

EXCAVATIONS AT RED BAY, LABRADOR - 1982

James A. Tuck
Memorial University of Newfoundland, Archaeology Unit

The 1982 season at Red Bay, Labrador was by far the most productive and exciting summer we have enjoyed since the inception of the project in 1977. Excavations were funded by the Social Sciences and Humanities Research Council of Canada and the Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador. The latter institution also provided a permit (number 82-3) under which the researches were conducted. Owing to the unexpected richness of the finds an additional subsidy was sought and received from the Institute of Social and Economic Research, Memorial University of Newfoundland.

As in past years the Canadian Conservation Institute, National Museums of Canada, joined Memorial University as a partner in the Red Bay project although, once again owing to the nature of our discoveries, their role was greatly expanded during the 1982 season. Not only was a professional conservator at Red Bay throughout the summer to supervise the storage and stabilization of the more than 10,000 artifacts recovered, to radiograph all metal and many other objects, and to assist in removing friable artifacts from their burial context, but the Canadian Conservation Institute also provided equipment and expertise for an experimental ground penetrating radar survey of portions of Saddle Island, particularly an area where a number of skeletons was discovered. A substantial number of artifacts, ranging from iron tools, coins, and ceramics to textiles and other organic materials were removed to CCI headquarters for treatment and analysis. Without the co-operation of all of the above-named agencies the excavations at Red Bay would have been impossible.

The excavation strategy for 1982 involved the completion of excavations at Area E, a large cooorage/dwelling complex, further excavation at Area G, an oven or try-works south of that completed in 1981, and the excavation of two smaller try-works at Area J. The first two objectives were accomplished (except for a small block in Area E) but excavations at Area J were curtailed after the discovery of a large cemetery complex early in the month of August. Excavations at each area are summarized below.

Area E. Work at this large (400+m²) cooperage/dwelling complex commenced in 1980 and continued through 1981 and 1982. The area is situated on a large fairly level terrace overlooking several try-works near the beach below. The occupation is distinguished by a layer of broken roof tile, so thick in places that some 1 m squares required more than a dozen mappings to record the positions of the tile fragments. In terms of location, the nature of the deposit, and the kinds of artifacts recovered, Area E resembles strongly a previously excavated cooperage/dwelling known as Area A (Tuck 1981; 1982). During 1980 and 1981, when excavations were centered on the surface of the terrace a large number of 19th century artifacts was found overlying the tile layer, beneath which were 16th century artifacts related to domestic and coopering activities.

During the 1982 season excavations were expanded to the margins of the area where tile-roofed structures stood, particularly to the hillsides which proved to be the repository for thousands of 16th century artifacts and considerably less recent European material. Domestic material and personal possessions included a wide variety of ceramics, including a number of restorable storage jars, pitchers, cooking pots, and shallow bowls or plates. Most have strap handles typical of Spanish ceramics of the period and the red to buff coarse earthenware fabric is frequently covered with a brown to green lead glaze. Tin glazed earthenware, or majolica, was much less common although fragments of several small vase-like containers, pitchers, and porringers were recovered. Glassware consisted of fragments of stemware and footed tumblers, mostly of remarkably thin glass, and fragments of a few small bottles. Although most of the glass is in reasonably good condition many specimens are undergoing a deterioration process known as "crizzling" and are extremely friable. A large silver coin about 3 cm in diameter was also recovered and has been identified as a French half ecu struck during the reign of Henry IV of France and Navarre who ruled between 1589 and 1610. This coin provides evidence that Red Bay continued to be used as a whaling port even after the defeat of the Armada in 1588 after which Spain declined rapidly as a world power. A second possible coin, broken in two pieces and extremely worn, remains to be identified. Rosary beads of bone or ivory, a buckle, what appears to be the hammer from an arquebus, knives, a fragmentary sword blade (?), and other similar objects were all personal possessions of the men who dwelt and worked in the structure(s) at Area G.

The tools and organic refuse from the coopering process which were discovered in 1981 (see Tuck 1982) left little doubt that this area was the location of a cooperage where staved containers were assembled and repaired. Additional discoveries made during the 1982 field season have rounded out the collection of coopers' tools (Plates 1 and 2) which now includes adzes, a chisel, a drawknife, a cooper's pincers, a scribing tool with baleen handle, numerous head vises or cask hooks, probably as many as twenty gimlets or small augers, and others which we have not yet been able to identify. Because of a conservation backlog, areas with organic preservation were avoided during 1982 but excavations in the coming seasons are expected to produce additional wood refuse from the coopering operation.

