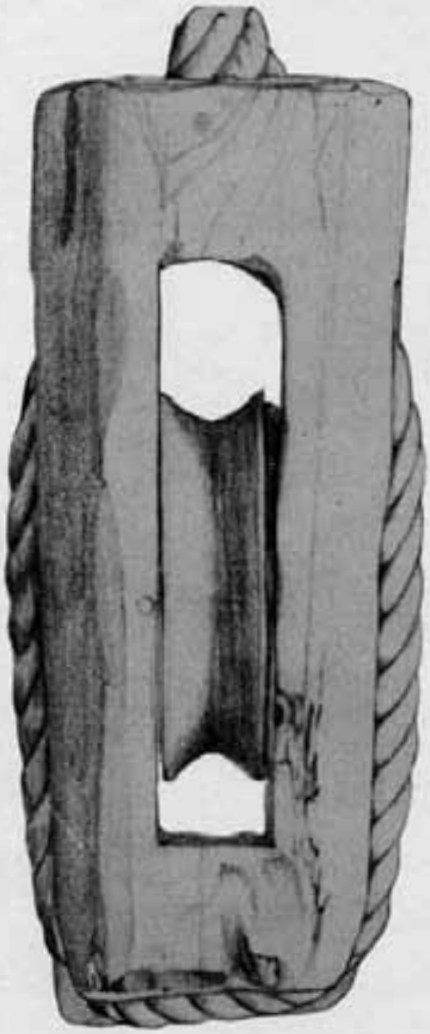
ARCHAEOLOGY IN NEWFOUNDLAND & LABRADOR 1981



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ANNUAL REPORT No. 2

HISTORIC RESOURCES DIVISION
DEPARTMENT OF CULTURE, RECREATION & YOUTH
GOVERNMENT OF NEWFOUNDLAND & LABRADOR

ARCHAEOLOGY IN NEWFOUNDLAND & LABRADOR 1981

Annual Report # 2

Edited by: Jane Sproull Thomson
Callum Thomson

Historic Resources Division
Department of Culture, Recreation & Youth
Government of Newfoundland & Labrador
St. John's, Nfld.
January 1982

Cover drawing courtesy D. Kappler, Parks Canada: 16th century ship's block from Red Bay underwater site (see Grenier, this volume)

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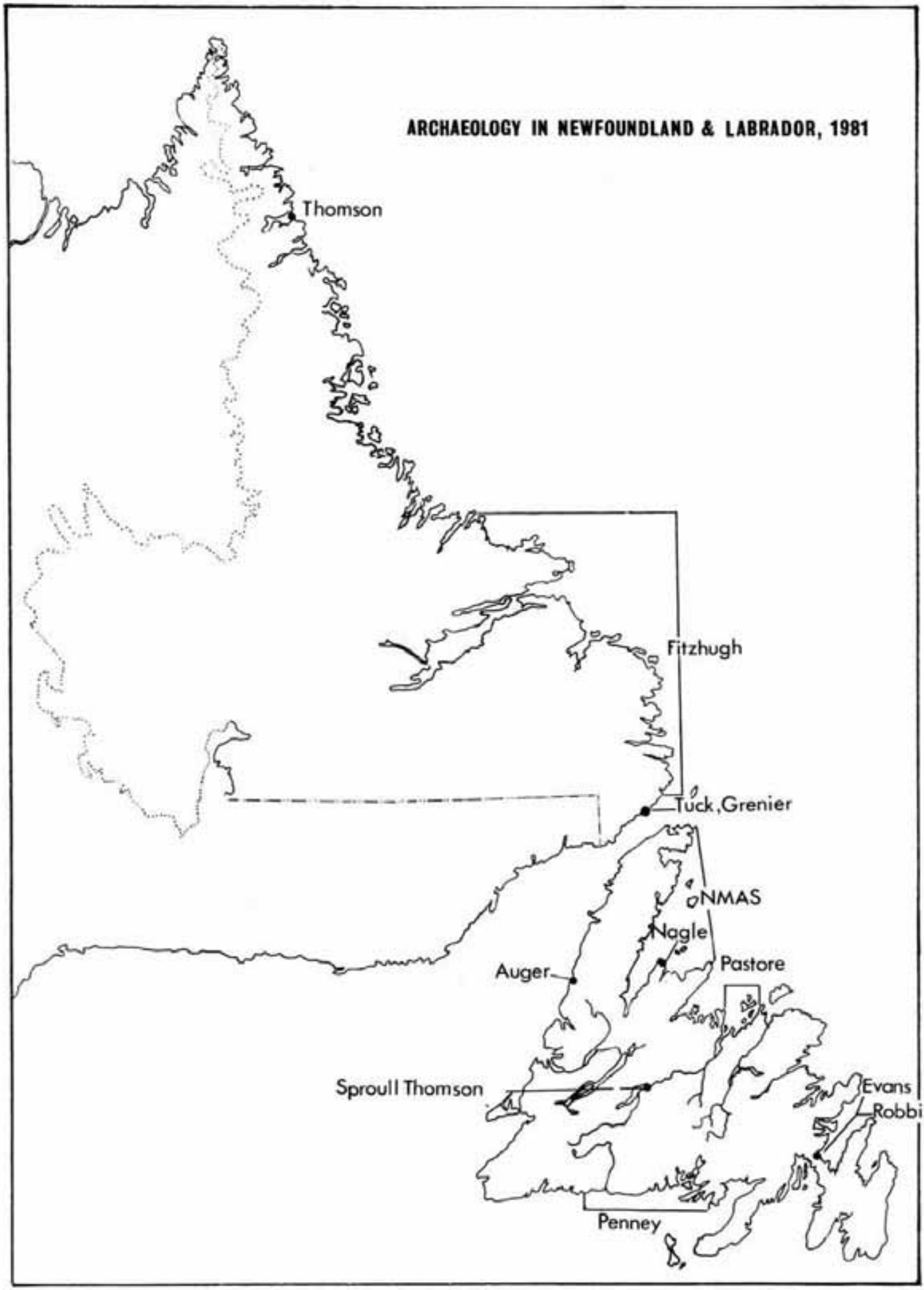
ARCHAEOLOGY IN NEWFOUNDLAND & LABRADOR, 1981
Thomson
Fitzhugh
Tuck, Grenier
NMAS
Nagle
Pastore
Auger
Sproull Thomson
Evans
Robbins
Penney

INTRODUCTION

Jane Sproull Thomson
Provincial Archaeologist

Publication of the 1981 reports is in some ways a vindication of the motives which spawned the first edition in 1980. The aims of the new series were multiple, and it was aimed at both public and academic audiences. While there was the desire to meet the needs of research interests, it was also necessary to provide a brief, readable report to the people of the province, who provide the funding for our projects. Since most research is published eventually in a more lengthy format as theses or research reports, it was never our intention to publish conclusive material in this series. Final products, however, are often years in the production, and the decision to publish preliminary fieldwork results was largely a response to a perceived need for published information immediately after its recovery. Perhaps it is in this function that the 1980 volume was most enthusiastically received among archaeologists. The universal response was that the fast publication was most welcome, compensating for a somewhat inelegant appearance. Hence we have decided to cling to the processes which enable us to achieve this end rather than attempting time-consuming cosmetic improvements. The result is again inelegant but rapid.

We could not achieve quick publication without the support of the contributors. In many cases these authors have postponed their research in order to oblige us, and their efforts are greatly appreciated. We emphasize that these reports are of a preliminary nature and may ultimately be extensively revised.

1981 saw the continuation of the Beothuck, Red Bay, Frenchmen's Island and Shuldham Island Projects, as well as continued surveys along the south coast of the Island and central Labrador. New work begun included a survey for underwater wrecks along the Great Northern Peninsula by the N.M.A.S, two graduate projects by Memorial University students on Dorset Eskimo sites at Cow Head and Stock Cove, and an examination of the soapstone quarry site at Fleur de Lys. Additionally, assessments were undertaken for development projects at Lake Michel, Dry Pond Brook, Bay du Nord and Cat Arm. (These reports are not included in this volume but are available for inspection at Historic Resources Division.)

As predicted in the 1980 Introduction, the new Environmental Assessment Act has had an impact on archaeology in the Province. In 1981, approximately twenty requests for assessment opinions were processed at the Historic Resources Division. At the time of writing, the draft Regulations for the Act are awaiting final approval, and it is anticipated that activity will increase

again once these are in place. As a response to the increased pressure of development activity, Historic Resources Division has assembled guidelines, based on those in effect in British Columbia, which include a format for assessment reports. These guidelines have already had a favourable impact on the assessment process as it concerns historic resources in that they reduce the possibility of rejection of an E.I.S. by our office as well as streamlining our review. For the assistance they gave me in preparing to cope with the new Act, I would like to extend sincere appreciation to my colleagues in corresponding Departments in Ontario, Alberta and British Columbia.

While most of the above is encouraging, the comments of several archaeologists regarding site damage in the past season contribute a foreboding note. The principal concern seems to regard activity on the Island, where artifact collectors and vandals have disregarded the pleas of researchers, occasionally damaging sites even while excavation is taking place. Although the RCMP have occasionally been brought in to enforce the Act respecting Historic Objects, Sites and Records, this is not a desirable answer to the problem. If we are to achieve any effective resolution, we must be prepared to increase our efforts to involve the public in a meaningful and active manner. In order to do this, the researcher must be given incentive

and reward for his/her willingness to disrupt work on the site and to contribute time and effort to the cause. The problem is not a simple one and easy solutions are unavailable.

GRANTS

Grants made by the Historic Resources Division for 1981:

Reginald Auger (Factory Cove)	$ 4,000.
Clifford Evans (Frenchmen's Cove)	2,000.
Stephen Loring (Davis Inlet-Voisey Bay) Archaeology-Ethnology project to take place winter 1982	3,800.
Christopher Nagle (Fleur de Lys)	2,500.
N.M.A.S. (survey)	12,000.
Gerald Penney (Grandy's Brook-Burgeo)	1,600.
Douglas Robbins (Stock Cove)	4,000.
Callum Thomson (Shuldham Island)	4,000.
James Tuck (Red Bay)	1,200.
TOTAL	$35,100.

ARCHAEOLOGICAL FINDINGS FROM SAGLEK BAY, 1981

Callum Thomson

Anthropology Department

Memorial University of Newfoundland

INTRODUCTION

The main objectives of this year's extension to the 1980 Shuldham Island Archaeological Project (Thomson 1981a) were to complete excavation at Shuldham 9 of the House 1 and 2 locations, including the middens; to test the remaining houses and the rest of the terrace in order to establish the geographic and chronological extent of the site; to excavate one other complete structure, preferably one with a large proportion of Late Dorset tools; and to discover how many structures contained evidence of the intriguing soapstone figurine carving industry so rare in arctic archaeology and so richly represented at this site (Sproull Thomson and Thomson 1981; Thomson 1981b). In addition, surveys were to be made around the mouth of Saglek Bay in an attempt to discover the source(s) of the soapstone so abundant at Shuldham 9 and, incidentally, to record previously unreported sites.

SHULDHAM 9 (IdCg-22)

Described in more detail in the 1980 Annual Report

in this series (Thomson 1981a), Shuldham Island lies in the mouth of Saglek Bay, Northern Labrador, at latitude 58° 30' N, some fifty kilometres north of the present treeline. As can be expected from its strategic location on north-south routes of trade, resource procurement and population movement, Shuldham Island played host to Palaeo - and Neo-Eskimo peoples and various Indian groups over the past 4,000 years or more. Shuldham 9 is located at the southeast corner of the island, a particularly heavily populated area. The site contains six or more semi-subterranean house ruins dug into a terrace which has seen occupation since at least Early Dorset times. In addition, there are several tent rings and caches on the richly-vegetated terrace and gravel beach. The main part of the site sits 4.5 m above sea level, facing southeast across a small sheltered cove to the south shore of Saglek Bay (Plate 1 B). The fifteen kilometre wide Bay mouth would always have held the resources - rich sina within twenty kilometres of Shuldham 9. Summer, too, is and probably was a season of plentiful game. This summer we witnessed beluga and minke whale, ringed seal, harp seal and arctic char in our small bay, at least ten caribou on the island and several hundred on the nearby mainland, fox, huge flocks of eider and scoter, geese and

other edible birds and their eggs. Analysis of the faunal material recovered from this site in 1980 showed the presence of all of the above mammals as well as walrus, polar bear, black bear, harbour seal, grey seal, bearded seal, large whale and dog (Kolar and Salter 1981).

House 1, at the south end of the terrace, appears to have been the most highly favoured building lot. In 1980, we recovered artifacts of Maritime Archaic and Point Revenge Indian, Pre-Dorset, Early, Middle and Late Dorset, Thule and Labrador Inuit cultural styles. Charcoal samples provided radiocarbon dates which most likely place each of the last three occupations above: 610 ± 80 BP (Beta 2409), 390 ± 70 BP (Beta 2410) and 130 ± 60 BP (Beta 2408). The AD 1340*date compares well with unpublished Late Dorset dates ranging from AD 1225 - AD 1285*obtained by the Torngat Archaeological Project between McLelan Strait and Nachvak Fjord (Richard Jordan 1981: personal communication). Late Dorset artifacts from House 1 correspond favourably with those from the Late Dorset level at Avayalik 1 (Jordan 1980), dated at AD 1280* (SI3864), and with the inventory from Okak 3 (Cox 1977), dated at AD 945* (SI 2154) and AD 1055 *(SI 2506). (*-A.D. dates approximate: see P.23)

A large number of additional Late Dorset tools were recovered from the eastern expansion of House 1 this

summer, including bifacial triangular endblades, diagonal knives and scrapers, broadly-notched and stemmed bifaces and other artifacts exhibiting the grosser dimensions more generally associated with Late than with any other Dorset phase (Plate 2: a, b, d-f, h, i, k, m). While little of the paved platform remained intact due to later robbing of flagstones, it appeared that this feature at the eastern side of the excavated house depression belonged to a shallow Late Dorset winter house, while the more substantial and complete semi-subterranean house to the west side was of Neo-Eskimo affiliation. Artifact distribution and location of dated charcoal samples tend to support this evidence. The Neo-Eskimo house shape and size and the date of AD 1560 associated with it all conform well with early Thule houses excavated by Peter Schledermann on Rose Island, a few kilometres west up Saglek Fjord (Schledermann 1971). The three ground slate end blades found also match Schledermann's quite closely.

A second Point Revenge Indian style point was found this year (Plate 2: c), supporting the theory that these southern Indians came north to obtain the Ramah chert so prevalent in their sites rather than requiring a Dorset movement south to trade. This point was almost complete,

with deep, narrow corner notches, a slightly concave base, asymmetrical lateral edges and a resemblance to material from Big Island, Groswater Bay, dating to the 13th century AD (Fitzhugh 1972). While no Point Revenge sites have yet been identified with certainty this far north, Fitzhugh's preliminary work at Maidmont's Island, twenty kilometres south of Saglek, tentatively suggests their presence on the threshhold of the Ramah chert region (Fitzhugh 1981). It seems likely that a state of tolerance must have existed between the two cultures, with the Indian groups moving swiftly north to Saglek or Ramah to obtain their chert, wasting little time on the north coast before heading back south.

The soapstone inventory this year was, if anything, even more interesting than that of 1980 and was certainly more varied and extensive (cf Sproull Thomson and Thomson 1981). House 1 produced a large collection of miniature pots and lamps of many shapes, mostly ranging in size from 1 x 2 cm to 4 x 6 cm. One particularly interesting vessel was rectangular, about 3.5 x 6.0 x 2.5 cm, with vertical walls and an imitation suspension hole incised at each corner of the rim (Plate 3: c). While possibly of Thule origin, its careful execution, lack of drilled suspension holes and similarity of material to more obvious Dorset

carvings indicate that this is a Dorset copy of a Thule pot seen elsewhere, possibly in one of the houses described below in the survey section. Few of the miniature vessels show any sign of having been used as lamps or cooking pots, even in play, so while some may have been toys, others may have been drinking vessels, portable blueprints for larger vessel manufacture, copies of unusual pots and lamps seen in other camps, storage receptacles and ornaments.

Visually more exciting were the human and animal carvings. This year we added two more polar bears, one in a particularly captivating pose, apparently wounded, pregnant or both, straining to extend its hind legs, distended belly dragging the ground (Plate 3: a). A probable third bear has a human being straddling its back as in the Inuit myth telling of the shaman's ability to ride a polar bear, his helping spirit (Plate 4: e). Our family of human representations was considerably expanded this year by several hooded and high-collared figures, face clusters and, extraordinarily, pots and pot fragments with faces incised on their bases. (Plate 4) a, c-e, h, j-l). One of the complete human figures (Plate 4: c, d) has a high collar, a parka ending at the waist, arms, facial features plainly discernible, and

legs divided by a slot which might have served as a suspension hole, the first of the carvings to display this feature. This figure, when held sideways, seems to be in an attitude one would adopt when flying or diving through the water. The back has been gouged with a deep slit, perhaps denoting an attempted ritual killing. The depiction of both Neo-Eskimo-style hooded parka and Dorset-style high-collared garment either raises some doubt as to the strictness of the Dorset dress code, perhaps influenced in its late stages by Thule fashions, or may indicate imitation of Thule or other strangers entering the Dorset world. Other representations include a flying owl and the head of an eider, delicately carved in a soft green stone (Plate 4:o).

Naturally, the possibility of Thule, not Dorset, origin has been agonized over many times for these carvings. The repeated occupation of the Shuldham 9 site and the consequent lack of undisturbed stratigraphy, the presence of a few Neo-Eskimo artifacts and the nature of some of the carvings all contribute doubt, yet the fixation with the polar bear as in other Dorset sites, the multiple faces, occasional good stratigraphic and relative positioning and comparison with other proven Dorset art all support the probability of Late Dorset art and artisanship.

While the House 1 excavation had been extended to over 100 square metres, the season ended with large numbers of artifacts still being recovered from the seaward squares down the bank sloping from terrace to active beach. No time remained in which to remove the Neo-Eskimo or Late Dorset structural rocks, but the walls, midden and rubble to the east side undoubtedly contain many more artifacts, carvings and, perhaps, discernible house remains. The Middle Dorset inventory is as large as or larger than that of Late Dorset, indicating the probable presence of parts of at least one earlier structure. Early and Pre-Dorset tools were also recovered in numbers high enough to positively indicate their occupation of the same location.

House 2 was similarly excavated to fully delimit the Late Dorset midpassage structure, which almost certainly overlies earlier house remains (Plate 1 A). The Late Dorset semi-subterranean house measured approximately 5 x 5 m, with a 1 m wide mid-passage lined by vertically set oblong rocks separating two paved side platforms. A hearth was located at each end of the passage, suggesting that entry to the house was made onto one of the side platforms, rather than directly into the mid-passage. Vestiges of a second, earlier, mid-passage and several over-

lying sets of floor paving slabs, indicate repeated Late Dorset occupation. At least 40 cm of cultural material, including structural features, remain intact below parts of the excavated level. A charcoal sample collected from one of the hearths in 1980 was dated at 600^{+}- 60 BP (Beta 2411), corresponding neatly with the Late Dorset date from House 1. The artifact inventory from this house was similar to that from House 1, 10 metres to the south, and included Late (Plate 2: g,j,l), Middle and Early Dorset tools. Soapstone carvings included three more birds (Plate 4:m) a polar bear, several human figurines, faces and face clusters (Plate 4: b,i), and what is probably the first example of Dorset erotica. This small soapstone carving measures about 2.5 x 1.5 x 1.5 cm and illustrates two human figures, at least one of which is obviously male, in a close embrace (Plate 4: f, g). The four limbs are so carved as to make it difficult to positively separate arms from legs and, as the heads are missing, the end to end relationship of the two persons is open to speculation. This is without question the most unusual piece found this summer and provides yet another glimse of this artisan's whimsical view of life.

The third structure excavated in 1981 was a large rectangular tent ring at the extreme north end of the

terrace (Plate 1 B). This had been tested in 1977 by Steven Cox of the Torngat Archaeological Project and was found to contain Late Dorset material (Cox 1980: personal communication). Thinking this might possibly be the result of a Neo-Eskimo tent ring having been placed on top of a Late Dorset midden connected to neighbouring House 5, especially as it lay some 100 cm lower than the house depressions, we tested it ourselves in 1980. On the basis of our finding almost exclusively Late Dorset tools and no Neo-Eskimo material, we decided to excavate further this year. We found that the 10 cm deep gravelly deposit contained a large proportion of Late Dorset tools, several pieces of iron and a few Middle Dorset items. We thus concluded that the structure was a Late Dorset tent ring placed over a scattered Middle Dorset midden emanating from House 5 and that the iron was intrusive from a Neo-Eskimo or late Indian occupation elsewhere on the terrace. Included among the artifact inventory was a 3 cm high soapstone carving of a standing owl with large, staring eyes, a ferocious beak and tightly clenched talons (Plate 4: n). The realism of this piece, its style, degree of attention to detail and choice of fine raw material clearly link this structure to House 1 and 2 and suggest multi-seasonal occupation of this site by the

same artist.

Testing of the Shuldham 9 terrace revealed a black cultural level containing Dorset material as deep as 40 cm below the surface as far back as 20 m beyond the semi-subterranean houses, suggesting a more extensive occupation of this site than is evidenced by the house depressions. An area of at least 1800 square metres produced Dorset lithic material, supporting the visual evidence that this was and remains an ideal settlement area, complete with shelter from north and south, sea and sea-ice view south, east and west, abundant fresh water, an easily approachable, protected beach, plentiful building materials, proximity to game in winter at the sina and in summer, on and around the island and on the neighbouring mainland, and local availability of lithic raw materials.

SURVEYS

Little time was available for survey work this year, but we did find two interesting sites. One (ldCq-45), discovered by John Maunder, a visiting natural historian cataloguing local flora and fauna and at the time chasing elusive butterflies, consisted of two semi-subterranean sod houses sharing a common side wall, nestled at the foot of a south-facing hill overlooking the Shuldham 9

Site on the shore, a good half-kilometre away (Plate 1 B). Each house had a raised sleeping platform and its own entrance passage, one with a lintel stone still in place. Internal dimensions were approximately 3 x 3 m while the walls were at least 1 m thick. A test pit in the entrance passage of one house produced two Ramah chert flakes and a small, green, ground slate endblade. The surface of this point was ground so as to produce three facets on each side; it had not been drilled for a line hole. The speculation was raised that these houses may have been occupied by Thule people contemporaneously with the Late Dorset group on the shore below them, with some limited interaction taking place until, at a later date following the departure of the Dorset families, the Thule moved into the Shuldham 9 site.

A second notable site (lcCq-8) was discovered by Eric Loring on a promontory 8 m above sea level, where St. John's Harbour empties into Saglek Bight. The site consists of a row of seven Pre-Dorset mid-passage structures spaced a metre or two apart along the edge of an escarpment. The site was mapped and photographed and a representative collection made of surface artifacts, but otherwise left undisturbed. The ten tools include several black chert biface fragments, a quartz crystal microblade, a grey

chert burin and endscrapers of Ramah chert, black chert and quartz crystal. This site probably dates quite late in the early Palaeo-Eskimo period.

Several evenings were spent investigating reports of soapstone outcrops in an effort to locate the source or sources of the material so plentiful at Shuldham 9. While some outcrops were located, none came close to matching the quality or colours of stone used for the Late Dorset pots, lamps and carvings, and on no occasion a quarry or substantial amount was found. Since leaving the island in late August, several more reports of outcrops and some soapstone specimens have been received.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE WORK

The main objectives of this second season's work at Shuldham 9 were met in that the interior of the two Late Dorset houses were completely excavated and mapped and their middens and surrounding areas adequately tested; a third structure, thought to be a Late Dorset tent ring, was investigated; the terrace behind the semi-subterranean houses was tested to document the areal extent of the site; a faunal collection was made by which to assess seasonality and subsistence preferences; the unique collection of soapstone figurines was expanded both in subject matter and

number, further supporting the theory proposed in an earlier paper (Thomson 1981b) that sympathetic hunting magic and other shamanistic assistance were provided by the carver of these works of art, in contrast to the findings of Jordan (1979/80). While no other houses at the site, except for House 5, were tested, the fact that Tent Ring 1 produced soapstone carvings raises the probability that other structures were involved in some way in the art production. Every effort was made to locate the source of the soapstone, without success.

During the winter of 1981, analysis will be completed of the Shuldham Island material, the past season's contribution adding greatly to the picture partially assembled in 1980. The large inventory of Late Dorset tools and the variety of structures excavated supports the main thrust of this project: to isolate a Late Dorset component in Saglek Bay, thus extending the known Palaeo-Eskimo occupation of this region by some 1100 years beyond the preliminary findings of James Tuck (1975).

Further work at this site should concentrate on the removal of the Neo-Eskimo and Late Dorset structures in House 1 and the Late Dorset structure in House 2 in order to trace earlier Palaeo-Eskimo house remains. Excavation of the midden areas should also be completed. It would be

interesting to more thoroughly investigate the remaining houses on the terrace with a view to proving contemporaneity with Houses 1 and 2, perhaps by noting the presence of soapstone carvings in addition to more conventional dating methods. For now, these house depressions remain securely invisible to the untrained eye. Houses 1 and 2 were backfilled again, leaving only the central, apparently completely excavated portion open to view, in the hope that this will discourage unauthorized excavation. Another attempt should be made to locate the soapstone quarry or quarries in order to complement the artistic information provided by the carvings with technological information on extraction (cf Nagle, this volume).

TRAINING PROGRAMME

Crew members this year included Eric Loring, Hampshire College, David Allen, Cartwright, Gary Baikie and Simeon Hunter, Nain, Amy Zierler and Cam Mustard, St. John's and Jane Sproull Thomson, Newfoundland Museum. John Maunder also joined us for a week to carry out his own botanical and zoological study. It is the writer's contention that, as many northern residents express great interest in furthering their understanding of the cultural and other events which shaped the past and created our present environment, local involvement in scientific projects greatly benefits both local communities through knowledge acquired on the project

and the project and its director through local insight supplied by participants. With this in mind, I contacted Tim Borlase of the Labrador East Integrated School Board, who was also trying to initiate a programme of this kind. At very short notice, he was able to recruit two newly-graduated high school students from Nain, Gary Baikie and Simeon Hunter, and arrange financial support for this experimental training programme through the Department of Indian and Northern Affairs, Ottawa. Gary and Simeon proved to be interested, energetic, creative, uncomplaining, careful workers and rapidly absorbed the basics of northern Labrador archaeology. In return, they taught the rest of us a good few lessons of their own. For help with this training, my thanks to Eric Loring, a five year veteran of northern archaeology. David Allen, a resident of Cartwright and formerly of other Labrador communities, similarly learned the fundamentals of fieldwork quickly and his help is greatly appreciated. It is to be hoped that scientists from all disciplines working in Labrador will continue to take advantage of the high calibre of talent available, providing new career objectives and creating a pool of experienced personnel, while satisfying the rights and wishes of local residents. We were joined for the last week by Amy Zierler and Cam Mustard, neither of whom had any previous archaeological

experience but nonetheless made valuable contributions, Amy through her meticulous excavation and constant effervescence, Cam by his mapping skills.

ACKNOWLEDGEMENTS

The successful completion of this year's fieldwork is due to the kind cooperation of the weather, and the following agencies, institutions and individuals: The Historic Resources Division of the Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador provided the permit and, together with the Labrador Institute of Northern Studies through a Northern Studies Training Grant, and the Department of Indian and Northern Affairs, supplied the financial aid. Equipment was borrowed from the Historic Resources Division, the Institute of Social and Economic Research and the Departments of Anthropology and Geology, Memorial University of Newfoundland. Logistical support was generously donated by Petro Canada Exploration Inc. Special mention must be made of the help cheerfully and unfailingly rendered by Lloyd Johnson, Charley Lethbridge and the other staff members at the Petro Canada Saglek base. Emergency transportation and hospitality were gratefully received from John Jararusie of Nain, and his family and friends fishing in Saglek Bay. Photography of artifacts (Plates 2-4) by Jack Martin, ETV, and reproduction of plates la and lb by ETV Centre, Memorial University. My thanks to all of these, but especially to an exceptional crew.

REFERENCES

COX, Steven
1977 Prehistoric settlement and culture change at Okak, Labrador. PhD. dissertation, Department of Anthropology, Harvard University. Cambridge.

FITZHUGH, William
1972 Environmental archaeology and cultural systems in Hamilton Inlet, Labrador. Smithsonian Contributions to Anthropology 16. Smithsonian Institution, Washington, D.C.

1981 Smithsonian archaeological surveys, central and northern Labrador, 1980. Archaeology in Newfoundland and Labrador 1980. J. Sproull Thomson and B. Ransom, eds. Annual Report 1: 26-47. Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador, St. John's.

JORDAN, Richard H.
1979/80 Dorset art from Labrador. Folk 21-22: 397-418. Copenhagen.

1980 Preliminary results from archaeological investigations on Avayalik Island, extreme northern Labrador. Arctic 33 (3): 607-627. Calgary.

KOLAR, John C.and Elizabeth M. Salter
1981 Unpublished preliminary report on analysis of faunal material from Shuldham 9, Saglek Bay, 1980. On file at Historic Resources Division, Newfoundland Museum, St. John's.

SCHLEDERMANN, Peter
1971 The Thule Eskimo tradition in northern Labrador. M.A. thesis, Department of Anthropology, Memorial University of Newfoundland, St. John's.

SPROULL THOMSON, Jane and Callum THOMSON
1981 Spirits of earth and water. Canadian Collector March/April, 16(2): 39-42. Toronto.

THOMSON, Callum

1981a Preliminary archaeological findings from Shuldham Island, Labrador, 1980. Archaeology in Newfoundland and Labrador 1980. J. Sproull Thomson and B. Ransom, eds. Annual Report 1: 5-25. Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador, St. John's.

1981b Late Dorset soapstone art from northern Labrador. Paper given at the 14th Canadian Archaeological Association meeting, Edmonton.

TUCK, James A.

1975 Prehistory of Saglek Bay, Labrador: Archaic and Palaeo-Eskimo occupations. Archaeological Survey of Canada Mercury Series 32, National Museum of Man, Ottawa.

NOTE:

Radiocarbon dates obtained from Bata Analytic following completion of this paper include two in the middle to late phase of middle Dorset, one late Dorset contemporaneous with last years', and one late 15th century date which could relate to a terminal late Dorset or very early Labrador Thule occupation. With the inclusion of the T.A.P.'s single date, Dorset occupation at Shuldham 9 spans at least fourteen centuries:

1690 ± 70 (Beta - 3818) Middle Dorset, Tent Ring 1
1510 ± 70 (Beta - 3819) Middle Dorset, back of terrace
1200 ± 80 (SI - 3354) transitional MD/LD, House 2 midden
640 ± 50 (Beta - 3816) Late Dorset, House 1 midden
610 ± 80 (Beta - 2409) Late Dorset, House 1
600 ± 60 (Beta - 2411) Late Dorset, House 2
470 ± 60 (Beta - 3817) Late Dorset, House 2
390 ± 70 (Beta - 2410) LD or Neo-Eskimo, House 1

PLATE 1A

Aerial view of partially excavated House 2, Shuldham 9, showing mid-passage running east-west near top of cleared area, probable earlier mid-passage below this, now part of side platform. Squares are 1 x 1 m and 1 x 2 m. North to top of page

PLATE 1B

Shuldham 9 site, view west. House 1 left centre; House 2 right of House 1; Tent Ring centre above present beach; Maunder site (Neo-Eskimo sod houses) 100 m above south west corner of pond.

PLATE 2 LITHIC TOOLS, SHULDHAM 9

a. Late Dorset rectangular stemmed endscraper, House 1, Ramah chert

b. Late Dorset concave side scraper, House 1, Ramah chert

c. Point Revenge bifacial corner-notched endblade, House 1, Ramah chert

d. Late Dorset bifacial stemmed endblade, House 1, Ramah chert

e. Late Dorset unifacial diagonal side-notched knife, House 1, Ramah chert

f. Late Dorset bifacial stemmed (?) endblade (proximal end incomplete), House 1, Ramah chert

g. Late Dorset unifacial asymmetric side-notched knife, House 2, Ramah chert

h. Late Dorset bifacial stemmed endblade (distal end imcomplete), House 1, Ramah chert

i. Late Dorset bifacial triangular endblade, House 1, Ramah chert

j. Late Dorset bifacial triangular endblade, House 2, Ramah chert

k. Late Dorset bifacial triangular endblade, House 1, Ramah chert

l. Late Dorset bifacial triangular endblade, House 2, Ramah chert

m. Late Dorset stemmed flake point (arrowhead?), House 1, Ramah chert


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PLATE 3

SOAPSTONE CARVINGS AND MINIATURE VESSELS, SHULDHAM 9

a. Polar bear, House 1

b. Polar bear, House 1

c. Miniature vessel, House 1

d. Miniature vessel, House 2

e. Miniature vessel, House 1


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PLATE 4 SOAPSTONE CARVINGS, SHULDHAM 9

a. Hooded human figurine, House 1

b. Hooded human figurine, House 2

c. High-collared human figurine, House 1, rear view

d. High-collared human figurine, House 1, front view

e. High-collared human figurine astride polar bear (?) House 1

f. Embracing human couple, side A, House 2

g. Embracing human couple, side B, House 2

h. Cluster of human faces (4), House 1

i. Cluster of human faces (3), House 2

j. Human face on oval rimsherd, House 1

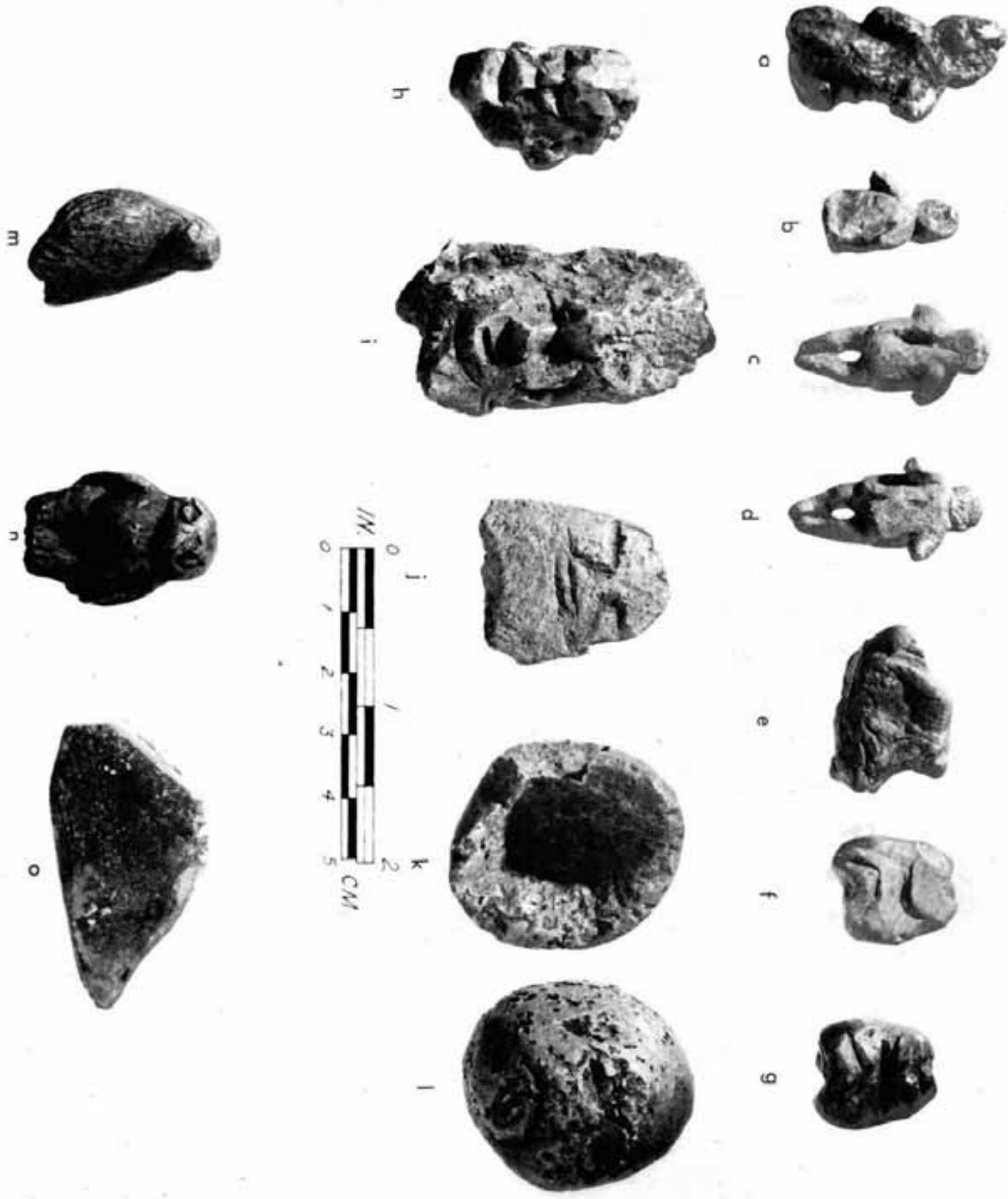
k. Miniature vessel interior, House 1

l. Miniature vessel bottom, with face, House 1

m. Preening or sleeping bird, House 2

n. Owl, Tent Ring 1

o. Duck's head, House 1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SMITHSONIAN SURVEYS IN CENTRAL AND SOUTHERN LABRADOR IN 1981

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A brief archaeological reconnaissance was conducted in central and southern Labrador during the last two weeks of August by a field crew from the Smithsonian, Newfoundland Museum, and Memorial University. Occasioned by the movement of the Smithsonian's research vessel Tunuyak from Postville to Port Saunders for yard overhaul, the shift provided an opportunity to study and map Maritime Archaic sites discovered near Aillik in 1978 and 1980. These sites are important in understanding the form and development of Labrador Maritime Archaic house forms and settlement patterns. Additional objectives included visits to sites previously excavated in Groswater Bay and reconnaissance of the archaeologically unknown coast between here and Chateau Bay. Problems integrating recent archaeological research in northern Labrador, the Straits and Newfoundland have become increasingly difficult without information from this region, especially concerning Indian and Eskimo boundaries and the degree of cultural isolation caused by cultural movements north and south of this area (e.g. Fitzhugh 1972; 1980).

