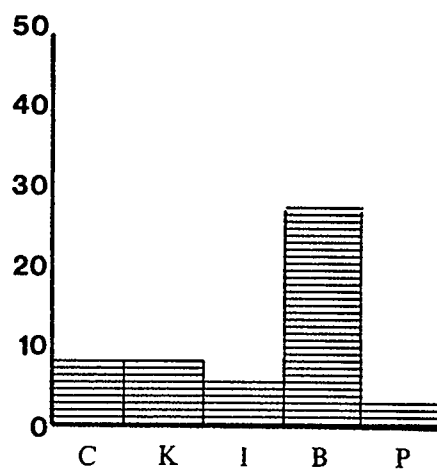
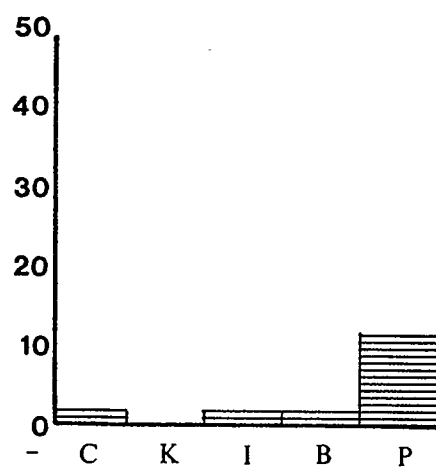


Table 9 continued

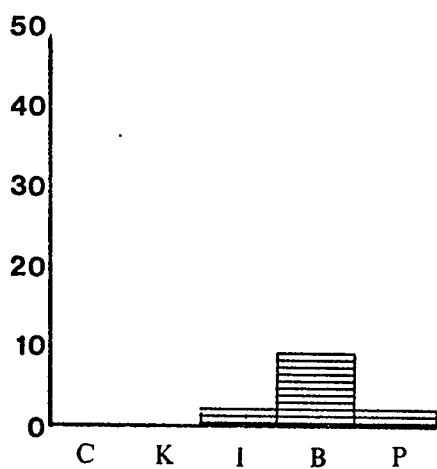
9c Free-Standing



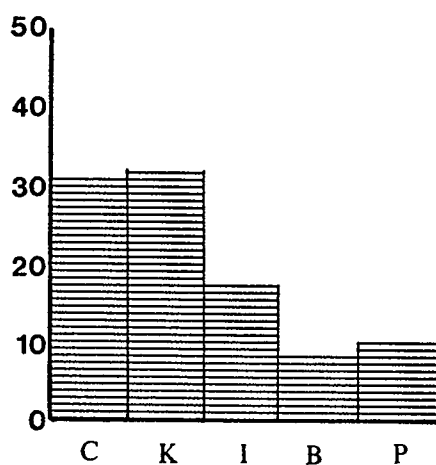
9d Socketed



9e Worn



9f Functional Artefacts



Total Percentage of Means of Suspension

Site-area Samples

Table 9 continued

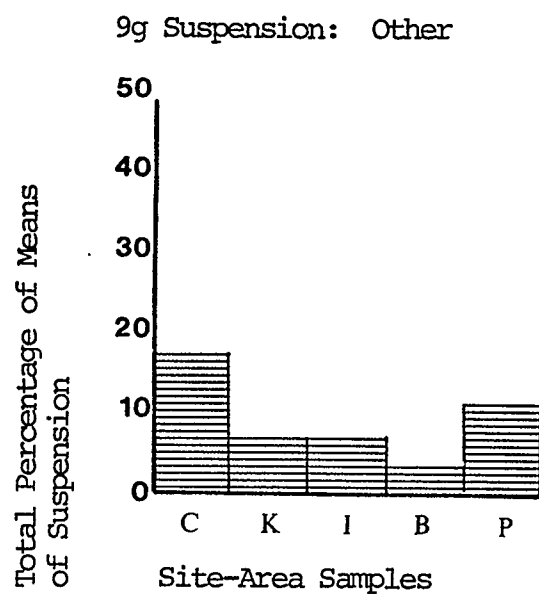


Table 9 indicates that the means of suspending art objects varies in each sample. Suspension by perforation is most common in all samples with the exception of Button Point, which has larger percentages of lashed and free-standing artefacts. Igloolik has a large percentage of lashed artefacts as well. Crozier and Knud Peninsula samples have large percentages of decorated functional objects whose means of suspension was determined by the function of a particular artefact.

8. Pegging

Table 10: Percentage of Pegging in the Five Samples .

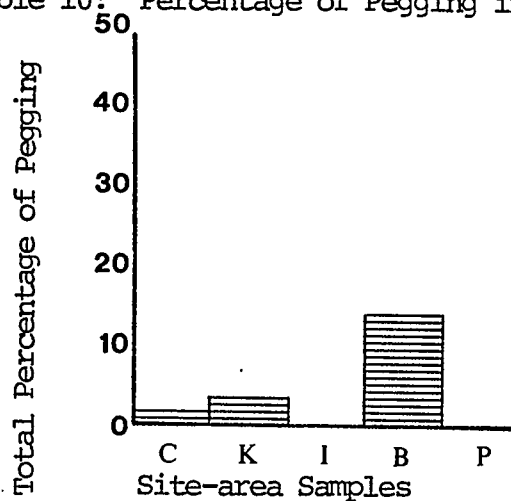


Table 10 illustrates the importance of pegging in the Button Point sample. This attribute is of minor importance in the Crozier and Knud Peninsula samples and is absent in the samples from Igloolik and Port-au-Choix.

9. Erotic Motif

Table 11: Percentages of Erotic Motif in the Five Samples .

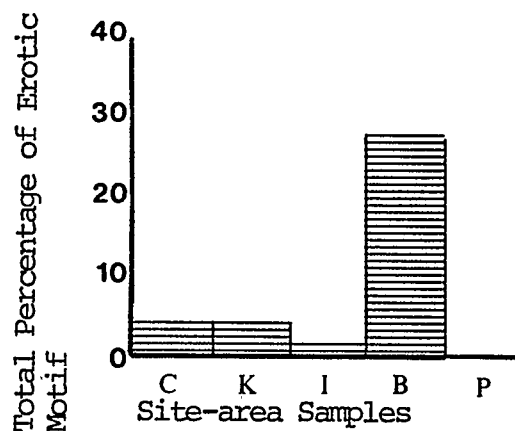


Table 11 illustrates that erotic motif is unique to the Button Point sample, although it is not a dominating motif. It is of moderate importance in the Crozier and Knud Peninsula samples, of minor importance in the Igloolik sample and absent from Port-au-Choix.

10. Surface Colouring

Table 12: Percentages of Red Surface Colouring in the Five Samples.

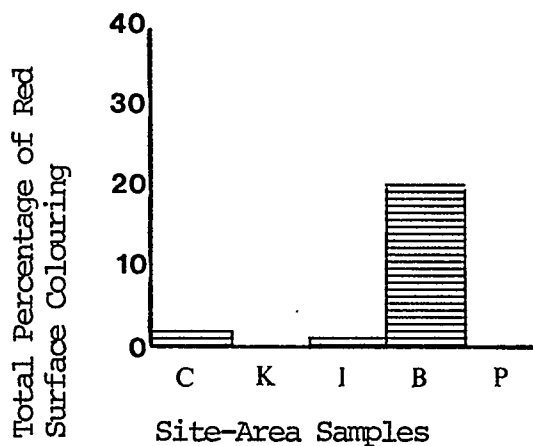


Table 12 illustrates that red surface colouring is of considerable importance in the Button Point sample. This attribute has minor importance in the Crozier and Igloolik samples and is absent in the samples from Knud Peninsula and Port-au-Choix. Rousseliere (1976:52) suggests that surface colouring may have rubbed off or faded from Dorset carvings recovered from sites other than Button Point. Although this is plausible, it is no longer an observable fact.

Themes

1. Complete Naturalistic Themes

Table 13: Percentages of Complete Naturalistic Themes in the Five Samples.

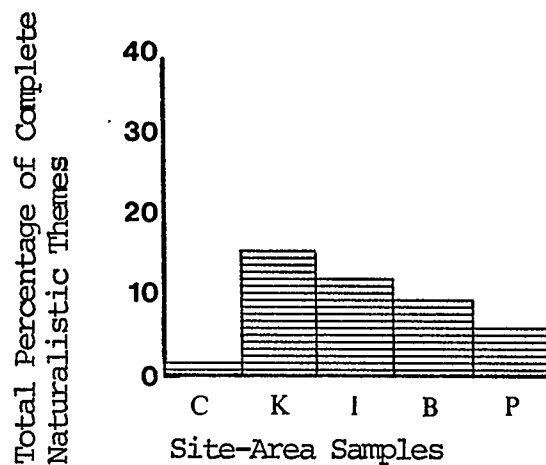


Table 13 illustrates that this theme is important in the Knud Peninsula, Igloolik and Button Point samples; is of moderate importance in the Port-au-Choix sample and of little importance in the Crozier sample.

2. Head-and-Torso theme

Table 14: Percentages of the Head-and-Torso Theme in the Five Samples.

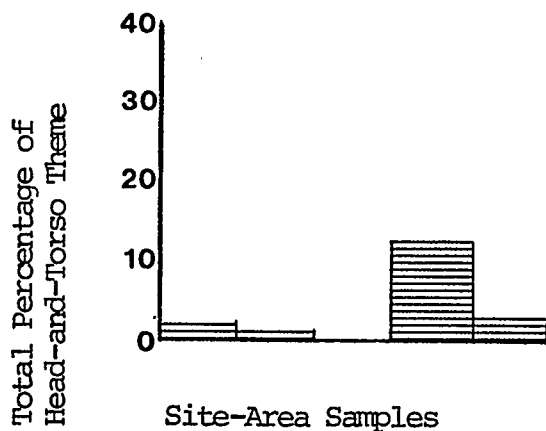


Table 14 illustrates the importance of the head-and-torso theme in the Button Point sample. This theme was of relatively less but comparable importance in the Crozier, Knud and Port-au-Choix samples, and absent in the sample from Igloolik.

3. A-shaped Theme

Table 15: Percentages of the A-shaped Theme in the Five Samples.