Although about 400 m² have been excavated to date no firm evidence of the styles, or even the number of structures at Area E has yet been recovered. Aside from the thousands of roof tile fragments and hundreds (perhaps thousands) of nails relatively little structural information has been forthcoming. Two rows of inverted tiles, each about 2 m long suggest drains and the distributions of tiles and nails may provide some information, but we remain unable to provide any type of reconstructions of the buildings themselves. A small remaining block on the surface of the terrace and the adjacent hillside will be excavated in future seasons but it is doubtful whether this area will produce any structural data.

Area G. This area was first opened during August 1981 when an area about 4 by 10 m directly behind a low stone wall was exposed to reveal a thin tile layer thought to represent the roof of an oven or try-works. During July 1982 this excavation was expanded in all directions and revealed a remarkably well-preserved try-works consisting of a large oven complex containing six intact fireboxes (Plate 3) and a seventh which had been partly dismantled during the Basque period. (For a description of the workings of a try-works see Tuck and Grenier, 1981.)

Structural evidence, in addition to the roof fall, consisted of a series of post molds, some still containing preserved wood, which appeared to encompass the oven structure and probably provided support for the heavy tile roof which sheltered the cauldrons and the men who tended them from the elements.

During the excavation of this structure several thousand artifacts were recovered dating from the 16th and 19th centuries. The latter include glass, ceramics, copper and iron nails, stove and lamp parts, and such unusual items as a gold embroidered hat band from the H.M.S. Emerald. Sixteenth century material

includes a large iron harpoon, several fragments of the copper cauldrons used to render the whale blubber into oil (some with burned fat still adhering to them), ceramics, glassware, nails, and a copper coin about the size of a half-dollar which has not yet been identified.

In late July excavations at Area G were expanded to the west, inland from the oven, where a large, thick (up to 40 cm) deposit of wood charcoal resting on sterile beach gravels suggested an activity area not before recorded at Red Bay. Adjacent to this a three-sided rectangular foundation of large rocks was partly visible through the surface vegetation. Both the charcoal layer and the structure were partially exposed during the remainder of the 1982 season.

The charcoal layer covers more than 10 m² but has not yet been fully exposed. On its surface and extending into the charcoal were found two roughly circular features made from small boulders and measuring 2 to 3 m in diameter. The rocks seem to have been mortared or covered with the same silty grey clay which was used to mortar the stones comprising the fire-boxes in the try-works. Although we suspected that they might represent forges, which must have been necessary for the repair of whaling gear, ships fittings, etc., no firm evidence to support this hypothesis has been found. Also, the two features contain, at least in their upper layers, 19th century as well as earlier artifacts. The grey clay, however, was clearly brought from Spain and if these two rock features prove to be of more recent origin we may have an interesting case of three hundred year old building materials being used for some purpose in the late 19th century.

The adjacent structure also presents problems in both function and dating. Although many of the rocks which comprise the foundation rest on sterile beach gravels, others are somewhat higher in the deposit, suggesting a more recent age. Wooden posts, apparently associated with the foundation contain 19th century nails and numerous late 19th and early 20th century artifacts were recovered from the sections which have been opened to date. Nevertheless there is a 16th century Basque occupation within and around the structure for ceramics, tile fragments, nails, and other early materials have been recovered.

Unfortunately, time did not permit excavations to proceed far enough to solve the problems associated with this structure but excavations planned for 1983 may clarify the situation. As it stands now we are holding open both the possibilities of a 16th or 19th century origin as well as some intermediate occupation of which we have no evidence as yet.

Area J. This area contains surface evidence of a small oven perched on a large bedrock outcrop a few metres from the water's edge and an even smaller oven situated in a natural bedrock outcrop which was apparently utilized to form two walls of the oven. The sod was removed from both areas during July in preparation for excavation during the month of August. However, our priorities changed early in that month because of the discovery of human skeletons at Area L and it was decided to postpone the excavation of Area J until 1983.