NARRATIVE AND GEOGRAPHY

Field work was conducted by a small crew based on the Tunuyak between 18 August and 1 September. Three days were spent documenting Maritime Archaic structures and sites on the Aillik peninsula, and surveys of Aillik Bight and the staging area for the Cape Makkovik military installation were made. Here we noted extensive damage to raised beaches and archaeological sites resulting from heavy equipment operation, road-building, and construction. Proceeding south of Makkovik we passed east of the Adlavik Islands and were not able to visit boulder sites found near Cape Deus in 1974. One afternoon was spent testing historic sod house foundations at Webeck Harbour, a small but fine cove near Cape Harrison where earlier work revealed the presence of Point Revenge sites. From here we crossed Byron Bay and called at Smokey to pay regards to Baxter Parsons, manager of Hiscock's fish-buying and trading establishment, who had been instrumental in our earlier work at Rattlers Bight and also provided us with our first survey vessel, Kilaluak. We then visited Rattlers Bight to check on its stability, noting satisfactory progress toward its re-vegetation, as well as the abandonment of several formerly important summer fishing communities along the north shore of the bay. Four of these settlements,

consisting of from one to four cabins each in the late 1960's and occupied for at least the past hundred years, have been abandoned in the past decade or been reduced to use during July month only for the highly lucrative salmon run. Most of these families now reside permanently in Rigolet or Goose Bay and prosecute their fishing at traditional family berths with speedboats and tent camps. This settlement pattern shift has been occasioned by the failure of the Groswater Bay cod fishery (August and September), the presence of fish merchants and fish on the banks east of Smokey, and centralization of family services in Rigolet and Goose Bay. One has to be impressed with the rapidity of this change when viewing the culture history of this area in an archaeological perspective.

South of Groswater Bay we entered country that has not been described or surveyed from either a general ecological or archaeological view. This area, stretching from Green Island to Chateau Bay and covering nearly 250 kilometers of mixed tundra and forest environment, of highly varied description, constitutes a large void in the regional archaeology of the Labrador coast. Here, more than farther north, one finds the greatest compression of the coastal tundra between the sea and the forest front which lies at or near the coast, and notes great dissection of the coast by bays, fjords, and

rivers. Nevertheless, despite a relatively large and highly dispersed settler population in winter sites like Cartwright, Spotted Island, Mary's Harbour and innumerable small summer fishing stations or communities, few archaeological finds have been reported from this large area (e.g. Bird 1945). We therefore hoped to provide at least a cursory assessment of the area and come to slightly more informed conclusions about its ecology and settlement history.

Our first penetration of this archaeological wilderness between Green Island and Fish Point Cove corrected earlier impressions about the greater relative merits of the north coast of Groswater Bay over the south shore, which is more shallow and difficult of access. At least at its junction with the sea we found it highly productive in game, especially birds and therefore probably fish as well, and one expects there is a major harp seal migration through the small islands and passages in spring and fall. Low beaches, well defined terraces and protected coves offer protected living, sea hunting and fishing locations. Although we were not able to get ashore one has the impression that this would be an excellent region for further archaeological investigation, perhaps complementing lacunae in the occupation sequence along the north shore of Groswater Bay. It may be here, too, in a relatively wooded region, that a long-sought Groswater

Dorset winter site may be found. Farther south, along West Bay and Porcupine Strand--probably the "Wunderstrandir" of Norse acclaim--heavy surf, high eroding banks, and forest cover make for poor archaeological prospecting. At Cape Porcupine itself we spent a few hours slogging about in the rain looking for Norse relics to substantiate claims of numerous writers who thought it figured in the saga descriptions. None were found; nor would one expect to find prudent Norse men bringing ships to shore here for more than a brief visit to this shallow, exposed location. Our only rewards were the remains of simulated battlefields of yore--the twisted fragments of exploded steel bombs, bomb craters, and minimal traces of settler and prehistoric activity. It appears that Cape Porcupine has served as a bombing range for pilots out of Goose Bay in the post-war era.

From Packs Harbour our passage turned east out of the forest to Grady, which was once the site of an important cod fishery and whaling establishment, but is now a ghost town visited only during our stay by curious scholars and biologists. The former were questioning the absence of people and the latter, piloted by Almo Parsons, our mate on the Pitsiolak for the 1977 season, the absence of fish and whales. These questions seem somehow related. Today the area is used only during the July salmon run by people from Cartwright and Goose

Bay. Physically, the Grady area resembles the outer reaches of Groswater Bay around Smokey and Indian Harbour. Its barren rocky islands without raised beaches have a strong maritime flavour. Half a day south lie Indian Tickle, Domino, and Spotted Island, renowned (and in this case currently continuing) summer fishing and sealing settlements most known to southerners from the literature of the great sailing ship era. Here we found abundant promising site locations with beaches and terrace sequences along the runs. Surprisingly, however, ground surveys were relatively unproductive, only a few traces of Maritime Archaic sites being noted and no evidence of Dorset, Inuit, or later Indian settlement. Neither do local inhabitants have knowledge of native occupations or artifacts. This seemed odd because of the similarity of the area to the central coast region between Windy Tickle and Nain where sites are abundant.

South of Spotted Island the coast becomes exceedingly bluff and rocky again, with high projecting headlands, deeply indented bays which are barren and weather-beaten on the outside but thickly forested within, and without a protecting island system such as found on the central Labrador coast. Travelling here is like traversing a miniature version of the Torngat coast with the same degree of open ocean swell,

wind and only a few opportunities for inner runs. During our passage in late August codfishing was the primary economic activity noted, conducted with gill nets at stations off the capes by longliners and speedboats. Our first gannets of the cruise were seen here, but otherwise there were few birds, nor indications of general ecological productivity as had been noted around Green Island. Caribou are no longer present in this region, having disappeared shortly after the local native populations were replaced by settlers in the 18-19th century. One had the feeling that there were only two options in this landscape: deep-sea fishing and forest hunting. Compared with most other areas of the Labrador a "coastal" adaptation seemed less viable although the seasonal nature of these resources--those more commonly utilized by prehistoric and early historic groups (in contrast to the more sustaining market economy for cod)--combined with rather limited availability of suitable outer coast settlement sites on the rugged foreshore have had a strong effect in reducing settlement opportunities. In this respect the region is similar to the steeper and less populated regions of Torngat coast between Saglek and Nachvak. For these reasons, and although we did not have an opportunity to make ground surveys (few promising areas were even noted), we had a less than optimistic view of

local archaeological resources, at least on the outer coast. It is not a section of coast that would have appealed greatly to Inuit, Paleo-Eskimo, or Maritime Archaic peoples, though it might have suited forest-adapted post-MA Indian groups inside the bays.

This situation changed markedly at Battle Harbour, where there is evidence of abundant marine resources, a strong harp seal run, and a long history of settlement. In addition, one notes a distinct geological break with the previously described rock-bound coast. Here the continental shelf spreads seaward, offering increased possibilities for demersal sea life, and the terrestrial topography shifts to sedimentary beds with prominent beaches and terraces broken periodically by streams forming coves and "hops" suitable for small boat landing. Our transit of this section of the coast, which extends in this form along the entire northern shore of the Straits, included stops at Battle Harbour, Chateau Bay, and Forteau. Fish, seal, and bird resources appear to be abundant seasonally in all of these areas, as were whales once as well, and archaeological resources have been proven entities for many years. Our work here consisted of a brief survey of the Chateau Bay settlement area, investigation of a sod structure at Chimney Tickle, and a visit to the Memorial University and Parks Canada excavations in Red Bay. Winds

and tides were more contrary than in most other locations we have worked in Labrador, the major difference being strong headwinds and lack of convenient harbours. During our crossing from Forteau to Flowers Cove we lost and recovered our speedboat twice in heavy seas. Fortunately, our passage south along the Newfoundland coast to Port Saunders was more civil, and permitted stops at Port au Choix and Keppel Island. Here we watched in wonderment at the trappings of nautical civilization--grand lighthouses, thickets of buoys, lobster pots, and charging deep-sea fishing draggers.

SURVEY REPORTS

Eleven sites were investigated during the project described above. The general nature and preliminary results of the fieldwork are briefly discussed below.

Aillik West 1 (GhBt-1)

This site was first located in 1978 while enroute to Nain for the second season of the Torngat project. Excellent raised cobblestone beaches had attracted us to the area, which was surveyed for only an hour before a shift in tide and wind brought spring ice into the cove, hooking the Tunuyak's anchor and carrying her out to sea. Our dramatic departure was matched by the discovery of small rectangular

structures and boulder pits associated with Maritime Archaic artifacts at high elevations. Further investigation of this site was a major objective of the 1981 season because work in 1980 at other sites in Aillik and Nulliak suggested Aillik West might contain evidence of an early stage of Maritime Archaic longhouse development.

Work was concentrated in Areas 2 and 3 on the upper beaches where two settlement groups including rectangular structures, cache pits, and other rock features associated with Maritime Archaic tools had attracted our attention. Similar structures had been noted at upper elevations at Aillik 2, which contained increasingly larger structures at lower elevations. The Aillik West structures were mapped and photographed with a Whittlesey bipod. The Area 2 structure was found to be a three-segment foundation measuring 4 by 10 meters, to which an additional small room had been added. It was flanked by small cache pits, a fox-trap-like structure similar in form but larger than a typical historic Inuit fox trap, and a small stone chamber with a lintel doorway similar to one found at Nulliak Cove 1 north of Hebron. Another three-segment structure of similar size was found in Area 3. Here a test trench produced Maritime Archaic artifacts and a hearth sample containing spruce charcoal dating to 3525± 50 (SI-5099). The presence of spruce indicates the occupation

must post-date immigration of spruce into this district, estimated at 6-5000 years ago. This date is considerably later than expected from the site's high elevation and the structure's similarity to houses on the upper beaches at Aillik 2 (see below). While there is possibility of contamination, the presence of lintel-type chambered structures links Aillik West to Nulliak Mound 1 where a similar date has been obtained. If so, we may expect that house size by itself is not an accurate indication of age but rather a function of social group size. In this case Aillik West 1 may represent a very late MA component on the central coast, probably post-dating abandonment of the Ramah quarries, for only a single flake of Ramah was recovered amidst a large sample of very poor local quartzite. If this date is any indication, we can expect a more complicated picture than proposed previously (Fitzhugh 1981b).

Allik 2 (GhBt-3)

This key site found in 1980 contains a series of rectangular structures ranging from small single-room structures on the highest beaches to a seven-segment 4 by 28 meter structure at intermediate elevations. Our new work here produced more accurate maps but no artifacts or charcoal samples. While this enterprise was unsuccessful, the presence of an early Paleo-Eskimo structure below the longhouse

elevation, an MA slate celt from S-7, and similarities to Aillik West structures confirm Maritime Archaic attribution of Aillik 2 longhouses. In addition, we located other rectangular dwelling structures in the Aillik 2 area. All conform to the pattern of rectangular single-row segmented structures that are now seen as characteristic of the later Maritime Archaic cultures of central and Northern Labrador (Fitzhugh 1981b). An interesting feature of the highest single-room structure at this site was association with a narrow, boulder-lined pathway or "stone road" one meter in width between parallel rows of small boulders and extending some 10 meters.

Aillik 3 (GhBt-4)

A new site was located on a steep boulder beach one kilometer southeast of the old Aillik settlement (Aillik 1). Five separate site locales were designated at this site. L1 contained the traces of rectangular house foundation segments and cache pits, but none were continuous or clear enough to permit mapping or measurement. L2, found on a boulder field at the beach crest, contained three pithouses with suggestions of internal platforms and entrances, cache pits, and Inuit-type fox traps. Whether the latter were contemporaneous with the pithouses is not clear. The pithouses are similar to ones found at other Labrador sites on the highest inhabited

beaches and are presumed to be early Maritime Archaic features. L3, on a lower cobble beach, contains a number of structures whose form could not be discerned with the exception of a boulder-lined "road" similar to that found at Aillik 2. This road, which parallels the shore for 50-75 meters at a low elevation, raises questions about the Maritime Archaic affiliation derived from presence of a similar feature at Aillik 2. Similar structures are found also in northern Quebec (Plumet 1981) where MA presence is unlikely. Other boulder features were found on beaches at L4 and 5, but their form and attribution remains unclear except for an historic period house foundation.

Aillik Bight

The flat plain along the southeastern side of Aillik Bight, which provides a more protected location than the northern exposures on the Aillik peninsula, seemed ideal for outer coast settlement. However, surveys produced only traces of Paleo-Eskimo and Maritime Archaic structures. Most of these sites have suffered damage from surface disturbance by equipment associated with cargo landing, fuel tank and road construction, and even recreational motoring across the beach ridges and terraces. Fortunately the area seems not to have been important as a settlement site.

Webeck Harbour (GfBm-1)

Previous visits to Cape Harrison produced evidence of Point Revenge Indian sites at Webeck Harbour, at which time other structures were noted. One of these proved to be the foundation of a rectangular house with doorways and an internal hearth. Test pits produced charcoal, and gunflints, large lead shot, and iron. The structure appears to be the site of an early historic European trading or fishing establishment.

Black Island-4 (Gc Bk-17)

During field work at Black Island 2 in 1974, Curtis Sorenson located a boulder structure site high on the north side of the south hill on Black Island, overlooking Black Island 2. The site was re-located and sketch-mapped. It consists of two groups of boulder pits, small ringed mounds, inuksuks , and chambers. None of these structures have clear homologues in Maritime Archaic sites identified elsewhere in central or northern Labrador. The location, high elevation and absence of tools or debitage suggest it is a Maritime Archaic burial or ceremonial site.

Cape Porcupine

South of Groswater Bay lies a 40-kilometer stretch of sandy beach backed by forest-covered terraces derived from re-worked glacial deposits. To the geographer these sandbanks

are intriguing features on an otherwise rocky coast, but from a mariner's point of view they are anything but inviting, having no protection for landing or launching boats. Nevertheless, they are a notable anomaly and are probably accurately identified as the "Wonder Strands" of the Norse sagas. Cape Porcupine bisects the strands, extending several kilometers into the ocean and offering modest protection for boat landings and shore camps.

With an eye cocked for the classical moments of history, we spent a few hours surveying the southeastern shores of this cape. As frequently occurs under such circumstances, our efforts were not rewarded by discoveries of great merit. The south shore has a spruce-forested beach whose margin has been eroding for many years. Its more open, stable eastern extremity is composed of shingle beaches bearing traces of historic and possibly late prehistoric occupations. While some tent rings appear Inuit-like, none was distinctive enough to indicate precise cultural affiliation or age. Most appeared to be the results of short-term occupations by small groups. Higher beaches bore similar traces, but were equally undiagnostic. Most unusual was the widespread occurrence of ripped and twisted sheet metal which we found widely strewn about the beaches and forest floor. Speculation raged until a bomb casing was identified. Our search at Cape Porcupine did not cover its

northeastern shore which is probably a more promising location for aboriginal sites than the shallower southern shores.

Indian Tickle

A brief survey was conducted at Indian Tickle near Bob Burdette's summer home. Recent cobblestone pavements used for fish flakes and net drying were found at the settlement but no indications of early sites. The Burdettes were not aware of old sites or finds in the vicinity.

Spotted Island

Terraces on the western shore of a small island at the northeastern entrance of Domino Run immediately north of Spotted Island were checked for Maritime sites, but none were noted. Slightly more fruitful were investigations on high beaches at the northwestern end of Spotted Island. Here, in two locations, small cache pits and rock features were found, and one utilized flake of quartz. Some Maritime Archaic presence seems likely but of a lesser order than encountered in similar geographic settings north of Hamilton Inlet. As at Indian Tickle residents were not aware of early sites. On the other hand, our contacts and surveys were restricted in scope.

South of Spotted Island our investigations were based on shipboard observation until we reached Battle Harbour. This

section of coast, described above, appears uninviting archaeologically, as least as far as Eskimo, Inuit, and Maritime Archaic sites are concerned. However, it is a region where people with a more forest-based adaptation might make seasonal use of sea-run trout, salmon and seals. Although cut by many small bays and runs, there is insufficient access for marine conditions to penetrate inland. This and its rugged coastal topography seem to have resulted in reduced prehistoric settlement compared with prehistoric population centers farther north and south and north-south coastal movement and communication may have been restricted also.

Battle Harbour

A brief stop at Battle Harbour established this as a major locus of Dorset settlement. Ecologically, the location is favored by a strong harp seal migration which passes through the tickle along the west side of the island. Geographically, it marks the boundary between the rocky northern physiography and the straighter terraced shores of the Strait of Belle Isle. Here we found Dorset artifacts, debitage, fire-cracked cobbles and hearth slabs eroding from the pathway in front of Earle's Store. In situ deposits were also found in black earth soil south of the path, and they appear to extend beneath the building and along the terrace to the northeast.

Artifacts are reported to have been found as far as the old Grenfell Mission cookhouse several hundred meters away. The strongest component at the site seems to be Early and Middle Dorset, with traces of Groswater Dorset from higher locations on the path. Cherts are predominantly of southern, Newfoundland facies although some Ramah chert was found. Bone is present but its preservation and abundance in the soil could not be determined. The site is important in being the first classic Middle Dorset occupation found in Labrador south of Hopedale. Typologically and in terms of raw materials it appears more closely aligned to Newfoundland Dorset than to northern Labrador Dorset sites. Mixed with the Dorset materials eroding out in the path were large quantities of European flint, probably having originated as ship's ballast. It would appear that Battle Harbour may have an interesting history of European settlement as well.

Chimney Tickle

We landed on the south side of Chimney Tickle to inspect large sod house foundations and found them to contain charcoal and historic period artifacts. The structures appear to be of European origin, but nearby we found two large oval boulder tent rings with cobblestone hearth pavements and internal sleeping platform dividers. These rings look Inuit in form and are ideally situated for an Inuit settlement. Excavations

here might produce information on the archaeologically unknown Inuit occupations of southern Labrador.

Chateau Bay

Our visit to Chateau Bay coincided with a windstorm that restricted our ability to survey prospective site locations. Especially promising (but not visited) was the channel north of Henley Island. At the old settlement at Chateau Bay we noted Maritime Archaic traces on the upper terrace locations, both in the form of boulder structures and debitage. Further surveys and subsurface testing in this area might be worthwhile. The Chateau Bay region offers many possibilities for prehistoric and historic habitation, with protected harbour locations with deep-water access. Also of interest were several well-preserved wooden cabins which have been abandoned with much of their contents intact. The cabins are constructed of vertical log walls with baseboards and headers, a method used in the early 17th Century in New England, which has survived into recent times in Newfoundland and southern Labrador. The Chateau Bay buildings might be worthy of historic preservation consideration.

Keppel Island

At the northeastern end of Keppel Island outside Port Saunders, Newfoundland, was located an Inuit-type tent ring and a small pithouse landing pier. Although no artifacts

were found, these structures were reminiscent of Labrador Inuit structures farther north in Labrador. This site is not the one reported by Wintemberg and Harp on the south-eastern peninsula of the island (Harp 1964). We were not able to visit the latter location, also reported as being an Inuit site.

CONCLUSION

The surveys described above covered a large area of the central and southern coasts of Labrador of which the region between Hamilton Inlet and Battle Harbour have not been visited by archaeologists in the recent past. Though our work was brief and based to a certain extent on remote observation, some tentative conclusions may be advanced.

First, our work in the Aillik region has reinforced earlier fieldwork there on longhouse structure and development in the Maritime Archaic period. These sites seem to fall in the middle to late period at the Maritime Archaic occupation in central and northern Labrador, ca. 5500-3500 B.P. (Fitzhugh 1981b). The 1981 fieldwork resulted in collection of our first radiocarbon sample for this site group, which has provided a date for the smaller longhouse forms. Our new bipod photos and maps add to previous documentation from other locations of the coast where structures from 4500-3500 B.P. have been identified.

Another result of the survey is the lack of evidence for substantial Labrador Inuit occupations south of Groswater Bay. Excepting the intriguing possibilities of sites at Chimney Tickle and Keppel Island, there was a notable lack of the familiar tent rings so frequently encountered in the northern regions. This continuing absence of winter village sites, and lack of local information about Inuit settlements from south coast residents supports earlier views that Labrador Eskimo penetrations south of Hamilton Inlet were brief and primarily seasonal forays. Had permanent villages been established for more than a very brief period it is likely that traces of such occupations (caches, cairns, burials, tent rings etc) would have been detected. Nevertheless, this issue bears further study in southern Labrador, adjacent parts of Newfoundland, and Quebec. The identification and study of Inuit sites here would shed important light on their contacts with Indians and Europeans in areas known only from historic records.

Finally, the possibility should be explored through more systematic surveys that the southern Labrador coast from the Straits to Hamilton Inlet was not heavily occupied in the prehistoric and early historic period. This seems most likely for the rugged region between Spotted Island and Battle Harbour, which may have been avoided even by those most knowledgeable

about coastal life (Maritime Archaic and Eskimo/Inuit). It is not clear whether there are solid ecological grounds for diminished settlement opportunities in these areas or to what extent it may have been an ethnic frontier. The absence of early historic Labrador Inuit settlement may also relate to the greatly increased presence of Indians and Europeans south of Hamilton Inlet and the lack of an established Inuit population base south of Hamilton Inlet from which to draw physical and cultural solidarity. In this sense, perhaps the Inuit, who successfully expanded into the central coast, reached their present southern limits too late to compete effectively for settlement prerogatives in the more complicated and culturally mixed territory further south.

These observations must be considered tentative in light of the cursory nature of the survey south of Hamilton Inlet. Even at this level, however, the coast between Groswater Bay and Battle Harbour appears to have been less heavily settled in prehistoric times than was the coast north of Makkovik. Ecological conditions, such as the possible absence of an inshore harp seal migration may have some bearing here, as well as the geography of a bold coast without open bays or offshore island. These features may have some bearing on the absence of Paleo and Neo-Eskimo sites, regional variation in Labrador

and Newfoundland Dorset and Maritime Archaic cultures, the relative importance of interior versus southern coastal connections of later Indian cultures, and other features of regional cultural history. It is hoped that further and more sustained investigation of these problems can be encouraged in the near future by more detailed archaeological studies in this little-known region.

ACKNOWLEDGEMENTS

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REFERENCES

BIRD, Junius
1945 Archaeology of the Hopedale Area, Labrador. Anthropological Papers of the American Museum of Natural History 39(2). New York.

FITZHUGH, William
1972 Environmental Archaeology and Cultural Systems in Hamilton Inlet, Labrador. Smithsonian Contributions to Anthropology, 16. Smithsonian Institution, Washington, D.C.

1980 A Preview of Paleo-Eskimo Cultural History in Southern Quebec-Labrador and Newfoundland. Etudes/Inuit/Studies, 4(1-2):21-31. Laval University, Quebec.

1981a Smithsonian archaeological surveys: Central and Northern Labrador, 1980. In: J. Sproull Thomson and B. Ransom (eds), Archaeology in Newfoundland and Labrador 1980. Pp. 26-47. Annual Report No. 1. Historic Resources Division, Government of Newfoundland and Labrador, St. John's.

1981b Boulder Pits to Longhouses: Settlement and Community Pattern Development in the Labrador Maritime Archaic. MS Paper presented to the Fourteenth Annual Meeting of the Canadian Archaeological Association, Edmonton, Alberta.

HARP, Elmer, Jr.
1964 The Cultural Affinities of the Newfoundland-Dorset Eskimo. Bulletin 200, National Museum of Man. Ottawa.

PLUMET, Patrick
1981 Les Structures de Blocs dans l'Arctique Quebecois. In: Wilson, M., K. Road, and K. Hardy (eds.). Megaliths to Medicine Wheels: Boulder Structures in Archaeology. pp. 207-249. Proceedings of the Eleventh Annual Chacmool Conference, Archaeological Association, University of Calgary.

WINTEMBERG, W.J.
1939 Eskimo Sites of the Dorset Culture in Newfoundland. American Antiquity 5:83-102.

FIELDWORK AT RED BAY, LABRADOR

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From late June to late August, 1981, fieldwork continued at a 16th century Spanish Basque whaling station on Saddle Island, Red Bay, Labrador. The research was carried out under permit # 81-5 and was funded by the Social Sciences and Humanities Research Council of Canada with additional financial assistance from the Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador. Especial mention should also be made of the assistance given the project by the Canadian Conservation Institute which provided a professional conservator and equipment to stabilize the wide variety of materials recovered during 1981. The contributions of all these agencies is gratefully acknowledged.

During the 1981 season work was concentrated in four locations called Area C, E, F and G. Each will be described briefly below.

Area C is the location of a large shore station where all activities necessary for the processing of whale

blubber and the preparation of oil for shipment to Europe took place.

A "wharf" or "cutting-in" stage, evidenced by a rectangular mound of rocks and squared timber cribwork, was recorded. It is located in the intertidal zone immediately in front of the large oven at Area C. Limited excavations near this feature were also carried out by Parks Canada divers (see Grenier, this volume) and additional work is planned for the 1982 season. Although no definite function can as yet be assigned to this timber and ballast structure it is believed to have served as a work area to which whales were made fast while the blubber was removed. Some form of winch or capstan must have been present to facilitate this operation but, to date, none has been found.

Following the removal of the blubber it was minced to expose a greater surface area and transported to the oven which was the central feature of each shore station. The oven at Area C was also the scene of our major efforts during the 1981 season. As reported elsewhere (Tuck and Grenier 1981) the principal feature of this oven is a large stone wall some 10 metres long, about a metre high and equally as wide. Our 1981 excavations concentrated on the

outer, or seaward, side of this wall where the remains of two well-preserved fireboxes and traces of three others were revealed. The two better preserved examples were made from sandstone and other rocks imported from Spain as ballast, while the fireboxes in an advanced state of decay were fashioned from local granite boulders and cobbles. A little experimentation has shown that only a few hours of heating is sufficient to reduce the granites to a coarse powder, while the imported sandstones are much more resistant to heat. The fireable nature of these rocks must have been a source of constant irritation to those responsible for the maintenance of the shore stations for it appears that the ovens would have required repair or rebuilding at frequent intervals. We suspect that these rebuildings are at least partly responsible for our inability to detect well-defined fireboxes at the southern end of the oven.

Sources of something more than irritation is evidenced by the numerous copper cauldron fragments found in the fireboxes. It appears that the cauldrons must have occasionally burst allowing about 45 gallons of boiling oil to drop into a fire that was capable of reducing granite to a powder in a very short time. Such an occurrence must have been more than a little exciting

as well as downright hazardous. It is surprising that the documentary sources make no reference to the wooden structures which housed these ovens being subject to frequent fires.

Although we concentrated on the outside of the oven, work also progressed on the inside, or landward side, of the wall. The collapsed platform discovered in 1980 was almost completely exposed and a single plank was lifted on the last day of the season in an effort to determine what we might expect to find beneath it in 1982. In addition to some miscellaneous wood fragments, a hoop made from a single withe twisted around itself and what appears from the radiograph to be a steel for sharpening knives were recovered. The prospect for 1982, therefore, when the entire platform will be removed, looks promising.

As an alternative recording technique and for possible later interpretation of the site a polysulfide rubber and plaster of Paris mould was made of a section of the wood platform, stone wall and one of the fireboxes. A positive cast from this mould is now being prepared at the Canadian Conservation Institute in Ottawa.

Finally at Area C, a small test excavation was made in a waterlogged deposit to the northwest of the oven. Here were found large numbers of barrel staves, head

pieces, hoops and refuse from a coopering operation. Further excavations at this and other water-saturated portions of Area C are planned for the coming field seasons.

Area E is the site of a large cooperage/dwelling similar to that described previously (Tuck 1981) at Area A. Excavations were begun at this location in 1980, were expanded considerably in 1981 and (hopefully) will be concluded in 1982. Except for a few post moulds, the area is lacking in structural remains although a large number of iron nails and spikes suggest a wooden structure.

The function of this dwelling is unequivocally indicated by the large number of domestic artifacts - ceramics, glass, refuse bone, etc. - and coopers' tools found there. The latter include two cooper's adzes, head vises and the blade of a chiv (a tool for cutting croze grooves in an assembled cask). Below this structure a waterlogged deposit produced barrel parts and cooperage refuse similar to that mentioned previously from Area C.

Area F. This small structure, which was partially excavated in 1980, was completely mapped and excavated during the 1981 season. A roughly rectangular pattern of broken and shattered tiles suggested a structure of approximately the same shape and dimensions. In 1981

a series of large post moulds was discovered which confirmed our suspicion of a rectangular wooden structure roofed with red tiles. Artifacts were scarce within and around this building. Most of those recovered suggest domestic use although their scarcity when compared with Area A and E indicate a short duration for this probable dwelling. The ferrules from two supported whaling implements were discovered in 1980 but they do not add significantly to our knowledge of the activities which might have taken place at Area F. Test trenches extended into a large bog to the west of the structure did not reveal any organic refuse of significance.

Area G is an oven located to the south of the Area C excavations (see Figure 1). The central wall was visible on the surface prior to the start of excavations. The area behind the wall was stripped of overburden to the level of the roof fall during 1981, revealing that the wall is not nearly as substantial as that at Area C. We are as yet unable to describe the firebox area to the seaward side of the wall since only a single test trench has been excavated in that region. We anticipate completion of this oven during the 1982 field season.

ABORIGINAL OCCUPATIONS

A bonus was provided by the 1981 excavations on Saddle Island in the form of two small Palaeo-Eskimo components underlying the Basque remains at Areas E and F. The former is the nearest thing to a true pre-Dorset/Dorset component yet found in southern Labrador. In addition to end blades, scrapers, bifaces, microblades and chert debitage, both true spalled burins and ground burin-like-tools were recovered. The aboriginal occupation at Area F seems somewhat later in time although a true burin was also recovered from this area. A charcoal sample was collected from the earlier of the two areas and will be submitted shortly for C-14 analysis.

In summary the 1981 excavations at Saddle Island were successful in every way. We enjoyed the best weather we have yet experienced at Red Bay and this factor, along with a very capable field and laboratory staff, is responsible for the more than satisfactory progress made during 1981.

REFERENCES

TUCK, James A.