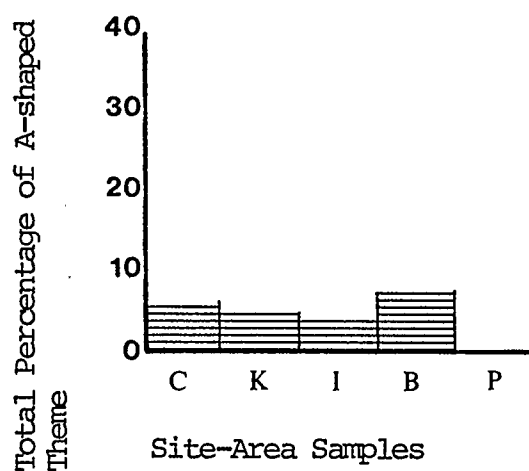


Table 15 indicates that the A-shaped theme is of considerable importance in the Button Point sample; of less but comparable importance in the Crozier and Knud samples, and of minor importance in the Igloolik sample. This theme is absent in the sample from Port-au-Choix.

4. Parts of Subjects

Table 16: Percentages of the Parts of Subject Theme in the Five Samples.

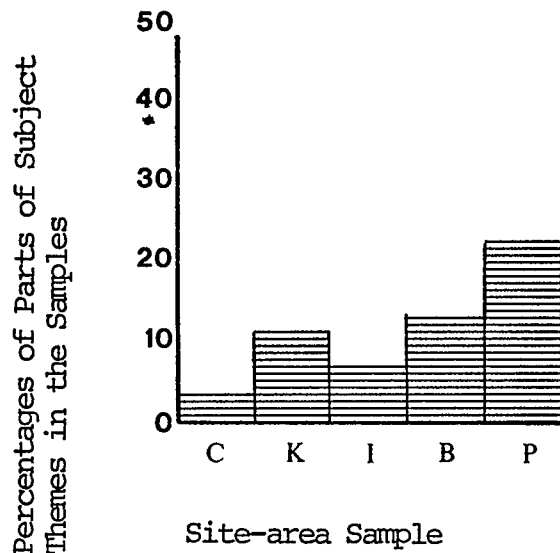
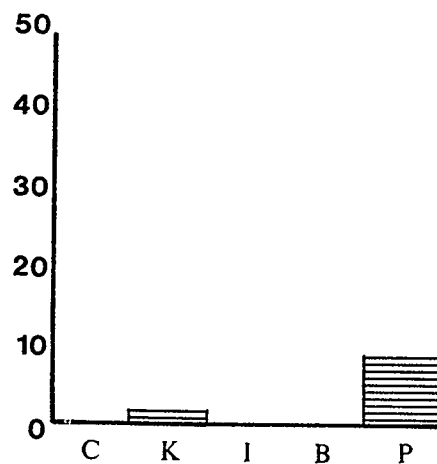
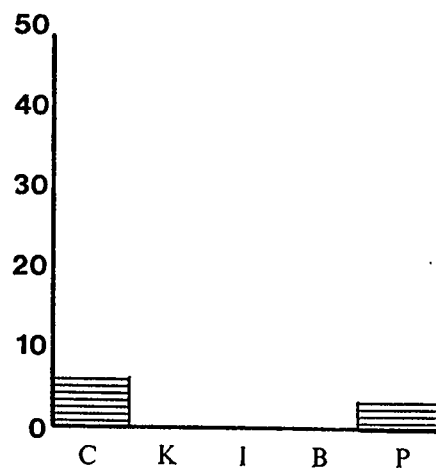
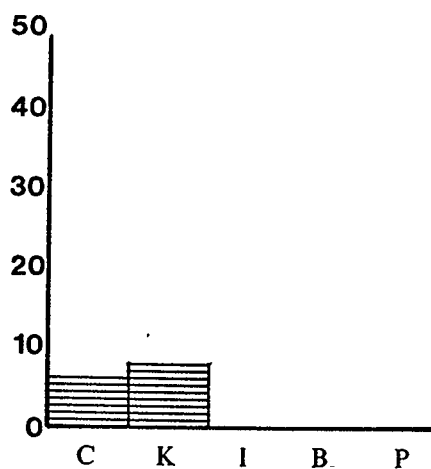
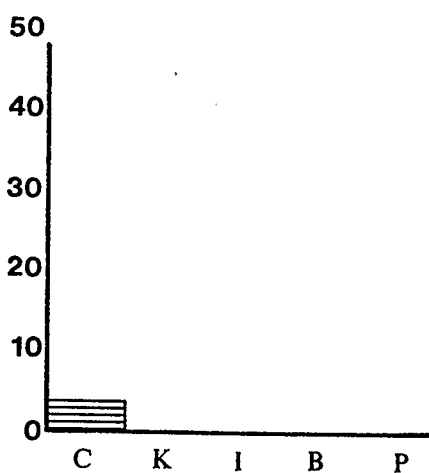


Table 16 indicates that this theme is particularly important in the Port-au-Choix sample, and of moderate importance in the Knud Peninsula and Button Point samples. It is of least importance in the samples from Crozier and Igloolik.

5. Motifs on Harpoon Heads

Table 17: Percentages of Markings on Harpoon Heads in the Five Samples.

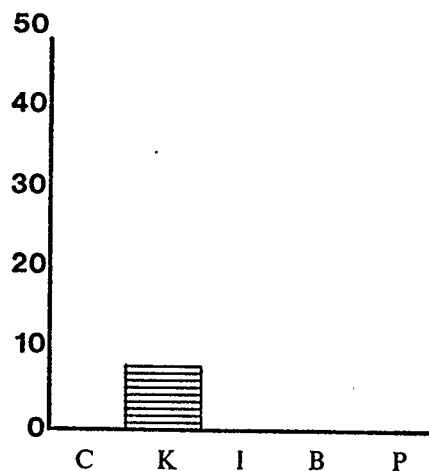
17a Perpendicular lines on the
Dorsal and Ventral Surface17b Parallel lines on the
Dorsal and Ventral Surface17c Diagonal lines on the
Dorsal and Ventral Surface17d Diagonal and Perpendicular lines
on the Dorsal and Ventral
Surface

Total Percentages of Harpoon Heads with Markings

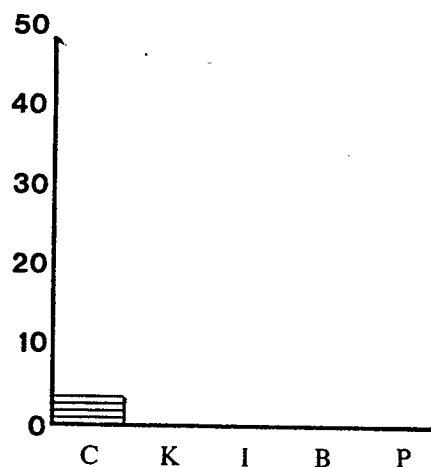
Site-area Samples

Table 17 continued

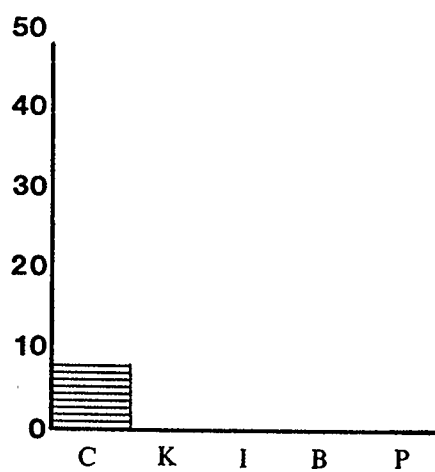
17e Anthropomorphic Motifs
above the Line Hole on
the Dorsal and Ventral
Surface



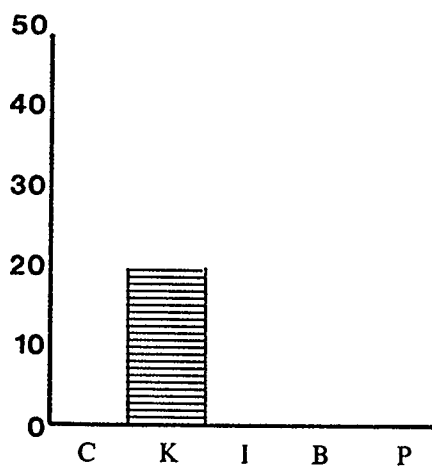
17f Zoomorphic Motifs
above the Line Hole
on the Dorsal and Ventral
Surface



17g Parallel Lines on the
Sides of Harpoon Heads



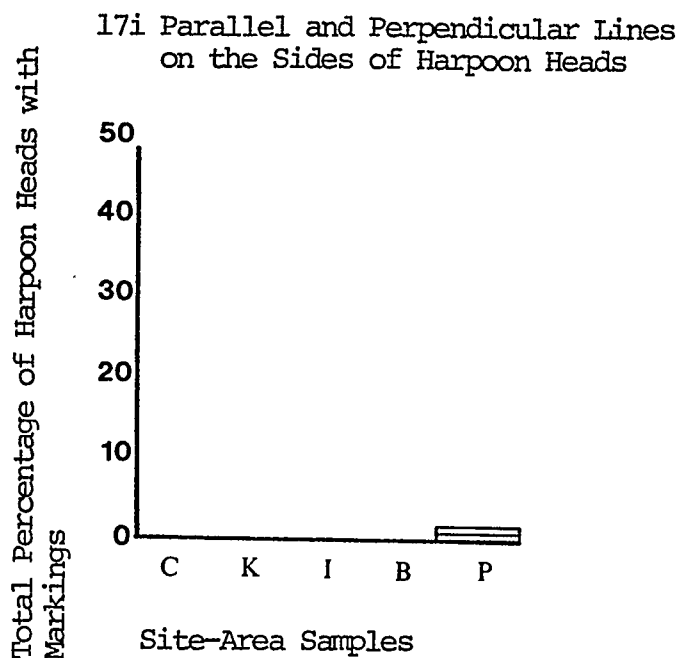
17h Perpendicular lines on the
Sides of Harpoon Heads



Total Percentage of Harpoon Heads with Motifs

Site-area Samples

Table 17 continued



Harpoon heads from Igloolik were inaccessible at the time of study and accounts for the absence at Igloolik of motifs in Table 17. No harpoon heads are reported from Button Point. Table 17 illustrates the motifs on harpoon heads from the remaining three samples. Harpoon heads from Port-au-Choix are dominated by simple linear perpendicular or parallel lines on the dorsal and ventral surfaces. The Crozier harpoon heads were incised with a great variety of motifs. Zoomorphic motifs incised above the line hole were particular to the Crozier sample. Diagonal and perpendicular line combinations, and parallel lines are important motifs on harpoon heads from Knud Peninsula. Anthropomorphic motifs incised above the line hole were peculiar to the Knud Peninsula

harpoon heads. Incised perpendicular lines on the side of harpoon heads is important in the Knud Peninsula sample.