Work did not end at this time, however, for on the last days of the field season a ground penetrating radar scan of Area J was undertaken by staff of the Canadian Conservation Institute and a commercial firm, A-Cubed, of Toronto. Results of this survey are not yet available but the preliminary data indicate a number of anomalies and the technique did detect a layer of oven clay buried under 20 to 30 cm of beach gravel. The 1983 excavations at Area J, therefore, will have as their goal not only the recovery of information pertaining to the 16th century occupation of Saddle Island but also an evaluation of the ground penetrating radar technique for detecting subsurface features.

Area K. Although only test excavations were undertaken at this area in 1982 it promises to add a significant piece to our understanding of activities on Saddle Island during the latter half of the 16th century. The area is centered around a bedrock promontory, estimated at about 10 m above sea level at its highest point, and located on the southeastermost point of Saddle Island. A small but lush growth of grass among the rocks at the hilltop first suggested that some cultural activities might have been responsible for the soil enrichment which permitted the grass to flourish. Test pits in this area revealed bits of charcoal and occasional small rocks indicating some use by human groups but gave no indication as to who they might have been or when they visited this part of the island. Test pits dug on all sides of the hill at the base of the steep outcrop, however, were much more productive. Wood charcoal, burned bone, and rocks were found everywhere at the base of the hill and a few nails and small sherds of coarse earthenware suggested that it was 16th century Basques who had utilized the hilltop. Several water-saturated areas produced great numbers of baleen plates as well as wood chips, fragments, and one split barrel hoop identical to those found in other 16th century waterlogged deposits.

Since none of the places where this material was found seems suitable for habitation or any other utilization it seems likely that the debris at the

foot of the hill represents some structure which formerly stood on the hilltop and gradually collapsed in all directions leaving only the meagre traces recovered in our test pits. The best interpretation of this structure seems to be that it was a lookout for whales and/or perhaps served as a beacon to guide approaching boats to the harbour at Red Bay. Such structures, known as atalayas date, in Spain, from the middle ages and served both as lookouts and navigation beacons. The surviving examples, however, are made from stone which the structure at Area H clearly was not. The nails found below the hill suggest a wooden structure although the large amounts of baleen may also have figured in its construction.

The hilltop affords a 180° view of the Strait of Belle Isle and the elevation is such that it seems doubtful whether there was much advantage to be gained in using some of the higher hilltops as lookouts for whales. This would be particularly true on the not uncommon days when haze or fog obscures much of the Strait of Belle Isle. The use of this area as a beacon is even more difficult to demonstrate although it is well located to guide the passage of small boats between Twin Island and the mainland and the rutter, or sailing directions, of Martin de Hoyarsabal in 1579, suggest that even larger vessels travelling west from the present-day Chateau Bay to Red Bay stay close to the land to avoid a dangerous shoal at the southeastern end of Saddle Island. Again, most of this remains in the realm of speculation but the 1983 field season may provide additional information.

Area L. It was at this area, which lies immediately west of, and is overlooked by, the probable lookout at Area K, where the most exciting discoveries of the 1982 field season were made. The area was initially tested as part of an attempt to determine whether dwellings other than the large tile-roofed cooperage/dwellings might have existed on Saddle Island. This endeavour seems to have been successful for two refuse deposits were located which we believe mark the locations of temporary dwellings. The first is in a small rectangular 'room' in the bedrock not far from the base of the hill where the lookout is located (although far enough removed so that the refuse could not have been derived from that structure). A single test pit revealed a deposit of rich black soil containing charcoal, burned bone, and a few small fragments of coarse earthenware. The second area, which was more extensively excavated, is located about 20 m west of the first. A one metre wide north-south trench excavated in this area produced considerable burned refuse bone and numerous large fragments of burned whale bone which must have been used as fuel.

Associated with this debris were sherds of several coarse earthenware vessels identical to those from elsewhere on Saddle Island, iron nails and rivets which can also be duplicated many times over, and several pieces of cut baleen, some of which seem to be 'blanks' for baleen knife handles such as have also been found elsewhere in good 16th century context. These 'blanks' as well as the baleen handles of several knives and the scribing tool from Area E were probably the first Red Bay souvenirs and may constitute an early example of the whaler's art of scrimshawing which reached its peak in the 18th and 19th centuries.