1981 Archaeology in southern Labrador - 1980. Archaeology in Newfoundland and Labrador, 1980. Annual Report No. 1, Jane Sproull Thomson and Bernard Ransom eds., Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador, St. John's

TUCK, James A. and Robert Grenier

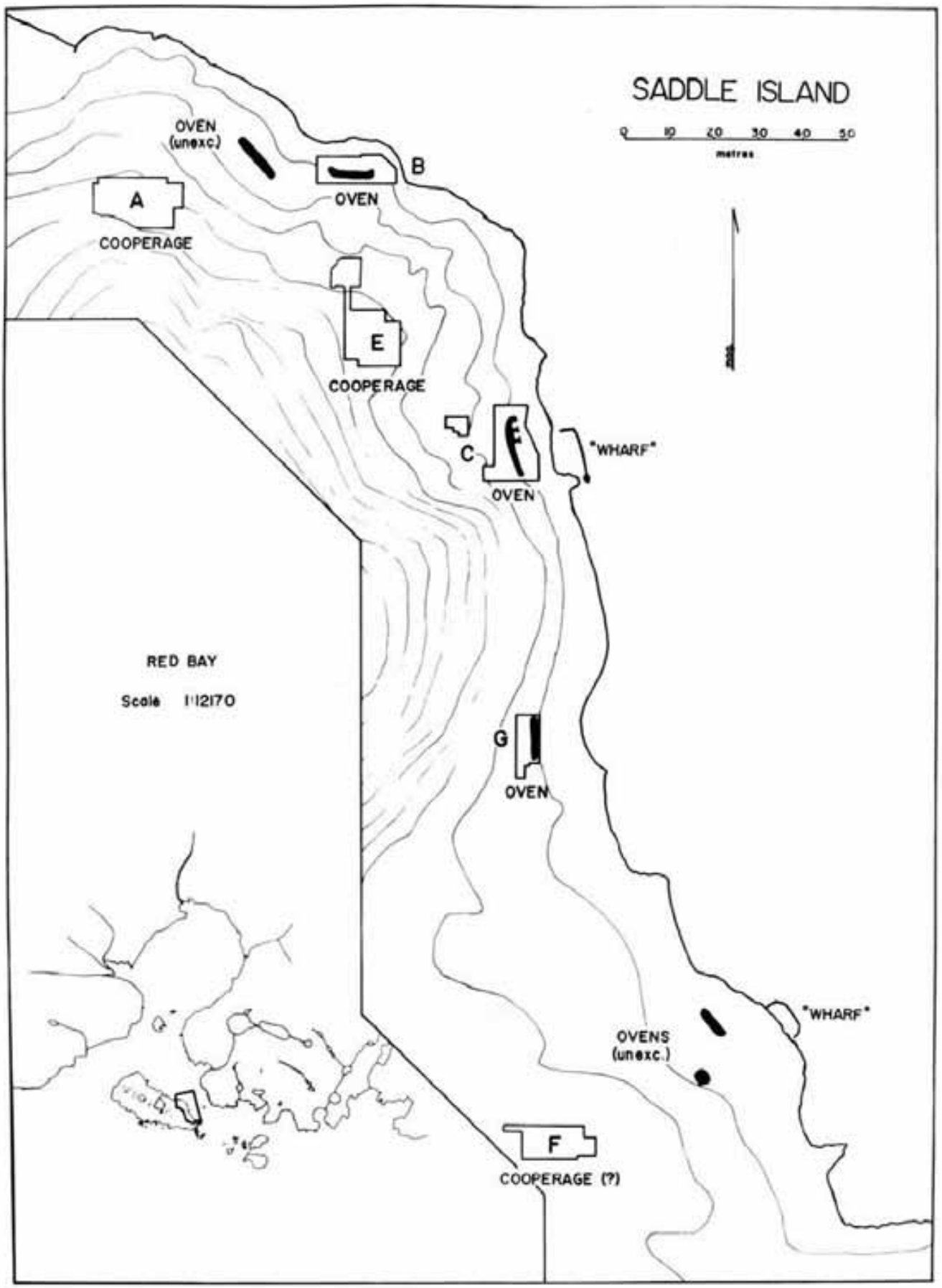
1981 A 16th century Basque whaling station in Labrador. Scientific American, Vol. 245, No. 5, pp. 180-190. New York.

PLATE 1

The oven at Area C, looking northeast. Visible are the central wall, the jumble of rock which once comprised the fireboxes on the harbour side of the wall, and a portion of the now-collapsed platform behind the wall.

FIGURE 1

A map of excavation on Saddle Island 1977-1981.


SADDLE ISLAND
0 10 20 30 40 50
metres
OVEN
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B
OVEN
A
COOPERAGE
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C
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"WHARF"
RED BAY
Scale 1:2170
G
OVEN
"WHARF"
OVENS
(unexc.)
F
COOPERAGE (?)

THE EXCAVATION OF A SIXTEENTH CENTURY SPANISH BASQUE WHALING GALLEON IN RED BAY, LABRADOR: A SUMMARY OF THE 1981 FIELD SEASON

Marine Excavation Unit
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INTRODUCTION

During the summer of 1981 the Marine Excavation Unit of Parks Canada under the direction of Robert Grenier and in cooperation with the province of Newfoundland and Labrador, continued the archaeological investigations of a sixteenth century Basque whaling vessel in the harbour of Red Bay, Labrador (Figure 1).

The principal objective was to excavate the entire central hull portion of the vessel with the goal of collecting important interpretive data on cargo stowage pattern as well as gaining an insight into several areas of architectural significance, including the pump well and tube, the mast step and overall structural characteristics of the hull. Secondary objectives included a minimal investigation of the vessel's transom and sternpost assembly, a beneath-the-hull survey, completion of the 1980 "shore trench," continuation of the harbour survey and the excavation of a small exploratory trench located just offshore from a major try-works and wharf complex.

A total of 825 dives were made that resulted in 1757.40 underwater hours. This large number of hours was possible due to the acquisition of a hot water suit system which sustains the diver at a constant temperature of 42°C, offsetting the effects of the cold Labrador waters.

EXCAVATIONS

Central Hull

The central hull can be defined as the midship's area which contained the bulk of the cargo of whale oil casks and included both the bilge pump and mast step. The excavation was therefore designed in anticipation of problems brought about by the presence of these artifacts and features. The foremost problem was the large number of casks which due to their complete collapse and disassembly over time produced a formidable recording operation. Literally thousands of staves and other cask parts were scattered across the wreck site, albeit some remain as well defined cask assemblages. Initially in 1979, an individual stave would be mapped in relation to its location within a particular assemblage. This procedure, although quite thorough and exacting, was extremely time consuming. Subsequently a new recording procedure was introduced in 1981 emphasizing casks instead of staves and which provided for an accurate definition of the casks outline as well as its spatial and stratigraphic

position within the vessel's hold. This recording was supplemented by photographic coverage of the individual cask assemblages which also recorded the relationship between those assemblages. The final products will include a cask locational map (Figure 2) succeeded by an interpretative illustration of the pattern of cask stowage within the central hull portion of the vessel (Figure 3).

One of the major artifacts recovered in 1981 was a section of the pump tube (Figures 4 and 5). It consisted of a squared tube with an outer diameter of 26 cm and an inner bore diameter of 12 cm. The tube and its plunger were excellently preserved within the cargo of casks beneath the existing seabed. The base of the tube was located next to the pump well sump, a circular hole cut into the port side of the keelson at the mast step (Figure 6). Artifacts found within the well sump consisted of a foot valve and associated leather flapper. The well sump and tube were enclosed by a pump well or box which also extended over a portion of the mast step. The mast step was incorporated into the keelson as an expansion of the keelson. It served as the base for a rectangular recess cut into the top of the keelson which acted as a type of mortice for the heel of the mast. The recess was large enough to allow for mast adjustment fore and aft.

Stern

The excavation of the stern was limited to the raising of the transom and a preliminary investigation into the surrounding structure to aid in the planning of the 1982 field season at which time the complete stern area is expected to be fully excavated.

The transom was lying flat on the harbour bottom located behind and below the broken end of the sternpost. It consisted of five transom beams rebated to fit over the inner face of the sternpost, and at least seven outside planks fastened to the transom beams and sternpost in a reversed v-shaped pattern known as the "square-tuck" design typical of the sixteenth and early seventeenth centuries. The transom was disassembled following underwater recording and then brought to the surface where it was reassembled for drafting and photographic recording (Figure 7).

Further excavation beneath and around the transom has revealed a large number of structural timbers including the lower end of the port side "fashion piece" (a curved timber, forming one side of the stern); a section of mast or yard, frame members, exterior planking, numerous unidentified timbers and perhaps most important, the rudder. This significant discovery was only partially exposed and will undergo complete recording and excavation in 1982. Another

exciting discovery was the remains of a small boat with many of its principal structural elements still associated. The boat's stem or sternpost, keel and the three lower strakes were all located more or less in their original positions. Approximately one meter of the boat's length has been uncovered with the remaining length lying beneath the large rudder of the main wreck. While the recovery may prove to be difficult, archaeologically the small boat and its contents represent a sealed Basque context with extremely high interpretative value.

Shore Trench

The excavation of the shore trench which began in 1980 was completed in 1981. The emphasis throughout the excavation was on stratigraphy, in an attempt to understand the relationship between the wreck and the Basque shore station being excavated by Jim Tuck of Memorial University. However, it soon became apparent that both the stratigraphic data (strata and their interfaces) and plan data (artifacts, features and faunal remains) were more representative of the Basque occupation on the land site and relatively little information was being gathered concerning the wreck. This pattern continued in 1981 with a large and diversified collection of artifacts and ecofacts, the majority of which appeared to be secondary refuse from the shore based operation. The collections

consisted of: faunal remains (represented by whale bone, fish bone, bird bone and a polar bear skull), leather shoe or boot fragments, straw matting, a possible straw broom, ceramic sherds, concretions, cask parts, rope, small boat parts and the ever present earthenware roofing tiles.

Stratigraphically the shore trench excavation was successful in tying together the wreck and deposits from the shore station (Figure 8). However, there appears to be no direct functional relationship between the two sites. The various stratas uncovered were formed by discard processes involving secondary refuse. The result was the formation of an excellent stratigraphic record indicative of events on Saddle Island. This record revealed several interesting periods of activity at the shore station. A large buildup of woodchips (the product of a log-squaring operation) represented an initial period of construction, followed by an extensive deposit of codfish bones indicative of a substantial cod-splitting operation contemporaneous with whaling and finally a large amount of rock collapse indicating abandonment.

Harbour Survey

This survey consisted of two distinct operations: a free-swimming bottom search and the partial excavation of an exploratory trench referred to as the wharf trench.

The free-swimming search was conducted along the north shore of Saddle Island east of the wreck site. It included that area directly in front of a major oven complex used by the Basques for processing whale blubber into train oil. Few whale bones were recorded with the exception of five ear bones, a few small skull parts and a vertebrae fragment. It appeared that the harbour silts had long since covered any notable trace of the Basque whale butchering. The search also located a few loose timbers most probably representative of drift material from the wreck site. These timbers all appeared to be oak and some showed evidence of fastenings (treenails and nail holes).

The wharf trench was an exploratory excavation within the survey area for the purpose of examining the remains of a possible Basque "cutting-in" stage or wharf. These remains were visible along the shore of Saddle Island during periods of low tide and consisted of piles of rock ballast and morticed timbers. A two meter by six meter grid was installed a few meters off shore at a depth of about three meters. The grid was aligned perpendicular to the shore line and directly in front of the wooden timbers. While only one sub-operation, measuring two meters by two meters, was excavated, an interesting pattern of artifacts present and absent was observed. The predominant artifacts included concretions, small wooden artifacts (some of which may be

small boat parts) and earthenware roofing tiles. The presence of concretions, which appear in relatively lesser numbers on the wreck site, may represent tool loss during the flensing operation if the area was used as a "cutting-in" stage. This possibility will be examined with further excavation during the 1982 field season.

SUMMARY

All project objectives were completed with the exception of the beneath-hull survey. This particular operation was postponed due to the lack of time in relation to the large number of artifacts being recovered under the hull. The 1981 field season resulted in the complete excavation of the vessel's central hull that included the recording of a large number of casks and several important features of architectural significance: mast step, pump tube and pump well. The vessel's transom was raised and recorded as well as an associated "fashion piece". Major discoveries included the ship's rudder, a section of mast or yard and a small boat. The shore trench excavation was completed and the harbour survey continued with particular emphasis placed on the excavation of a wharf trench near the hypothesized remains of a "cutting-in" stage. Archaeological research will continue in 1982 with the planned excavation of the vessel's stern and further investigation of the harbour's cultural resources.

REFERENCES

BARKHAM, Michael
1981 "Report on 16th Century Spanish Basque Shipbuilding c. 1550 to c. 1600" Manuscript Report Number 422, Parks Canada, Ottawa.

BARKHAM, Selma and Robert GRENIER
1979 "Divers find sunken Basque Galleon in Labrador" Canadian Geographic Dec. 1978/January 1979: 60-63.

CUMBAA, Stephen
1981 Preliminary Analysis of Bones from a 16th Century Spanish Basque Shipwreck and Whaling Station in Red Bay, Labrador. Paper presented at the 12th Annual Meeting, Conference on Underwater Archaeology, New Orleans, Louisiana.

MURDOCK, Lorne and Tom DALEY
1981 "Underwater Molding Techniques on Waterlogged Ship's Timbers Employing Polysulphide Rubber (Smooth-On Products) Flexible Mold Compounds" International Journal of Nautical Archaeology, November.

PROULX, Jean-Pierre
La peche a la baleine dans l'Atlantique Nord jusqua'au milieu du XIX^{e} sielce. Manuscript on file with Parks Canada, Ottawa.

ROSS, Lester
1980 "Sixteenth-Century Spanish Basque Coopering Technology: A Report of the Staved Containers Found in 1978-79 on the Wreck of the Whaling Galleon San Juan, sunk in Red Bay, Labrador, AD 1565" Manuscript Report Number 408, Parks Canada, Ottawa.

STEVENS, Willis
1981 The Application of Stratigraphic Analysis in Maritime Archaeology: A Case Study from a Sixteenth Century Basque Whaling Site. Paper presented at the 14th Annual Meeting of the Canadian Archaeological Association, Edmonton, Alberta

TUCK, James and Robert GRENIER
1981 "A 16th-Century Basque Whaling Station in Labrador" Scientific American 245(5):180-190.

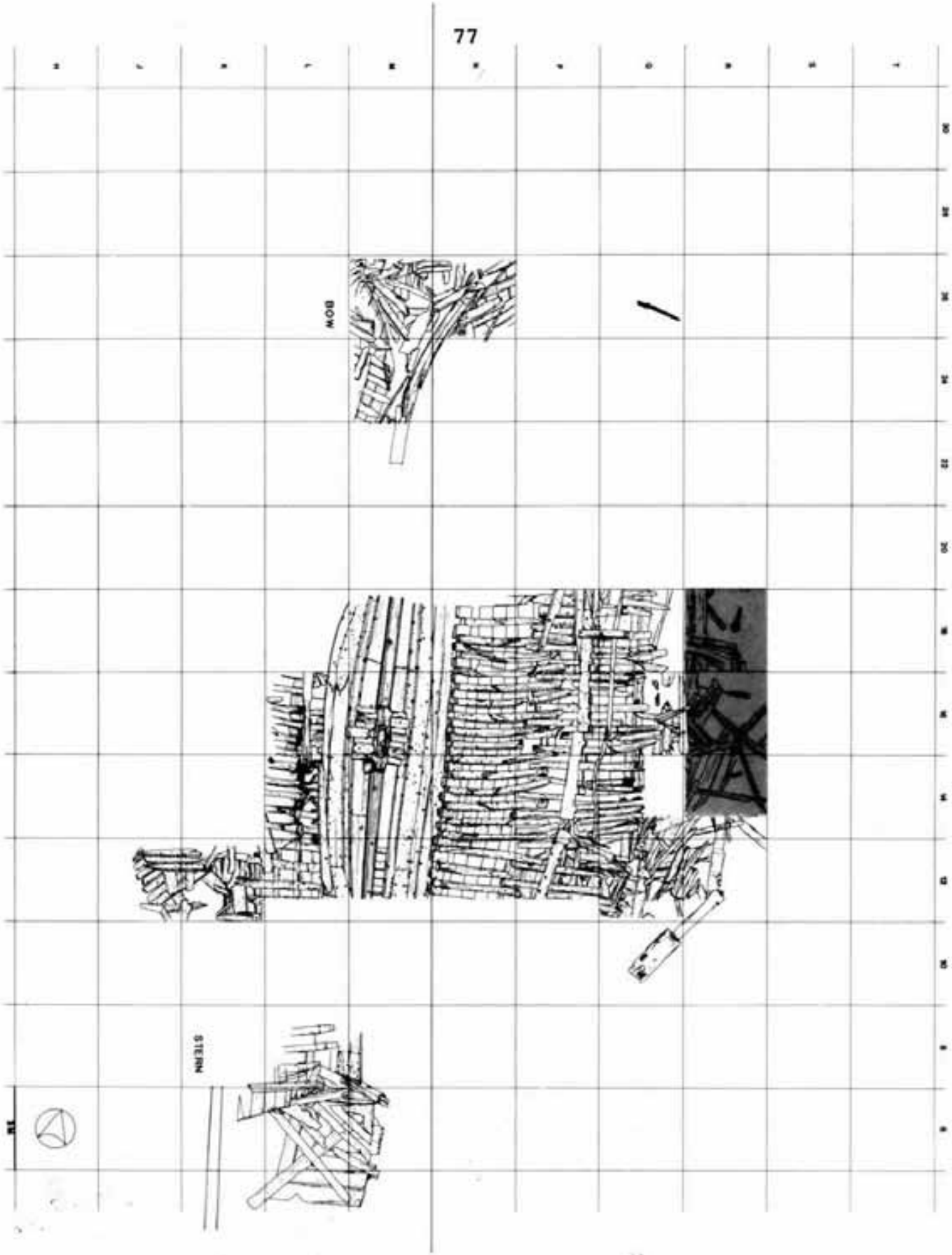

FIGURE 1. Structural plan of the wreck site. (Drawing by S. Epps, Parks Canada.)

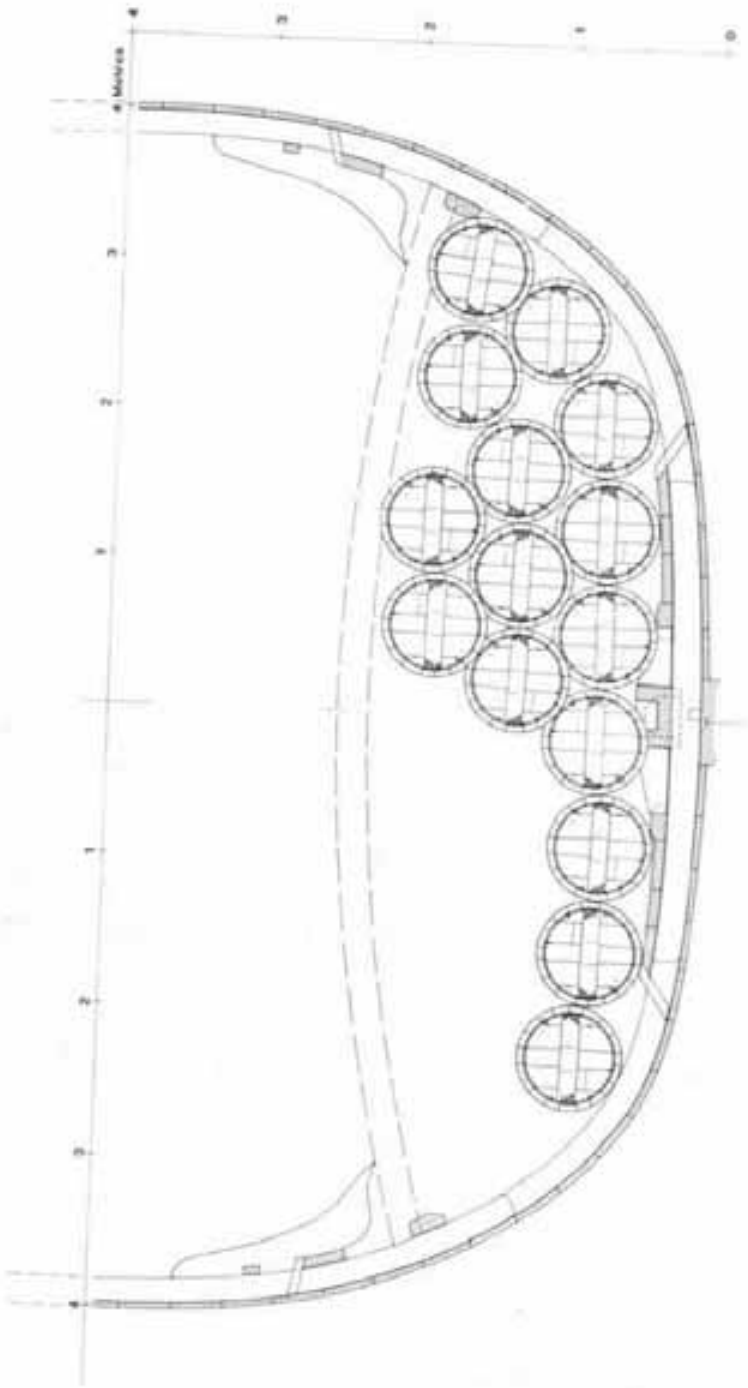

FIGURE 2. Plan view of reconstructed casks in the midship hold of the vessel. The casks were stacked in at least three layers with each layer offset and between the casks of adjacent upper and lower layers. (Drawing by S. Epps, Parks Canada.)

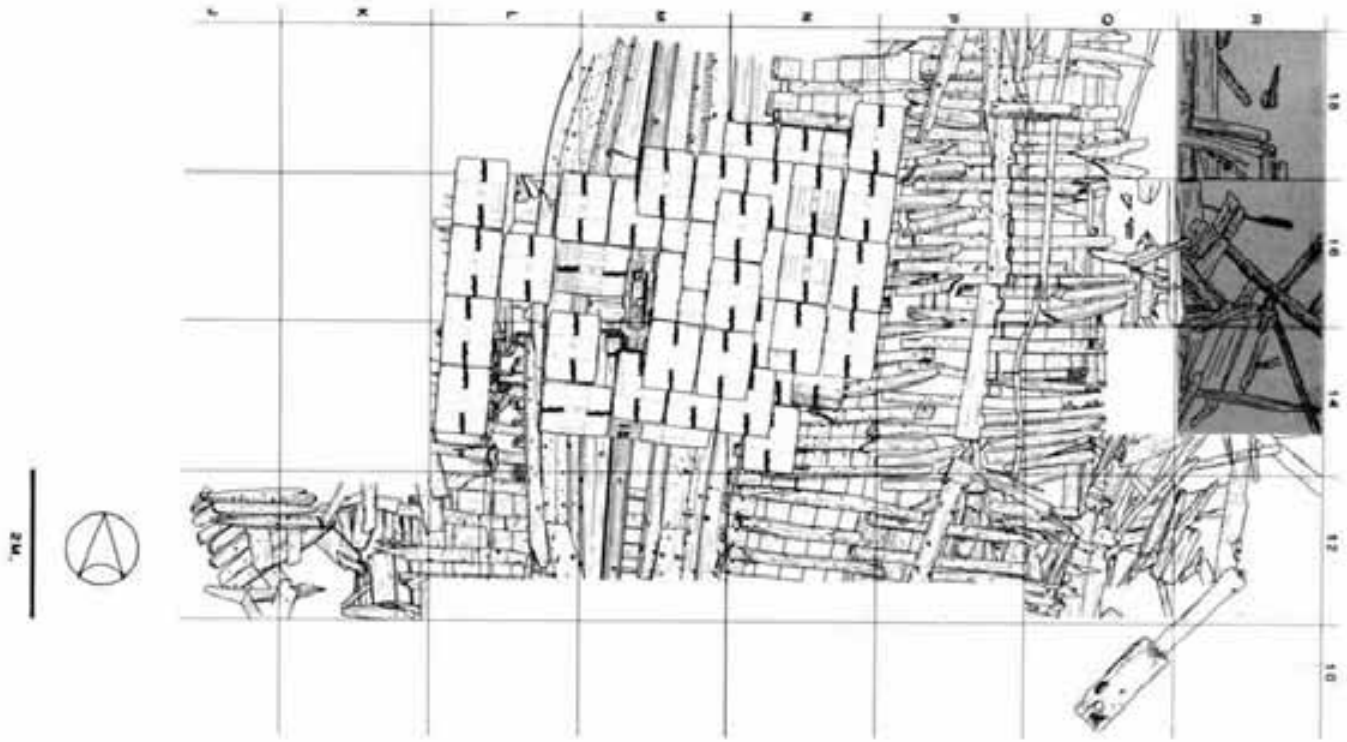

FIGURE 3. Cross-structural reconstruction of the hull amidships showing how casks would have been stowed in the vessel. (Drawing by S. Epps, Parks Canada.)

FIGURE 4

Pump tube. (Drawing by S. Bourque, Parks Canada).

FIGURE 5

Cross-section of pump tube showing the plunger with broken shaft. (Drawing by S. Bourque, Parks Canada).

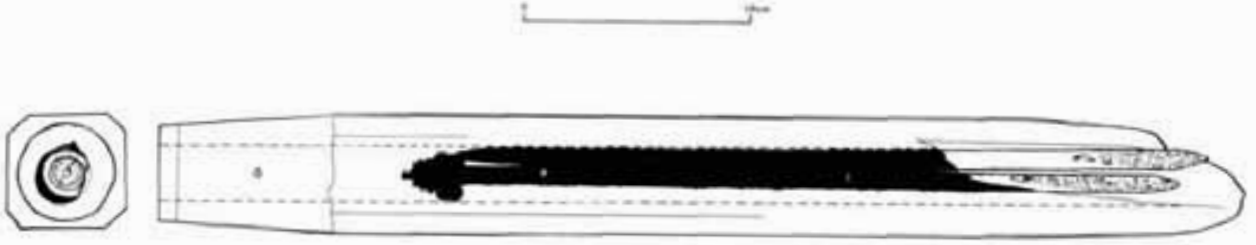

FIGURE 6

The mast step area of the vessel showing the well sump cut into the keelson. (Photo by P. Waddell, Parks Canada).


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FIGURE 7

Reassembled transom on the deck of the research support barge. (Photo by R. Grenier, Parks Canada).

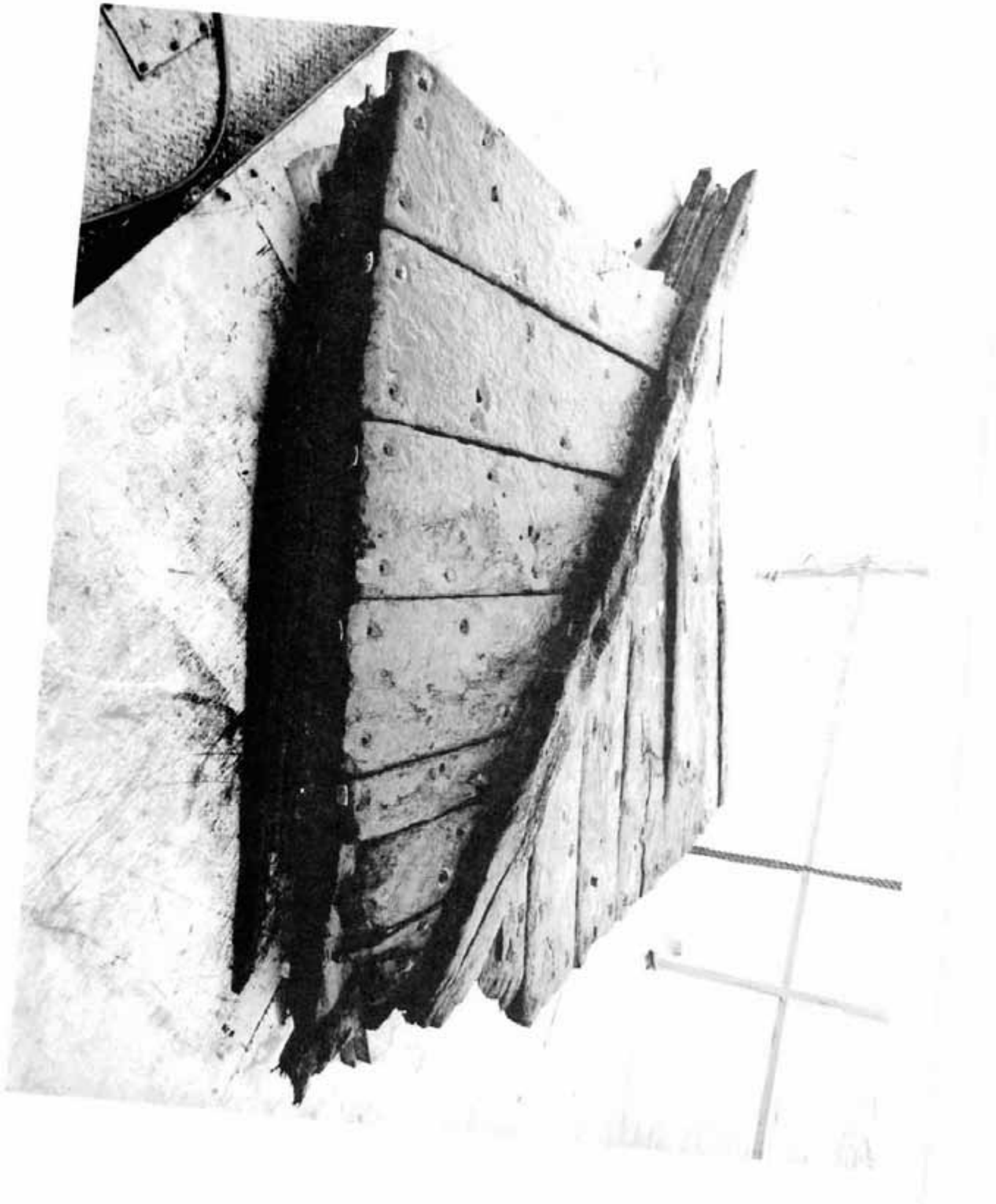
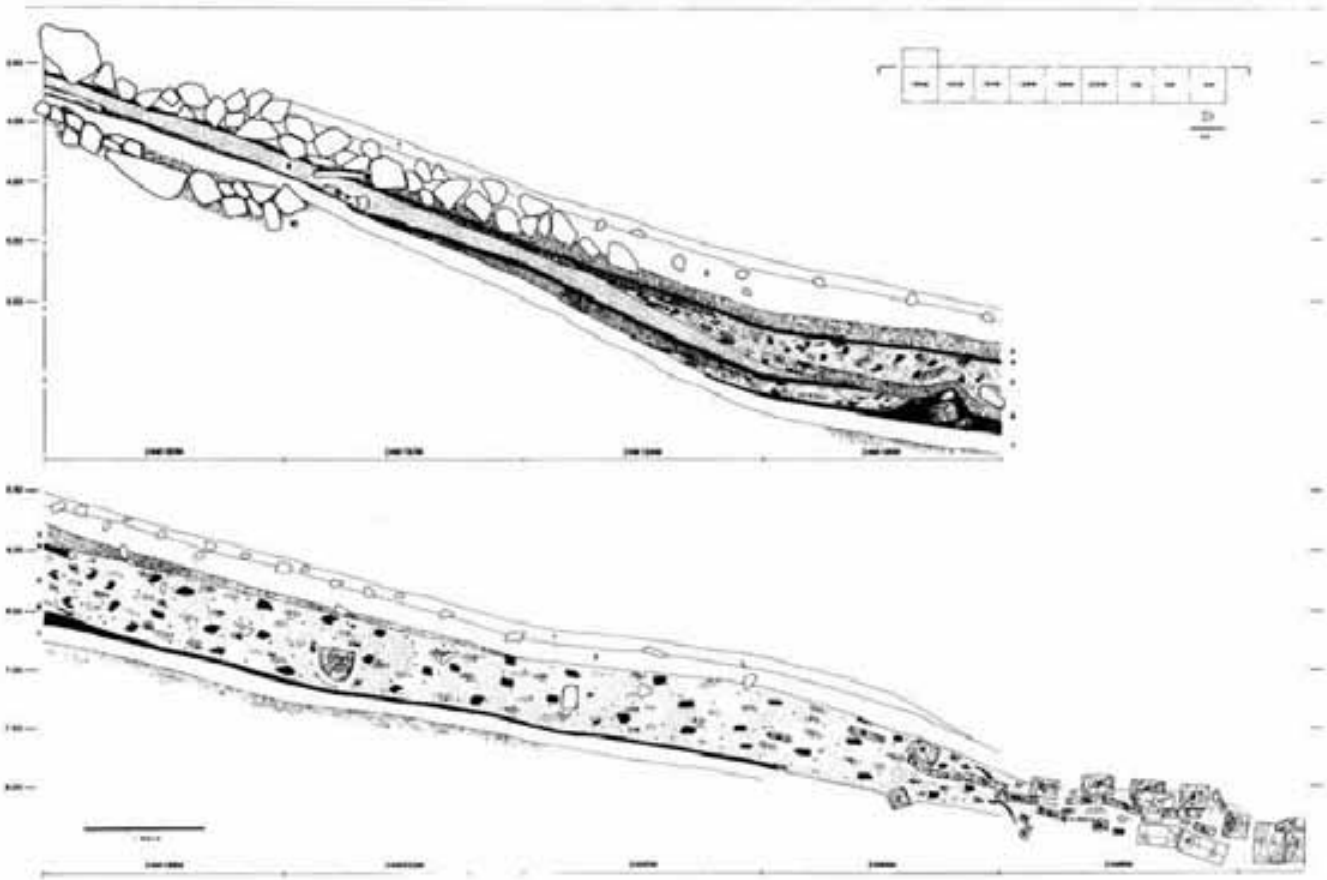


FIGURE 8

Stratigraphic profile drawing linking the wreck site with deposits from Saddle Island. (Drawing by S. Bourque, Parks Canada.)

Legend

1. Silt
2. Rock and organic silt
3. Crushed shell
4. Peat
5. Peat, woodchips, fish bone, crushed shell
6. Woodchips
7. Silt
8. Fish bone
9. Whale bone
10. Rock and crushed shell



A SURVEY OF UNDERWATER ARCHAEOLOGICAL SHIPWRECK SITES ON THE NEWFOUNDLAND COAST

I. CAPE ST. JOHN TO CAPE BAULD

The Newfoundland Marine Archaeology Society

INTRODUCTION

During the last four field seasons, the Newfoundland Marine Archaeology Society (NMAS) has been occupied with work on the wrecks of HMS Sapphire sunk in 1696, the Marguerite sunk in 1707, and the more extensive excavation of a mid-eighteenth century merchant vessel at Trinity, Trinity Bay. Accounts of this work can be found in Barber (1980), Barber (1981), and NMAS (1981). However, since the formation of the NMAS in 1972, it was the intention of the group to survey other known shipwreck sites of potential archaeological or historical importance around the Newfoundland coastline. Therefore, the NMAS decided to undertake a survey of part of the coastline in what is intended to be a continuing project. The locations on the northeast and the Northern Peninsula were selected because of extensive documentary information and diver reports on shipwreck sites in those areas. In addition, the NMAS had worked in 1977, 1978 and 1979 in the region of Conche, and so had practical knowledge of one of the

chosen areas (Barber et al., 1979; Barber et al., 1981).

ORGANIZATION

A planning committee of the NMAS was charged with the task of organizing the project. A proposal was prepared by this committee, and submitted to the Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador. Funding was granted for the operation but as these funds were limited, the diving activities could only extend over a three week period. La Scie, Conche, and Quirpon, were chosen as the three bases of operation. A Project Director was appointed but, apart from this person, all other workers on the expedition were unpaid volunteers. The NMAS now has members throughout Newfoundland, and personnel came from Argentia, Corner Brook, Eastport, Glovertown, the St. John's area, and Trinity. Seventeen persons were involved in the survey, two of these being support personnel. A permit was issued by the Historic Resources Division for underwater exploration and excavation in the proposed areas.

DIVING ACTIVITIES

The field operations ran from August 1 to August 23. During that period 189 person-dives were undertaken, for a total of 116.3 person-hours spent underwater. The majority of the diving time was used in searching (48%) or in

surveying sites (31%). Other diving activities undertaken included photography, artifact retrieval and orientation on sites. Since the approximate locations of most of the shipwreck sites were already known, the major areas searched were the entrance to the harbour at La Scie, and in Martinique Bay, Conche.