6. Multicomponent Anthropomorphic Theme

Table 18: Percentages of Multicomponent Anthropomorphic Themes in the Five Samples.

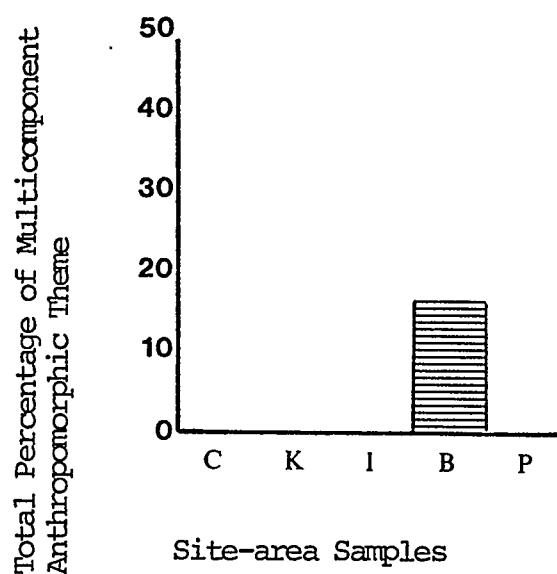


Table 18 illustrates the uniqueness and importance of multicomponent anthropomorphic themes in the Button Point sample.

Expression

Expression is defined as a quality, which is part of all Dorset art including artefacts in these five samples. However, certain aspects of expression are emphasized in some samples more than in others. The Crozier sample has many flat stylized carvings. Complex linear motifs such as caribou are incised onto fragments in a

geometric style. When naturalistic forms occurred, they are plastic e.g. fully three-dimensional and naturalistic in form. Flat, stylized and plastic naturalistic forms, are characteristic of the Knud Peninsula sample as well, although the latter forms are better represented. The Igloolik sample, like those of Crozier and Knud Peninsula, has flat stylized and plastic naturalistic forms.

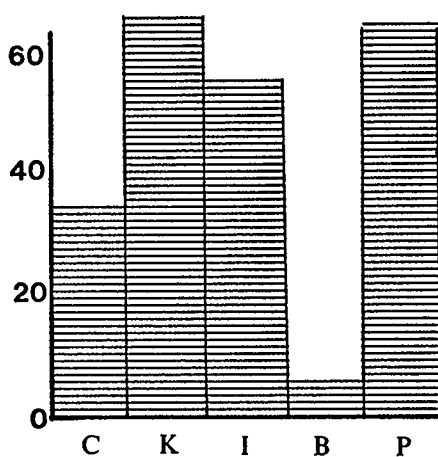
The Button Point sample is characterized by forms with blocky stylized bodies, naturalistic rounded heads and basrelief, facial features. The artefacts from Port-au-Choix are principally flat and stylized in form. When three-dimensional forms occur, they are blocky and although recognizable by subject are somewhat stylized.

COMPARATIVE ANALYSIS OF NON-STYLISTIC ELEMENTS

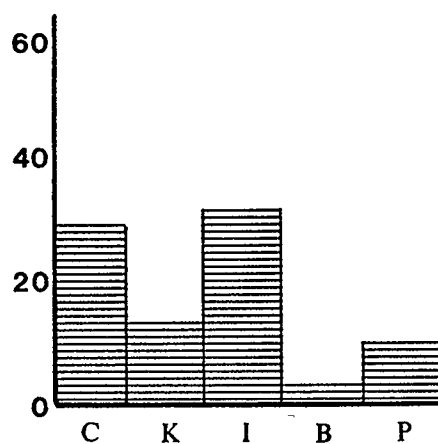
Material

Table 19: Percentages of Ivory, Bone, Antler and Wood in the Five Samples.

19a Ivory

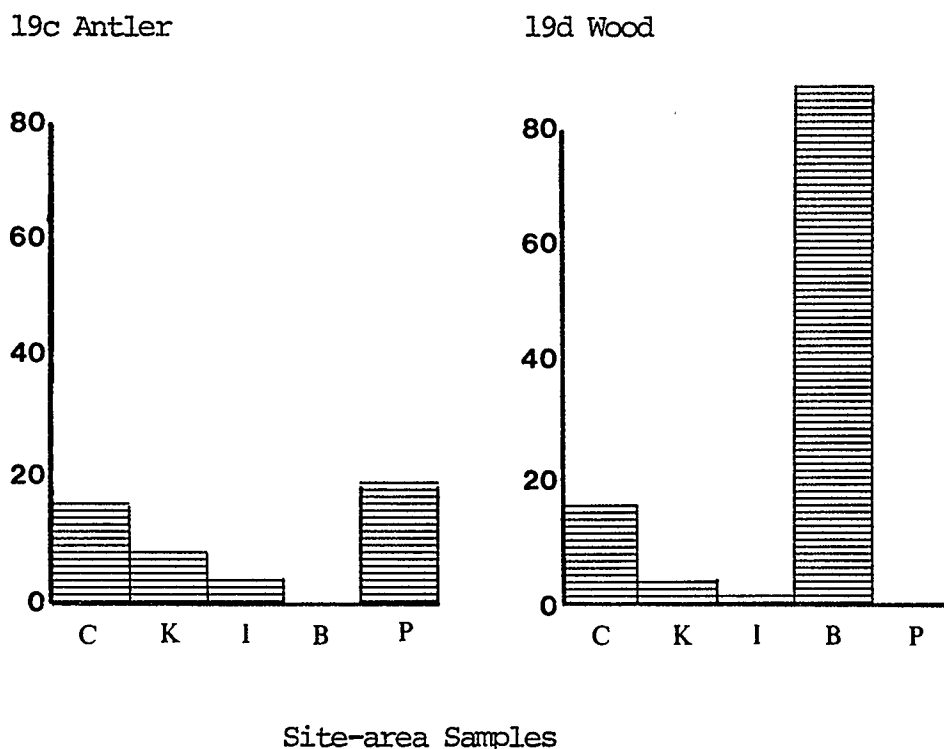


19b Bone



Site-area Samples

Table 19 continued



Ivory, bone, antler and wood form at least 96% of each of the five samples. Therefore, these four materials are selected for comparison. Table 19 indicates that the samples are different in the individual emphasis of particular materials. Artefacts from Crozier and Igloolik are mainly ivory and bone; Knud Peninsula is dominated by ivory; Button Point is dominated by wooden artefacts; and Port-au-Choix by antler and ivory.

Technique

Depth of incision is discussed in relative terms between samples based on visual observation. The Crozier, Knud Peninsula and

Igloolik samples have a variety of techniques including deep or shallow, and controlled or uncontrolled lines. Motifs in the Button Point collection are characteristically deep and controlled. Skeletal motif on artefacts in this sample, is incised so deeply that the sides of some objects have a billowed appearance. Conversely, the Port-au-Choix collection is characterized by shallow, controlled incision.

Round and flat carved forms are found in all regions although flat forms are characteristic of carvings from Port-au-Choix. The technique of forms made of several parts e.g. masks and human figures is unique to the Button Point sample. In summary the Crozier, Knud Peninsula and Igloolik samples all have a variety of techniques used in their samples. Button Point has stylized forms with deeply incised motifs. The Port-au-Choix artefacts are extremely stylized with shallow, precise, rigidly applied incised motif.

TEST AND INTERPRETATION OF THE STUDY HYPOTHESES

Hypotheses 1 and 2

Hypothesis 1 states that regional styles of Dorset art did exist. If this statement is true then a significantly heterogeneous distribution of stylistic and non-stylistic elements should be observable in the samples. Hypothesis 2 states that regional styles of Dorset art did not exist. If this statement is true then a homogeneous distribution of stylistic and non-stylistic elements should be observable in the data. An examination of Tables 2 to 19 indicates that the

distribution of stylistic and non-stylistic elements in the five site-area samples is variable. The purpose of this thesis is to determine if the apparent heterogeneity is significant enough to support Hypothesis 1, or if it represents the normal variability expectable in five samples as is suggested by Hypothesis 2.

The chi-square statistic is often used to measure the degree in which an observed distribution follows a theoretical expected distribution (Byrkit 1975; Thomas 1976). This statistic is appropriate for nominal level data as presented in Tables 2 to 19. When the chi-square statistic is applied to the distributions of elements in Tables 2 to 19, very large chi-square values result. Generally, extreme chi-square values are considered to be insignificant as the difference between samples in such a distribution is no longer perceptible (Byrkit 1975). However, in Tables 2 to 19, these large chi-square values are artificially produced by : 1) very large percentages of an element in one or two site-areas and small percentages of this element in the other areas (see Tables 1,2,3h,4b-e,6,7b-c,8a,16,19a-b); or by 2) an absence of an element in one or more of the samples and a large representation of the element in the other samples (see Tables 4b,f,k,l-n,7-8b-c,f-g,9d-e,10-12,14-15,17a-i,18-19c-d).

Therefore, large chi-square values result when the statistic is applied to the distributions in these tables, not because their variability was imperceptible and random but because their distribution was extremely variable and non-random. The first hypothesis is accepted

as valid as the distribution of stylistic and non-stylistic elements in Dorset art are significantly heterogeneous. Hypothesis 2 is rejected as the variability in these distributions is believed to be greater than that expected in a normal theoretical distribution.

It remains to discuss which samples are considered regional styles. Tables 2 to 19 are examined for elements which characterize each sample. Characteristic elements are determined by relative differences observed in the samples. If an element is represented by a percentage which is at least 10% greater in one sample than in any of the other four samples, then the element is considered as a characteristic of that sample. Conversely if an element is represented in at least 10% of the artefacts from each of the four samples, but is absent in the fifth sample, then the absence of the element in the fifth sample is considered typical of that sample. A minimum of 10% is set as an arbitrary standard for determining characteristic elements. In many cases the percentage difference of an element between samples is as much as 50-70% (see Tables 2,4d,19d). Most characteristic elements have a percentage difference between 10 and 30% (see Tables 3h,4b,f, 6-8a,9a,c-d,10-12,14,16,17h,18-19a-b,d).

Using these criteria, the Crozier Strait sample is typified by one characteristic element which is the absence of skeletal motif markings on the limb (Table 4h-n).

The Knud Peninsula sample is characterized only by motifs on harpoon heads in one attribute state which is perpendicular lines on the

side of harpoon heads (Table 17h).

The Igloolik sample has one characteristic element which is container and tube shapes (Table 8h).

The Button Point sample is characterized by ten elements. These are two states of skeletal motif (Tables 4d,f), face markings (Table 7), anthropomorphic shapes (Table 8a), free-standing forms (Table 9c), pegging (Table 10), erotic motif (Table 11), surface colouring (Table 12), head-and-torso themes (Table 14), multicomponent anthropomorphic themes (Table 18) and an almost exclusive use of wood (Table 19d).