In no case were roof tiles represented by more than a few fragments so we can be certain that whatever structures are represented by the nails and other refuse were considerably more humble than those in which the coopers dwelt and worked. In hope of discovering post molds or other information pertaining to the suspected structures it was decided to dig an east-west trench. To determine whether to dig first toward the east or west a few sods were turned over and replaced in each direction. As the sod from the last test pit to the east was turned over a somewhat eroded but clearly recognizable human skull appeared in the bottom of the sod which had been removed.

As the area surrounding the skull was cleared of the overlying root mass and excavations expanded in all directions other skull fragments and bits of eroded human bone appeared immediately beneath the sod. Whale bones, almost entirely ribs and vertebrae, were also exposed and may be partly responsible for the creation of a burial environment somewhat less acidic than that at other areas of Saddle Island. As more human bones were discovered several things became apparent. The first was that many of the skeletons were surrounded by masses of textile apparently of 2 or 3 different weaves which, coupled with the thick mass of fine roots, complicated the excavation problem considerably. Because of the extent of the human remains it was decided to isolate the block which contained them. This was done by digging a one metre trench surrounding an area of three by four metres. In this trench were found what appear to be the fragmentary long bones of two individuals, as well as considerable whale bone. These were mapped, photographed, and removed and a low wooden enclosure was built around the remaining skeletons. Two movable working platforms were then constructed from which we could excavate the skeletons without damaging other unexcavated remains. Finally a large wall tent was erected over the area to allow excavations to proceed regardless of the weather (Plate 4).

At the close of excavations eight skeletons had been partially or completely exposed. They lay parallel to one another in 2 north-south rows with the heads to either the east or west. Most appear to be resting on their backs in an extended position and, with a few exceptions, are reasonably well articulated (Plate 5).

A second fact which became apparent as individual skeletons were isolated was the bodies had not been deliberately buried but rather had simply been abandoned immediately on top of the 16th century midden which first called our attention to Area L. The textile which both over and underlies the bones prevented the complete exposure of most skeletons but aided, to a certain degree, in the removal of the single individual which was not left in place until 1983. After the mass of textile had been isolated from that surrounding it, the Canadian Conservation Institute staff and Dr. F.J. Melbye, physical anthropologist from the University of Toronto, were able to separate the textile from the underlying soil by carefully working their hands between the two. The entire block was then transferred to our field laboratory on a sheet of plywood where the block was radiographed and a preliminary cleaning using running water and a water-pik was undertaken (Plate 6). A small iron eyelet revealed by the radiograph was removed and two distinct weaves could be observed in the textile suggesting that the cloth may pertain to garments rather than a burial shroud.

While these excavations were taking place further test pitting revealed a number of deliberate burials. Two of these were opened, one of which was excavated completely and the other partly exposed and re-covered to await the 1983 season. The first contained two extended skeletons, both heading west, which were covered by less than 20 cm of grave fill. Both skeletons were fairly well preserved from the feet to about the pelvis with nothing remaining above that point except the teeth of one individual. The upper central incisors display no shovelling, hence the skeletons appear to be those of Europeans. The intact portions were block lifted using auto body filler rather than the standard plaster of Paris. This technique worked exceptionally well as the auto body filler sets rapidly, is very strong, and much lighter than plaster.

The second grave explored in 1982 consisted of a large oval pit about 2 m in diameter. It was visible prior to excavation as a depression in the ground. When the surface was exposed the profile in the overlying peat showed clearly where beach gravel had been thrown out of the grave fossa and

not entirely replaced. At the close of excavations portions of four skeletons had been exposed, all in semi-flexed positions and not all oriented with heads to the west as was the case in the other burial. As only a portion of the grave was exposed we suspect that further excavations will reveal additional skeletons. The bone in this grave is extremely soft and is almost exactly the same colour and consistency as the grave fill. Only very meticulous excavation allows the two to be separated.

Any final interpretation of this burial complex and the skeletons abandoned on the ground must await further excavations but a few cautious comments might be offered at this point. The double extended burial in a typical European fashion and the discovery of four more burials in five small test pits suggests that we may have stumbled on a major cemetery. A ground penetrating radar scan of the area also suggests anomalies which might prove to be the locations of other graves. Excavation in 1983 will expose a larger area where more graves are known to exist.