A swimline search method was used to investigate selected areas. Specially made reels, prepared lines, and buoys were available for this activity.

Eight percent of the underwater time was spent on underwater photography. All the major sites were extensively photographed on colour and black and white films.

Three inflatable boats with outboard engines were available for use by the divers. A 17 ft. Avon inflatable with a 40 hp engine and a 14 ft. Mirage inflatable with a 20 hp engine were mainly used. A long-liner and a trap skiff were hired at Conche and St. Lunaire respectively, for longer journeys out to sea or along the coast. Two air compressors were available throughout the operation for filling SCUBA tanks.

Since searches were to be undertaken in deeper water (30m), the potential for diving accidents was increased and so extra precautions had to be taken. The U.S. Navy standard air decompression tables were used, and a surface log of bottom times was recorded. This ensured that the appropriate safe times in the tables were followed. In

addition, depth guages were used by all divers and bottom timers were worn by the inner and outer of three divers on a search line. A minimum surface interval of two hours was applied to any dive exceeding a depth of 20 meters. A maximum diving depth of 30 meters was allowed and the maximum bottom time at this depth was limited to 17 minutes. Special attention had to be given to these safety precautions for the searches made in Martinique Bay, Conche, where the 'no stop' decompression limits were approached. No serious diving incidents occurred, but there were some cases of seasickness and a few other minor problems.

DIVING SITES

Eleven different sites were dived upon; the main locations mentioned in this report are given in Figure 1. Details of each site are presented as follows:

A. Coachman's Cove (lat. 50° 03'N Long. 56° 06' 30" W)

This site was close to the shore and consisted of four cannon located in 615 m depth of water. The cannon varied in length from 2.1 to 2.8 m and were badly abraded. No significant artifacts or parts of a ship's hull were present, although the site is thought to be the remains of a ship-wreck. The site was surveyed and photographed. The NMAS has no documentary information that details a vessel

as having been lost at Coachman's Cove and so the identity of the vessel is uncertain. Knowledge of the presence of the cannon was given to the NMAS by Mr. D. Walsh (see Walsh, 1980).

DlAv-1 b. La Scie Harbour (Lat. 49° 57' 45"N) Long. 55° 36' 33"W)

Documentary sources indicate that HMS Quebec, a Royal Navy armed schooner, was lost at La Scie on September 11, 1775. A French brig was probably lost at the same time. Other documentary sources report that a French ship was lost at La Scie in 1768. The records detailing the loss of HMS Quebec gave a likely location for the remains of this vessel. A search was undertaken, and part of the side of a ship's hull was found in 15 m of water in a cove at the southwest side of the entrance to the harbour. The extent of the exposed timbers was 6.2 m long by a maximal width of 2.4 m (Figure 2). The planking was attached with squareheaded iron spikes and wooden trenails. However, no significant artifacts were found on the site. This old wooden hull is possibly from one of the vessels mentioned earlier. The cove was thoroughly searched by divers, but only scattered timbers, and stray artifacts were observed.

c. The Marguerite, Martinique Bay, Conche (Lat. 50° 54' 24'N long. 55° 53' 54"W) Conch Wreck Site EfAx-3

This site was briefly visited and re-photographed.

The site is believed to be that of the Marguerite, a French vessel, that was set on fire and scuttled by her crew in 1707. A survey and trial excavation were made on the site by NMAS personnel in 1977 and 1978 (Barber et al., 1979; Barber et al., 1981). The site consists of a ballast pile, twenty-two cannon and some associated artifacts.

d. Martinique Bay, Conche EfAx-6 Conche Search - 2

Further diver searches were made for the Murinet, also lost in 1707 (Barber et al., 1981). The search area was near to the main anchorage point, seen on old charts of the area. No wreck site was found although numerous artifacts were noted such as sheaves, sherds of butterpots, and other coarse earthenware storage jars. A sherd of blue/grey stoneware of typical french manufacture was retrieved.

e. Southwest Crouse (Lat. 50° 54' 12"N Long. 55° 53' 24"W) EfAx-4
Wreck # 1

A wooden shipwreck, located at the edge of the main mooring area off the main wharf at Southwest Crouse, was examined and photographed. This wreck was first seen by NMAS divers in 1978 (Barber et al., 1981). The wreck lies in 7.5 m of water. The hull is fastened with copper bolts, and square cross-section copper spikes and nails. Deadeyes and strapping, lead sheeting and lead pipes, and many red and grey/beige bricks were visible. Three pieces of copper

nails and one fragment of green blown glass were retrieved. The wreck is believed to date from the mid to late nineteenth or early twentieth century.

f. Northeast Crouse (Lat. 50° 55' 36"N Long. 55° 51' 24"W)

This site was first dived on by NMAS personnel in 1978, and was found via local knowledge. Wreck material was located in depths ranging from 5 m to 28 m, the greatest depth reached. Eighteen cannon all over 2m in length, were found on the site; however, the finds were scattered and a thick growth of seaweed covered much of the area so other cannon could have been missed. A large anchor was located in deeper water. Sections of the ship's timbers, sheaves, bricks, iron shot, lead sheeting, lead weights and jiggers and lead shot were noted. Six lead artifacts were retrieved. The site was fully photographed and surveyed. While the identity of the shipwreck is uncertain, it could be a French ship recorded to have been lost in September, 1766 (Barber et al., 1981).

g. French Cove(or Grey Island Harbour) on Bell Island, Grey Islands (lat. 50° 44' 30"N Long. 55° 37' 48" W)

A day expedition to the site was made by three divers and one support person. Local knowledge led to the rapid location of the site, on the northwest side of the tickle

at the entrance to French Cove. Four cannon were located at at the foot of an underwater cliff and these varied in length from 2.1 m to 2.2 m. A large section of the hull was found near the middle of the tickle in 9 m of water. The hull remains were 6.4 m long by 2.2 to 4.2 m in width. No artifacts were found on the site, but the lack of animal or plant growth on the ship's timbers suggests that the hull is regularly covered and re-exposed. This action may have resulted in the burial of artifacts beneath the sand. The identity of the wreck is unknown, although it is thought to date from the eighteenth century.

EjAu-3 -Wreck #1

h. Quirpon Harbour (Lat. 51° 34' 51"N Long. 55° 26' 24"W)

This wreck site was located via local knowledge. It is very near to the shore in depths from 6 m to 7.5 m. Strong currents that are common for several days at a time were a problem in working on the site. The wreck consists of four cannon, and part of a wooden hull which is largely covered with silt. Seventeen artifacts were retrieved from the area of the site. Some of them were clearly identified as being of French origin. Documentary sources show that a French ship was lost at Quirpon in 1768, and another vessel, the Neptune, was reported lost in 1775. The wreck could be either of these ships.

EiAu-1 Wreck-1

i. St. Lunaire (Lat. 51° 29' 36"N Long. 55° 27' 15" W)

Since rough water conditions were anticipated, this site was reached by way of a trap skiff from the community of St. Lunaire. Local knowledge was used to locate the site, although Mr. D. Walsh had previously dived on the site (Walsh 1980). The wreck material was found within 15 m of the shore, at the foot of an underwater cliff, in 7.5 m to 9 m depth of water. Seventeen cannon were located, many of them badly abraded. This was probably caused by the water movement in this very exposed location or by ice scouring. Numerous concreted iron shot were found, and some wood was present. A lead weight and a lead jigger were retrieved. No documentary information is available to assist in the identification of the site but it is likely to be an eighteenth century vessel.

j. Other Sites

Two other underwater sites were examined on the expedition. An isolated cannon was found in a cove near Crouse Harbour, and part of Grands Galets Bay, Quirpon Island, was searched. No shipwrecks were found at either of these locations.

CONCLUSIONS

It can be seen that extensive new information was obtained on numerous sites on the northeast and Northern

Peninsula coasts. Information still has to be fully compiled and evaluated but it is already clear that further investigation of certain sites would be warranted. Priority for further investigation should be given to the Quirpon and Northeast Crouse sites. This is indicated by the sheltered location or depth of these sites and the extensive number of artifacts visible. Future surveys will no doubt add further sites of archaeological or historical interest to the list of sites that need further investigation and/or legal protection.

ACKNOWLEDGEMENTS

This report was written by reference to an internal report on the 1981 NMAS expedition written by Ms. J. M. Barber, the Project Director.

Specific thanks should be given to: Afonso Diving Supply Itd., Mr. D. Barron, Dr. F. Brett, Caribou Diving Club, Dr. W. Currie, Dr. P. Dabinett, Mr. G. Farmer, Mr. R. Ficken, Hydrospace Marine Services, Dr. J. Kingston, Mr. K. Snow, Mr. R. Wheeler, and the Engineering Faculty, Memorial University of Newfoundland, for the loan of equipment, or for assistance. Special thanks should also be given to those people in the communities visited, without whose help this expedition could not have taken place.

REFERENCES

BARBER, J.M.
1977 "Marine archaeology in Newfoundland - a review". Progress in Underwater Science Vol. 5 (New Series) of the Report of the Underwater Association, H.M. Platt, ed., pp. 71-83. Pentech Press, London.

BARBER, J.M., V. C. Barber, and R. Wheeler
1981 "A trial excavation of the Marguerite, and a search for the Murinet, both St. Malo vessels, sunk in 1707 at Conche, Newfoundland". Int. J. Naut. Archaeol., 10 (1), 29-39

BARBER, V.C.
1981 "Underwater archaeology in the Atlantic Provinces of Canada". Proceedings of the 1980 Conference on the Future of Archaeology in the Maritime Provinces. Ed. D. M. Shimabuku. Occasional Papers in Anthropology, No. 8., pp. 42-57. Department of Anthropology, St. Mary's University, Halifax, Nova Scotia.

BARBER, V.C., J.M. Barber, M. Allston and B. Stone
1979 "An initial survey of a wreck though to be a St. Malo vessel, the Marguerite, sunk in 1707 at Conche, Newfoundland." Int. J. Naut. Archaeol., 8 (1), 39-44.

Newfoundland Marine Archaeology Society.
1981 "The excavation and survey of a mid-Eighteenth Century shipwreck at Trinity, Trinity Bay, 1980". Archaeology in Newfoundland and Labrador 1980. Annual Report No. 1. J. Sproull Thomson and B. Ransom, eds., pp. 78-87. Historic Resources Division, Department of Culture, Recreation and Youth. Government of Newfoundland and Labrador, St. John's.

WALSH, D.
1980 The intriguing waters of Newfoundland. Jesperson Printing Limited, St. John's, Newfoundland.

1

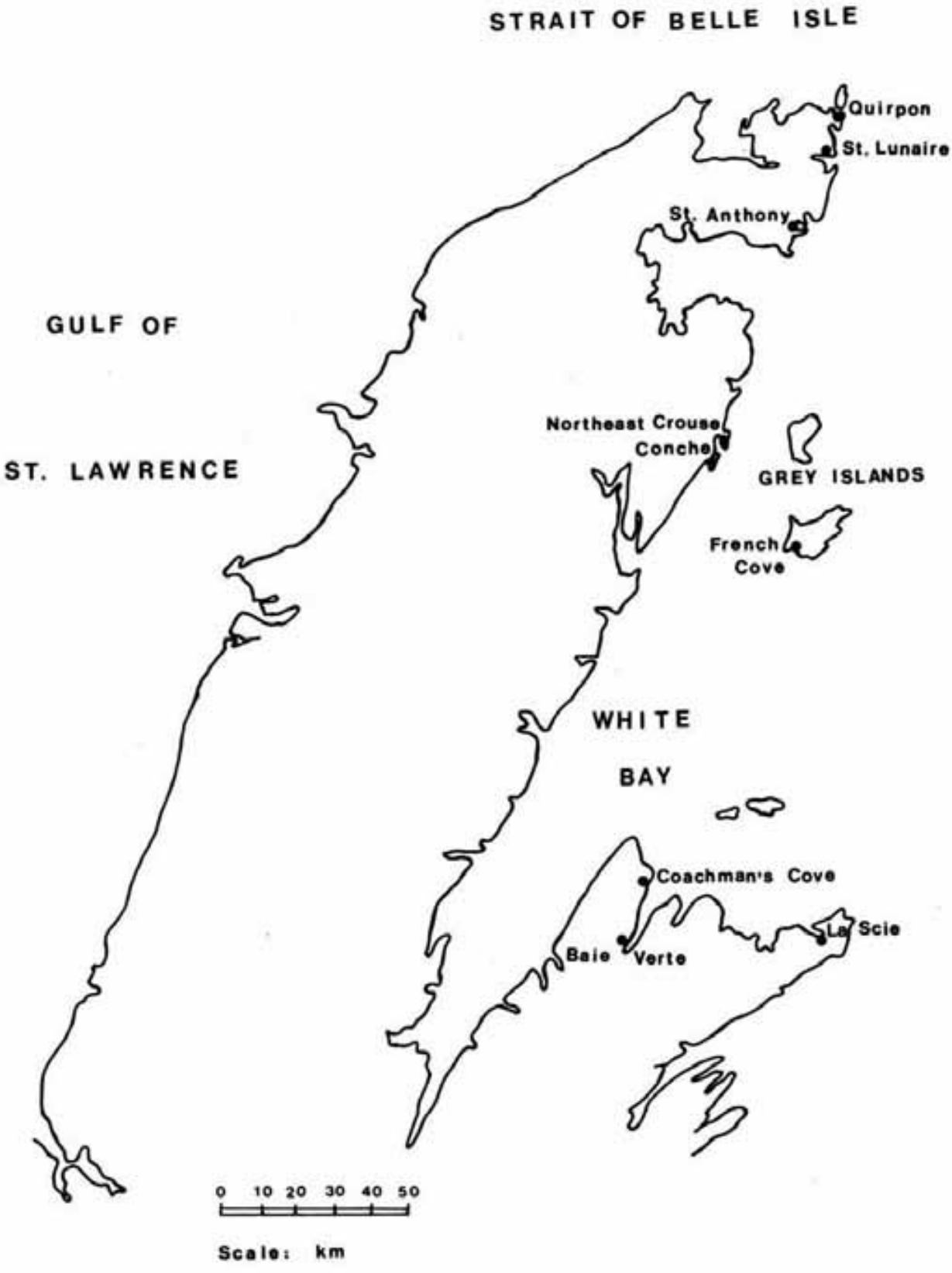


FIGURE 1. Courtesy J.M. Barber

FIGURES 2 & 3

Figure 2: An underwater photograph looking along the wooden hull of the La Scie shipwreck site (Courtesy: V. C. Barber).

Figure 3: An underwater photograph of four of the cannon on the St. Lunaire shipwreck site (Courtesy: V. C. Barber).


2


3

1981 Field Investigations at the Fleur de Lys Soapstone Quarry, Baie Verte, Newfoundland

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For two weeks during the late summer of 1981, field investigations were undertaken at the aboriginal soapstone quarry in the town of Fleur de Lys, on the northwestern side of Baie Verte peninsula in northern Newfoundland. The Fleur de Lys quarry, as described below, consists of a number of localities where soapstone was mined to obtain blocky preforms destined for later finishing into soapstone vessels of various shapes and sizes. The extant workings take the form of numerous depressions or removal scars where preforms were detached from the soapstone mass, and by oval and rectangular preforms in various stages of the carving process still attached to the mass. This quarry is presently unique in the province in preserving considerable evidence of methods of soapstone extraction and techniques used in the initial stages of vessel manufacture, most likely by Dorset Palaeo-Eskimo artisans.

Anthropological interest in this remarkable quarry has had a long history. One portion of the quarry was illustrated

early in the present century by Howley (1915: Plate XXXII), who believed that Beothuck Indians were responsible for the industry there. Later, Wintemberg showed another section of the quarry photographed by Jenness, and came to the conclusion that the carved soapstone cliff at Fleur de Lys was the work of Dorset Eskimos (1940: Plate XV(1), 319). More recently, Linnamae, who visited the quarry briefly in 1967, has suggested (1975:206-208) that soapstone found at the nearby Pittman Dorset site on Sop's Island in White Bay is similar in appearance to material from Fleur de Lys and may have derived from there. At the present time, a cast depicting the section of the cliff face shown by Wintemberg is on display in the Newfoundland Museum in St. John's.

Despite long-standing interest in the quarry, the aboriginal workings there have never been systematically studied or documented. The work reported here was undertaken to fill this lacuna, with the following objectives:

1) Conduct limited test excavations and a detailed technological analysis of quarried areas in order to:

   a) confirm the probable Dorset affiliation of quarry users;
   b) recover tools used in quarrying operations;
   c) reconstruct methods of soapstone extraction;
   d) recover evidence of initial stages of vessel manufacture.

2) Photograph and map the quarried areas.

3) Assess the extent of damage to the site.

4) Carry out geological sampling of the soapstone outcrop.

With certain qualifications stated below, most objectives of the field program were successfully attained. Field work produced several major, but pleasant surprises: 1) the size of the quarry is much larger than previously reported--the main quarried outcrop approaches 200 meters in length, and other localities were discovered in town that had been worked as well; 2) deep, in-situ deposits of spoil or tailings in front of quarried localities yielded numerous tools used to work the soapstone; 3) damage to the site was much less than expected.

In this report, brief descriptions of quarried areas are presented, together with a reconstruction of quarrying methods and the tools used in this endeavor.

DATING

Field work at the quarry contributed little that is not already known (or not known) about the cultural affiliation(s) of groups who exploited the soapstone. In this regard, negative evidence weighs perhaps more than it should on the issue. No lithic tools diagnostic of Dorset, or any other cultural tradition, were recovered from test pits, and no

prehistoric sites have been reported for the northern Baie Verte peninsula.

Although soapstone was an important lithic material to the peoples of several prehistoric cultural traditions in Newfoundland and Labrador, beginning in Late Maritime Archaic times when it was carved into plummets, it was most extensively utilized in Palaeo-Eskimo and Neo-Eskimo times, when it was fashioned into lamps and cooking pots or bowls. Based on our knowledge of finished Dorset vessel shapes and sizes, and their correspondence with the workings at Fleur de Lys, it seems very likely that the extensive quarrying there was carried out exclusively by Dorset people, particularly in view of the absence of any known Neo-Eskimo occupations in this area of Newfoundland. Howley's (1915:336) and Lloyd's (1876:229) statements notwithstanding, there is at present no evidence for Beothuck utilization of soapstone, especially for vessels which appear to have been constructed from bark alone. Although Maritime Archaic Indian use of the soapstone at Fleur de Lys for plummets is conceivable, no evidence for this was obtained from the survey and test excavations.

Perhaps the most that can be said now is that there is no reason to suspect that the quarry is anything else but a Dorset soapstone quarry. Testimony in support of this assertion includes preform morphology and the use of a

consistent and uniform technology in working the soapstone deposits. Future work will hopefully refine this assertion and, more importantly, provide some indication of the length of this the quarry was in use, which must have been some hundreds of years.

DESCRIPTION OF QUARRIED LOCALITIES

Locality 1

In Fleur de Lys, aboriginally worked deposits of soapstone are known in at least two discrete localities about ½ km apart on the eastern and western sides of town respectively. The main workings are found on the eastern side of town where soapstone outcrops along the eastern margin of a bedrock ridge that extends from the water's edge on the northern side of the harbour northward for a distance of 500 meters. This zone is referred to as Locality 1.

The bulk of prehistoric quarrying activity at Locality 1 was confined to portions of the outcrop north of the road, and to several very large boulders of soapstone situated in the valley 20 to 30 meters east of the main outcrop. Along the outcrop, quarrying takes the form of a discontinuous series of intensively worked areas (Groups A-F) spaced over a distance of about 200 meters. Although there is evidence of isolated vessel preform cutting distributed over nearly the

entire length of the outcrop, there is a strong tendency for preforms and removal scars to be clustered together in discrete groups. To a certain extent, the quality of available material must have determined in part the locations of worked areas, but beyond that there were probably also compelling technological reasons to work adjacent areas of the rock (discussed below).

Mounds of tailings or spoil from quarrying operations of an uncertain depth are present in varying quantities in front of all worked areas. Although these tailings contain broken quarrying tools and pieces of worked soapstone invaluable for reconstructions of how the soapstone was worked, their presence also makes it difficult to assess the magnitude of quarrying operations along each area of the outcrop, since in many cases the base of the worked cliff extends below present ground level, marked by the tops of tailing piles.

Work during this investigation was focussed chiefly on Groups A-C, which represent areas of the highest concentration of preform carving. These groups were also the most accessible to study since the vegetation in front of the outcrop here is grass, the ground having been cleared some years ago. More northern groups D-F are difficult to reach due to dense shrub spruce vegetation in front of the outcrop. A brief examination of these areas did not disclose any apparent

differences in the character of the quarrying remains between these and other Locality 1 groups.

The quarried area encompassed by Groups A,B, and C was mapped and photographed, and a comprehensive technological study was conducted of visible removal scars and preforms in these groups, which included gathering attribute data on each of 230 measurable scars or preforms. Two test pits were excavated into the tailings at the front of the cliff, one at Group A, and the other at Group B. Both produced considerable evidence of the types of lithic tools used in quarrying operations, in a matrix consisting of soapstone dust, and small to medium sized chunks of soapstone debitage. Disappointingly few fragments of partly-worked vessel rejects were found, which suggests that if any secondary soapstone reduction station exists nearby, it is probably not located near the cliff face. No Dorset habitation sites or soapstone processing sites were located during a limited amount of surveying around the harbour, and none have been previously reported from the region.

Group A

Quarrying in this area is represented by 73 removal scars or preforms along a nine meter portion of the outcrop. At the southern end of this group (Plate 1A), scars reach about

three meters above the top of the tailings, which are here estimated to be about 1.5 m deep. The centre of Group A is dominated by a two meter deep cavity caused by the fall of a large block of soapstone from the cliff face. The underside of this fall block (barely visible at one end) has been worked, while the cavity wall has not--this block must have fallen subsequent to most of the quarrying activity in this area. The northern end of Group A consists of a virtual two by two meter adit, extending two meters deep into the outcrop, created by successive episodes of preform carving. A test pit here revealed an egg-shaped "grotto" (Plate 1B) with removal scars and four partially completed preforms entirely covering the rear vertical face, curving down onto the "floor", and partially back up to the front exterior opening. The southern edge of the grotto has been terminated by the fall block described above.

Group B

Group B consists of two subgroups of carvings separated by a large deep crack in the outcrop, several meters south of Group A. There are 119 visible removal scars and preforms on the fact of B-North (Plate 2A), extending nine meters from the north end at ground level on the top of the tailings, to a height of 2.7 m above the tailings on the south. The face of

the outcrop has been undercut to an average depth of 80 cm (varying between 40 and 125 cm). Tailing depth in front of B-North is estimated to average about one meter. Everywhere along this portion of the worked outcrop, removals extend below the top of the tailing piles. A one by one meter test pit excavated at the extreme northern end of B-North produced large quantities of soapstone debitage and numerous fragments of hard rock quarrying tools. The bottom of the worked face of the outcrop was not reached in this test pit, which was excavated to a depth of -1.10 m below surface (and had to be curtailed for time limitations). This indicates that, at least in this area of the quarry (and quite possibly in other areas as well), estimates of tailing depth and the lower limit of the worked cliff face are conservative.

Group B-South (Plate 2B) is an isolated six meter long mass of soapstone three meters south of B-North, with approximately 79 visible scars or preforms. The carvings reached a height of 2.5 m above the spoil in this area, and removals extend down below the surface. The tailings here are estimated to be about 1.5 m deep. The face of the outcrop has been undercut an average of 1.0 m (ranging from 85 to 115 cm). The southern edge of B-South is gradually being buried by talus eroding from bedrock behind the outcrop.

Group C

Between Groups B and C, a distance of 18 meters, the soapstone outcrop is badly broken up and partially covered by bedrock talus. Group C (Plate 3A) consists of 33 removal scars covering the face of a block of soapstone about two meters high and 14 meters long. Because of its exposed position, a certain amount of erosion of preform scars is evident in this group. Tailings in front of Group C are very shallow.

Groups D-F

The Locality 1 outcrop extends north of Group A about another 100 meters, through heavy spruce undergrowth, before disappearing underground. Brief and difficult reconnaisance at the northern end of the outcrop revealed more or less continuously distributed evidence of quarrying, including at least three more sizeable discrete clusters of preform carvings. These could only be cursorily examined, but each consisted of from 20 to 30 removal scars and preforms covering several meters along the outcrop, with the base of the worked face obscured by tailings. Further study of the quarry in this direction would certainly entail clearing the extensive growth of spruce from the worked face.

Modern damage to the prehistorically quarried areas of the Locality 1 outcrop is present, but was surprisingly less

than expected, given the site location and the softness of the rock. Many initials have been carved into the soapstone by young residents and by visitors to the site, but fortunately fewer on the worked face of the cliff than on unworked "fall" slabs present in front of the outcrop. Pecking damage is more pervasive, and is visible as whitish marks where the patina of the rock has been removed. More massive damage (wholesale breakage or shattering) is generally quite limited, although an occasional sharp projection of the worked face has been broken off by battering. The worst damage is located in a small area of Group B-North, near ground level, where a roughly 75 cm square zone of the worked face has been systematically pried off along the line of a natural crack, completely destroying five or six removal scars. The heavy vegetation surrounding the northern groups D-F has probably helped minimize damage to this area of the quarry.

Locality 2

Soapstone also outcrops on the western side of town, and several massive boulders detached from the main outcrop there have been utilized. These boulders occur on the slope above the Quigley stage and down to the water. This area is referred to as Locality 2.

Utilization of the soapstone boulders thus far known from Locality 2 is orders of magnitude less than at the Locality 1 outcrop--the removal scars and preforms at Locality 2 number less than 50. However, based on the results of our survey in town, it appears that soapstone was worked nearly everywhere it was accessible in Fleur de Lys. More complete survey of the town, particularly around the western, Locality 2 outcrop, would probably reveal other utilized areas. At this time, however, it seems unlikely that any area as extensively worked as Locality 1 exists that has not been located, since local residents, especially the kids, are aware of where large groups of "carvings" are to be found.

PREHISTORIC INDUSTRY

Quarrying Tools

One problem with identifying tools used in aboriginal quarrying activities is that they seldom correspond to, or even resemble, the more formalized tool types prehistoric people used in everyday subsistence or manufacturing activities that are found in archaeological habitation sites. Because they receive hard use and wear out quickly, quarrying tools are frequently only expeditiously shaped rock fragments given enough treatment to make them suitable for the task at hand.

At Fleur de Lys, identification of soapstone quarrying tools was greatly aided by prior study of the cogent evidence of various technological steps in the extraction process preserved on the worked cliff face. This evidence enabled prediction of, for example, likely characteristics of working edge configuration, which led to more careful scrutiny of potential tools from among the hundreds of rather amorphous rock fragments found within the soapstone tailings. Test excavations resulted in the recovery of 134 lithic tools and tool fragments that are believed to have been employed in quarrying operations. No tools made of organic materials were found.

Analysis of the collection is not complete, but a summary of some of the different types of quarrying tools and their functions can be provided. Steps in the preform carving process are discussed in the next section. Several types of scrapers constitute the dominant class of quarrying tools at the site (Plate 4:a-c); most of these have been fashioned from thin, tabular slabs of a hard arenitic rock found in the neighboring bedrock, and all possess a characteristically acute working edge. Tabular scrapers were used with a circular drawing motion to remove material from around an intended preform. Hammerstones, of various sizes,

with both end and side pitting, were also common. These were apparently used in pecking operations to remove large masses of material, and as hammers to drive other tools. Chisels, picks and wedges (Plate 4:d,e) have been tentatively identified on the basis of form, but the functions of some of these tools may have overlapped with scrapers. Only two fragments of a bluish-grey chert were found. Both appear to be very worn bits from informally shaped scraping tools, and may represent rejuvenation flakes from resharpening. Four polyhedral fragments of clear quartz, each about two cm long, were also recovered, three in close association from the B-North test pit, and one from the Group A test pit. Although some surfaces of these fragments show evidence of flake removals they are not microblade cores or core fragments. Their past function is not immediately obvious.

In general, the Fleur de Lys quarrying tools were made from locally available types of hard rock that could be obtained nearby in large quantities. They were shaped no more than was necessary to create working edges with the right characteristics for a limited range of quarrying tasks. From their shapes, most appear to have been hand-held in use. Quarrying tools of organic materials probably played only a minor role in extracting soapstone from the deposit at Fleur de Lys. Stout levers of wood may have been useful

in clearing blocks and boulders from the area, but plentiful lithic tools probably served for most quarrying steps.

THE QUARRYING PROCESS

Plate 3B illustrates, in a contiguous area, three stages in the likely sequence of isolating and removing a soapstone vessel preform from the quarry.

The rectangular lump in the center of the photograph, located immediately adjacent to a deep depression or removal scar on the left, is a preform in the first stage of isolation--a small amount of surrounding material has been scraped from its top and right margin, outlining the shape of the preform. The depth of these cuts is no more than about 5 cm. Notice that, in this instance, because of the presence of deep removals to the left of the preform, and beneath it, no material at all needs to be removed on these edges to isolate the preform. Here, a two-fold gain in the efficiency of extracting a preform from the outcrop has been achieved simply by locating new work adjacent to previous removals. This seems to have been an intentional and consistent pattern in the technology of soapstone extraction at the quarry, and probably accounts for the reasonably symmetric locations and clustering of removal scars, seen especially in the B-North locality (Plate 2A).

The subrectangular preform on the right in the photograph is at a later stage in the isolation process, and appears nearly ready for removal. Here, material has been deeply excavated from around three sides of the preform, using a semicircular scraping motion.

The removal scar on the left in the photograph, an 18 cm deep subrectangular to circular depression in the rock, is the remains of a successful preform removal from the parent rock. Precisely how removals were accomplished by Dorset people at the Fleur de Lys quarry is still speculative. At Fleur de Lys, there is absolutely no evidence of undercutting preforms to facilitate breaking the lump away from the mass, a technique that appears widespread in eastern U.S. and California soapstone quarries (Holmes 1919; Schumacher 1878). Removal scars are invariably clean break surfaces. One feature of the quarrying process at Fleur de Lys that may be significant in this regard is that most preforms possessed an "access zone" along one or more sides-- that is, a relatively open and accessible side located adjacent to a prior removal. Preforms may have been levered or struck off in some manner from this accessible side.

An attribute analysis of removal scars and remaining preforms at the quarry is still in progress and will be reported in a later publication. In general, preform shape

is quite variable, ranging from round, oval and oblong, to subrectangular and square. While oval and subrectangular shapes seemed in the majority, no particular shape clustered areally by quarry group. Preform size averages 20-25 cm in width by 25-30 cm in length. One interesting discovery at the quarry was the presence of several "little pots"--crudely incised oval preforms about 4-5 cm long--always located within a meter of the ground. These probably were the work of children, emulating the more important industry of their parents.

QUARRY PRODUCTION

Some estimate of the magnitude of vessel production at the Fleur de Lys quarry may be made, based on calculations of the volume of soapstone removed from each worked zone and the amount required for the production of a single preform (including waste). Such calculations are of interest in understanding the contribution of Fleur de Lys to the regional economy of Dorset people exploiting the quarry and its significance as a source of raw material, although these issues are left unexplored at this time.

Preliminary calculations for Locality 1, Groups A and B (North and South), conservatively place production from these two areas alone in the range of between 1000 and 1500 vessels. The lower figure assumes that volume removed is limited to

areas now visible above ground, while the upper figure was calculated with the additional assumption that the worked faces extend below ground to the estimated depth of the tailings.

Certainly, total production from all quarried localities at Fleur de Lys was substantially higher than these figures, but how much higher is not known. Considering even the probable long history of the quarry's exploitation, these calculations suggest that the soapstone deposits at Fleur de Lys were an important regional lithic resource.

GEOLOGIC SOURCE SAMPLING

The final aspect of work undertaken at Fleur de Lys entailed systematic sampling of all soapstone outcrops in the area for neutron activation analysis of the source materials and for petrographic thin-section descriptions. This aspect of the work is part of a larger program of research aimed at characterizing prehistorically utilized soapstone source deposits in Newfoundland and Labrador to enable determination of the original sources of soapstone artifacts found in Maritime Archaic, Palaeo-Eskimo and Neo-Eskimo archaeological sites. The information gained from these analyses provide invaluable data documenting the extent of prehistoric population movements, patterns of interaction and

exchange between groups, independent of stylistic similarities in artifact inventories. Some preliminary results from this program are already available (Allen, Allen, Holland and Fitzhugh 1978; Allen and Pennell 1978; Nagle, Fitzhugh, Allen and Storey 1980) which, for Labrador at least, seem to point to the widespread distribution of soapstone artifacts from specific sources continuing over several millenia. Characterization of the Fleur de Lys soapstone deposits will clearly be a significant addition to these studies.

ACKNOWLEDGEMENTS

The field work reported here was supported by a permit and grant from the Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador. Field assistance was most ably provided by Callum Thomson (Memorial University of Newfoundland). Discussion and advice from Jim Hibbard (Newfoundland Department of Mines and Energy) on geological matters is also acknowledged. Finally, the very kind consideration and hospitality of the Boutells, all the Quigleys, and other residents of Fleur de Lys must be mentioned for making our stay so enjoyable and productive.

REFERENCES

ALLEN, Ralph, K.K. Allen, C.G. Holland and W. Fitzhugh
1978 Utilization of soapstone in Labrador by Indians, Eskimos and Norse. Nature 271: 237-239.

ALLEN, Ralph and Edith Pennell
1978 Rare earth element distribution patterns to characterize soapstone artifacts. Pp. 230-257 in Archaeological Chemistry II, edited by Giles Carter. Advances in Chemistry Series No. 171, American Chemical Society: Washington, D.C.

HOLMES, W.H.
1919 Steatite quarries. Pp. 228-240 in Handbook of Aboriginal American Antiquities, Part 1. Bureau of American Ethnology, Bulletin 60. Gov't. Printing Office: Washington, D.C.

HOWLEY, James P.
1915 The Beothucks or Red Indians. Cambridge: Cambridge University Press.

LINNAMAE, Urve
1975 The Dorset Culture: A Comparative Study in Newfoundland and the Arctic. Technical Papers of Newfoundland Museum, No. 1, St. John's, Newfoundland.

LLOYD, T.G.B.
1876 A further account of the Beothucks of Newfoundland. Journal of the Anthropological Institute of Great Britain and Ireland 5:222-230.

NAGLE, Christopher, W. Fitzhugh, R. Allen and M. Storey
1980 NAA characterization of soapstone sources, and Dorset archaeology in Labrador. Paper presented at the 45th Annual Meeting of the Society for American Archaeology, Phila., PA.

SCHUMACHER, Paul
1878 The method of manufacture of several articles by the former Indians of southern California. Eleventh Report of the Peabody Museum (Harvard) 2(2):258-268.