The Port-au-Choix sample is characterized by six elements. These are simple linear motif (Table 2), pendant shapes (Table 8e), parts of subject themes (Table 16), the absence or insignificance of skeletal motif (Table 4), head-and-torso themes (Table 14), and anthropomorphic forms (Table 8a). This evidence supports previous researchers who identified the Newfoundland Dorset art variant based on its extreme conventionalism and absence of anthropomorphic motifs (Harp 1969/70; Jordan 1979/80). The flat stylized pendants, predominant in the shape categories from Port-au-Choix, could represent seals, bears, and weapons which were used in hunting magic (Harp 1969/70). If we accept Harp's suggestion that the pendants are stylized animals, then I would agree with Jordan's (1979) suggestion that the preponderance of what I have called simple linear motif on these forms is a regional variant of skeletal motif. Table 4 testifies that the concept of skeletal motif is important in the art of all other samples.

Expression cannot be measured quantitatively and therefore was not used in the tabulation of characteristic elements. However, the description of the expression of each of the samples suggests that there is no appreciable difference in the styles of the Crozier Strait, Knud Peninsula and Igloolik samples, but there was a distinguishable expression for each of the samples from Button Point and from Port-au-Choix. This suggests that the differences between the latter two samples and the other samples was culturally meaningful as the variability involves not only the range of motifs used in the three styles, but the selection and means by which each regional group of artisans expressed concepts with these motifs.

One problem remains to be answered, are the differences which distinguish these three styles the result of regional diversification or are they changes to the art style through time? In the section entitled Temporal Control (Chapter 1), the problems of dating the five samples is discussed. Only three samples are firmly dated. These are the Port-au-Choix sample from the Middle period, and the Crozier and Knud samples from the Late period. The dates from Button Point and Igloolik are not as clear. Dates from Nunguvik, used to interpolate the time span for Button Point, suggests that this style was developed by the Middle period. The Igloolik sample comes from all periods. However, of the 249 artefacts from this site-area, only 55 can be assigned a specific temporal provenience which are: 14 from the Early period, 24 from the Middle period and 17 from the Late period. With the caveat

that present knowledge of the chronology of Igloolik, Button Point and Port-au-Choix were contemporary during the Middle period and that the Igloolik style continued into the Late period during which it was contemporaneous with the Crozier and the Knud Peninsula samples. The Late period sample analysis does not demonstrate regional patterns. Two additional Late Dorset art samples are reported from Dundas Island (McGhee 1981) and from Shuldham Island (Thomson 1980; 1981). The art sampled from these two sites is typified by the use of a variety of elements many of which are naturalistic, three-dimensional shapes, as are characteristic of the Igloolik sample. This would suggest that the heterogeneous pattern in the distribution of elements was present during the Middle Dorset period and that a more homogeneous widespread style characterized the Late period.

In summary, hypothesis 1 is supported by a significant heterogeneous pattern in the distribution of elements in the five site-area samples. This pattern is interpreted as three styles which are represented by the 1) Crozier, Knud and Igloolik samples, 2) the Button Point sample, and 3) the Port-au-Choix sample. The styles of the Late period are represented by the samples from Crozier, Knud Peninsula and Igloolik which are alike, and indicate the absence of regional styles at that time.

CHAPTER 6

DISCUSSION, CONCLUSIONS AND SUMMARY

DISCUSSION AND CONCLUSIONS

In the Introduction it was stated that the degree to which different groups use similar styles is determined by the intensity of their social interaction. Cultural, environmental and temporal factors were also mentioned which can either inhibit group interaction reducing stylistic similarities between groups, or encourage group interaction, increasing stylistic similarities between groups. In Chapter 5, it was demonstrated that regional styles of Dorset art existed in the Middle period, suggesting that conditions existed during that time which inhibited group interaction. In the Late period, regional styles cannot be detected in the samples, suggesting that conditions had changed by this time period and encouraged group interaction and stylistic exchange. In Chapters 2 and 3, theories and models were presented which offer suggestions as to how these conditions may have occurred.

The theories and models of McGhee (1976a), Cox (1978), Schledermann (1978a), and Fitzhugh (1972) suggest situations which may have resulted in the development of regional styles. The question remains are these suggestions supported by stylistic evidence of Dorset art as presented in Chapter 5. McGhee (1976a) suggests that there was a "core"

area, centered" around Igloolik, where Dorset culture developed in situ and from where Dorset groups set-out to settle and eventually to die in outlying "fringe" areas. This model suggests that Igloolik is the source of all Dorset styles and would consider the styles of Button Point and Port-au-Choix as short-lived "fringe" area styles developed by pioneering groups. If this theory is true then a continuous development of Dorset art would have to be demonstrated in the Igloolik area. As well, Early, Middle and Late period styles in all regions would have to show a continuous stylistic development originating in the "core" area, developing in the "fringe" areas in a short period of time and then dying out. However stylistic evidence for this in Dorset art is inconclusive. The problem of assigning temporal provenience to individual artefacts from the Igloolik sample has been discussed. For this reason it is difficult to explain the temporal development of art style in the "core" area and it is impossible to trace the stylistic variability which occurs in the Middle period in Button Point and Port-au-Choix to developments in Igloolik at specific points in time.

The second theory supported by Cox (1978) and Schledermann (1978) suggests that Dorset culture developed in situ not only in the Igloolik area, but in several areas of the Arctic. This theory potentially allows for as many regional styles as there were areas of in situ development of Dorset culture. The styles of Igloolik, Button Point and Port-au-Choix could be considered as the products of three separate in situ developments of Dorset culture. As with the core area model, the support of multiple in situ stylistic origins for Dorset art

must be demonstrated by Early period art which is rare in all areas of the Arctic. There is some evidence which may support the suggestion of source areas for Early art besides Igloolik. One of the few collections of Early Dorset art is reported from Banks Island (Arnold 1980). It is of interest to note that this collection (see Arnold 1980: Figures 10,12) is decorated almost exclusively with what I have called simple linear motif. This motif is characteristic of the sample from Port-au-Choix not Igloolik. This does not imply a direct development of the Port-au-Choix style from the Early period style present on Banks Island, but it does suggest that the stylistic source for the Banks Island sample does not appear to be that of Igloolik. Until more Early Dorset art is recovered from all areas, the question of the development of regional styles from either a "core" area or from multiple areas remains inconclusive.

Fitzhugh (1976) offers a third alternative condition which would have isolated groups from interaction. Fitzhugh's model states that social interaction would be disrupted more often along the eastern arctic coastline than it would in the Central and western arctic region as a consequence of the development of different settlement patterns in the two areas. Due to the geographical ruggedness of the eastern coast, linear settlement patterns would develop rather than nuclear patterns. Linear settlements unlike nuclear ones, are more prone to becoming isolated in times of economic stress, as the directions of population replacement are more limited than those of nuclear settlements. In terms of stylistic developments this implies that the

regional styles of Button Point and Port-au-Choix occurred as a result of environmental factors and linear settlement patterns which isolated the peoples of these two site-areas. Although it is possible that these two styles developed for this reason, it does not explain why Igloolik, which would have a nuclear settlement pattern, also developed a regional style nor does it explain why these settlement patterns did not result in regional styles during the Late period. For example, the Knud Peninsula art is part of the same Late period style as that of Crozier Strait and Igloolik. It has also been suggested that the styles present in samples collected from Shuldham Island and Dundas Island are part of this style. The presence of the Late style in areas of nuclear and linear settlement patterns suggests that environmental conditions and settlement patterns did not affect stylistic exchange in the Late period. This indicates that factors other than these were involved in the development of regional styles in the Middle period.

In the Late period, regional differences are not distinct in the art style. This suggests that by the Late period, the factors which encouraged the development of regional styles were ineffectual and that conditions which allowed the opportunity for group interaction and stylistic exchange were operating. Wobst (1977) suggests that the geographic and temporal range of a stylistic element depends on its visibility and the degree to which it is mutually intelligible to members of different groups during times of group contact and interaction. Why would Dorset art become more open to exchange in the

Late period? Evidence has been presented to justify an interpretation of Dorset art as a shamanic art style. The shaman enjoyed certain prestige in the community (Blodgett 1978; Boas 1888; Eliade 1964; Turner 1979), and it is reasonable to assume that in contact situations the shaman would be visually distinguishable perhaps by a costume and carvings sewn to clothing (Prokofyeva 1972). The shaman's practises also relied on a high degree of drama (Blodgett 1978), where forms interpreted as part of his performance e.g. head-and-torso themes, masks, sucking tubes, would be visual elements presented to the community and to individuals in contact with the community. The meaning of motifs would be communicated to an audience by their role in such performances. It is assumed that motifs expressed in this manner were understood or became understood by members of the interacting groups. It is highly probable that when the opportunity for group interaction occurred, Dorset art motifs and concepts were exchanged.

It is suggested by McGhee (1980a), that the need for shamanism increases in periods of crises, as the shaman's role is essentially that of maintaining the well-being of the community. Consequently, the widespread style of the Late period as well as the increased volume of art of this period suggests that shamanism was important everywhere, and that the meanings of most shamanic motifs were understood by members in all groups who participated in Dorset culture. If the Late period was critical to Dorset people then the increase in the

production of shamanic motifs is expected for that period. There is evidence which supports this suggestion. Climatic models indicate a warming trend in the Late period, which could have had severe negative effects on Dorset seal and walrus hunting strategies along the ice edge. As well, during the Late period, the Thule culture people arrived in the eastern arctic from Alaska which may have worsened the economic crisis produced by the changing climate. As resources became harder to procure possibly because of ineffectual hunting strategies, groups would be forced to relocate more often than in the past, in which case the rate of contact situations and consequently the diffusion of stylistic elements would be increased.

SUMMARY

The study indicates that regional styles can be distinguished in the Middle Dorset period by a comparative analysis of the distribution of elements in three Dorset art samples. These Middle period regional styles are represented in the samples from Igloolik, Button Point and Port-au-Choix. It is suggested that these three regional styles express specific group affiliations in Dorset culture. The source of these Middle period stylistic variants is unknown as the stylistic developments of Dorset art in the Early period are as yet, poorly understood. It is also suggested that factors other than environmental ones are responsible for the development of regional styles. During the Late period, regional styles cannot be identified in the samples. Additional evidence was presented which supports this conclusion, suggesting that

the Late Dorset style was widespread, and specific group affiliations were weakened or not expressed in the art style. This situation may have been caused by economic and social factors which created a period of crisis ending in the demise of Dorset culture as it is known. If such a crisis occurred then it may have been characterized by increased shamanic activity and quantities of Dorset art available for diffusion in a visual exchange network. More contact could have occurred as groups were often forced to relocate for reasons of economic and social pressures. These factors may account for the similarity of the distribution of elements in samples from the Late period.