The second burial, that containing at least four individuals, presents a somewhat more difficult problem in interpretation; the unburied skeletons even more so. Both clearly indicate tragedies involving the deaths of a number of people at about the same time. One possible explanation may be that these skeletons are related to the several accidental overwinterings which occurred during the late 16th century (Selma Barkham, pers. comm.). Caught by sudden freeze-up the whaling ships and their crews were forced to spend several winters in southern Labrador and deaths were common during these times. The mass burial may, therefore, represent the remains of men who died during the harsh winter but could not be buried until the ground thawed the following spring. The unburied bodies may tell of a similar overwintering disaster but it is more than curious that the ten individuals were not accorded a proper burial but were simply abandoned to the elements.

There are other possibilities to be considered as well but further speculation is probably unwise until complete excavation and further analysis of the human skeletons, textiles, and other material is completed.

It should be obvious from this brief description that the 1982 season at Red Bay was the most productive we have enjoyed in the past five years. The extremely well-preserved oven, the tools and other artifacts from a cooperage, the probable lookout and small living sites all answer questions we have asked ourselves since the project began in 1977. However, while the 1982 season seems to have answered a number of questions it has also posed even more new

problems. The rock and clay features, large charcoal deposit, and rectangular stone structure at Area G remain unexplained while the burials and abandoned bodies at the southern end of Saddle Island bring a whole new dimension to our study of 16th century whaling in southern Labrador. Only additional excavation and analysis hold any hope of answering these questions although, indeed, the events to which they bear mute witness may lie beyond our ability to understand.

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PLATE 1

Coopers' tools from Area E, Saddle Island, Red Bay Labrador: a) cooper's pincers; b) iron scribing tool weighted with lead and having a baleen handle; c) blade from a tool for cutting croze grooves into which head pieces of staved containers were fitted; d) head vise or cask hook used to lift the last head piece of a barrel into place before the staves were drawn together; e) gimlet or auger used to bore the hole for the threaded head vise and probably to pre-drill nail holes as well; f) the iron end of a "peavy-like" device used to force hoops over an assembled barrel.

All specimens are pictured prior to cleaning and stabilization.

Photo courtesy of the Canadian Conservation Institute.



ARIS PROJECT 16A

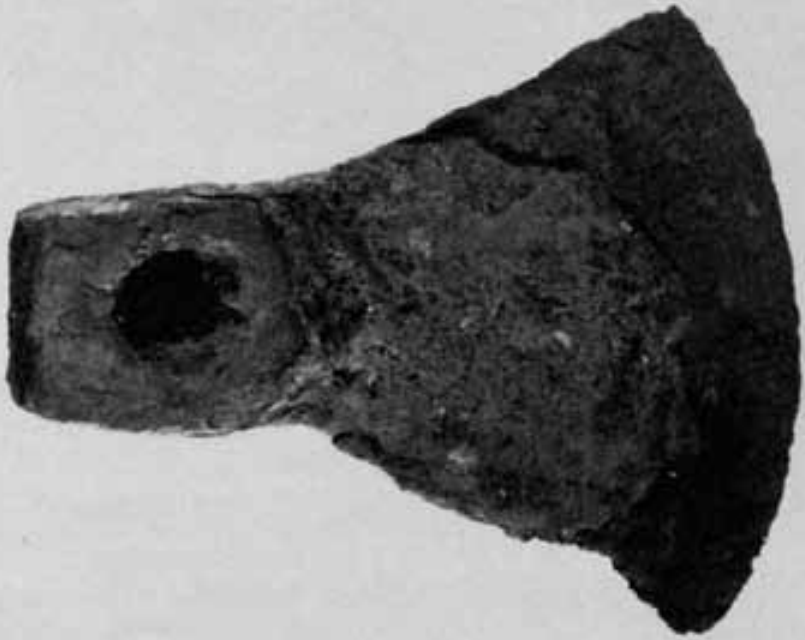


PLATE 2

Coopers' tools from Area E, Saddle Island, Red Bay, Labrador: a) drawknife blade; b) coopers' adz; c) woodworking chisel.

All specimens are pictured prior to cleaning and stabilization.

Photo courtesy of the Canadian Conservation Institute.



b



c



d



ARS PROJECT 16A

PLATE 3

The large "oven" or try-works at Area G. Each of the six fire-boxes would have supported a copper cauldron in which blubber was rendered into oil.

Photo by Frederick Schwarz.



PLATE 4

Wood platforms placed on a frame over the unburied skeletons at Area L to allow excavation to proceed without damaging the human bones and surrounding textiles.