WINTEMBERG, W.J.
1940 Eskimo sites of the Dorset culture in Newfoundland, Part II. American Antiquity 4: 309-333.

PLATE 1A

Fleur de Lys soapstone quarry, Locality 1, Group A (South). Portion of scale visible is 80 cm.

PLATE 1B

Fleur de Lys soapstone quarry, Locality 1, Group A (North Grotto). Scale extended 15 cm.

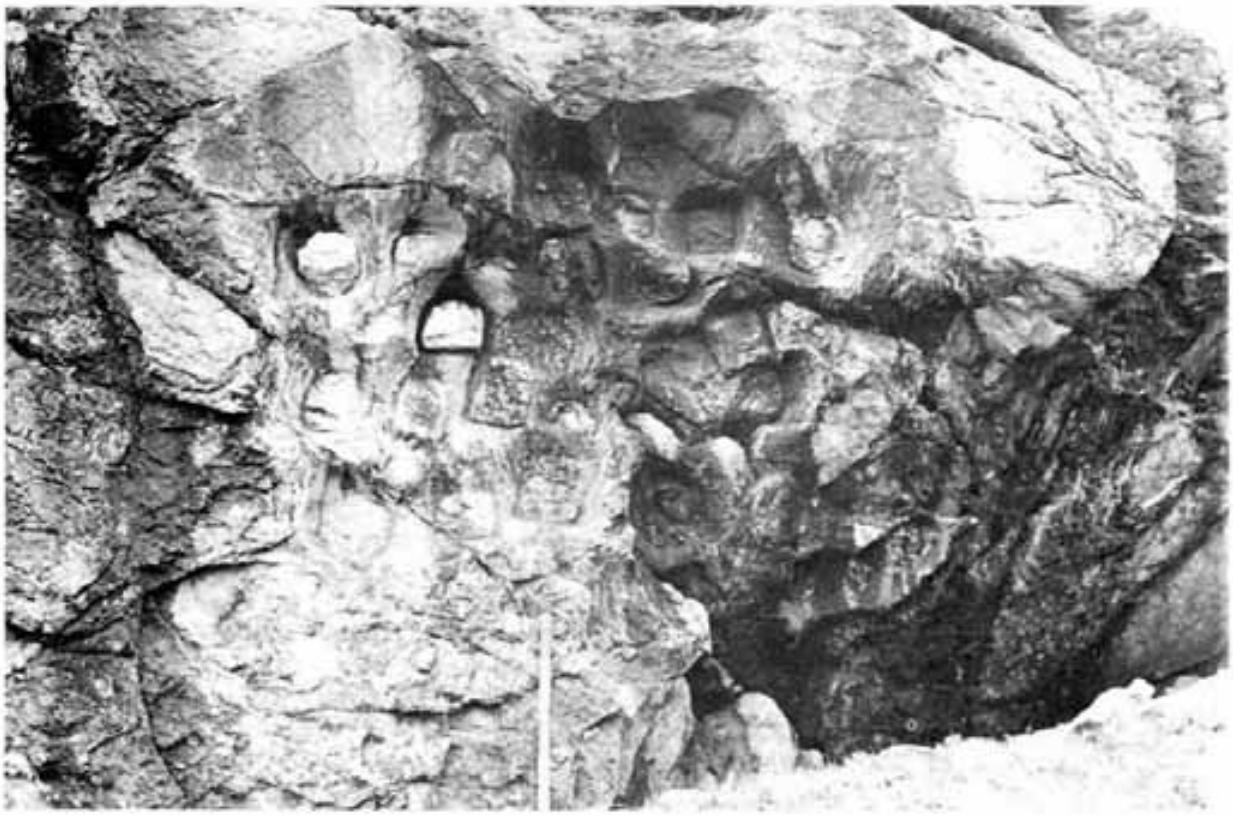


PLATE 2A

Fleur de Lys soapstone quarry, Locality 1, Group B (North). One metre scale stands beside test square excavated beneath this group. The southern edge of Group A is just visible on the right edge of the photograph. The three-stage sequence shown in Plate 4B is located at the top left of the B-North group. The grass vegetation in the foreground mantles the tailings at the base of this group.

PLATE 2B

Fleur de Lys soapstone quarry, Locality 1, group B (South). One metre scale lies horizontal at the base of the worked face.

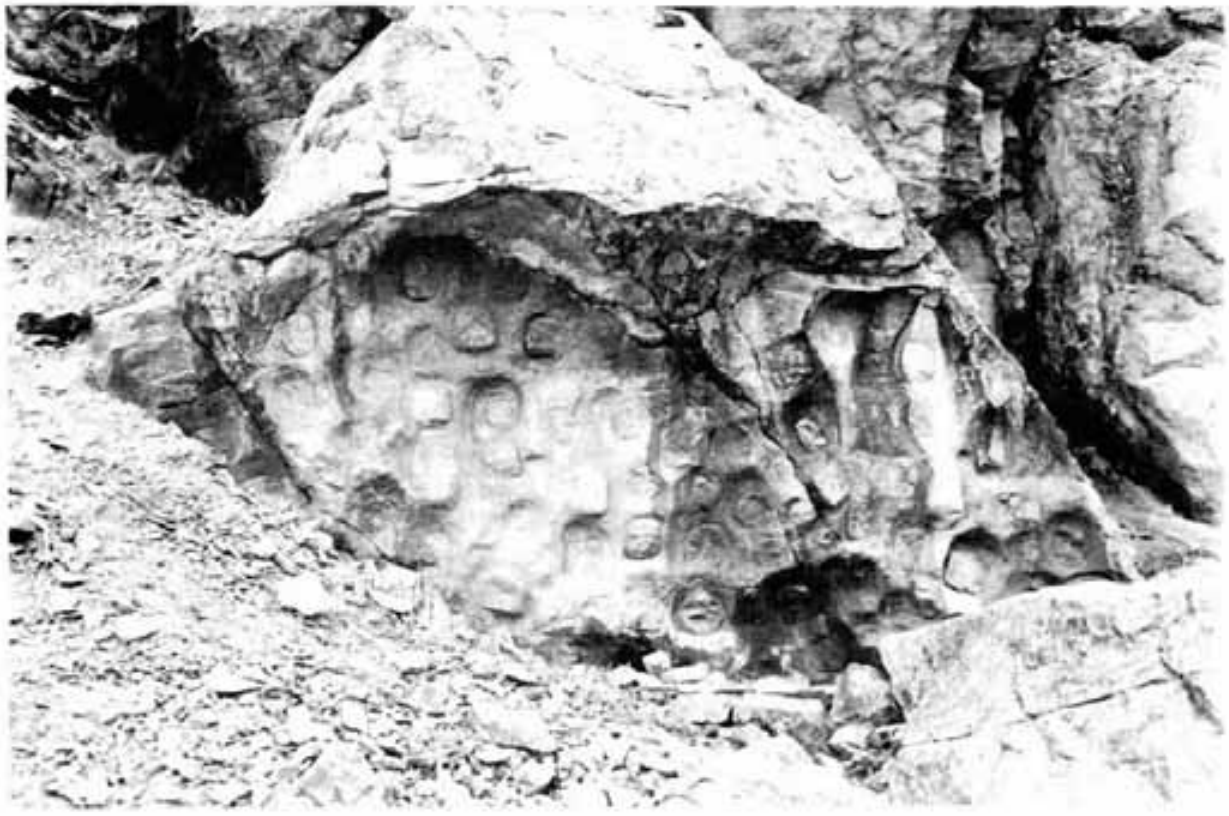


PLATE 3A

Fleur de Lys soapstone quarry, Locality 1, Group C. One metre scale.

PLATE 3B

Fleur de Lys soapstone quarry, Locality 1, Group B (North). Detail showing three stages in the process of vessel preform removal. Centre preform measures 31 x 33 cm.

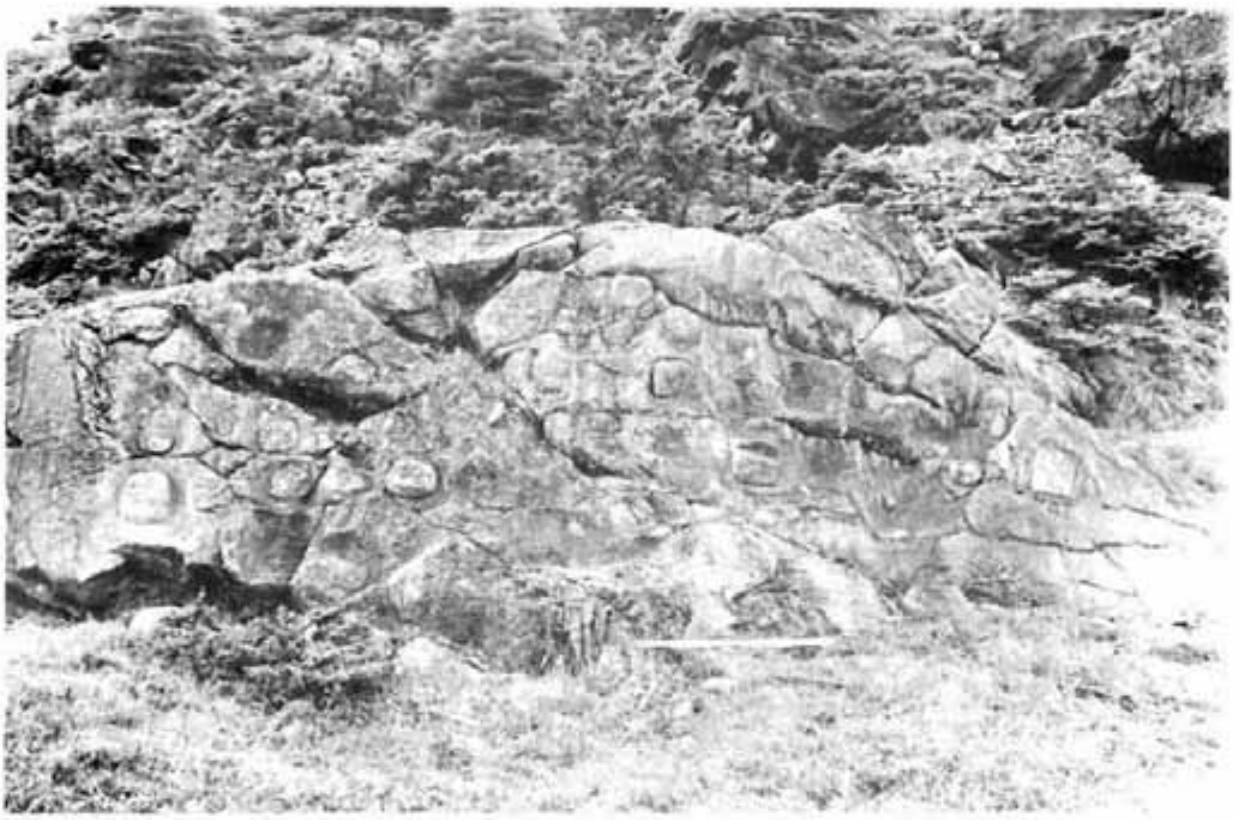


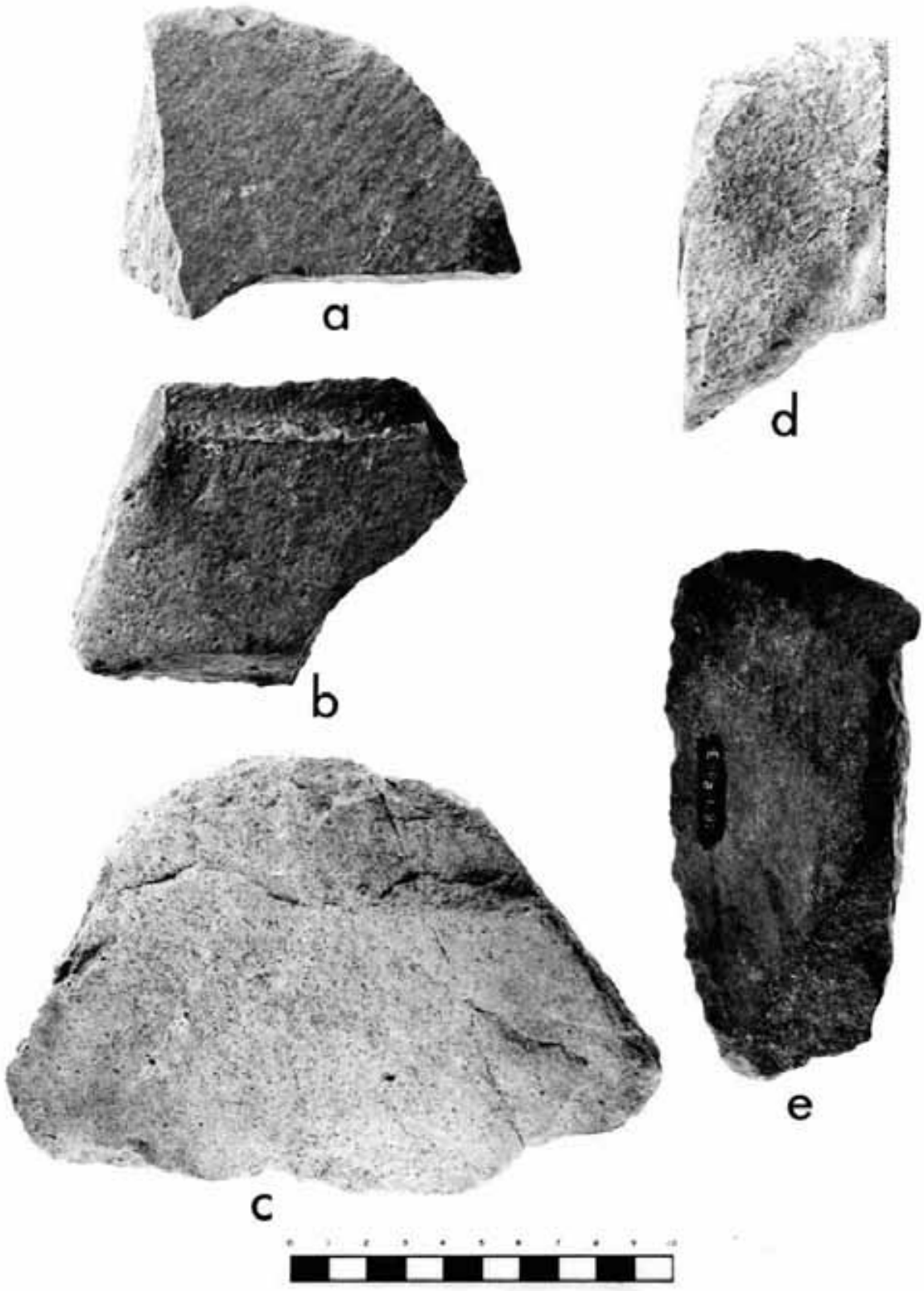
PLATE 4

Fleur de Lys soapstone quarrying tools. Scale in centimeters. Working edges face the top of the page.

a-c tabular scrapers

d wedge or chisel

e pick or chisel


a
d
b
e
c

A PRELIMINARY REPORT ON EARLY DORSET OCCUPATIONS ON THE WEST COAST OF NEWFOUNDLAND

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RESUME: Fouille entreprise par l'auteur a l'ete 1981 sur la cote ouest de Terre-Neuve. La collection du site Factory Cove (DlBk-3) est datee typologiquement entre 400-600 av. J.-C. Par contre des traits plus anciens sont aussi présents. Une quantité considérable de débitage suggère que le site était non seulement un site d'habitation mais aussi un atelier. La collection se situe dans la phase du Dorsétien ancien telle que manifestée a Terre-Neuve entre 3000 et 2400 ans avant aujourd' hui.

INTRODUCTION

The excavation of an Early Dorset site in Cow Head, Newfoundland, continues the exploratory work undertaken by Dr. James Tuck, Archaeology Unit of Memorial University of Newfoundland, during the summers of 1976 and 1978.

The bulk of this preliminary report covers the site description, the excavation, the lithic remains and associated archaeological surveys. The purpose of this research

is to supplement our meager knowledge of the early Dorset culture in Newfoundland. This is achieved through the 1981 season main objectives, which were:

I Adding material to the 1976/1978 collection.

II Delimiting the extent of the occupation at the site.

III Obtaining samples for C^{14} dates.

SITE DESCRIPTION

The Factory Cove site (DlBk-3) is located at 49°55' North and 60°10' West (Figure 1). The general setting is a tree-covered peninsula extending in the Gulf of St. Lawrence.

The cultural remains lie on a fairly level terrace 9.20 m above sea level. Grass and moss make up 70 percent of the surface vegetation while the remaining 30 percent is a growth of windswept evergreens. The natural features at the site offer some protection against the northerly and easterly winds; however, we observed that for May and June the dominant winds come from the south and west, which are the sea sides. Fresh water is readily available nearby since the higher grounds drain in a bog contiguous to the site. The bog is wet throughout the year and a surplus runs on the surface after heavy rainfalls.

THE EXCAVATION

I Methods

Excavation at the Factory Cove site concentrated on four different areas (Plate 1). Although we continued from the previous one-metre grid system laid in 1976, our excavating unit was a two-metre square.

The excavation principle was to follow the artifact distributions in order to have a coherence between them and the architectural features. We recorded both the artifacts and the rocks by natural levels. Besides the mapping of these architecturally significant stones, we made a thorough photographic coverage. Stratigraphic cuts throughout the site supplemented these data.

We dug 116 squares metres in four areas, bringing the total to 160 metres for the three seasons.

II Excavated Areas

A - Area I

The excavation in area I (Plate 1) is adjacent to those of the previous field seasons. Since the artifact and flake distribution from the previous years had been made for every square before the 1981 season, we had an idea of where to start. Therefore, we concentrated first on the east and southeast part of area I. We considered the investigation of this

area as being our best chance to discover defined habitation features. So, we added another 50 square metres to the 42 already excavated.

Unfortunately, except for a rock pattern suggesting a tent ring with a fireplace at its center, most of the area is a rock jumble. Since we can see as many patterns as we wish, I prefer to await further analysis for their interpretation. Some smaller stone features, such as intact and fragmentary fireplaces, were also found.

This intensive occupation and the amount of lithic material suggest that we may have multiple occupations at this portion of the Factory Cove site.

STRATIGRAPHY

Level I is the present sod level with an average thickness of 8 cm. Level Ic, at the base of the sod, is a discontinuous angular pebble level. Level II is a brownish humus averaging 10 cm in thickness and present throughout area I. We noticed a number of discontinuous angular pebble lenses within this level. Level III is a local gravel level. Level IV is a black stained humus averaging 4 cm in thickness. It contains bits of charcoal. Level IVa is also a black stained humus but it is localized underneath level III. The sterile level V is a mixture of angular pebbles with limestone blocks piercing

here and there.

In summary, level IVa is stratigraphically the earliest occupation layer. It contains a component earlier than levels II and IV. Next of interest is level IV, first identified in the profile of a fireplace. The sporadic horizontal distribution and the charcoal content of this level suggest that it is the remains of combustion areas associated with level II. Level II is the result of an extensive occupation. Its cultural content shows a high degree of homogeneity. The pebble lenses within this level would come from the decomposition of architectural material such as sod blocks.

B - Area II

The possibility of a semi-subterranean house in this area (Plate 1) was mentioned after the exploratory work of 1976/1978. We therefore decided to make this area our second priority. Consequently, we started to excavate on the edge of what was a shallow depression. Even though there was not any rock pattern associated to this depression, the result is that there may be some evidence of a semi-subterranean house shown in the profiles as a ring of loose humus mixed with sand. An estimate of the house dimensions from the distribution of this level would be that it is rectangular, approximately 4 m long by 2.50 m wide. As in area I the extensive destruction

gives many rock configurations which are still open to interpretation.

STRATIGRAPHY

Level I is the present sod averaging 9 cm in thickness. The discontinuous level Ic at the base of level I is made of angular pebbles and it is 2 cm thick. Level II is a brownish humus level throughout area II. It varies in thickness from 6 cm to 16 cm. Level IIb is a mixture of sand and humus and was found only sporadically. Level IV is a black stained level containing bits of charcoal.

Our hypothesis of a semi-subterranean house in this area is possibly supported by the nature of level IIb, a layer of sandy humus that forms a ring around a shallow depression. In summary, the pattern of occupation in this area seems to involve the initial excavation of a semi-subterranean house followed by multiple overlapping occupations as suggested by the thickness of level II. The level IV found sporadically at the base of level II suggests the presence of fireplace areas.

C - Area III (Plate 2)

We discovered area III while trying to delimit the extent of the occupation at the site. This area is marginal by comparison to areas I, II and IV. Before we started any work, we noticed a wet depression averaging 50 cm lower than

the surrounding grounds.

Once we opened the first test-pit in this area, we found an abnormally high quantity of finished tools and very few flakes. We decided, therefore, to expand the excavation hoping to have some well defined architectural remains in order to put these artifacts in context. We ended up with 24 square metres excavated and not many more artifacts than those found in the first test-pit.

The reward of this heavy task is that we have a single occupation circled by three bedrock outcrops with a low stone wall between two of them. The cultural level was buried by a rock jumble after the wall had collapsed. The absence of hold-down rocks in front of the habitation suggest that the front was semi-movable. There was also evidence of a hearth. Furthermore, we found a storage pit in this area. This feature within the limit of the occupation has a conical shape 80 cm wide at the top and 40 cm deep. The bone preservation within this feature was favoured by the impermeable clay forming the sterile level.

STRATIGRAPHY

The stratigraphy in area III shows a single occupation of lean-to structure. The cultural level II is a black humus buried under 40 cm of peat. At the periphery of this cultural

level and partly overlying it are the levels Id and Ie. Level Id is a brownish organic clay and Level Ie is a grayish clay. We interpret these two levels as being the remains of wall construction material. They evidently slid towards the centre after the abandonment of the lean-to.

D - Area IV

Little can be said about area IV except that it is a featureless area which produced thousands and thousands of flakes. We selected this place in order to have a sample from the centre of the site and at slightly higher elevation than the three previous areas. We felt some stones through the sod as we walked in the area which suggested the existence of a single tent ring. Unfortunately, the schedule did not allow us to open more than 12 square metres, which was insufficient to expose any pattern. Given the large amount of debitage, two hypotheses were considered: a) that we were digging at the center of an outside activity area of a dwelling adjacent to it, or b) simply that the building materials associated with those cultural remains were carried away.

STRATIGRAPHY

The stratigraphy in area IV comprises the present sod (level I) some 10 cm in thickness and an underlying black

humus (level IIa) approximately 7 cm thick, with some leaching at its base.

LITHIC ARTIFACTS

During the season, 116 square metres were excavated to depths varying from 15 to 75 cms, and 1034 finished, unfinished, and fragmentary tools were recorded and catalogued. We estimate the amount of flaking debris to be ca. 100,000 specimens or 250 kg. No doubt, more tools will be found during the debitage analysis. This debitage was recorded by natural levels within 50 cm quadrants. We expect to use the debitage and artifact distributions to pinpoint activity areas within the features.

The unusually high frequency of debitage suggests that Factory Cove is a workshop as well as a living site. Since the only exotic material is Ramah chert, of which we have but 3 specimens, it seems very likely that the profusion of local raw material was a major attraction to the Dorset people. Most tools are made of local cherts found in beds on the peninsula or in big chunks on the beach. There is a wide range of quality and color in these cherts. Thus, the general trend is that the finer grained material served to make delicate tools such as the end blades, microblades and burin like tools. On the other hand, every unfinished tool,

representing 31.4% of the collection, is made of porous black chert.

The artifact frequency is reported in Table 1. Since the analysis is still in progress, one should consider these categories as descriptive only.

TABLE 1

LITHIC ARTIFACTS FROM FACTORY COVE

Category	Number	Percent
Unfinished Tools	325	31.4
Blades	210	20.3
Retouched Flakes	128	12.3
End Blades	92	8.8
Scrapers	65	6.2
Hammerstones	57	5.5
Knives	43	4.1
Cores	44	4.2
Burin-like Tools	35	3.3
Side Blades	10	1
Whetstones	4	.4
Bipoints	3	.3
Crystals	3	.3
Adzes	2	.2
Unifaces	2	.2
Perforator	1	.1
Miscellaneous	10	1

I.UNFINISHED TOOLS

The frequency of unfinished tools (Plate 3) makes the collection very intriguing. We lump in this category both of those classes of artifacts called "blanks" and "preforms". Although there is considerable vagueness in the literature surrounding these categories, a blank is apparently the first state in the tool manufacture, whereas a preform is a more nearly completed tool. In order to eliminate this confusion, three quantifiable attributes - edge retouch, flaking character and edge regularity - are used to describe these artifacts. The two last attributes are ranked on a scale 1-4.

While the edge retouch is simply an evaluation of the unifaciality or bifaciality of the piece, the 1-4 ranking is applied to flaking character and edge regularity. It represents the degree to which each attribute is carried out. For example, on Plate 3:1,3 the flaking character is primary retouch which on the scale is ranked at one, while on Plate 3:2 where the flaking is carried further the rank is two, and even further on Plate 3:4 which is three. The rank four is applied to a piece which has primary and secondary retouch all over. The edge regularity scale is the evaluation of the edge straightness, e.g. there is an irregular contour, it would be low on the scale. We anticipate being able to compile information on

reduction techniques, with the two numerical extremes showing two degrees of manufacture. Of course, one should also expect to have intermediates.

II. BLADES

All but two of the blades are made of local fine-grained chert. Using a 11 mm threshold, we have 13% blades and 87% microblades. Very few show any hafting modification such as a stem. However, some specimens have ventral retouch.

III. END BLADES

The dominant type of end-blade is the plano-convex side-notched style (Plate 4:1-4). Placement of notches differs, however, on two general classes of end blades. On the one hand, there are high side-notched examples (Plate 4:3) which compare to what Tuck has described from the early Dorset phase at Big Falls site, Saglek Bay, northern Labrador (Tuck 1975: Plate 22:1-3), dated sometime prior to 2500 years ago (ibid:178). On the other hand, the low side-notched variety (Plate 4:1-2,4) is comparable to what appears at site E, southern locus stratum 1, also at Saglek Bay around 2500 B.P. (Tuck 1975: Plate 3) or to what Fitzhugh 1972: Plate 82).

IV. BURIN-LIKE TOOLS

A total of 35 complete and fragmentary burin-like tools was recorded. They all show extensive polishing with, in some cases, chipping along the edges (Plate 4:5-7). The

association of some specimens (Plate 4:6) with finely chipped tools suggest that they may have been used for fine workmanship or lithics.

V.SIDE BLADES

There are two types of side blade in the Factory Cove collection. One is a small, biconvex variety with serrated edge while the other is broad, semi-lunate, with flat faces (Plate 4:9-10).

FAUNAL REMAINS

Bone preservation at Factory Cove was generally poor, owing to acid soil. Specimens were recovered from two distinct areas, some from level IV in area I and the rest from area III. In the particular case of level IV, the bones are completely surrounded by bits of charcoal. After discussion with a conservation specialist, both parties had the same observations on preservation in microenvironments. We agree that the charcoal would neutralise the acids and thus protect the bones. The other case of bone preservation, which is, by the way, unusual in Newfoundland's generally acidic soils, comes from a storage pit in area III. This case is special: an impermeable clay substratum apparently retained water to create an oxygen free milieu which, added to 40 cm of insulating peat, kept the bones well preserved.

Since the osteological analysis is not yet complete, we can only mention the species recognised during the excavation. These include caribou, seals, and birds. However, if we refer to the remains of the 1976 excavation, Stewart (1979) suggests that the adult harp seal specimens identified would have been killed on shore around April. These data are supplemented by the presence of bird bones, which, if identified as migrant birds, could support the idea of a late winter/ early spring occupation.

SURVEYS

The surveys carried out covered the southern portion of the Cow Head peninsula and about 2 km of shoreline north of Cow Head (Figure 1). A surface find one-half km from Factory Cove was followed by test-pitting. The area around the find is an eroding terrace at 6.50 m a.s.l. and we believe there is not much left of the site. The artifact is a side-notched knife, bifacially retouched, with one convex and one concave edge. It duplicates a specimen from the early Dorset component at Factory Cove. The other survey along the shoreline north of Cow Head did not lead to any discovery.

SUMMARY

Without drawing a firm conclusion before submitting the C^{14} samples it appears that there may be two occupation

phases at Factory Cove. The earlier is indicated by transversally flaked artifacts from level IVa, area I (Plate 4:11), and from area III (Plate 4:12). This technique is comparable to the one from an isolated feature at the Cow Head site which Tuck (pers. comm.) dates typologically back to 3000 years before present. Some other traits such as a bipoint (Plate 4:8) would also support this idea of an early occupation.

Overall, the goals for the 1981 season were met. We have in hand an early Dorset component with some earlier traits which should be used to demonstrate the continuity between late Pre-Dorset and early Dorset.

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Finally the comments on earlier drafts of this report from Drs. Stuart Brown and James A. Tuck are truly appreciated.

REFERENCES

FITZHUGH, William
1972 Environmental archaeology and cultural systems in Hamilton Inlet, Labrador. Smithsonian Contributions to Anthropology 16. Smithsonian Institution. Washington, D.C.

TUCK, James A.
1975 Prehistory of Saglek Bay, Labrador: Archaic and Paleo-Eskimo occupations. Archaeological Survey of Canada Mercury Series 32.

STEWART, Frances L.
1979 Faunal remains from the Factory Cove site (DlBk-3), Newfoundland. Unpublished report on file at the Department of Anthropology, Memorial University of Newfoundland.

FIGURE 1

Cow Head Peninsula

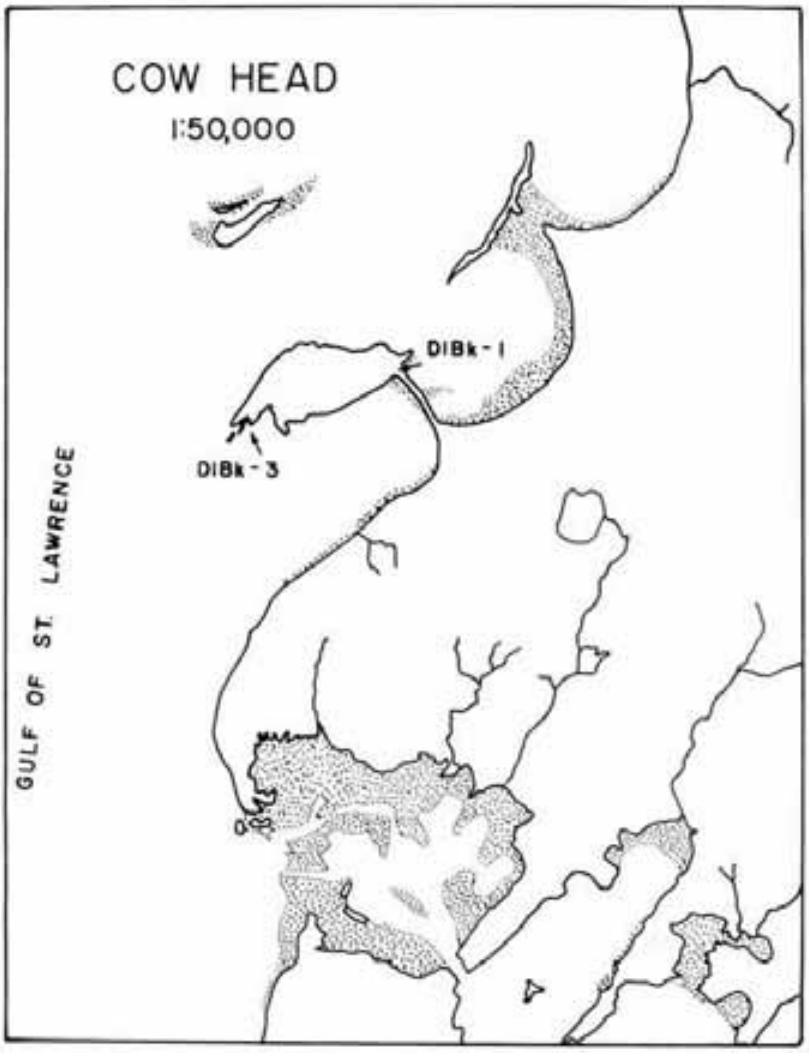

PLATE 1

General view of the Factory Cove site (DlBk-3). Looking east.

PLATE 2

Lean-to in Area III.


AREA-3
AREA-4
AREA-2
AREA-1

PLATE 3

DlBk-3. Unfinished tools 1-4.

PLATE 4

1,2,4. Low side-notched endblades

3. High side-notched endblade

5-7. Burin-like tools

8. Bipoint

9,10. Sideblades

11,12. Transversally flaked bifaces

1 2 3 4

1 2 3 4 5 6 7 8 9 10 11 12

PRELIMINARY REPORT OF A SURVEY OF EASTERN NOTRE DAME BAY

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INTRODUCTION

In 1980, the Newfoundlnad Government, Department of Culture, Recreation and Youth, Historic Resources Division, provided funds for a long term project, the purpose of which is to increase our understanding of the Beothuck culture. To that end, an inventory of Beothuck sites was compiled (Marshall n.d.), and brief archaeological surveys were carried out in the fall of 1980 in the Pilley's Island area, the Badger Bay region, and the Fogo Island area (Pastore n.d.; Thomson n.d.). In the summer of 1981, the two co-investigators of the Beothuck Project, Jane Sproull Thomson and I, carried out work at Red Indian Lake and in eastern Notre Dame Bay, respectively. The following is a preliminary report of that latter reconnaissance.

RESEARCH DESIGN

Eastern Notre Dame Bay was selected for survey for two reasons: first, surprisingly little surveying had been carried out in the area; and second, documentary records (Howley 1915:273, 275, 283, 289) suggest an

historic Beothuck occupation of the region. The work was carried out by a two man survey team (assisted by a volunteer for one week) in an 18 foot open boat. Areas easily accessible by land were reserved for those days when bad weather made it too dangerous to travel by sea. Our boat was based in Twillingate from 2 July, 1981, to 8 July; in the Dildo Run Provincial Park from 8 July to 21 July; in Summerford from 21 July to 12 August; and at Cottle's Island from 12 August to 23 August. By moving the boat from one strategically located harbour to another, we were able to cover a fairly large area (see accompanying map) with a minimum of time wasted in transit.

Since our primary goal was to locate, delimit and identify coastal sites, we concluded that probability sampling techniques designed for inland surveying would be inappropriate for our purposes. We believed, for example, that there would be little profit in following a research design which would require the testing of areas (such as coastlines with rugged cliffs and no beaches) obviously unsuitable for a marine-adapted aboriginal people. Consequently, the decision was made to travel along as much of the coastline as time permitted. To provide preliminary information, relevant charts and topographical maps were consulted, and then local residents were interviewed. During the course of the boat survey, all locations

characterized by a beach suitable for the landing of aboriginal watercraft were examined. Particular attention was paid to areas which also possessed: (1) a nearby source of fresh water; (2) accessibility to obvious resources such as mussel beds, chert outcroppings, and the like; (3) an accessibly headland which could have served as an observation point for marine mammal hunters; (4) landforms, such as tombolo beaches and peninsulas which would have allowed prehistoric mariners the opportunity to launch or beach vessels in the lee of the landmass; and (5) a nearby, relatively level area upon which to camp. (These criteria may have biased our survey somewhat. Locations meeting these conditions tend to be highly visible from the sea - a quality probably not desired by historic Beothucks. It is noteworthy that we found no historic Beothuck sites.)