APPENDIX A

The remaining nine attributes observed in the stylistic analysis of the study sample are described below.

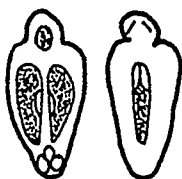
11. Lens-shaped gouges

Lens-shaped gouges were excised from the ventral surfaces of bird carvings, bears and caribou. They were found most often on falcons. These gouges may or may not perforate the matrix. Other lens-shaped gouges were used as decorative motif on thin-walled artefacts or on amorphous fragments.

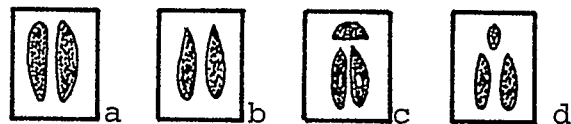
Attribute states

11 i. Lens-shaped gouges on the ventral surfaces of animals and birds.

Example

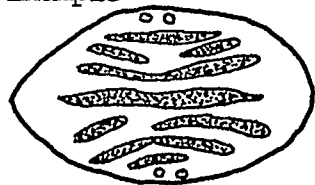


Variables



11 ii. Gouges used as decorative motif on other objects.

Example



(11. Lens-shaped gouges continued)

Variables

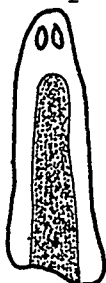
- a. Gouges in series in lines parallel to the longest axis of the artefact (example illustrated).
 - b. Gouges in series in random patterns.
12. Excised notches and grooves: other

These grooves or notches were excised into objects and had no apparent interpretations or function.

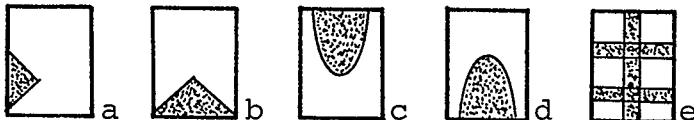
Attribute states

12 i. U-shaped notches

Example

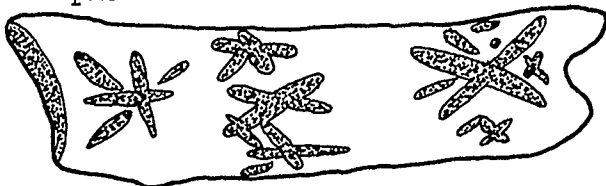


Variables

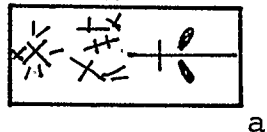


12 ii. Geometric grooves

Example



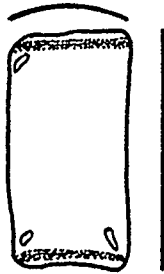
Variables



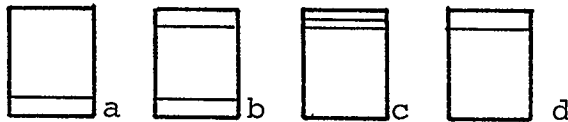
12 iii. Grooves located parallel to an edge

These were found on the concave surfaces of amulet box sides and held the ends into place. They were also incised on the convex surfaces of tubes and around the muzzles and or the tails of zoomorphic forms.

Example



Variables

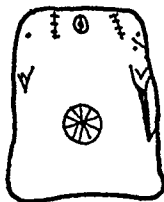


13. Pitting and concavities

Attribute states

13 i. Circular concavities were excised from the central areas of forms and were perforated or non-perforated.

Example



Variables (n/a)

(13. Pitting continued)

13 ii. Less carefully made pits were used to hollow out the facial areas.

Example



variables (n/a)

14. Open Socketing and Grooving on the Ventral Surface

Slots and sockets were found on the ventral surface of zoomorphic forms. Sockets were long rectangular cuts from the ventral surface into the interior of the body, which sometimes were segmented by bars or bridges of matrix. A socket ran parallel to the longest axis of the body and opened at both ends of the form, or perforated a section of the body and was open at only one end.

Attribute states

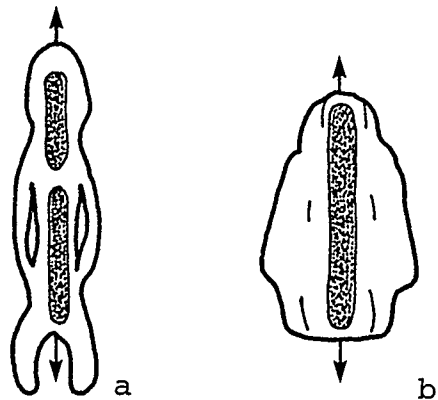
14 i. Sockets

Example



(14. Sockets and Grooves continued)

Variables

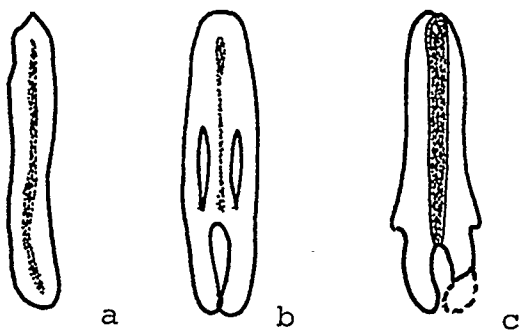


14 ii. Grooves were similarly placed on zoomorphic forms.

Example



Variables

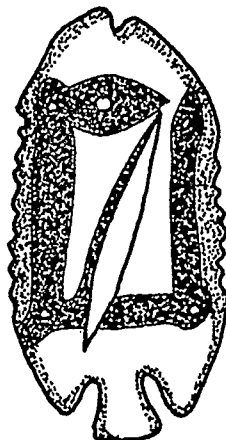


15. Grooves used to connect perforations

Grooves were excised between perforations and likely served as countersunk grooves for lashings.

Attribute states

Example



Variables (n/a)

16. Openwork linear motif

Geometric openwork patterns were cut out of thin-walled objects. These motifs do not represent any obvious form. Neither were they used for suspension nor were they perforations of lens-shaped gouges. Generally the holes formed linear patterns. Holes were square, rectangular, bipointed or round. As the bow-drill was not apparently known to Dorset people, drilled holes are considered as intrusive cultural elements.

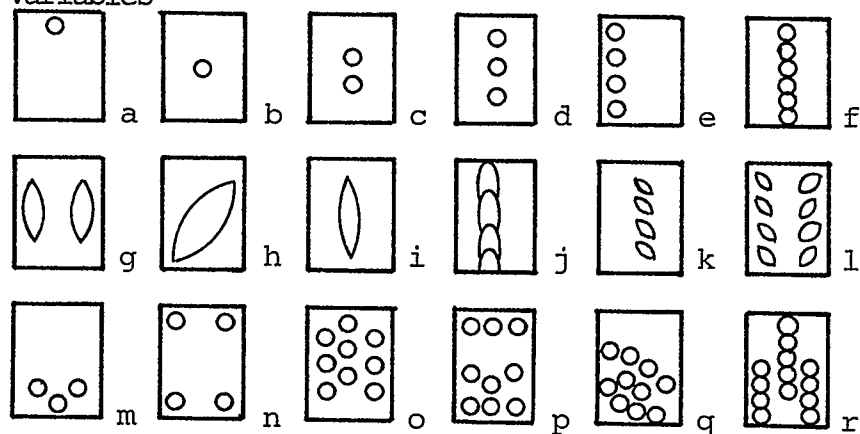
(16. Openwork continued)

Attribute states

Example



Variables



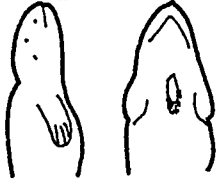
17. Treatment of Limbs on Carvings-in-the-round

Limbs, when present, were produced with care, either with both fore- and hindlimbs or with a single set of limbs. Incised lines indicating digits were often found on limb ends regardless of attribute state.

(17. Limbs continued)

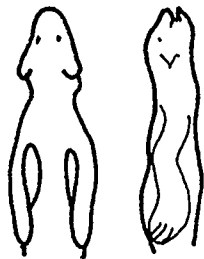
Attribute states

17 i. Basrelief limbs, raised from the body but not detached from the body matrix.

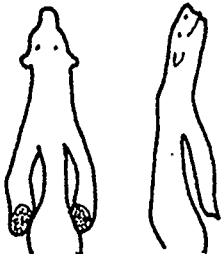


17 ii. Carved limbs, detached from the body but still part of the same matrix. These forms were variable:

a) Forelimbs attached to flanks at the wrist.



b) Forelimbs positioned beside the flank with palms facing back.



c) Hindlimbs attached to each other at the feet forming a loop.

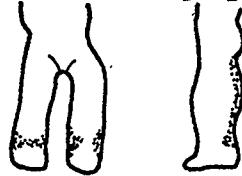


(17. Limbs continued)

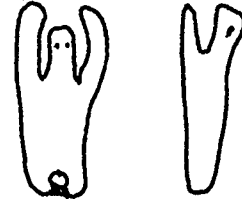
d) Hindlimbs stretched out in a plane with the body, toes pointed.



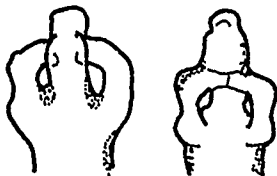
e) Standing upright on the hindlegs, knees bent, feet flat.



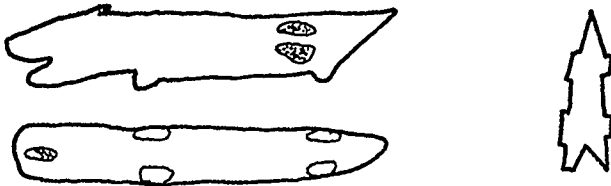
f) Forelimbs stretched up beside the head, hand unattached.



g) Forelimbs stretched up beside the head, hand attached by means of a bar or other form.



h) Limbs indicated by blocky knobs or flanges.



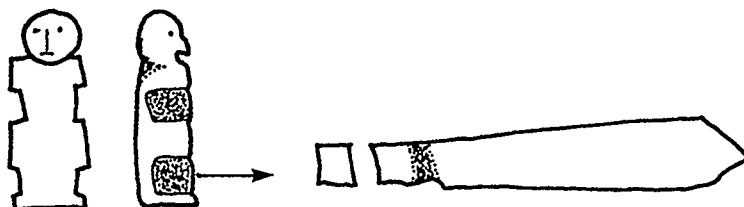
i) Fore- and hindlimbs attached at the feet and the hands.