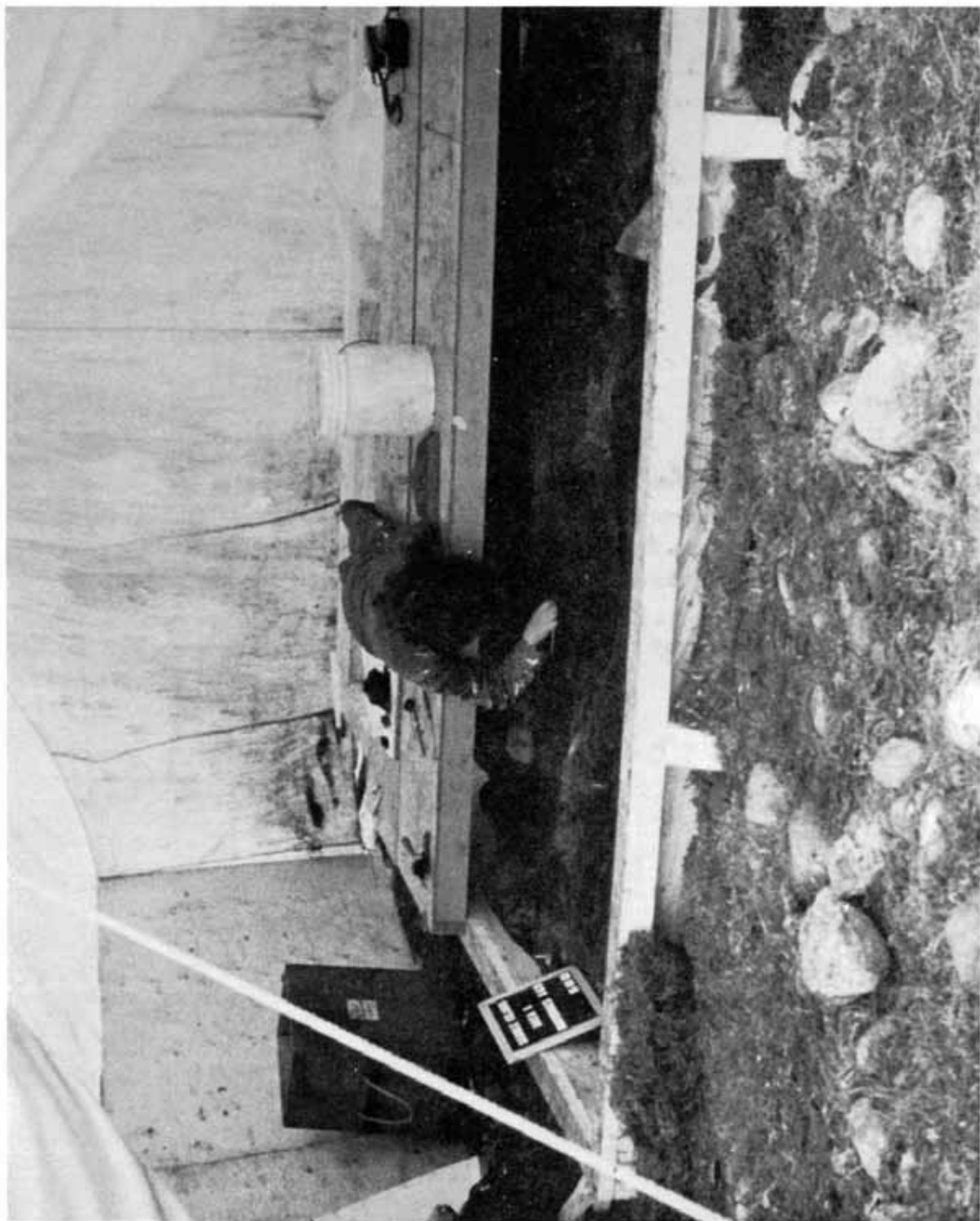


PLATE 5

Partially exposed skeletons at Area L. Near the center of the photograph can be seen three human skulls from which infracranial skeletons radiate to the left and right. Textiles which surround the skeletons are practically indistinguishable from the surrounding root and soil matrix.

Photo courtesy of the Canadian Conservation Institute.



PLATE 6

Separating human bone and textile from the root and soil matrix with a "water-pik". A mass of textile is visible at the far right and a fold can be seen along the edge nearest the workers.