Locations meeting any of the above criteria were tested in the following manner. First, the surface of the relevant area was examined for any above-ground evidence of human occupation. The next step was to shovel-test by digging small "potholes" at regular intervals along transects parallel to the beach. If this produced artifactual evidence, shovel-testing proceeded along transects radiating from the find. Where possible, this was done simply by cutting a "plug" of sod, ca. 30 cm in diameter, lifting it, and then examining

the material beneath the sod. Since many Newfoundland sites consist of shallow, unstratified depositions directly beneath the sod, this method often worked quite well in delimiting the area of a site.

Where circumstances warranted, the next steps were to photograph the site, establish a datum point and lay out a grid. Then a one meter test square or a one by two meter test trench was dug to assess stratigraphy and to attempt to determine cultural affiliation. Digging was carried out with trowels and by natural levels; all artifacts were bagged and their provenience noted; features, where present, were mapped and photographed; and, where applicable, soil, bone, and charcoal samples were taken. In all cases, however, the goal was to determine the extend and cultural affiliation(s) of the site with an absolute minimum of digging. Finally, the elevation of the site was taken with a hand level and a sketch map was drawn.

It should be pointed out that European material was recovered and recorded only when found at a site which also contained native material. As is the case with any survey limited by time and personnel, we simply could not have given adequate attention to all sites, European and aboriginal, in the region. If we had attempted to record every 19th and 20th century fishing cabin, for example, we

would never have been able to leave North Twillingate Island. We did decide to note and record European material of unusual age or interest, but beyond that we could not go.

Eight weeks of this survey produced 16 previously unreported aboriginal sites (see Table 1). These sites have been listed only by their Borden number and their precise locations have not been indicated here (although they can be found elsewhere). This precautionary measure has been taken becuase of the evidence we found of occasional very thorough looting. It would be negligent, we believe, to provide precise locational information about newly-discovered archaeological sites in a format.

NARRATIVE

Of the sites found, six deserve special mention. The largest of these, DjAq-14, has tentatively been identified as a Middle Dorset habitation site. It lies at the bottom of Dildo Run in a protected cove above a cobble beach. (Its presence was revealed to us because nearby residents had stripped large patches of sod from the site for their lawns. While this practise did serve to bring the site to our notice, it has also made things that much easier for the numerous looters who have since despoiled a major portion of the site.). The tool sample from this site was majked by a relatively high frequency of blades and scrapers and a relatively low number of end blades and bifaces.

While it is premature to draw firm conclusions on the basis of a very limited sample, the preponderance of probable hide-working tools over presumed hunting weapons suggests that DjAq-14 may have been a base camp. That inference would fit with the site's location, a sheltered cove at the bottom of a long, shallow bay. Such places, although offering considerable protection from the weather, afford little opportunity for the hunting of marine mammals. DjAq-14, however, lies only a short distance from a number of much more favoured areas, easily accessible by either land or sea.

No discernable house structures or features were found at DjAq-14, but this may be due to the limited extent of our testing. A charcoal sample from the cultural layer was obtained, however, and may eventually be submitted for radiocarbon dating.

DjAr-4 is another large, and presumably Middle, Dorset site, this one located in a sheltered cove on a small island just west of New World Island. Although only 1 m^2 was excavated, that square revealed a cultural layer 34 cm deep, and produced 135 artifacts - largely microblade fragments, end blades, and end scrapers. Our initial impression is of a habitation site repeatedly occupied, perhaps for a considerable length of time. Although there is some evidence that early 19th century European cultivation has disturbed portions of the site, most of it appears relatively undisturbed.

We were able to spend rather less time than we would have wished at DhAr-1, another site with a large Dorset compohent.

This site, which also possesses a Maritime Archaic component of undetermined size, is located at the bottom of a deep arm in the southern portion of the survey area. DhAr-1 is near a number of summer cabins whose occupants have stripped most of the sod from the site for their lawns. Fortunately, the summer residents appear unaware of the existence of the site; consequently we confined our testing to surreptitious surface collecting and photographing. This meant, however, that our artifacts sample was somewhat smaller than would normally be the case. What little we did recover, nonetheless, suggests a Middle Dorset component. The Maritime Archaic component, represented solely by a large stemmed projectile point similar to that reported from the Beaches site by Carignan (1975: 51-57) was too small a sample from which to draw any conclusions.

The survey also turned up a quarry site, DjAq-13, on the north coast of New World Island. This site lies at the mouth of a small stream which flows through a steep, narrow valley and into the mouth of the sea (see Plate 1). Scattered on the gravel beach are a number of glacially deposited chert boulders, most of which bear scars from the large spalls which have been struck from them (see Plate 2). Lying on the beach, in the stream, and in the intertidal zone, were numerous large flakes, some of which bear evidence of retouching. Test-pitting of the limited level areas on both sides of the stream revealed more debitage and retouched flakes, but no hearths or other features. Indeed, it would have been impossible to camp here without being uncomfortably close to either the sea or

the stream. One crude fragment was found which was suggestive of a Maritime Archaic preform, but it was too incomplete to allow any definite conclusions to be made. We hope, however, to submit a sample of the DiAq-13 chert to Memorial University geologists for petrological analysis. Resulting identification of this material in lithic collections from other sites may provide us with more knowledge of prehistoric patterns of resource utilization in the area.

The survey also located two sites which show specific promise of increasing our knowledge of the Beothucks. The first of these, DiAq-2, was found in a tiny cove on the south side of a rather small island, south of New World Island. A scattering of flakes on the beach and above prompted us to dig a 1 x 2 m test trench in a level area 1.7 m above the mean high tide mark. This site was pock-marked with numerous square and round pits containing flakes but no artifacts. Obviously, DiAq-2 was quite thoroughly worked over by an artifact collector. That trench yielded a small corner-notched projectile point, a linear flake, and a roughly formed biface. A similar but water-worn biface was also collected from the beach surface (Plate 3). The trench also revealed a scattering of flakes and a portion of what appears to be a hearth. A charcoal sample was taken from this and has been submitted for radiocarbon dating. Further examination of the topography of the site revealed three oval depressions, approximately 20 cm deep and roughly 3 x 4 m in area. These may, upon further examination, turn

out to be housepits.

After having examined lithic assemplages reported from Stock Cove, Trinity Bay, by Robbins; Frenchman's Cove, Trinity Bay by Evans; and L'anse a Flamme and Isle Galet, by Penney; it appears as if the DiAq-2 material would not be out of place in these collections. (Where dated, the Indian components of these sites have fallen in the first millennium A.D. Penney has used the term Little Passage Complex to refer to the L'anse a Flamme assemplage, but it is probably premature to apply this term to the DiAq-2 material. The more neutral "Recent Indian" has been employed in this report. Essentially, this term can be applied to any post-Maritime Archaic, pre-Beothuck, Indian occupation on the island of Newfoundland.

Indeed, it is hoped that analysis of the DiAq-2 data may eventually help to reconstruct that rather large gap in Newfoundland prehistory that lies between the Maritime Archaic people and the historically known Beothucks. A larger artifactual collection from DiAq-2 might also be compared with the apparently similar collections from elsewhere on the island. Such a comparison might be used to test the hypothesis that Indian populations of the first millenium A.D. were organized into social groupings corresponding to some of the major bays of the island. DiAq-2 also contained a Maritime Archaic component which appears to be confined to a terrace 3.1 m above the mean high tide mark.

The other Recent Indian site found was DiAp-2 which lies on a level, grassy terrace 6.5 m above a narrow cobble beach. This site is bordered on the west by a wide stream and was tested because of its obvious suitability as an aboriginal campsite. A 1 x 2 m test trench yielded a side-notched projectile point, the base of a corner-notched point, a biface midsection (Plate 4) and a small quantity of chipping detritus. The trench also revealed what appears to be a fire-cracked rock feature, and a quantity of calcined bone which has been collected for analysis. A large nail, lying partly in the soil above the culture layer, and partly in the culture layer itself was also found. The nail, now undergoing cleaning, bears at least an ititial resemblance to the Basque nails found at Red Bay (James Tuck, pers. comm.).

The projectile points recovered from DiAp-2 are quite comparable to those reported by Carignan (1977:169-170) at Cape Freels. Carignan has labelled these points as Beothuck, but since the relevant occupations at Cape Freels-2 have been dated at 1740 ± 100 B.P., and 1145 ± 80 B.P. (ibid.: 149), it does not appear justifiable to apply the same name to both this assemblage and to the historically known Beothucks. Further work at DiAp-2 might, however, serve to link the Cape Freels-2 people with the Beothucks encountered by the first Europeans. Indeed, there is a possibility that DiAp-2 might be an early contact site, in which case it would have the potential to tell us something about early

European native relations in Newfoundland - a subject about which lamentably little is known.

CONCLUSION

Although analysis of the results of the 1981 field season is in its earliest stage, it promises to be rewarding. It is expected that data gathered from this survey will be used to test a number of hypotheses about the locational distribution of aboriginal sites on the island of Newfoundland. In addition, the discovery of two potentially significant Recent Indian sites holds out the possibility of adding to our understanding of the Beothucks.

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REFERENCES

CARIGAN, Paul C.
1975 The Beaches: a Multi-Component Habitation Site in Bonavista Bay. Archaeological Survey of Canada Mercury Series 39. Ottawa

1977 Beothuck Archaeology in Bonavista Bay. Archaeological Survey of Canada Mercury Series 69. Ottawa.

HOWLEY, James P.
1915 The Beothucks or Red Indians. Cambridge, Reprinted 1974 by Coles Publishing Company, Toronto.

MARSHALL, Ingeborg
n.d. Report on Beothuck Indian Sites on the Island of Newfoundland. On file, Newfoundland Museum, St. John's.

PASTORE, Ralph T.
n.d. A Survey of the Pilley's Island Region, Fall, 1980. On file, Newfoundland Museum, St. John's.

PENNEY, Gerald
n.d. The L'anse a Flamme Site (CjAx-1) and the Little Passage Complex. Paper presented to the Canadian Archaeological Association Conference. Edmonton, April 1981.

THOMSON, Callum
n.d. The Beothuck Project, Fall 1980. A Survey of Notre Dame Bay including Comfort Cove, Rattling Brook, Charles' Brook, Fogo Island, Indian Islands, Change Islands, and Badger Bay. On file, Newfoundland Museum, St. John's.

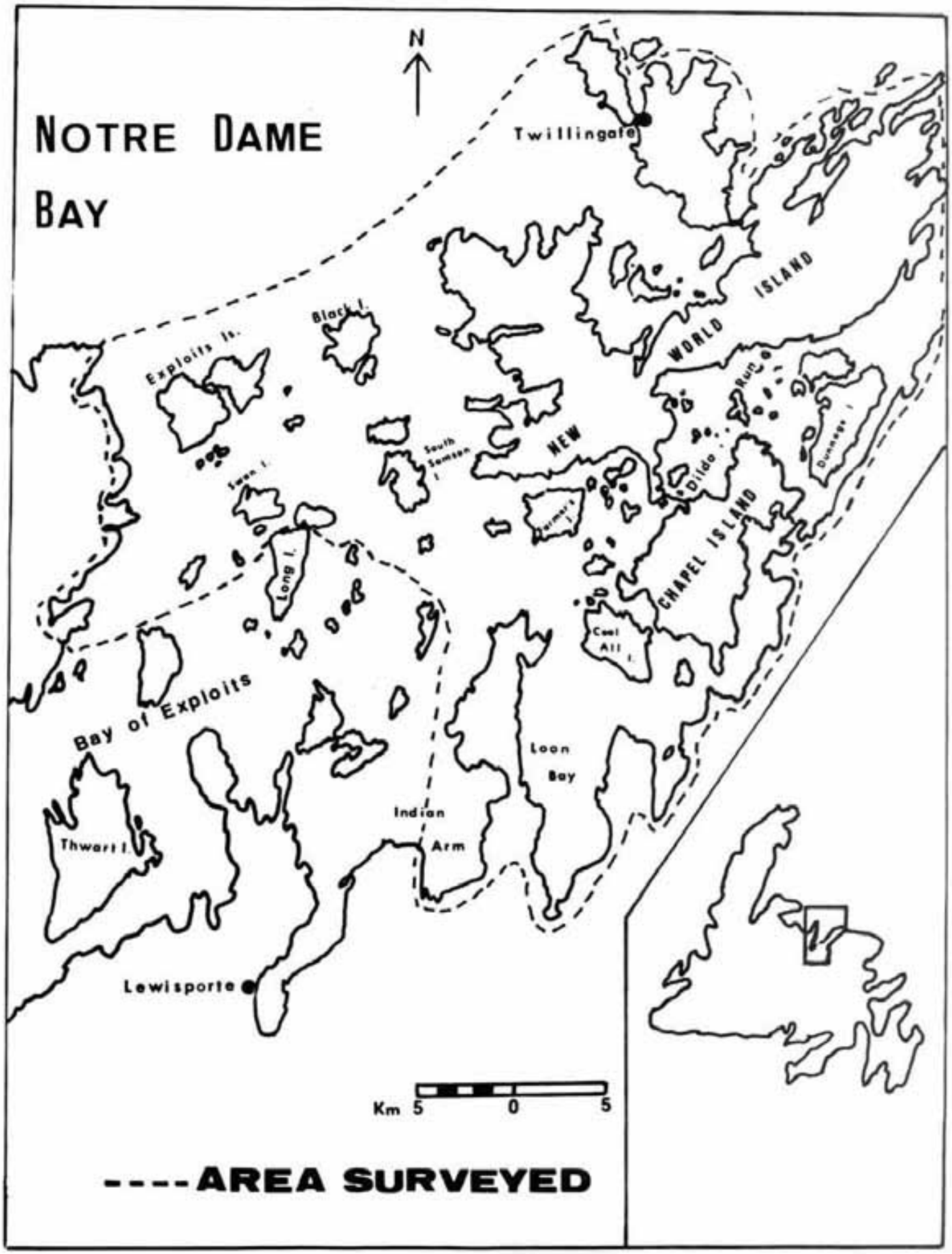
Table 1

Sites Located During the

1981 Survey of Eastern Notre Dame Bay

Borden No.	Cultural Affiliation	Estimated Area (in sq. meters)	Elevation above sea level (in meters)
DhAr-1	Dorset/Maritime Archaic	800	1.40
DiAp-2	Recent Indian	60-80	6.45
DiAp-3	Dorset	4-5	1.40
DiAq-1	Recent Indian Maritime Archaic	800	1.70 3.10
DiAq-2	Dorset	30-40	1.30
DiAq-3	Dorset(?)	4-5	1.40
DiAr-4	Dorset	10-15	1.10
DiAr-5	Maritime Archaic	3-4	1.80
DiAs-10	Dorset	200	1.00
DjAp-1	Dorset	5-6	1.90
DjAq-11	Dorset	6-8	3.30
DjAq-12	Unknown	200	2.00
DjAq-13	Unknown	720	1.30
DjAq-14	Dorset	3000	2.05
DjAr-4	Dorset	1200	3.60
DjAs-2	Dorset(?)	*	25.3

* This site consisted of two microblades found on top of a high cliff on a small island. No other cultural material was found.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----AREA SURVEYED

PLATE 1

DjAq-13, A quarry site, looking west. Note the large chert boulders in the foreground

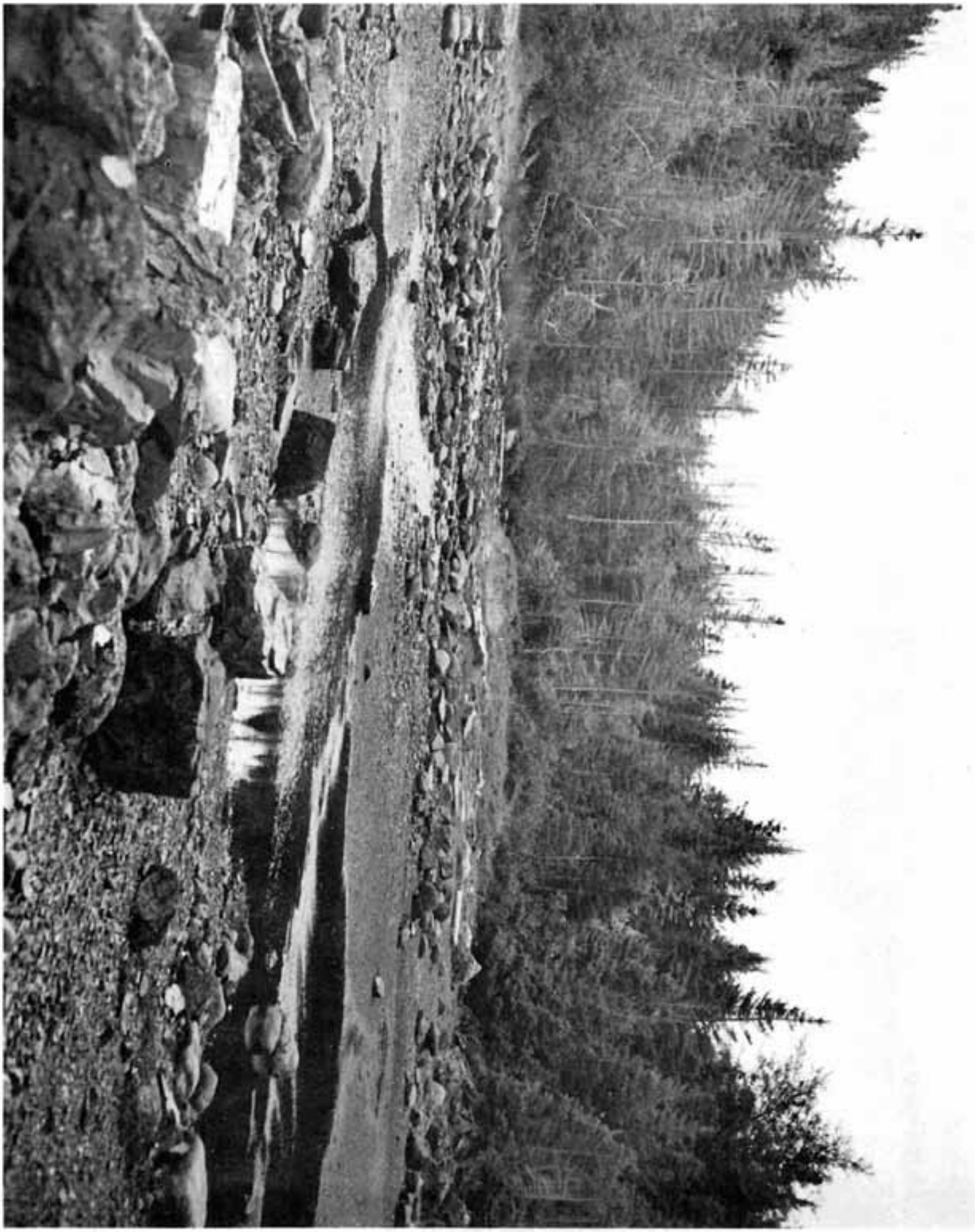

PLATE 2

DjAq-13, showing spalled chert boulder.

PLATE 3

Recent Indian Artifacts from DiAq-1

a. corner-notched projectile point

b. linear flake

c-d. bifaces

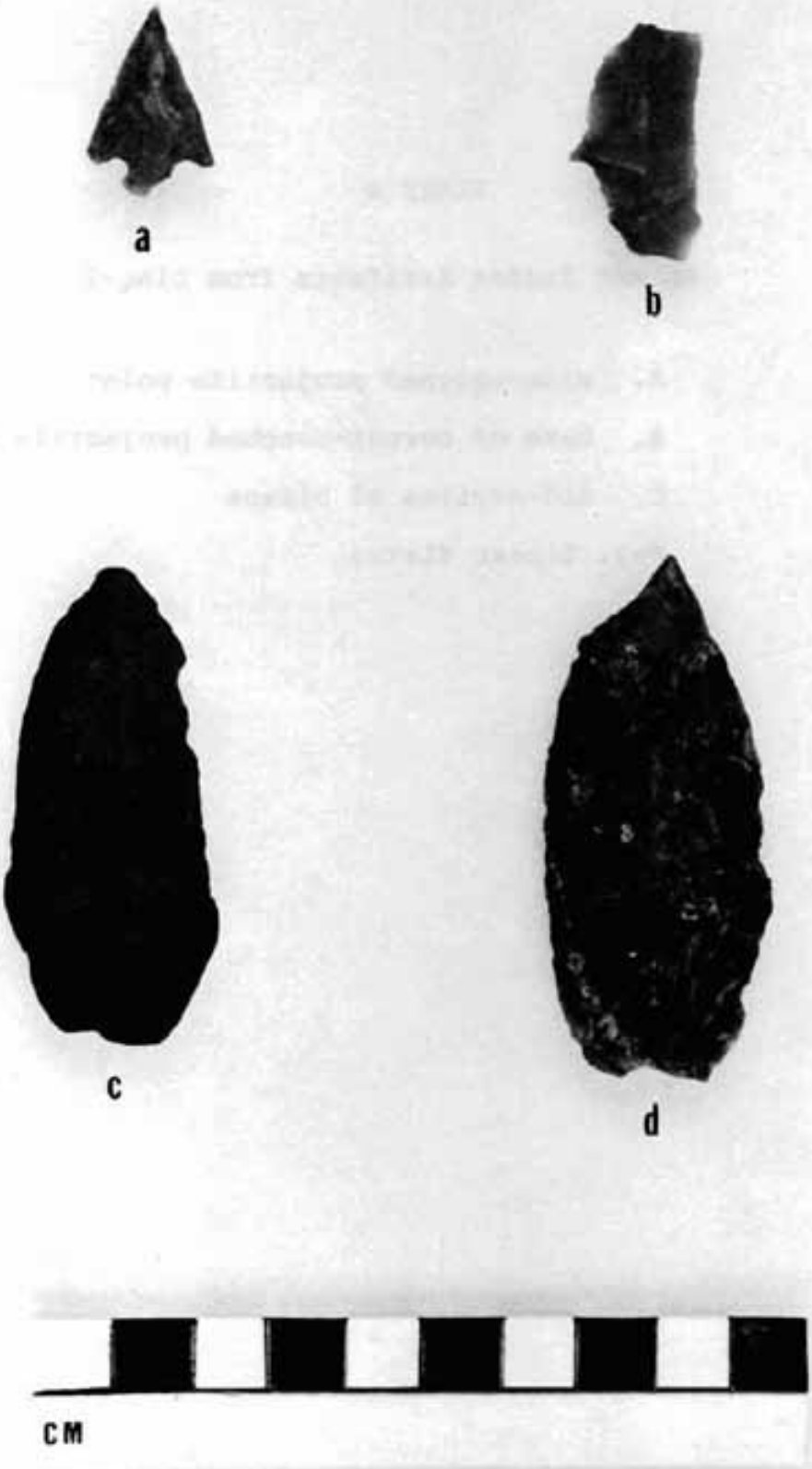
a
b
c
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PLATE 4

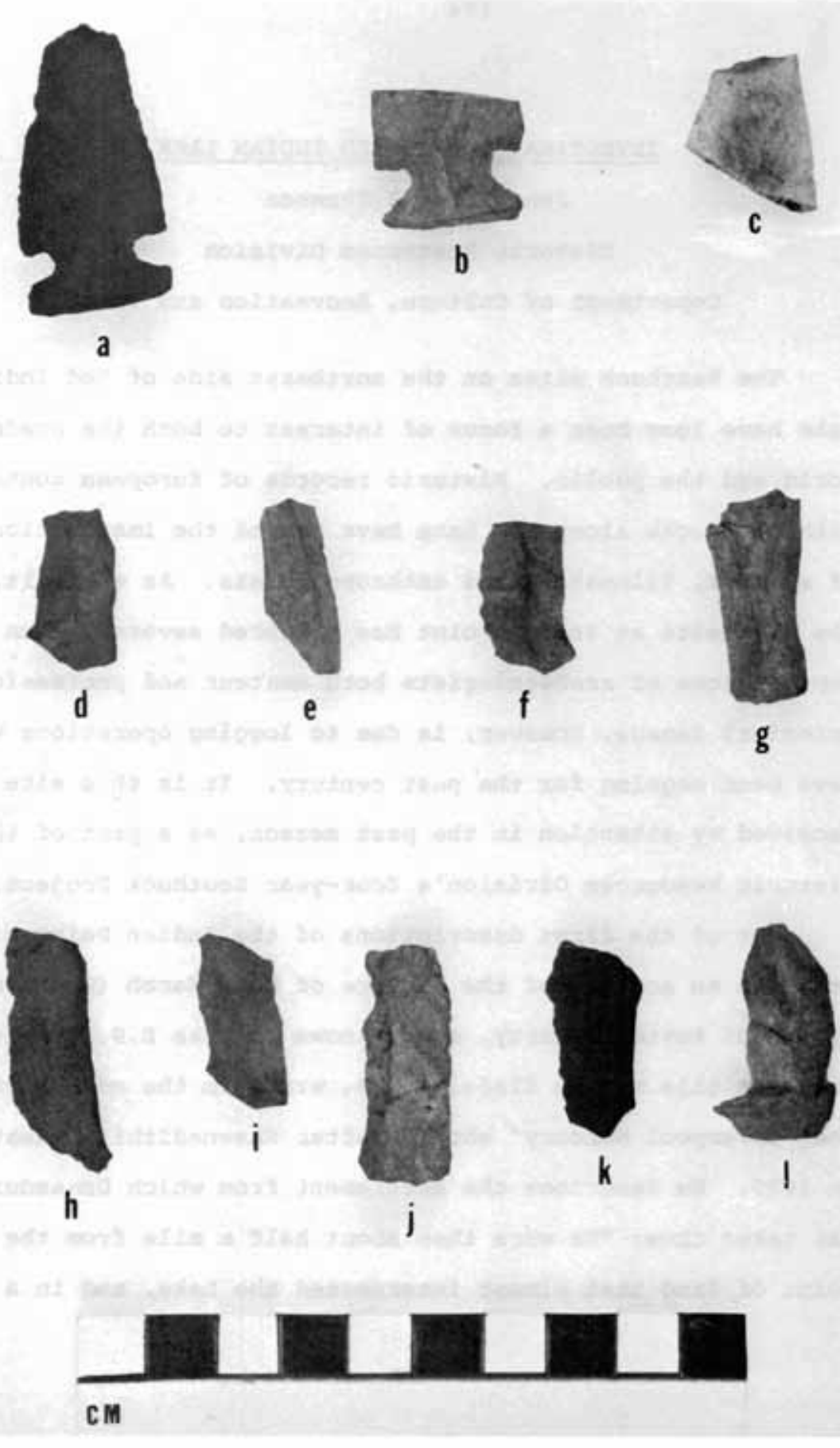
Recent Indian Artifacts from DiAq-2

A. side-notched projectile point

B. base of corner-notched projectile point

C. mid-section of biface

D-1. linear flakes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INVESTIGATIONS AT RED INDIAN LAKE

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Historic Resources Division
Department of Culture, Recreation and Youth

The Beothuck sites on the northeast side of Red Indian Lake have long been a focus of interest to both the academic world and the public. Historic records of European contacts with Beothucks along the Lake have fueled the imaginations of writers, filmmakers and anthropologists. As a result, the main site at Indian Point has suffered severely from tne depredations of archaeologists both amateur and professional. Principal damage, however, is due to logging operations which have been ongoing for the past century. It is this site which received my attention in the past season, as a part of the Historic Resources Division's four-year Beothuck Project.

One of the first descriptions of the Indian Point site is found in an account of the capture of Mary March (Demasduit) by one of Peyton's party, a man known only as E.S. (Howley suggests this may be Slade.) E.S. wrote to the editor of the "Liverpool Mercury" shortly after Shawnadithit's death in 1829. He describes the settlement from which Demasduit was taken thus: "We were then about half a mile from the point of land that almost intersected the Lake, and in a few

minutes we saw it covered with Indians..." (Howley 1974 :99).

The first anthropologist to record a visit to the site was Frank Speck, who wrote in 1922: "At Red Indian Point, several miles south of Millertown at the point of land near where Mary March Brook (cf. Exploits River) flows into the lake, is a notable site, said by the Micmac-Montagnais to have been the headquarters of the Red Indians a hundred years or so ago. Directly at the point here are a number of wigwam-pits, at least seven, although it was rather hard to discern them all at the time of my visit on account of the logs that had drifted in and filled the pits at high water" (Speck 1922:22).

It is evident from this description that even in 1922, before construction of the present dam at the head of the Esploits, logging operations on the Lake had caused considerable damage to the site. The rise in water level at maximum flooding is considerable. Mrs. Woodman of Millertown showed me photographs of the area taken during a period of extremely low water several years ago. The Point shows up very clearly as a long sandbar which almost bisects the Lake, just as it did during the time of E.S. (Woodman 1981: pers. comm.). It is probable that the Point was a prominent caribou crossing in the prehistoric and early historic period.

This, in combination with its other natural advantages (a good view of the Lake in both directions, access to the Exploits and the coast, a broad sandy beach) would have made it a favourable habitation spot.

It appears that the first excavations at the site may have been done by Micmacs in the early part of this century or before. Speck reports; "The Micmac say that they frequently dig in these Red Indian wigwam-pits and find curious iron implements - knives, axes, traps, and the like" (Speck 1922: 21-22). Through the years, artifact collectors frequently visited this site and others in the vicinity, although no estimate can be made of the extent of the damage since these visits were never recorded. In 1967, Don Locke, an amateur archaeologist from Grand Falls, began excavating the site. Although opinion has been divided on his efforts, he did recover information which might otherwise have been lost. His reports are readily available to researchers at the Newfoundland Museum and the Centre for Newfoundland Studies, Memorial University, and elsewhere (Locke n.d.(a); n.d.(b).). Since then, sections of his excavations along the banks of the Lake have eroded away.

In 1968 Locke brought the site to the attention of Helen Devereux, an archaeologist, who with the aid of a grant from the National Museum of Man, excavated five separate site areas.

Her findings, with the exception of a preliminary report, have not as of present been released, but should be available very shortly (Devereux 1981: pers. comm.). Her report on this important site is eagerly awaited by researchers.

In 1980 a two day field trip was undertaken to make an assessment of the site for the Beothuck Project, a four-year program to compile archaeological data on Beothuck sites under the aegis of the Historic Resources Division, Department of Culture, Recreation and Youth. At that time, the water level was at a peak and part of the site was under water. During this two-day visit five test pits were explored near Devereux's areas A3s, A4 and B4. Artifacts recovered included two distal endblade fragments, three scrapers, one cortex spall and a utilized flake. At the conclusion of this reconnaissance, the following was noted:

> "The Indian Point site, although severely damaged by logging and related activity artifact-collecting and erosion, still contains significant archaeological material..." (Sproull Thomson 1980:4).

Largely because of this assessment, plans were made for a more leisurely examination of the site in 1981.

From July 1 - July 18, 1981 the author and a crew of two surveyed the area around Indian Point and mapped the Point

site. (Figure 1). The aim was to ascertain the future potential of the area. Since the closing of the mine in Buchans, the provincial government had expressed interest in finding alternative employment for the area. It was felt that the importance of the Red Indian Lake sites and Indian Point in particular might warrant construction of an interpretation site to attract tourism to the region. Thus the 1981 investigation was charged with the evaluation of several factors:

1) the extent of damage to the Red Indian Lake sites by logging operations and artifact collecting,
2) the existence of significant unexcavated archaeological features at the known sites,
3) the potential for damage to these, if they existed, in case of tourism development,
4) the possibility that other sites survived the high waters.

The intention of the fieldwork was rather to assess the potential of the Indian Point site than excavate it. Further large-scale excavation prior to release of the Devereux report would be inadvisable for a variety of reasons, not the least of which is that a detailed site survey map is needed in order to avoid excavating backdirt. Principally, though, without a detailed account of Devereux's work, it is difficult to

address any significant remaining data gaps, if they even exist.

A description of the natural history of the site is available elsewhere (Devereux 1970:3-6) and will not be repeated here. Suffice to say that the Lake is rich in ungulate populations and probably was even more so before industry moved into the area; and that, prior to construction of the dam, the Lake and Exploits River provided easy navigation and access to the sea coast.

The Indian Point site is roughly bisected by the presence of a large bulldozed area (Figure 1). The vegetated area to the north of this is bordered by the Lake shoreline and has suffered the greatest flood damage as well as the most attention from artifact collectors. The heavy vegetation covering the area of the site to the south appears to have shielded it from both hazards, and most of the archaeological features here are intact with the exception of those excavated by Locke and Devereux. Ongoing logging activity keeps the forest floor well covered in debris, rendering it unattractive to casual artifact collectors and professional archaeologists alike.

Eight one-metre squares were excavated at this site in 1981, two in the section north of the bulldozed area, and six

in the wooded area. The sole diagnostic artifact recovered was a corner-notched projectile point from square 16N 22E, near Devereux's A3 locality. This artifact is of the type usually described as "Recent Indian" on the Island. Although Locke describes this northerly area of the site as generally prehistoric because of the preponderance of lithic material she recovered here, some iron was also found and we shall have to await the results of Devereux's analysis and her C14 dates before any attempt can be made to characterize the site features by time period. The tests excavated in 1981 in this portion of the site unfortunately yielded an inadequate amount of organic material for dating. In general, however, the portions of the site nearest the water appear to be mainly prehistoric, and those farthest back in the woods historic. This seems a reasonable expectation considering the desire of the historic Beothuck people to remain hidden from possible European attackers.

During our survey of the wooded area south of Devereux's B5 locality, a new housepit was discovered. An initial section was cut through the hearth and wall comprising four one-metre squares. This was later expanded to the south and west to take in additional wall area. Excavation yielded only two artifacts, an iron pot fragment and a nail, but produced a distinct circular hearth area and a possible sleeping hollow between the hearth

and the wall (Figure 2). A wood charcoal sample from the centre of the hearth produced a data of 150 ± 70 B.P. (Beta-3677). This correlates well with the other evidence from the house.

During our stay at the Point, we had a visit from Don Locke who volunteered to spend the better part of a day helping us delimit the excavated areas. His advice was extremely helpful in determining the original extent of the site and in finding the "D4" (Devereux) area whose heavy vegetational cover had helped it to elude us. I had assumed that the housepit we had begun to excavate was his house 19, but he stated that this one was new to him. This brings the possible house count in this section to four, although none of us managed to find houses 18 and 19 on Locke's map (Locke n.d. (b):11). Fallen trees and brush from the clearing operations made survey in this area extremely difficult.

Locke confirmed our impression that much recent damage had been done to the site by a bulldozer. The cleared area had been extended to the north and southwest, obliterating one housepit (Locke's #22) and half-erasing three others (Locke's 8, 20 and 21).