(17. Limbs continued)

17 iii. Carved limbs, detached from the body and of a separate matrix. These limbs were lashed onto the body, a notch being cut into the torso to receive the limb ends. These limbs were either:

a) blocky in shape



b) naturalistic leg and arm forms



17 iv. Limbs indicated by the outline shape of the carvings or by incised or excised lines. These limbs were not raised or separated from the body matrix.



17 v. Limbs indicated by excised outline or negative relief.



Any of these limb forms could be combined on the same carvings, e.g. iaa and iid or iaa with iv. Attribute state iii was never

(17. Limbs continued)

combined with another attribute state variable. Only human forms had limbs of attribute state iii.

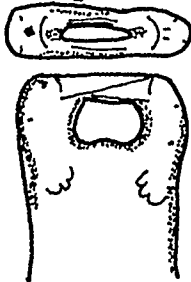
18. Split Figures

Animal forms were carved in basrelief and split longitudinally; they either were wrapped around the sides of tubes facing each other or occurred singly. In the case of facing walrus, the tusks of the two animals interlocked. The latter motif was the most commonly recurring motif of the split figures. A similar motif occurred on two flat pendants. The animals were indicated with incision and slight basrelief. A perforation was made below and between the facing heads.

Attribute states

18 i. Facing figures

Example



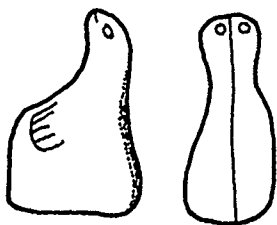
Variables

- a) Walrus facing walrus, tusks interlocked (example illustrated)
- b) Facing bear heads
- c) Facing caribou and bear
- d) Facing unidentifiable animals
- e) Facing bear and walrus

(18. Split figures continued)

18 ii. Single figures

Example



Variables

- a) Seal (example illustrated)
- b) Unidentifiable animal

19. Dots on the abdomen of zoomorphic forms

Angular dots were usually punched into the lower abdomen of animals, especially seals. These dots represented teats, and were normally indicated by a triangular or diamond-shaped pattern or by a group of dots.

Attribute states

Example



Variables (n/a)

APPENDIX B

Artefacts illustrated in Chapter 4 and Appendix A, are used either to highlight a particular attribute, or to show all attributes associated with an artefact. These artefacts are listed below by catalogue number, archaeological provenience, principal investigator or collector, and current storage location. Certain motifs are depicted with standardized symbols which are designed to graphically describe an attribute-state which characterizes a number of artefacts. Consequently, no particular references are given for these motifs.

Key to current storage locations:

- Arctic Institute of North America, University of Calgary	AINA
- Archaeological Survey of Canada, Ottawa	ASC
- Eskimo Museum, Churchill	EM
- Museum of Art and Archaeology, Cambridge University	MAA
- Nationalmuseet, Copenhagen	NM
- Provincial Museum of Newfoundland, St. John's	PMN
- Department of Archaeology, University of Calgary	UC

Chapter 4: AttributesPage

1 i.	Example: U3-19-D; Port-au-Choix II, E. Harp, PMN	37
1 ii.	Example: QiLf-25:17; Bathurst Island, J. Helmer, UC	38
1 iii.	Example: -- ; Port-au-Choix II, E. Harp, PMN	38
1 iv.	Example: 12-49-B; Port-au-Choix II, E. Harp, PMN	39
1 v.	Example: J1Gu-6-37; Mansel Island, W. Taylor, ASC	39
1 vi.	Example: J4-19-8; Port-au-Choix II, E. Harp, PMN	39
1 vii.	Example: PfFm-1-2273; Button Point, G.M. Rousseliere, ASC	40
2 i.	Example: 1090-50402.H; Igloolik, G. Rowley, MAA	40
	Variables:	
	a) QjId-17-293; Karluk Island, J. Helmer, UC	40
	b) PfFm-1-18; Button Point, G.M. Rousseliere, ASC	40
	c) PfFm-1-1969; Button Point, G.M. Rousseliere, ASC	40
	d) QjId-25-198a; Karluk Island, J. Helmer, UC	40
	e) 1090-50.402.H; Igloolik, G. Rowley, MAA	40
	f) 119-50.444; Igloolik, G. Rowley, MAA	40
2 ii.	Example: HdCg-2:591; Northern Labrador, R. Jordan, PMN	41
	Variables:	
	a) C45.1-149; Igloolik, Father Bazin, EM	41
	b) C45.1-161; Igloolik, Father Bazin, EM	41
2 iii.	Example: PfFm-1-41; Button Point, G.M. Rousseliere, ASC	41
	Variables:	
	a) A1001-56; Igloolik, J. Meldgaard, ASC	41
	b) PfFm-1-41; Button Point, G.M. Rousseliere, ASC	41
2 iv.	Example: 841-50.445.3; Igloolik, G. Rowley, MAA	41
	Variables:	
	a) 821-50.445.D; Igloolik, G. Rowley, MAA	42
	b) 841-50.445.D; Igloolik, G. Rowley, MAA	42
	c) 1500-50.446; Igloolik, G. Rowley, MAA	42
	d) QiId-1-1563; Bathurst Island, R. McGhee, ASC	42
	e) QiId-1-1900; Bathurst Island, R. McGhee, ASC	42
	f) QjId-1-1352; Bathurst Island, R. McGhee, ASC	42

2 v.	Example: QjId-17-178; Karluk Island, J. Helmer, UC	42
2 vi.	Example: 1343-50.445.K; Igloolik, G. Rowley, MAA	42
	Variables:	
	a) 766-50.444; Igloolik, G. Rowley, MAA	43
	b) C45.1-147; Igloolik, Father Bazin, EM	43
	c) 936-50.443; Igloolik, G. Rowley, MAA	43
	d) 1353-50.445.K; Igloolik, G. Rowley, MAA	43
	e) 869-50.444; Igloolik, G. Rowley, MAA	43
	f) RaJu-1-68; Dundas Island, R. McGhee, ASC	43
	g) 1534-50.443.M; Igloolik, G. Rowley, MAA	43
	h) RaJu-3-1,4; Dundas Island, R. McGhee, ASC	43
	i) C45.1-167; Igloolik, Father Bazin, EM	43
2 vii.	Example: 885-50.447.D; Igloolik, G. Rowley, MAA	43
	Variables:	
	a) 885-50.447.D; Igloolik, G. Rowley, MAA	43
	b) NeHd-1-33; Hall Beach, G.M. Rousseliere, ASC	43
2 viii.	Example: NeHd-1-33; Hall Lake, G.M. Rousseliere, ASC	43
	Variables:	
	a) QiLf 25:143; Bathurst Island, J. Helmer, UC	44
	b) QjId 17:168-169; Karluk Island, J. Helmer, UC	44
	c) QjId 17:374; Karluk Island, J. Helmer, UC	44
	d) NeHd-1-33; Hall Lake; G.M. Rousseliere, ASC	44
	e) 1073-50.444; Igloolik, G. Rowley; MAA	44
	f) SgFm-5-141; Ellesmere Island, P. Schledermann, AINA	44
	g) J1Gu-3-127b; Mansel Island, W. Taylor, ASC	44
	h) 1534.50.443.M; Igloolik; G. Rowley, MAA	44
	i) 863-50.444; Igloolik; G. Rowley, MAA	44
2 ix.	Example: 50.370.D; Igloolik, G. Rowley, MAA	44
2 x.	Example: RbJr-1; Porden Point, R. McGhee, ASC	45
2 xi.	Example: 50-370.D; Igloolik, G. Rowley, MAA	45
4 iiib.	a) C45.1-214; Igloolik, Father Bazin, EM	63
	b) C45.1-259; Igloolik, Father Bazin, EM	63
	c) 51.46.A; Port-au-Choix II, E. Harp, PMN	63
4 iv	a) Al-22-c2; Port-au-Choix II, E. Harp, PMN	64
	b) SgFm-5-21; Ellesmere Island, P. Schledermann, AINA	64
	c) -- ; Hall Beach, F. Winkelaar, --	64

4 v.	a)	L8960; Umanaq District, J. Meldgaard, NM	64
	b)	JlGu-5-293; Mansel Island, W. Taylor, ASC	64
	c)	PfFm-1-405, Button Point, G.M. Rousseliere, ASC	64
4 vi.	a)	256.50.407.A; Igloolik, G. Rowley, MAA	64
	b)	Ql-2l-D; Port-au-Choix II, E. Harp, PMN	64
5 iii.	a)	Al30l-118; Igloolik, J. Meldgaard, ASC	66
6 i.	a:a)	RbJr-1; Porden Point, R. McGhee, ASC	67
	b)	C45.1-266; Igloolik, Father Bazin, EM	67
	c)	L3-12031; Thule District, E. Holtved, NM	67
6 i.	b:a)	1494.50.3490; Igloolik, G. Rowley, MAA	67
	b)	IX-C-4632; Belcher Islands, G.I. Quimby, ASC	67
6 i.	c:a)	IhCu-1-664; Northern Labrador, W. Fitzhugh, PMN	67
	b)	HdCg-2-6326; Northern Labrador, W. Fitzhugh, PMN	67
	c)	QjLd-17-351; Karluk Island, J. Helmer, UC	67
6 i.	d:a)	---- ; Button Point, T. Mathiassen, NM	67
6 i.	e:a)	RaJu-1-109; Dundas Island, R. McGhee, ASC	68
6 i.	f:a)	QiId-1-1351; Bathurst Island, R. McGhee, ASC	68
	b)	SfFk-5-85; Skraeling Island, P. Schledermann, AINA	68
	c)	---- ; Shulldham Island, C. Thomson, PMN	68
6 i.	g:a)	--- ; Shulldham Island, C. Thomson, PMN	68
	b)	IX-B-99; Ivuguvik; J. Allan, ASC	68
	c)	QiId-1-951; Bathurst Island, R. McGhee, ASC	68
6 i.	h:a)	PfFm-1-2310; Button Point, G.M. Rousseliere, ASC	68
6 i.	i:a)	RaJu-1-137; Dundas Island, R. McGhee, ASC	68
	b)	C45.1-214; Igloolik, ---, EM	68
	c)	QiId-1-1130; Bathurst Island, R. McGhee, ASC	68
	d)	C45.1-215; Igloolik, ---, EM	68
	e)	IX-C:1106; Mansel Island, L.T. Burwash, ASC	69
	f)	50.466; Igloolik, G. Rowley, MAA	69
	g)	IX.B99b; Ivuguvik, J. Allan, ASC	69
	h)	A 1301-119; Igloolik, J. Meldgaard, ASC	69
	i)	KkFb-7-308; Sugluk Island, W. Taylor, ASC	69
	j)	PfFm-1-2302; Button Point, G.M. Rousseliere, ASC	69