Survey time was limited, but we did attempt to find all reported sites. We had spent several hours searching for a reputed site near Warford's Brook on the north side of the

Lake, without finding any trace of it. Locke later informed us that the site had been located roughly "300-400 feet east of the Brook" but that it is now completely inundated and no longer visible (Locke 1981: pers. comm.).

Locke's Site II is located approximately half a kilometre NE of Indian Point. He stated that he and Devereux had excavated a section of the site in 1969 which has now eroded away. This site is not mentioned in Devereux's Indian Point report, but Locke illustrated two iron artifacts from it in Beothuck Artifacts (Locke n.d. (b):27-28). He also told us that a few lithic artifacts had been recovered from the test squares. A one-metre square this season yielded only recent caribou bone, fire-cracked rock and a heat-altered fragment of glass. These all appeared to be from one recent cultural level. Further work at this site might prove more productive; however, the presence of a wide bulldozed clearing and the history of casual pothunting discouraged this in the short 1981 season.

It became obvious during our stay at the site that artifact collecting was still ongoing despite the 1973 Historic Objects, Sites and Records Act prohibiting disturbance of archaeological or historic sites. Further, modern technology had caught up to the unhappy Beothucks in the form of metal detectors which are being used to locate their historic implements. Numerous

recently dug potholes throughout the site attest to its popularity for this activity. Although one collector was reported to the RCMP, prosecution is clearly not the preferred answer to this problem. Sadly, this site is undoubtedly the only major inland Beothuck site to have been occupied into the transitional period, and hence is likely to be the only large one we will ever find.

Our conversations with concerned people and an illustrated talk given in Millertown led the Red Indian Lake Development Association to seek help from Historic Resources in applying for a federal grant to begin development of the Indian Point site as an interpretive park. At this writing, funds have been awarded and work has begun on cleanup of the site and repairs to the access road. It will be an enormous satisfaction to see this aboriginal settlement take its rightful place in the Province's history.

In summary, the limited work carried out at Red Indian Lake in 1981 indicates that although considerable damage has been inflicted on the known sites, significant information remains to be uncovered. The discovery of a previously unreported housepit and its intact condition at Indian Point lends credence to the hope that further survey work might be amply rewarded. There appears to be little hope that major new shoreline sites will be found above the flood level. Finally,

it is the opinion of the author that development of an interpretive park at the Indian Point site will be helpful in educating the public to the need for preservation of all archaeological sites in the Province. Although potential for futher damage to the site will increase with greater visitation, it is hoped that the increased awareness of heritage preservation issues among the local people as well as among visitors to the site will help to ameliorate this influence. In addition, continuing police patrols should prove some deterrent to those few insistent scavengers determined to flaunt the law.

In recent years, the Red Indian Lake sites, like the Beothuck themselves, have been consigned to the realm of mythology. It can be hoped that site interpretation and new information on this and other areas inhabited by the Beothuck will bring their history out of this obscurity. The potential of Indian Point, in particular, is enormous and it is hoped that the archaeological research there is far from finished.

ACKNOWLEDGEMENTS

One fieldwork salary was paid for by a Canada Manpower summer work program grant. Other salaries, expenses and equipment were provided by Historic Resources Division, Department of Culture, Recreation and Youth. My sincere appreciation goes to Mrs. Douglas Woodman and others in Millertown for their assistance, and to Mr. Don Locke of

Grand Falls for sharing his knowledge of the archaeology of this area. I would also like to extend appreciation to Dr. Ralph Pastore, my co-investigator on the Beothuck Project, for his assistance in planning and researching this year's work. He and Callum Thomson also receive thanks for accompanying me on the first trip to Red Indian Lake in 1980. Finally, many thanks to Blair Withycombe and Jean Johnston Howse for their fieldwork assistance, and to visitors Ingeborg and Albert Marshall and Roger Howse who also provided several days' help.

REFERENCES

DEVEREUX, Helen
1970 A Preliminary Report on the Indian Point Site, Newfoundland: A stratified Beothuck site. Unpublished report on file at the Newfoundland Museum.

HOWLEY, James P.
1974 The Beothucks or Red Indians. Coles reprint of 1915 edition by Cambridge University Press, Toronto.

LOCKE, Don
n.d.(a) Historic and Prehistoric Site: Indian Point Site #1. Unpublished report on file at the Newfoundland Room, Memorial University of Newfoundland.

n.d.(b) Beothuck Artifacts. Robinson-Blackmore, Grand Falls, Newfoundland.

SPECK, Frank
1922 "Beothuck and Micmac"., Indian Notes and Monographs. Museum of the American Indian, Heye Foundation, New York.

SPROULL THOMSON, Jane
1980 Red Indian Lake - Indian Point Site Survey, June 20-21, 1980. Report on file at the Newfoundland Museum.

INDIAN POINT SITE

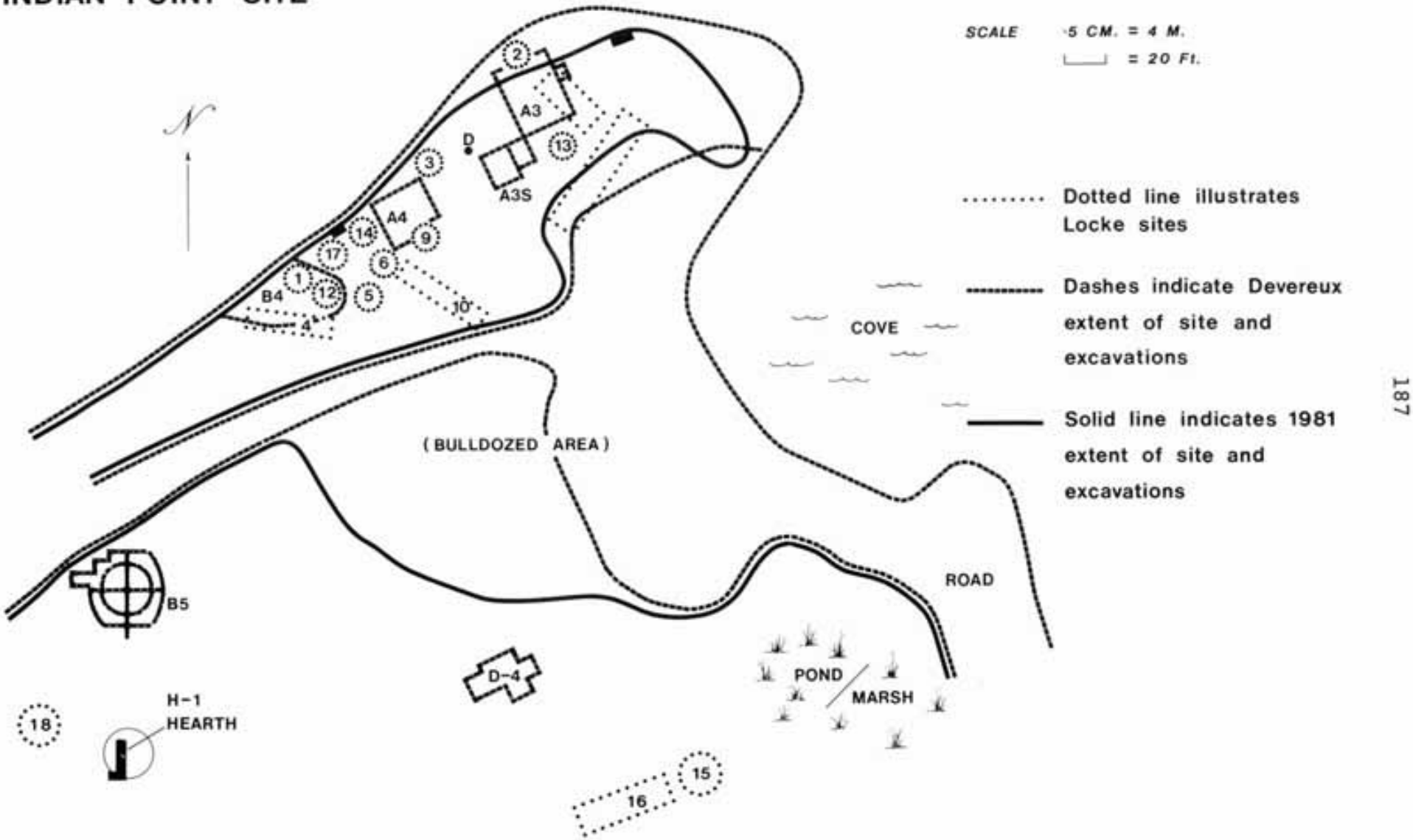
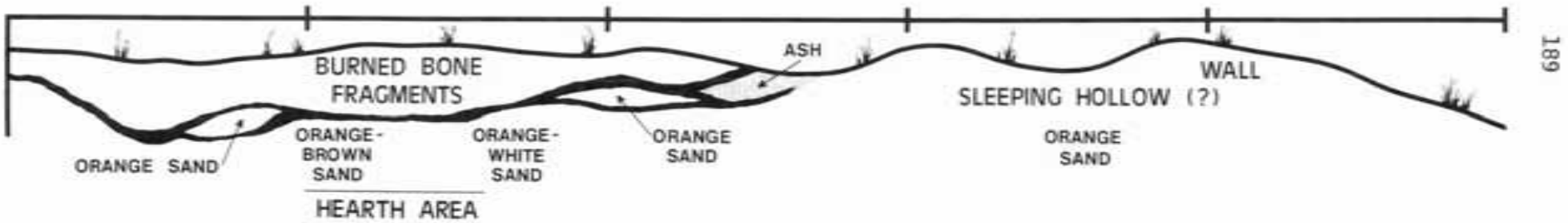


FIGURE 2. Profile drawing of test trench in East wall of Indian Point house discovered in 1981. Note depth of charred bone and thick charcoal layer in hearth. C^{14} sample was taken from this charcoal layer.

DeBd-1 STRATIGRAPHY PROFILE HOUSE-1 East Wall

SCALE: 1 cm. = 20 cm.



PRELIMINARY REPORT ON THE STOCK COVE SITE (CkAl-3)

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Department of Anthropology
Memorial University of Newfoundland

INTRODUCTION AND SETTING

During the fall of 1980, Dr. James Tuck and members of the Memorial University field school visited the archaeological site at Stock Cove, Trinity Bay. This site had been recorded two years previously by Gerald Penney, while conducting a survey of the region (Penney 1978). These investigators had recorded the occurrence of Maritime Archaic, Dorset, and recent Indian occupations at the site. Stone tools and flakes were abundant, and flat stone slabs indicated the presence of structural remains. Based on these reports, I decided to work at the Stock Cove site during the 1981 field season. Nine weeks of excavations were made possible by funding from the Historic Resources Division, Department of Culture, Recreation and Youth, Northern Science Training Grants, and the Vice-President's Research Fund (Memorial University). An excavation permit was granted by the Historic Resources Division. A crew

of five arrived at Stock Cove on May 11.

Stock Cove is located on the western shore of Bull Arm, about 13 kilometers from the town of Sunnyside. A small headland divides the cove into two parts, known locally as Little and Big Stock Cove. Little Stock Cove is quite narrow, and bounded on both sides by steep and forested hills. The older people living in Sunnyside recall it being used as a temporary fishing and hunting base, but this practice has since ceased. Only one small log cabin is still maintained, used occassionally by a part-time trapper. In contrast, Big Stock Cove is a broad, open cove with a long cobble beach, interrupted at points by rocky outcrops. The land adjacent to the beach is flat, but becomes steep further inland. Dense forest, consisting mostly of fir, extends to the edge of the beach. There is no evidence of recent fishing, hunting or trapping activities having been based in Big Stock Cove. Residents of Sunnyside confirm it not being used for such purposes within their memory. This was an important and a welcome discovery, as the archaeological site is located in Big Stock Cove, and the absence of recent habitation indicated that the site may be largely undisturbed. For the most part this has proven to be the case.

The site is located on the flat land adjacent to the beach. Cultural material, including tools and flakes of chert, rhyolite, and slate, stone slabs, and charcoal and burnt fat, is eroding from a bank onto the beach for a distance of some 85 meters. The area of occupation can be traced inland, away from the beachfront, to where the land begins to rise sharply, a distance, at maximum, of 50 meters. Although the absolute area which the site covers is difficult to determine because of heavy forest growth, an area of at least 2000 square meters seems likely.

METHODOLOGY

A coastal Dorset site naturally suggests a maritime oriented subsistence. Testing of the Stock Cove site in 1980 revealed a high frequency of harpoon endblades, supporting this idea. Therefore, before excavations began at Stock Cove I felt fairly certain as to what kind of subsistence activity would be represented there, namely, sea-mammal hunting. What was not known was the intensity and duration of this activity, i.e., did Stock Cove and the resources available there constitute an important phase in a cycle of Dorset subsistence, or was it a small camp, visited occasionally in a seemingly random manner, evidencing no signs of permanency, planning, or long-term

consistent usage? To test these ideas I intended to examine the tools that were present for indications of their temporal span and typological development (or lack thereof), to search for evidence of activities other than sea-mammal hunting, and, perhaps most importantly, to examine structural remains with the hope that they might reflect a sense of permanency and intensity of occupation.

Excavations have been concluded (for the present at least) at Stock Cove. Analysis of material is, at the time of writing, in its very initial stages, so the preceding questions will not be addressed in detail here. Full treatment will be presented in a forthcoming M.A. thesis.

STRATIGRAPHY

The area of the Stock Cove site excavated during 1981 contained material from two culturally different populations. Dorset Eskimo material was present throughout, and at some locations artifacts of a recent Indian culture were found. These occupations are not clearly stratified; two levels were differentiated, but considerable mixing occurs. An upper zone (level I) is composed of surface debris (fir needles, etc.) and 2 - 4 cm of a dark brown peat mixed with small cobbles and gravel. With only a few exceptions,

the Indian artifacts are restricted to this level. However, it also contains artifacts and flakes of Dorset origin. Level II consists of a fine blackened soil containing small rocks and varying amounts of gravel. The majority of Dorset artifacts are assigned to this level; artifacts of Indian origin are rare.

The lack of clear stratigraphy is partially due to the slow rate of soil buildup in the area. Mixing in the upper zone is likely a result of this, combined with the effects of root growth in the deposit, allowing artifacts to 'travel' from their original place of deposition. Some disturbance may also be attributable to the more recent Indian occupants. Some evidence exists to support the idea that these Indian people were making use of chert blanks and fragments left on the site by the prior Dorset inhabitants. The presence of workable pieces of chert may have encouraged them to search, dig, and in effect 'pot' the site to a limited degree.

DORSET OCCUPATION

At the time of writing, 1000 of the estimated 2000 artifacts recovered from the site have been catalogued. This does not necessarily constitute a representative sample, but some general tendencies are indicated (Table 1).

Over 93% of the artifacts are of Dorset origin. The 68 Indian artifacts recorded were recovered from the upper level of the site, and are all considered to be recent Indian. No artifacts of the Maritime Archaic tradition are represented here, although the presence of this culture at Stock Cove has been noted (Penney 1978).

The predominant artifact class is the chert endblade. The only other classes which are represented with greater than 10% frequencies are microblades and knives/bifaces. Endscrapers are conspicuously low in frequency (less than 4%). Artifacts which can be associated with tool manufacture or repair - cores, preforms, tip flute flakes, hammerstones, whetstones, and retouched/utilized flakes - collectively account for just over 28%. This indicates a predominance of hunting and butchering activities, associated with the manufacturing of suitable tools.

Most of the Dorset artifacts now exhibit a white or mottled brown patina, making identification of raw material difficult. A few pieces which are incompletely patinated show a green colour. Unpatinated artifacts of green, grey, or pink chert are rare.

The endblades collected from Stock Cove show some variation in type. Of 229 specimens catalogued thus far, 203 were considered complete enough to be judged with

respect to type (Table 2). 'Complete' grinding refers to grinding present over most of the surface of both faces of the specimen obliterating, or almost obliterating, surface flaking. 'Partial' describes a specimen with intermittent grinding facets. Base form for both ground and chipped specimens is predominantly straight to slightly concave; occasional examples have deeply concave bases (Plate 1). Knives are most frequently bifacial, with straight bases. Variations include unifacial, tip-fluted, and side-notched specimens (Plate 1). Scrapers are generally of a triangular form, some having a spurred working edge (Plate 2).

In all, 54 square meters were excavated at Stock Cove. A house structure occupied approximately 33 square meters of this. In both size and form this structure differs from other Dorset structures in Newfoundland (Harp 1964) and Labrador (Cox 1978). This structure measures about 9 meters long, and from 3 to 4 meters in width. Horizontal paving slabs are aligned in two parallel rows, which merge at each end into roughly circular areas of paving and rock. At the midpoint of the length, paving slabs cross between the two rows, bisecting the structure. The house is oriented WNW-ESE, roughly parallel to the beachfront, and about 3 meters above sea level.

At the front of the structure (i.e., that side closer to the beach) and at the longitudinal midpoint, is located a concentration of large and medium sized rocks (football sized and larger) which may mark an entranceway. No configurations which might identify entrances were observed at the ends of the structure. The suggested side entrance aligns with the cross paving bisecting the house. Identifiable hearth features were not present. Towards each extremity of the structure deposits of charcoal and burnt fat were found, associated with soapstone vessel fragments, chert and slate knives, hammerstones, whetstones, and a single piece of iron pyrites. These types of implements, with the exception of chert knives, were not common in the central sections of the house. Other artifacts also found in the house extremities, and present as well in the central areas, include microblades and cores, tip-flute flakes, and retouched/utilized flakes. It is suggested that fires were laid towards the extremities of the structure, where cooking and the majority of food preparation and tool manufacture occurred.

Running along the front of the house is a slightly different deposit, designated level II A. This deposit is blacker in colour than the house deposit, has a greasy texture, and appears rich in decomposed organics. It

contains, as did the house deposit, small rocks and gravel throughout. Testing this deposit to a depth of 55 cm below surface still revealed flaking debris. This appears to be a midden, associated with the house structure.

RECENT INDIAN OCCUPATION

Recent Indian artifacts resembling specimens for the Beaches site (Carignan 1975; 1979), Frenchman's Island (Evans 1980), and L'Anse a Flamme (Penney 1980) were recovered from the Stock Cove site (Plate 2). These include corner-notched expanding stem projectile points, straight stem points, small triangular bifaces, endscrapers made on thick flakes, and large rhyolite sidescrapers. Raw materials include green and banded grey-green cherts, and purple banded rhyolite. Two projectile points exhibit a white patina.

No features of Indian origin were readily identifiable. Many of the recent Indian tools were found, however, in association with a circular or oval concentration of small rocks and cobbles, about 3 meters in diameter. Some of the rocks showed sharp angular breaks possibly due to fire spalling. There were no indications of charcoal or burnt fat, but some samples of crushed bone were collected from this concentration.

Recent Indian artifacts were not limited to this area, but were recovered from at least 20 square meters of the excavated area. Objects of European manufacture were associated with the Indian artifacts. One corner-notched point was discovered in direct association with an iron spike. A clay pipe bowl, some pipe-stem fragments, nails, sherds of a green-coloured glass, and lead sprue were also recovered from level I. Part, at least, of this recent Indian occupation seems to have occurred during the historic period. Dating of pipe-stems using the straight line regression formula (Hume 1970) has not yet been attempted, and would likely not prove accurate, considering the small sample size. Pipe-stem bore diameters are relatively small, however, indicating an eighteenth century date at the earliest. If the recent Indian material is indeed associated with the objects of European make, as does seem the case, identifying this culture as Beothuck seems reasonable, accepting that Beothucks were the only Indian people to have inhabited Newfoundland during historic times. On the other hand, the possibility that this Indian occupation is prehistoric, and that the European goods appeared at a later date, is present. The difficulty in stratigraphically

separating the Dorset and Indian occupations has already been mentioned; a similar problem could confuse the Indian-European relationship.

SUMMARY AND CONCLUSIONS

The data collected during excavation allow for some general observations concerning the questions posed earlier in this paper:

(1) The size of the site and the depth of deposits suggest a repeated and intense occupation.

(2) Artifacts - in particular harpoon endblades - do not present the kind of typological variety which can readily be interpreted as evidencing a very long time span. Generally the artifacts are of a type which can be assigned to the late Middle Dorset phase.

(3) The house structure is quite substantial; considerable labour must have gone into its construction. It is not the type of structure which I would associate with a temporary, short-term camp.

Together these observations suggest an intensive, repeated, and planned exploitation of the Stock Cove region by the Dorset people. The time span during which Stock Cove was occupied is likely restricted, unless future excavation discloses an older Dorset component. Group size for the Dorset population at Stock Cove is very difficult to

determine at this stage. A structure the size of the one discovered could have housed a minimum of 4 to 5 people, and likely more. The entire Stock Cove site might be attributable to repeated occupation by a single such group, the size of the site reflecting the duration of occupation. On the other hand, the site may represent the contemporaneous occupation by several such groups over a shorter time span. Continued analysis and additional fieldwork are necessary to answer these questions.

The Stock Cove site presents an opportunity to explore some very interesting questions in Newfoundland prehistory: the nature of Dorset subsistence and seasonal movements, and the recent Indian distribution and relationship to historic Beothuck. As a single site, however, Stock Cove can only assist in such studies. With respect to Dorset subsistence, the site represents one major activity. To form a more complete picture, attention should be directed to the interior of the isthmus of Avalon, accepting the possibility of a prehistoric caribou migration or resident herd in this region (Howley 1974:15), and the inland reaches of Placentia Bay, where salmon may have constituted a viable resource. An understanding of the origin and distribution of the recent Indian culture should proceed

(as it has) through exploration of a variety of sites, and a continued search for new sites of recent Indian-early Beothuck affiliation.

Table 1: Stock Cove Artifact Frequencies

	NUMBER	PERCENT
DORSET:		
endblades	229	24.6
quartz crystal microblades	110	11.8
chert microblades	66	7.1
quartz crystal endscrapers	29	3.1
chert endscrapers	7	0.8
knives/bifaces	144	15.5
blades	22	2.4
quartz crystal cores	50	5.4
chert cores	5	0.6
preforms	57	6.1
tip-flute flakes	59	6.3
hammerstones	5	0.6
whetstones	5	0.6
retouched/utilized flakes	81	8.7
soapstone vessel fragments	7	0.8
misc.	28	3.0
	932	99.8

REFERENCES

CARIGNAN, Paul
1975 The Beaches: A Multi-Component Habitation Site in Bonavista Bay. Archaeological Survey of Canada, Mercury Series 39, Ottawa

1979 Beothuck Archaeology in Bonavista Bay. Archaeological Survey of Canada, Mercury Series 69, Ottawa.

COX, Steven L.
1978 "Palaeo-Eskimo Occupations of the North Labrador Coast". Arctic Anthropology XV(2): 96-118.

EVANS, Clifford
1981 "1980 Field Report of Frenchman's Island Project". Archaeology in Newfoundland and Labrador 1980, Annual Report Number 1: 88 - 94.

HARP, Elmer Jr.
1964 The Cultural Affinities of the Newfoundland Dorset Eskimo. National Museum of Canada, Bulletin 200, Ottawa.

HOWLEY, James P.
1974 The Beothucks or Red Indians. Coles, Toronto.

HUME, I. N.
1970 A Guide to Artifacts of Colonial America. Alfred A. Knopf, New York.

PENNEY, Gerald
1978 An Archaeological Survey of the North Side of Trinity Bay from Cape Bonavista to the Isthmus of Avalon. On file at the Department of Anthropology, Memorial University of Newfoundland, St. John's, Newfoundland.

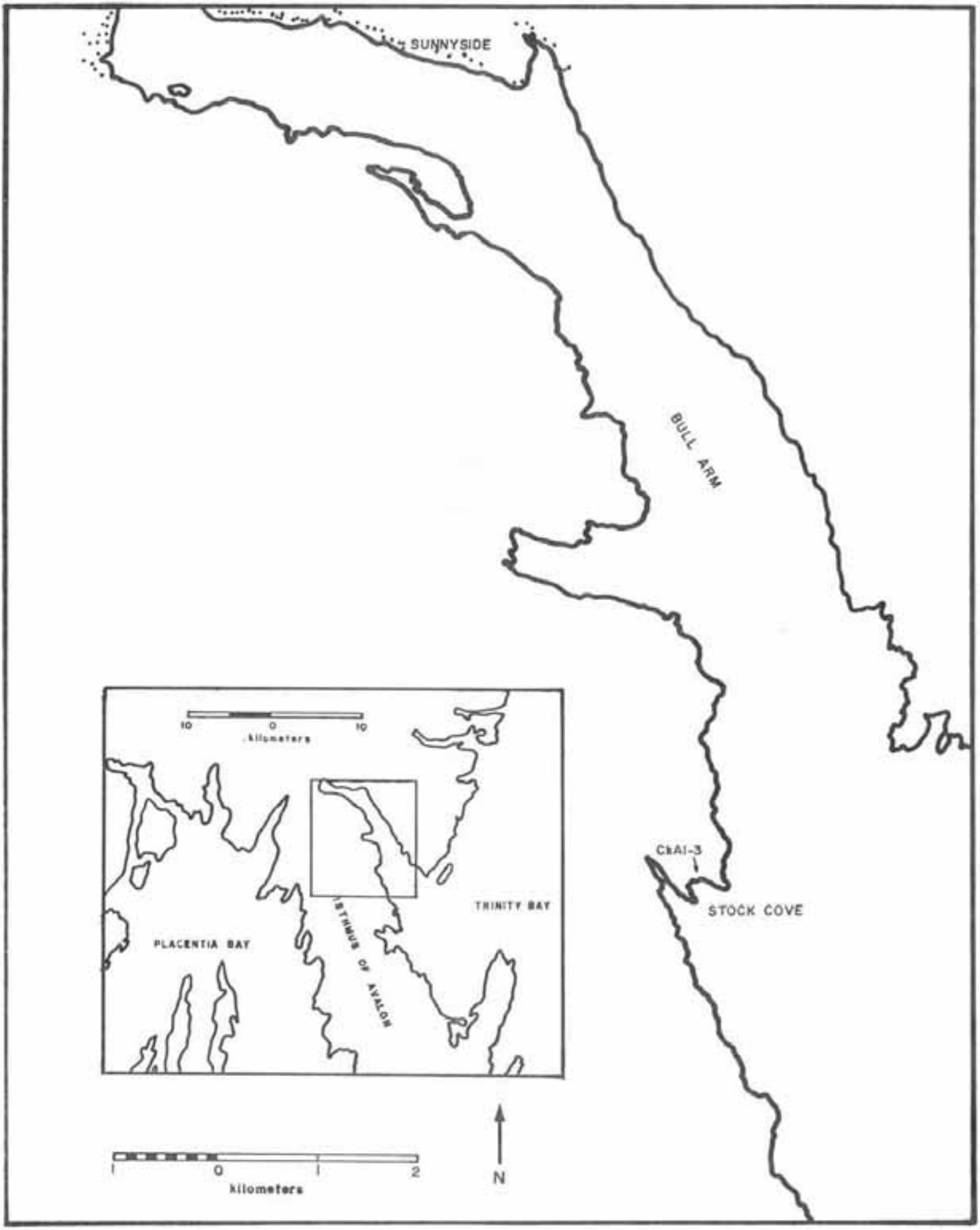
1981 "A Preliminary Report on the Excavation of the L'Anse a Flamme Site (CjAx-1)". Archaeology in Newfoundland and Labrador 1980, Annual Report Number 1: 95 - 102.

Table 1: Stock Cove Artifact Frequencies (Continued)

	NUMBER	PERCENT
RECENT INDIAN:		
projectile points	33	48.5
scrapers	8	11.8
bifaces	17	25.0
misc.	10	14.7
	68	100.0

Table 2: Preliminary Stock Cove Endblade Typology

	NUMBER	PERCENT
Chipped	(108)	(53.2)
unifacial	31	15.3
bifacial	47	23.2
tip-fluted	30	14.8
Ground	(95)	(46.8)
partially	19	9.3
completely	76	37.4
	203	100.0



Location of the Stock Cove site

PLATE 1

Dorset

1-4 ground endblades

5-10 chipped endblades

11-14 knives

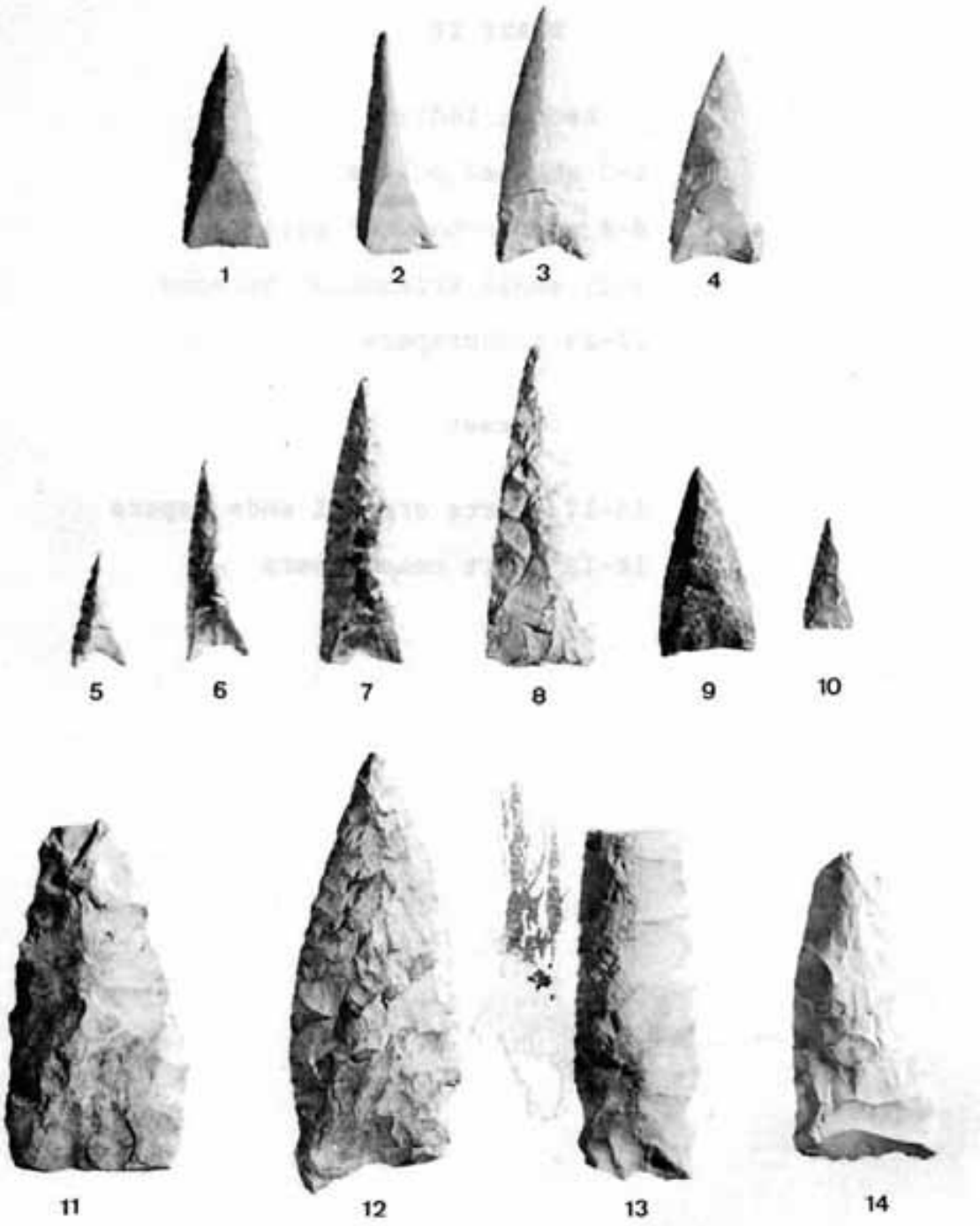

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PLATE II

Recent Indian

1-3 stemmed points

4-8 corner-notched points

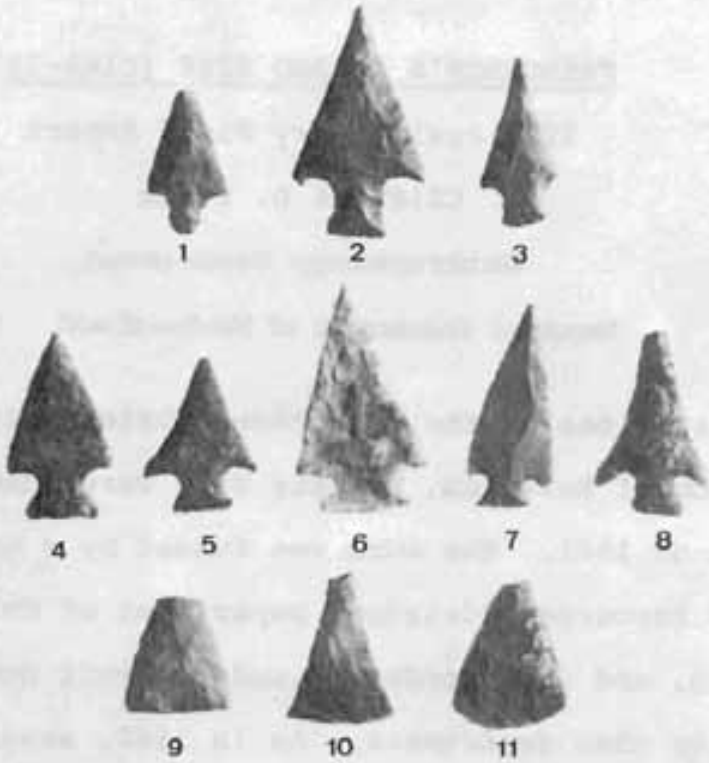
9-11 small triangular bifaces

12-13 endscrapers

Dorset

14-17 quartz crystal endscrapers

18-19 chert endscrapers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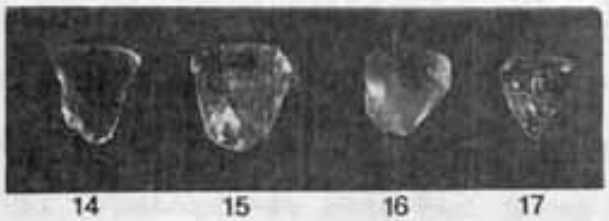
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FRENCHMEN'S ISLAND SITE (ClAl-1)

1981 Preliminary Field Report

Clifford O. Evans

Anthropology Department

Memorial University of Newfoundland

Excavations at the Frenchmen's Island site (ClAl-1) at the bottom of Bull Arm, Trinity Bay, were concluded during the fall of 1981. The work was funded by a grant from the Historic Resources Division, Department of Culture, Recreation and Youth, and were conducted under permit number 11, also granted by that department. As in 1980, assistance was also provided by Memorial University in the form of equipment and site assistants enrolled in the Field and Laboratory Techniques in Archaeology Course.

A crew of three, Bill Gilbert, Betty Evans and the author, spent two weeks at the site in late September and work was continued on Saturdays by crews of up to 13 persons until weather forced a halt to operations in early November. The season started on a disheartening note. We had hoped to find the site as we had left it the previous fall, but this was not the case. Both excavation areas which had been covered with brush had been re-exposed. If this was the only act of vandalism the site would not have suffered a great deal, but the damage did not stop there. There were several

partially exposed squares which were either totally destroyed or had the upper stratum removed. As well, the surrounding edges of the excavation had been attacked, disturbing, in some cases, as much as a meter and a half of unexposed area. To make matters worse, the 1980 grid had been removed except for a small number of stakes. We were able to re-establish our grid, however, and continue excavation with a minimum of difficulty. Unfortunately, the site continued to be visited by vandals, which was one of the factors contributing to a decision to conclude excavation after the 1981 season. Despite these difficulties, the major portion of the site was excavated under controlled conditions and the information gained does not seem to have been seriously depleted by the repeated acts of vandalism. We will never know, of course, what artifacts and information were lost to the efforts of the looters.

Although cataloging and conservation are far from completed, and analysis has yet to begin owing to the late field season, a few brief comments concerning the occupations at Frenchmen's Island can be made at this time. All of the following statements, however, must be considered as tentative and subject to revision as analysis of artifacts, C-14 samples and other material proceeds.

It now appears as if the Frenchmen's Island site was the scene of three separate occupations. To a large extent they are stratigraphically distinct, but a certain amount of

mixing in the uppermost layers, which created some confusion during the 1980 excavations, seems to have been resolved during 1981. A summary of this information is presented below.

EXCAVATIONS AND STRATIGRAPHY

Excavations, as during 1980, were centered in two areas (see Figure 1) hereafter referred to as the "eastern" and "western" areas. In the eastern area the stratigraphy consisted of a humus or forest duff, dark brown in color and infused with roots, which measured between 4 to 15 cm thick. This stratum was almost entirely devoid of cultural material. Stratum 1 graded almost imperceptably into Stratum 2 which was similar in texture, though darker in color and lacking the dense root masses to the overlying humus. It measured from 3 to 15 cm in thickness. This stratum produced flakes and artifacts of various fine-grained and patenated cherts, mostly grey to grey-green in color, which are comparable to the Little Passage material described previously by Penney (1980) from Newfoundland's south coast. Below Stratum 2 lay a level of fine pea-sized gravel and grey clay which proved to contain evidence of a Dorset Eskimo occupation similar to that reported by Robbins (this volume) from the nearby Stock Cove site. Below Stratum 3 was a layer of gravel and large rocks and slabs of local bedrock. It contained no cultural material.

In the western area of excavation the stratigraphy was somewhat less clear. Strata 1 and 2 were indistinguishable from one another (if, in fact, Stratum 2 was present at all) and artifacts of the Little Passage complex were mixed with European artifacts of mid-17th century origin. Initially this led us to conclude, perhaps with an overdose of optimism, that we had found a long-sought-after contact Beothuck site. More will be said of this below. Stratum 3 remained distinct in the western area, however, and produced additional specimens of Dorset Eskimo affiliation.

ARTIFACTS AND FEATURES

Since excavations have recently concluded, only a preliminary discription can be offered at this time. A summary of the material from each area and stratum is presented below.

Eastern Area:

Stratum 1: This stratum produced very few artifacts and was devoid of any recognizable features. The cultural material retrieved from this zone during both seasons is limited to 3 or 4 native flint flakes, some fragmentary pieces of iron, one clay pipe bowl, and a gun flint.

Stratum 2: This stratum was the most productive in this area with respect to features and artifacts. There were two fectures recognized at time of excavation; one of these was a small concentration of fist-size angular rocks

(Feature 2) and the other was a small bone and shell midden. As for artifacts during the 1981 season, we collected triangular bifaces, corner-notched projectile points, triangular unifaces, linear flakes, a flake scraper, utilized flakes and chipping debris (Plate 1).

Stratum 3: Artifacts from this stratum were clearly more scarce in this area than in the western section. There were no definite concentrations or clusters of tools or debris and the collection was limited to a few chipped and ground tip-fluted endblades, a quartz crystal scraper, microblades, and a small amount of flake debris.

Western Area:

Stratum 1: During the 1981 season we could not define my auxiliary features related to "Feature 1" (Evans, 1980, p. 89). The artifacts retrieved from this zone compare with the material from 1980. The European material consisted of large iron nails, clay pipe stems and bowls, coarse earthenware, green and red glassware, lead, and ballast flint, while the native artifacts were triangular bifaces, corner-notched projectile points, large flake scrapers, linear flakes and a quantity of chipping debris (Plate 2).

Stratum 3: This season's work produced a number of finely-worked multi-colored chert artifacts such as a long thin side-notched knife, several side blades, and small triangular scrapers. As in 1980, the majority of the artifacts were patinated white.

The chipped and ground tip-fluted endblades and some of the micro-blades and most of the flake debris were in this condition (Plate 3).

CHRONOLOGY AND CONCLUSIONS

The stratigraphic sequence for at least some of the cultural complexes at Frenchmen's Island is reasonably clear. There is no doubt that the Dorset Eskimo material represents the earliest major occupation at the site. It underlies both the Little Passage material and the artifacts of European origin. The relationship between the Little Passage material and the European artifacts, however, is not clearly indicated by the stratigraphy at Frenchmen's Island. At the close of the 1980 excavation it was clear that the two were either nearly contemporaneous or that considerable mixing had occurred. We opted cautiously (and probably optimistically) for the former explanation. Carbon -14 dates received since the publication of the 1980 report suggest the latter explanation to be more likely. Two dates on the Little Passage material of 1870 $\pm$ 180 B.P. and 1320 $\pm$ 100 B.P. indicate that the material is clearly too old to be contemporaneous with the European artifacts. Therefore we must postulate three distince occupations of the Frenchmen's Island site. The earliest is the Dorset Eskimo complex from Stratum 3 although a carbon -14 date of 805 $\pm$ 70 B.P. does not confirm this priority.

However, in view of the clear stratigraphy, it seems likely that contamination of the charcoal sample is the cause of this disagreement.

The Little Passage material seems relatively securely dated to the first millenium A.D. although the two dates are at some variance with one another. Additional samples submitted following the 1981 excavations may clarify this situation.

Finally, the European occupation seems fairly likely dated to the mid-seventeenth century on the basis of pipe-stem chronology (straight-line regression formula) (Hume, 1970, p 221) and the one maker's mark, that of John Hunt, who flourished between 1651 and 1653 (Walker, 1977, p. 1448). Except for a single pipe bowl, which may date from the early 17th century, and such undiagnostic artifacts as nails, glass and a sherd of coarse earthenware, which may date from either the early or middle 17th century, there is no evidence of the structure reportedly begun at the site by John Guy in 1612 (Howley, 1915, p. 17).

In summary, the excavations at Frenchmen's Island, while they did not produce the Contact Period site for which we had hoped, have been successful from a number of other points of view. A Dorset Eskimo occupation in an area not frequented by harp seals and other traditional marine resources of the northeast coast suggests some intriguing questions about Dorset adaptive patterns. The complex will also provide valuable comparative information for Robbin's

study of the Stock Cove site. Secondly we have extended the range of the Little Passage complex into Trinity Bay and have obtained additional Carbon -14 dates on this presently enigmatic cultural complex. Finally, we have evidence of a European occupation of which there appears to be no documentary evidence. The questions posed by this material are far more numerous than the answers it provides, but it nevertheless adds at least a small piece to our knowledge of early European colonization of Newfoundland.

REFERENCES

EVANS, Clifford
1980 "1980 Field Report of Frenchmen's Island Project." Archaeology in Newfoundland and Labrador 1980, Annual Report Number 1, pp. 88-94.

HOWLEY, James P.
1974 The Beothucks or Red Indians. Coles, Toronto.

HUME, I.N.
1970 A Guide to Artifacts of Colonial America. Alfred A Knopf, New York.

PENNEY, Gerald
1980 "A Preliminary Report on the Excavation of the L'Anse a Flamme Site (CjAx-1)." Archaeology in Newfoundland and Labrador 1980, Annual Report Number 1, pp. 95-102.

WALKER, Iain
1977 "Clay Tabacco Pipes, with Particular Reference to the Bristol Industry." 4 Volumes, History and Archaeology, Ottawa, Department of Indian and Northern Affairs, Parks Canada.

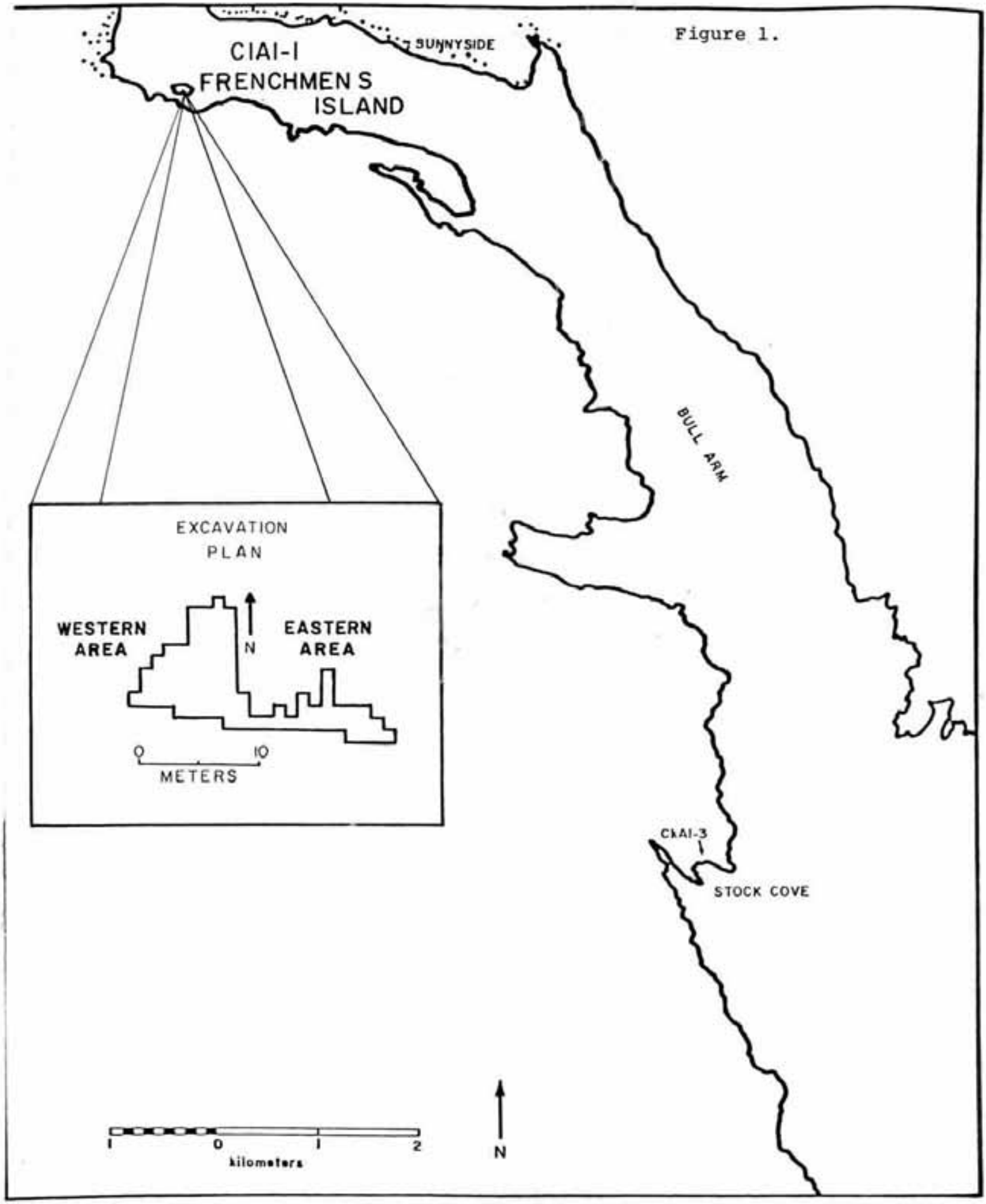
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Plate 1 - Stratum 2, Recent Indian

a-e	projectile points
f	large-side notched biface
g	flake scraper
h-j,m	triangular flake points
k-l	triangular bifaces

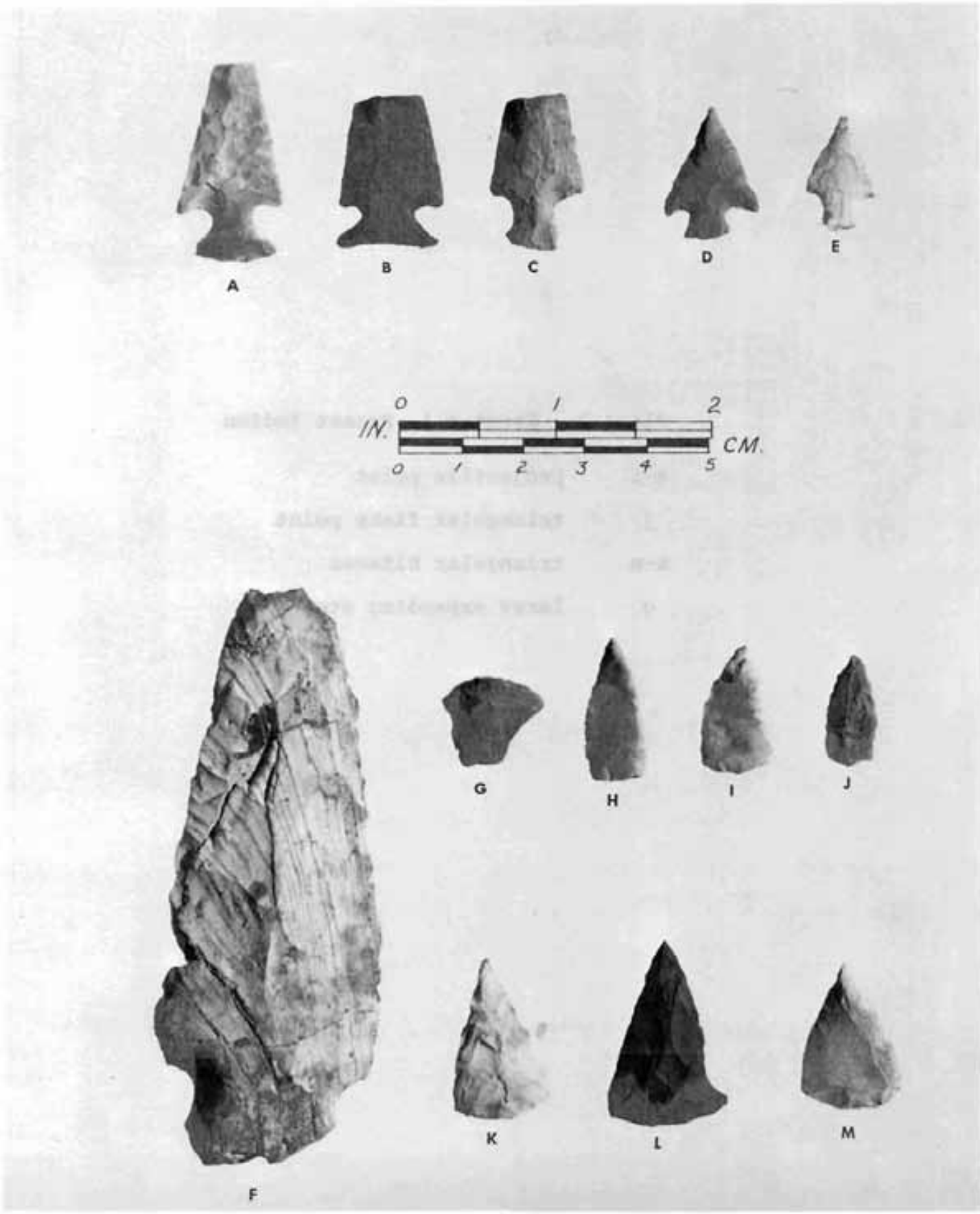
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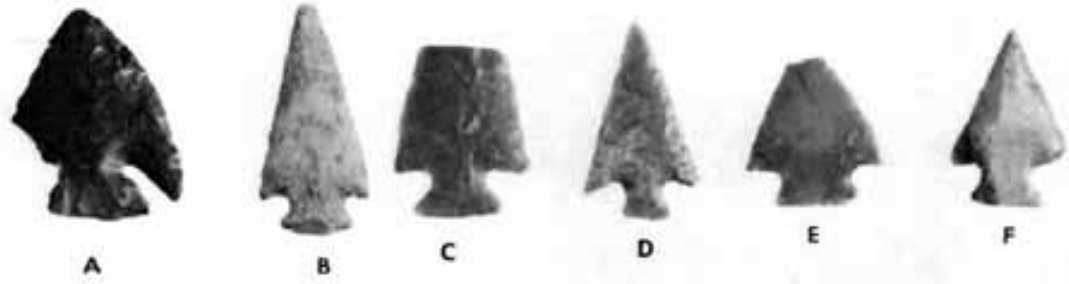
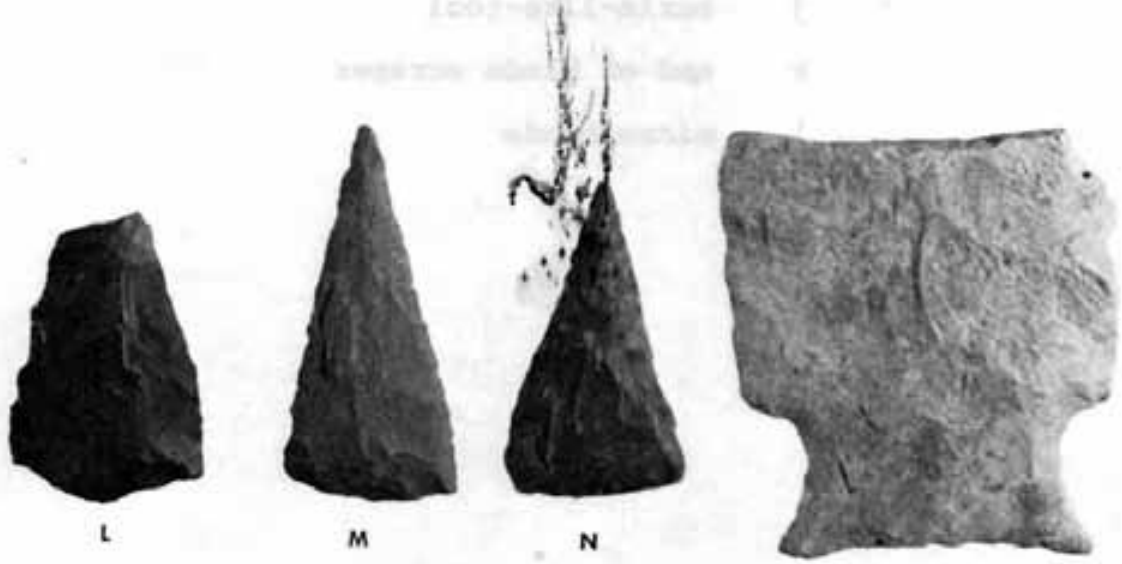
Plate 2 - Stratum 1, Recent Indian

a-i	projectile point
j	triangular flake point
k-m	triangular bifaces
o	large expanding stem



A B C D E F

G H I J K



L M N O

Plate 3 - Stratum 3, Palaeo-Eskimo

a-b side blades

c-d scrapers

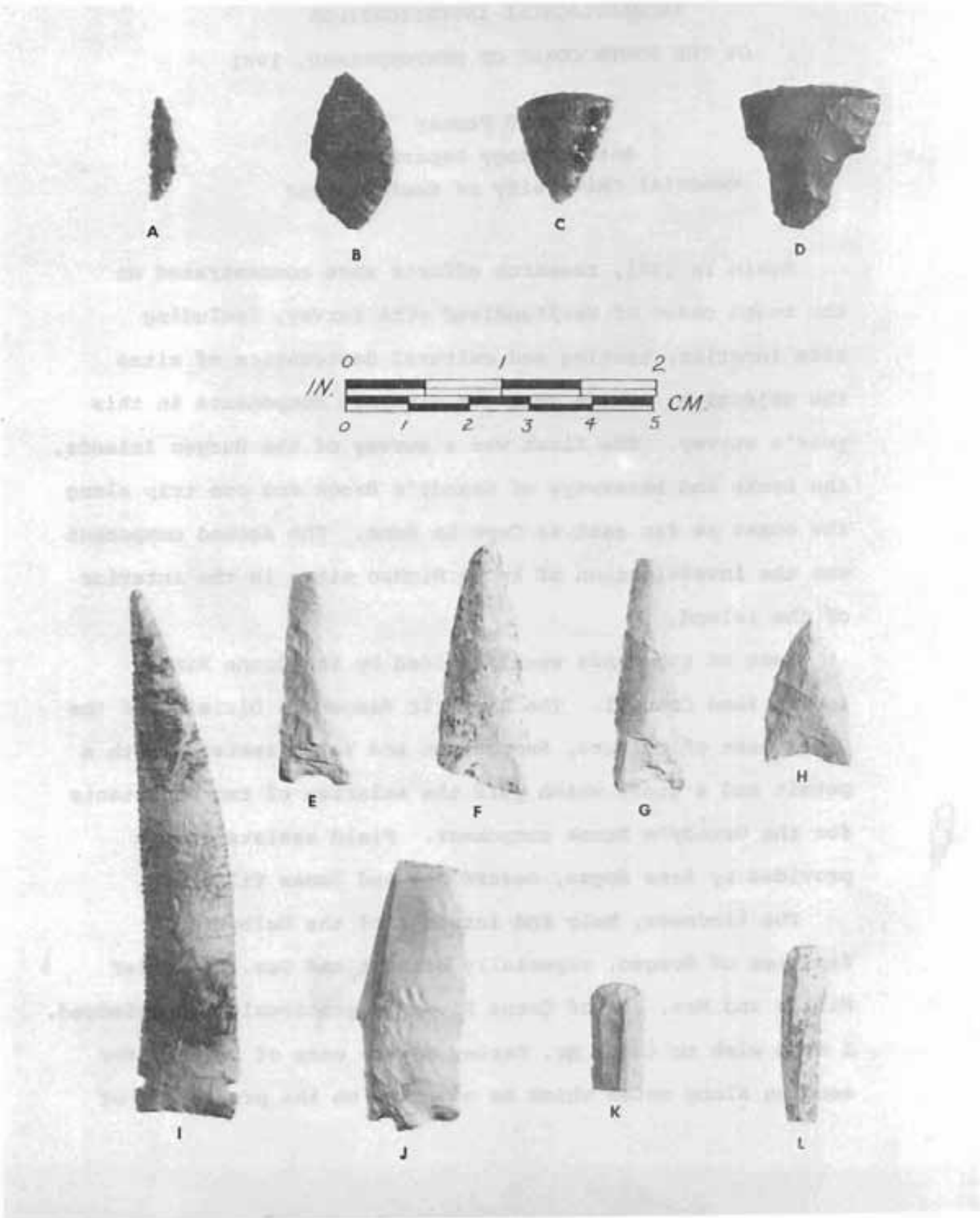
e-h endblades

i serrated knife

j burin-like-tool

k end of blade scraper

l micro-blade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ARCHAEOLOGICAL INVESTIGATIONS ON THE SOUTH COAST OF NEWFOUNDLAND, 1981

Gerald Penney
Anthropology Department
Memorial University of Newfoundland

Again in 1981, research efforts were concentrated on the south coast of Newfoundland with survey, including site location, testing and cultural designation of sites the objective. There were two distinct components in this year's survey. The first was a survey of the Burgeo Islands, the banks and barasways of Grandy's Brook and one trip along the coast as far east as Cape La Hune. The second component was the investigation of known MicMac sites in the interior of the island.

Most of the funds were provided by the Conne River Indian Band Council. The Historic Resources Division of the Department of Culture, Recreation and Youth assisted with a permit and a grant which paid the salaries of two assistants for the Grandy's Brook component. Field assistance was provided by Anne Hogan, Gerard Joe and James Tillotson.

The kindness, help and interest of the Melbourne families of Burgeo, especially Gilbert and Gus, and Chief Wiliam and Mrs. Joe of Conne River is graciously acknowledged. I also wish to thank Mr. Farley Mowat, once of Burgeo, for sending along notes which he compiled on the prehistory of

the south coast during his stay in the early 1960's.

GRANDY'S BROOK; BURGEO ISLANDS

A brief exploratory survey was undertaken in the Burgeo-Ramea area during the 1980 field season. The survey located Newfoundland Dorset sites at : Brimball Storehouse Cove (CjBh 3), Bay de Vieux 1 and 11 (CjBg-1 and CjBh 1), and Island Cove (CjBh 2). A site at Sot's Hole, located by Edward Courtney and Bill Melbourne and reported to the Newfoundland Museum, was also investigated. Cultural material from the Melbourne site (CjBj-1) was incorporated in the formation of the Little Passage Complex.[1]

During the past field season we set up camp at the entrance to Grandy's Brook. This river is a transitional boundary on the south west coast. The coastline from Bay d' Espoir west to this point is characterized by long, steep-sided, deep water bays with sheer cliffs. Westward from the Burgeo Grandys Brook area to at least Connoire Bay, the shoreline is characterized by flat, sandy barasways. Little Barasway and Big Barasway, around Grandy's Brook, enclose sand-bottomed lagoons with attached mud and sand tidal flats. These lagoons contain beds of soft-shelled clams and are still home to harbour seal populations. At Big Barasway, according to local lore, it was possible to catch lobsters by hand from the mud flats at low tide.

These resources, when combined with salmon and trout from Grandy's Brook and resident caribou herds, would seem to have made this an attractive area to prehistoric hunters and gatherers.

Another distinctive physical feature of this area is the Burgeo Group of Islands. There are about two dozen habitable islands and an equal number of uninhabitable islands which form an archipelago. These islands were, and still are, productive seabird nesting grounds. They also provide a buffer to the open sea, not usually found along this coast, which enables a protected fishery.

The first areas surveyed were Big and Little Barasways and the Sandbanks. These white sand dunes comprise an area of approximately 6 km^2.

An exhaustive foot survey of Little Barasway and the Sandbanks and a canoe survey of Big Barasway failed to locate any sites. The shifting and ephemeral nature of these dunes, which has probably destroyed or buried sites, is offered as one explanation. Sandbanks Islands, which now lies half a kilometer off from the Sandbanks Islands, which now lies half a kilometer off from the Sandbanks, was joined by a sand bar over which residents of Burgeo walked to pick berries around the turn of the present

century. Today coastal steamers and draggers ply between the island and the Sandbanks instead of circling the Burgeo Islands on their westward trips.

UPPER BURGEO (CjBj-7)

The site is located on Cornelius Island. This island was the locale of the original community of Burgeo, but was abandoned during the nineteenth century. The site is in a small sandy cove on the eastern side of the island, just above the tidal zone.

Approximately two dozen Little Passage artifacts were recovered. Five stemmed projectile points, measuring 17 - 25 mm, were located, duplicating in style and raw material projectile points from the L'Anse a Flamme (CjAx-1) site in Hermitage Bay. Two triangular bifaces, 46-47mm, slightly larger than those from L'Anse a Flamme, were also recovered. A ground slate tip and an asymetric knife indicate a possible Dorset component.

VATCHER ISLAND (CjBj-8)

The second site investigated was brought to our attention by local resident Gus Melbourne. It is located on the eastern side of a low-lying island in Burgeo harbour, called Vatcher Island.

Most of the sites appears to have eroded into the sea. Artifacts, some of which are water-worn, were found in the

tidal area, and test pitting failed to locate the dimensions of the original site. The finding of a true burin, with two spalls removed, indicates some antiquity to the site as does a chipped and ground burin-like tool. The burin is distinctly side-notched with no evidence of grinding; rather the working edge has been achieved by burination.

SANDBANKS ISLAND (CjBj-4)

A Dorset site is located on the northern entrance to the small cove on Sandbanks Island about 8 meters above sea level. It may have functioned as a look-out; extensive test-pitting failed to produce the dimensions of the site. A snub-nosed, stemmed scraper with graving spurs, and a triangular flake scraper, two chert microblades, one retouched, a tip flute flake and two biface thinning flakes were collected at this site.

CUTTAIL ISLAND (CjBj-6)

Cuttail Island is located approximately 1.5 km southeast of the community of Burgeo. The site is on the northeastern end of the island just inland from a storm beach.

A considerable number of primary, banded rhyolite flakes were scattered over the surface; however, no tools fashioned from this material were located. An expanded blade core of brown chert was found in a test pit, approximately 10 cm below the sod. A biface base and a scraper

preform were also recovered. Here again the sinking coastline has caused considerable erosion.

MORGAN ISLAND (CjBj-5)

The site is located approximately 300 m northeast of the cemetery on this island, above a storm beach. A lens of flakes, overburdened by 25-50 cm of peat, is all that could be found of the site.

A part of an expended blade core, three microblades made from green chert and a badly fragmented distal section of an end blade were recovered. About a dozen spalls of black chert, reminiscent of material found at the Cow Head quarry, were found. This is the first time I have seen this material on the South Coast.

CAPE LA HUNE (CjBf-1)

This site was reported by Farley Mowat. Inhabitants of the now abandoned community had picked up arrowheads and presented some to him. He suspected the site was a major camp ground probably used by natives venturing to the Penguin Islands for birds and eggs.

Nothing could be found of the original site except some chert flakes and artifacts from a small salt-water pond behind a derelict breakwater. The distal portion of a microblade, a water-worn end blade base, and a preform base were the only artifacts recovered.

DISCUSSION

The number of prehistoric sites located during the survey was less than anticipated. The absence of sites at Little and Big Barasways was unexpected given the resources of these areas. It appears that the islands may have been more favoured than these sandy barasways. The topography of this coastline is so rough and most of the land so steeply elevated that there are few spots in which to camp. It is suspected that some prehistoric sites are still occupied by European fishermen.

Maritime Archaic sites were not found. A sinking coastline was demonstrated by the eroding state of all the sites located. Dorset occupation of this area was intense and appears to have started early and endured for a considerable time. The Little Passage site at Upper Burgeo would certainly repay excavation.

We had hoped to find MicMac sites in the Grandy's Brook area, as there are many ethnographic references to MicMacs at Grandy's Brook and White Bear Bay during the nineteenth century. Many of these were written by visitors to the Anglo-American Telegraph Co. stations. The station at Grandy's, and similar ones along the south coast at White Bear Bay, Bay du Nord and Long Harbour functioned as activity centers akin to missionary or trade

posts. Located as they were at the bottoms of elongated bays they were accessible to MicMacs from the interior.

Their knowledge of the country made them invaluable during the initial survey and construction of the telegraph line in the 1850's. There is still considerable MicMac lore in the Grandy's Brook, Burgeo area although there are very few persons who claim Indian ancestory. Grandy's Brook has its MicMac graveyard as well as points of land referred to as Indian Hole and Carline's, named after a robust and jovial MicMac lady. However, the archaeological identification of such as MicMac, as opposed to European, is difficult. This difficulty is compounded by the hurried aspect of surveys.

MICMAC SITES

Four MicMac sites were located in the interior during the past field season. These were known to individuals of the Conne River community, but had not been archaeologically investigated. I regard the location of these sites as a breakthrough in trying to establish MicMac presence in Newfoundland. A combination of factors led to the location of these sites, one of these being that the members of the Conne River community now realize that their efforts are needed in the search for MicMac sites. The job of locating sites in the interior is extremely difficult when compared

with site location on the coast. There are many individuals in Conne River who have spent their whole lives in the woods as loggers, trappers and guides whose aid is invaluable and to have gained their confidence augers well for future research.

BURNT KNAPS (DbAV-1)

This site, the most promising for excavation, was brought to our attention by Mr. Nicholas Jeddore. "Nickley" is now 77 years old and last visited the site as a boy, in the company of his father. The site was unoccupied at that time and does not appear to have been occupied since. It is located on the headwaters of the Bay du Nord river system about three kilometers south of Middle Ridge and approximately 15 kilometers inland from Conne River. Middle Ridge is a significant geographical feature because it divides adjacent water systems: north of Middle Ridge, water flows into the Northwest Gander; to the east it flows into the Terra Nova River; and to the south it flows into Fortune Bay via the Bay du Nord river.

The site was located in a good caribou hunting area and is situated on top of a small hill, approximately 50 meters above the surrounding marshes. Such a vantage point offered the inhabitants easy access to animals crossing the barrens. As found, there were no features

above ground except a scattering of broken and cut bone and antler and one odd-shaped iron pot. A number of depressions were later mapped but not tested. A test square 1.5 x 1.5 meters was dug at the path entrance to the site. This test pit yielded the largest amount of mammal bone I have ever excavated. The total sample was submitted to the Provincial Wildlife Department and all was classified as caribou bone. No moose bones were recovered. The presence of seven mandibles from the test pit indicates that the animals were not slaughtered too far away as the heads were transported back to camp. Most of the bone was cut, probably for marrow extraction. One wire nail, one cut nail, and a button were also recovered from the test square.

Future excavation is planned for the 1982 field season to establish the time depth of occupation at this site. This particular area seems to have been very popular, with two other known sites within a kilometer radius. Bay du Nord 1 (DbAu-2) is located about a kilometer south west of Burnt Knaps. The site is located on a cleared hilltop and according to informant Nicholas Jeddore is supposed to be older than the Burnt Knaps site. A brief reconnaissance of the site failed to locate any above-ground features. Testing at the base of an uprooted tree

revealed a small number of European artifacts: melted glass, lead bird shot, a small strip of brass, and a forged nail. Another site just south of Burnt Knaps was not revealed until my return to Conne River and will be investigated during the coming field season.

Two other known MicMac sites, located to the west of Conne River, were also investigated during the past field season. A wigwam camp site at True Hill Bottom (DbAw-1) presented an opportunity to view, in the ground, the tremendous amount of birch bark which remains after collapse of the structure. A large hearth was uncovered but time constraints prevented investigation. Another wigwam site at North Steady Pond proved too disturbed by recent game hunters to warrant further investigation.

SUMMARY

The location of the Little Passage site at Upper Burgeo and the MicMac sites on the headwaters of the Bay du Nord river were the highlights of the 1981 field season. Five Little Passage sites have now been located on the south coast. Data from these sites are currently being analyzed. The Little Passage Complex was formulated in an attempt to re-investigate and research recent Indian occupations in Newfoundland.

Archaeological research of MicMac culture in Newfoundland

has just begun with the location of the above sites. Excavation of the Burnt Knaps site, and more intense testing at the Bay du Nord 1 and True Hill Bottom sites should provide much needed data concerning MicMac activity within this area.

NOTES

[1]"The L'Anse a Flamme site (CjAx-1) and the Little Passage Complex" a paper delivered at the 14th annual meeting of the Canadian Archaeological Association in Edmonton, Alberta, April 1981, deals with the Little Passage proposition.