6 i. j:	a) QjId-17:314; Karluk Island, J. Helmer, UC	69
	b) QiId-1-2300; Bathurst Island, R. McGhee, ASC	69
	c) J1Gu-3-523; Mansel Island, W. Taylor, ASC	69
	d) C45.1-325; Igloolik, -- , EM	69
	e) Lc-1154; Upernivik, K. Birket-Smith, NM	69
	f) QiId-1-2020; Bathurst Island, R. McGhee, ASC	69
	g) 50.411 P; Igloolik, G. Rowley, MAA	69
	h) 50.372; Igloolik, -- , EM	69
	i) QiId-1-2072; Bathurst Island, R. McGhee, ASC	69
	j) QiId-1-35; Bathurst Island, R. McGhee, ASC	69
6 i. k:	a) PFFm-1-1728; Button Point, G.M. Rousseliere, ASC	70
	b) PFFm-1-1772-1779; Button Point, G.M. Rousseliere, ASC	70
	c) FC-53; Port-au-Choix II, E. Harp, PMN	70
6 i. l:	a) A1501-455; Igloolik, J. Meldgaard, ASC	70
	b) K2001-11; Igloolik, J. Meldgaard, ASC	70
	c) M2010-251; Igloolik, J. Meldgaard, ASC	70
6 ii.a:	a) C45.1-265; Igloolik, -- , EM	71
	b) J1Gu-2-49; Mansel Island, W. Taylor, ASC	71
	c) J1Gu-2-101a; Mansel Island, W. Taylor, ASC	71
	d) 50.390.A; Igloolik, G. Rowley, MAA	71
	e) SgFm-3-96; Ellesmere Island, P. Schledermann, AINA	71
	f) QiId-1-2052; Bathurst Island, R. McGhee, ASC	71
6 ii.b:	a) J1Gu-1-22; Mansel Island, W. Taylor, ASC	71
	b) C72.1-36; Igloolik, -- , EM	71
	c) QiId-1-2404; Bathurst Island, R. McGhee, ASC	71
	d) 50.370.C; Igloolik, G. Rowley, MAA	71
	e) K0801-116; Igloolik, J. Meldgaard, ASC	71
	f) JaDb-10-3000; Northern Labrador, W. Fitzhugh, PMN	71
6 ii.c:	a) SgFm-3-265; Ellesmere Island, P. Schledermann, AINA	71
	b) C45.1-264; Igloolik, -- , EM	71
	c) PFFm-1-1786; Button Point, G.M. Rousseliere, ASC	71
	d) SgFm-5-128; Ellesmere Island, P. Schledermann, AINA	72
6 ii.d:	a) 436-50.407.I; Igloolik, G. Rowley, MAA	72
6 ii.e:	a) -- ; Shuldham Island, C. Thomson, PMN	72
6 ii.f:	a) 834-50.4430; Igloolik, G. Rowley, MAA	72
	b) 50.365.B; Igloolik, F. Rowley, MAA	73
	c) C45.1-154; Igloolik, -- , EM	73
	d) 885-50.447.D; Igloolik, G. Rowley, MAA	73
	e) 50.363; Igloolik, G. Rowley, MAA	73
	f) C45.1-159; Igloolik, -- , EM	73
	g) SgFm-3-369; Ellesmere Island, P. Schledermann, AINA	73

6 iii.b:a)	JaDb-10:3487; Northern Labrador, R. Jordan, PMN	73
b)	IX-B-388; Mansel Island, D. Leechman, ASC	73
c)	1138-50.446; Igloolik, G. Rowley, MAA	73
d)	QjLd-17-49; Karluk Island, J. Helmer, UC	73
e)	Bl001-34; Igloolik, J. Meldgaard, ASC	73
f)	QiLd-1-2409; Bathurst Island, R. McGhee, ASC	73
g)	1353-50.445.K; Igloolik, G. Rowley, MAA	73
h)	50.446; Igloolik, G. Rowley, MAA	74
i)	QiLd-1-1900; Bathurst Island, R. McGhee, ASC	74
j)	1311.50.445.H; Igloolik, G. Rowley, MAA	74
6 iii.c:a)	A 1501-351; Igloolik, J. Meldgaard, ASC	75
b)		75
c)	NiHf-4-13; Igloolik, G. Rowley, ASC	75
d)	L8960; Umanaq District, J. Meldgaard, NM	75
e)	Al501-973; Igloolik, -- , EM	75
f)	KkFb-7-67a; Sugluk Island, W. Taylor, ASC	75
g)	M2201-712; Igloolik, J. Meldgaard, ASC	75
h)	!1501-153; Igloolik, J. Meldgaard, ASC	75
6 iv. a:a)	50.4046; Igloolik, G. Rowley, MAA	76
6 iv. b:a)	JlGu-3-515; Mansel Island, W. Taylor, ASC	76
b)	312-50.404F; Igloolik, G. Rowley, MAA	76
c)	50.370A; Igloolik, G. Rowley, MAA	76
6 iv. c:a)	A 1501-117; Igloolik, J. Meldgaard, ASC	76
b)	64-52B; Port-au-Choix II, E. Harp, PMN	76
6 iv. d:a)	SgFm-4-576; Ellesmere Island, P. Schledermann, AINA	76
b)	SfFk-4-1124; Skraeling Island, P. Schledermann, AINA	76
c)	H2-50-C; Port-au-Choix II, E. Harp, PMN	77
d)	NiNg-8-14; Victoria Island, W. Taylor, ASC	77
e)	IX-C-5538; Mill Island, D. O'Brien, ASC	77
f)	Bl-23-01; Port-au-Choix II, E. Harp, PMN	77
6 iv. e:a)	K4-16B; Port-au-Choix II, E. Harp, PMN	77
b)	12-49B; Port-au-Choix II, E. Harp, PMN	77
6 iv. f:a)	JaDb-10-2801; Northern Labrador, R. Jordan, PMN	77
6 iv. g:a)	Bl001-64; Igloolik, J. Meldgaard, ASC	78
6 iv. h:a)	QiLd-1-2622; Bathurst Island, R. McGhee, ASC	78
6 iv. i:a)	QiLd-1-2304; Bathurst Island, R. McGhee, ASC	78
6 iv. j:a)	SgFm-5-21; Ellesmere Island, P. Schledermann, AINA	78

6 v. a: a)	IX-C-5522; Mill Island, Derek O'Brien, ASC	78
6 vi. a:a)	---; Shuldham Island, C. Thomson, PMN	79
b)	---; Shuldham Island, C. Thomson, PMN	79
c)	QiId-1-819; Bathurst Island, R. McGhee, ASC	79
d)	SgFm-3-97; Ellesmere Island, P. Schledermann, AINA	79
e)	IX-B-243; Nuvuk Island, D. Leechman, ASC	79
f)	SgFm-5-135; Ellesmere Island, P. Schledermann, AINA	79
6 vi. b:a)	Ql-23-C; Port-au-Choix II, E. Harp, PMN	79
b)	-- ; Shuldham Island, C. Thomson, PMN	79
c)	PfFm-1-1746; Button Point, G.M. Rousseliere, ASC	79
d)	KkFb-7-67b; Sugluk Island, W. Taylor, ASC	79
6 vi. c:a)	50.406.A; Igloolik, G. Rowley, MAA	79
b)	50.406.B; Igloolik, G. Rowley, MAA	79
c)	SgFm-5-22; Ellesmere Island, P. Schledermann, AINA	79
d)	51.46.A; Port-au-Choix II, E. Harp, PMN	79
e)	Y4-13C; Port-au-Choix II, E. Harp, PMN	79
f)	Sffk-4-18; Skraeling Island, P. Schledermann, AINA	79
6 vi. d:a)	C45-1-259; Igloolik, -- , EM	80
b)	QiId-1-966; Bathurst Island, R. McGhee, ASC	80
c)	JlGu-2-34; Mansel Island, W. Taylor, ASC	80
d)	PfFm-1-413; Button Point, G.M. Rousseliere, ASC	80
e)	Pl2018; Baffin Island, T. Mathiassen, NM	80
f)	PfFm-1-414; Button Point, G.M. Rousseliere, ASC	80
g)	QjId-17-305; Karluk Island, J. Helmer, UC	80
h)	QiLf-25-154; Bathurst Island, J. Helmer, UC	80
i)	QiLf-25-167; Bathurst Island, J. Helmer, UC	80
j)	PfFm-1-411; Button Point, G.M. Rousseliere, ASC	80
k)	1009-50.4476; Igloolik, G. Rowley, MAA	80
l)	PfFm-1-2244; Button Point, G.M. Rousseliere, ASC	80
6 vi. e:a)	K1702-1; Igloolik, J. Meldgaard, ASC	80
6 vi. f:a)	PfFm-1-955; Button Point, G.M. Rousseliere, ASC	81
6 vi. g:a)	QjId-17-207; Karluk Island, J. Helmer, ASC	81
6 vi. h:a)	C45.1-235; Igloolik, -- , EM	81
6 vi. i:a)	C45.1-245; Igloolik, -- , EM	81
b)	QiLf:25-161; Bathurst Island, J. Helmer, UC	81
c)	PfFm-1-1916; Button Point, G.M. Rousseliere, ASC	81
d)	JlGu-3-433; Mansel Island, W. Taylor, ASC	81
6 vi. j:a)	C45.1-246; Igloolik, -- , EM	81

6 vi. k:a)	C45.1-257; Igloolik, Father Bazin, EM	81
b)	R1201-51; Igloolik, J. Meldgaard, ASC	81
6 vi. l:a)	861-50.407.E; Igloolik; G. Rowley, MAA	81
6 vi. m:a)	QjId-14-2; Karluk Island; J. Helmer, UC	82
b)	Al501-423; Igloolik, J. Meldgaard, ASC	82
6 vi. n:a)	C45.1-241; Igloolik, Father Bazin, EM	82
b)	CL-25-C; Port-au-Choix II, E. Harp, PMN	82
c)	A-1920-2; Igloolik, J. Meldgaard, ASC	82
6 vi. o:a)	5148.B5; Port-au-Choix II, E. Harp, PMN	82
b)	KkFb-7-237; Sugluk Island, W. Taylor, ASC	82
6 vi. p:a)	C45.1-251; Igloolik, Father Bazin, EM	82
b)	C45.1-250; Igloolik, Father Bazin, EM	82
c)	FC-53; Port-au-Choix II, E. Harp, PMN	83
d)	PA-57-A; Port-au-Choix II, E. Harp, PMN	83
e)	J2-51-!; Port-au-Choix II, E. Harp, PMN	83
6 vi. q:a)	HjCl-5; Port-au-Choix II, E. Harp, PMN	83
b)	523-50.444; Igloolik, G. Rowley, ASC	83
c)	PfFm-1-1741; Button Point, G.M. Rousseliere, ASC	83
d)	SgFm-3-327; Ellesmere Island, P. Schledermann, AINA	83
e)	QiId-1-2160; Bathurst Island, R. McGhee, ASC	83
f)	C45.1-262; Igloolik, Father Bazin, EM	83
6 vi. r:a)	C45.1-261; Igloolik, Father Bazin, EM	83
b)	A 1301-116; Igloolik, J. Meldgaard, ASC	83
c)	QiId-1-1825; Bathurst Island, R. McGhee, ASC	84
6 vi. s:a)	--- ; Shuldham Island, C. Thomson, PMN	84
6 vii.a:a)	QjId-17-410; Karluk Island, J. Helmer, UC	84
b)	QjId-17-291; Karluk Island, J. Helmer, UC	84
6 vii.b:a)	957-50.410.H; Igloolik, G. Rowley, MAA	84
b)	L32268; Thule District, E. Holtved, NM	84
c)	C45.1-81; Igloolik, Father Bazin, EM	84
6 vii.c:a)	JlGu-1-82; Mansel Island, W. Taylor, ASC	85
b)	QiId-1-1451; Bathurst Island, R. McGhee, ASC	85
c)	L3740; Thule District, E. Holtved, NM	85
d)	JlGu-2-66; Mansel Island, W. Taylor, ASC	85
e)	38-50.406.H; Igloolik, G. Rowley, MAA	85
f)	QiId-1-821; Bathurst Island, R. McGhee, ASC	85

		169
6 vii.d:a)	SgFm-4-62; Ellesmere Island, P. Schledermann, AINA	85
b)	C45.1-83; Igloolik, Father Bazin, EM	85
6 vii.e:a)	50.371.B; Igloolik, G. Rowley, MAA	85
b)	L3476; Thule District, E. Holtved, NM	85
6 viii.a:a)	QiId-1-1515; Bathurst Island, R. McGhee, ASC	85
b)	1103.50.415.D; Igloolik, J. Meldgaard, ASC	85
c)	A1301-120; Igloolik, J. Meldgaard, ASC	85
d)	PfFm-1-2322; Button Point, G.M. Rousseliere, ASC	85
e)	PfFm-1-1879; Button Point, G.M. Rousseliere, ASC	85
6 viii.b:a)	IX-C-2827; North Devon Island, T. Harwood, ASC	86
b)	KkFb-1-85; Ivuguvik, W. Taylor, ASC	86
6 viii.c:a)	A2106-128; Igloolik, J. Meldgaard, ASC	86
b)	F2005-80; Igloolik, J. Meldgaard, ASC	86
6 viii.d:a)	PfFm-1-1750; Button Point, G.M. Rousseliere, ASC	86
6 viii.e:a)	C45.1-210; Igloolik, Father Bazin, EM	87
b)	SgFm-5-3; Ellesmere Island, P. Schledermann, AINA	87
6 viii.f:a)	PfFm-1-1969; Button Point, G.M. Rousseliere, ASC	87
b)	PfFm-1-1968; Button Point, G.M. Rousseliere, ASC	87
6 ix. a:a)	KkFb-7-147; Sugluk Island, W. Taylor, ASC	87
b)	KkFb-7-131; Sugluk Island, W. Taylor, ASC	87
c)	PfFm-1-2273; Button Point, G.M. Rousseliere, ASC	88
d)	T1-44-D; Port-au-Choix II, E. Harp, PMN	88
e)	J1Gu-5-68; Mansel Island, W. Taylor, ASC	88
f)	W3-19-D; Port-au-Choix II, E. Harp, PMN	88
g)	D1-25-D2; Port-au-Choix II, E. Harp, PMN	88
h)	T2-31-d; Port-au-Choix II, E. Harp, PMN	88
i)	I2-48; Port-au-Choix II, E. Harp, PMN	88
j)	H12-M4-17-B; Port-au-Choix II, E. Harp, PMN	88
k)	FC-53; Port-au-Choix II, E. Harp, PMN	88
l)	J4-19-8; Port-au-Choix II, E. Harp, PMN	88
m)	B1-23-C2; Port-au-Choix II, E. Harp, PMN	88
n)	E1-28C; Port-au-Choix II, E. Harp, PMN	88
o)	C1-25-A2; Port-au-Choix II, E. Harp, PMN	88
p)	A2106-127-50; Igloolik, J. Meldgaard, ASC	88
q)	C45.1-219; Igloolik, Father Bazin, EM	88
r)	QiId-17-92; Karluk Island, J. Helmer, UC	88
s)	R3-55-B; Port-au-Choix II; E. Harp, PMN	88
t)	E1-25-C1; Port-au-Choix II; E. Harp, PMN	88
6 ix. b:a)	C 45.1-539; Igloolik, Father Bazin, EM	89
b)	KkFb-7-400a; Sugluk Island, W. Taylor, ASC	89

6 iv. d:	a) KkFb-7-179; Ungava, W. Taylor, ASC	89
	b) C45.1-105; Igloolik, Father Bazin, EM	89
	c) J1Gu-6-113; Mansel Island, W. Taylor, ASC	89
	d) J1Gu-6-80a; Mansel Island, W. Taylor, ASC	89
6 x. a:	a) IX-C-5554; Mill Island, D. O'Brien, ASC	89
	b) IX-B-276; Nuvuk Island, D. Leechman, ASC	89
	c) Q1Id-1-1315; Bathurst Island; R. McGhee, ASC	89
	d) C45.1-267; Igloolik, Father Bazin, EM	89
6 x. b:	a) SgFm-3-229; Ellesmere Island, P. Schledermann, AINA	89
	b) KkFb-7-67e; Sugluk Island, W. Taylor, ASC	89
	c) 1332-50.407.L; Igloolik, G. Rowley, MAA	89
	d) C45.1-233; Igloolik, Father Bazin, EM	89
	e) 224-50.406G; Igloolik, G. Rowley, MAA	89
6 x. c:	a) --- ; Port-au-Choix II; E. Harp, PMN	90
6 xi. c:	a) R3-55-1; Port-au-Choix II; E. Harp, PMN	90
	b) FC-53; Port-au-Choix II; E. Harp, PMN	90
	c) B1-23-C2; Port-au-Choix II, E. Harp, PMN	90
	d) W4.17.0; Port-au-Choix II, E. Harp, PMN	90
	e) ---; Port-au-Choix II, E. Harp, PMN	90
	f) F1-53; Port-au-Choix II, E. Harp, PMN	90
	g) SgFm-5-90; Port-au-Choix II, E. Harp, PMN	90
8 i.	a) PfFm-1-1728; Button Point, G.M. Rousseliere, ASC	94
8 ii.	a) Sffk-5-85; Skraeling Island, P. Schledermann, AINA	94
8 iii.	a) PfFm-1-2; Button Point, G.M. Rousseliere, ASC	95
	b) SgFm-17-4 ; Ellesmere Island, P. Schledermann, AINA	95
8 iv.	a) Sffk-4-1795; Skraeling Island, P. Schledermann, AINA	95
9	a) PfFm-1-2; Button Point, G.M. Rousseliere, ASC	95
	b) PfFm-1-1768; Button Point, G.M. Rousseliere, ASC	95

Appendix A

11 i.	Example: SgFm-3-265; Ellesmere Island, P. Schledermann, AINA	149
11 ii.	Example: IX-B-388; Mansel Island, D. Leechman, ASC	149

12 ii.	Example: M2-101-250; Igloolik, J. Meldgaard, ASC	150
12 iii.	Example: 834-50.443P; Igloolik, G. Rowley, MAA	150
13 i.	Example: C45.1-270; Igloolik, Father Bazin, EM	151
13 ii.	Example: IX-C-4313e; Igloolik, Father Dutilly, EM	152
14 i.	Example: K4.16B; Port-au-Choix II, E. Harp, PMN	152
	Variables:	
	a) C-45.1-259; Igloolik, Father Bazin, EM	153
	b) Y4-13c; Port-au-Choix II, E. Harp, PMN	153
14 ii.	Example: FC-53; Port-au-Choix II, E. Harp, PMN	153
	Variables:	
	a) QjId-17-337; Karluk Island, J. Helmer, UC	153
	b) QiId-1-966; Bathurst Island, R. McGhee, ASC	153
	c) H2-50-C; Port-au-Choix II, E. Harp, PMN	153
15	Example: B-1000-34; Igloolik, J. Meldgaard, ASC	154
16	Example: A1501-351; Igloolik, J. Meldgaard, ASC	155
17 i.	526-50.407; Igloolik, G. Rowley, MAA	156
17 ii.	a) 648-50.406.7; Igloolik, G. Rowley, MAA	156
	b) A1720-1; Igloolik, J. Meldgaard, ASC	156
	c) QiId-1-966; Bathurst Island, R. McGhee, ASC	156
	d) A1720-1; Igloolik, J. Meldgaard, ASC	157
	e) L3730; Thule District, E. Holtved, NM	157
	f) KkFb-7-67b; Sugluk Island, W. Taylor, ASC	157
	g) QiId-1-819; Bathurst Island, R. McGhee, ASC	157
	h) 64-52B; Port-au-Choix II, E. Harp, PMN	157
	----- ; Baffin Island, T. Mathiassen, NM	157
	i) ----- ; Shuldham Island, C. Thomson, PMN	157
17 iii.	a) -- ; Button Point, T. Mathiassen, NM	158
	b) PFFm-1-1769; Button Point, G.M. Rousseliere, ASC	158
17 iv.	a) QjId-17-351; Karluk Island, J. Helmer, UC	158
17 v.	a) 526-50.407.D; Igloolik, G. Rowley, MAA	158

		172
18	i. Example: NiHf-4-115; Igloolik, G. Rowley, ASC	159
18	ii. Example: Al501-973; Igloolik, --- , EM	160
19	Example: Pl2196; Baffin Island, T. Mathiassen, NM	160

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