## 1983 EXCAVATIONS AT RED BAY, LABRADOR

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Excavations at the 16th century Spanish Basque whaling stations at Red Bay, Labrador continued, during 1983, into their seventh field season. Work was again financed by grants from the Social Sciences and Humanities Research Council of Canada and the Historic Resources Division, Department of Culture, Recreation and Youth. The latter also issued permit no. 83-4 under which the work was conducted. Once again the Canadian Conservation Institute provided a full-time professional conservator for the duration of the field season, equipment and materials for field stabilization of objects, as well as analytical and conservation services during the winter of 1983-84.

Although this was our seventh summer at Red Bay the area continued to provide surprises in the form of new information and material. Excavations concentrated on the large cemetery discovered in August 1982 (Tuck 1983), a structure near one of the previously-excavated tryworks or "ovens", two small habitation sites on nearby Twin Island, and several small ponds which proved to contain remarkably well-preserved organic and other remains. Each of these excavations is described briefly below including not only a discussion of the features themselves, but a preliminary description of the artifacts and other material recovered.

AREA G is the location of a large and well-preserved tryworks or "oven" which was reported and illustrated in Archaeology in Newfoundland and Labrador 1982 (Tuck 1983). Excavations were extended inland to the west and south of the tryworks during 1983 where several large stone structures had been partially excavated during the 1982 field season. These included a large rectangular rock foundation and two circular rock and clay features overlying a deposit of wood charcoal covering more than 20 square metres and up to 50 cm thick.

At the close of the 1982 excavations we were baffled by these structures for we could neither age them with any precision nor could we ascribe a function to either the rock and clay features or the large foundation. The artifacts recovered from the area indicated at least two episodes

in the use of these features -- one of the 16th century Basque period and a more recent late 19th and early 20th century occupation by the ancestors of the present inhabitants of Red Bay. At the time we also suspected, but were unable to demonstrate, some occupation intermediate between the two (Tuck 1983:98). We believed, however, that the circular rock features were likely of Basque origin since the clay from which they were partially constructed appeared identical to that used to mortar the tryworks which are well dated to the 16th century. A survey on the west side of "The Basin", or inner harbour, however, revealed several exposures of grey clay which resembles the material used in both the tryworks and the features at Area G. Hence, the attribution of the Area G features to the Basque period on the basis of the clay used in their construction began to seem unlikely. At about the same time that the Basin survey was taking place careful excavations at Area G began to reveal material associated with the circular stone features which dated neither to the Basque occupation nor to the more recent use of the site by 19th and 20th century fishermen. Hand forged nails with heads unlike those of the late 16th century, coarse earthenware with a green glaze also unlike that from Basque occupation areas, what appears to be a lead bale seal, and other artifacts suggested that our hypothesis of an occupation intermediate in time between the 16th and 19th centuries was probably correct. This information, and other data obtained from Area G allow us to reconstruct at least a provisional history of the use of the area.

The earliest utilization of Area G was clearly by 16th century Basques, for the lowest levels of the site, usually on, or close to, sterile beach gravels, produced roofing tile fragments, nails, coarse earthenware and majolica ceramics, and other artifacts which can be duplicated many times over from other areas of 16th century occupation. A preliminary assessment of the distribution of the 16th century material suggests that the material does not correspond with either the circular features or the rectangular foundation. A few post molds, however, which do not seem to pertain to the large rock foundation, may represent the remains of a Basque structure in this area. It is impossible, however, to be precise about the nature of the 16th century utilization of Area

G. The general pattern established for other shore stations on Saddle Island (c.f. Tuck and Grenier 1981) suggests that a cooperage/dwelling where casks were assembled and repaired and where the coopers also lived should be associated with the tryworks located a few metres north and east of the 1983 excavations. However, no evidence of coopering, either in the form of coopers' tools or refuse from coopering has yet been recovered. As indicated above, building hardware and domestic refuse dominates the meagre collection, hence the best explanation we can offer at present is that the 1982 and 1983 excavations in this area have revealed a small dwelling site from the 16th century, perhaps occupied by coopers or the men responsible for operating the nearby tryworks.

The suspected intermediate occupation seems now to have been confirmed by a few artifacts associated with the circular rock and clay features. Moreover, we are now able to offer at least a tentative explanation for its presence. The nearly complete excavation of one of the circular rock and clay features revealed not only the artifacts of the late 18th/early 19th centuries but at least small quantities of what is unmistakably burned fat associated with this feature. This led the excavator, Stephen Mills, to postulate that the features were "sealing ovens" where the fat removed from seal pelts was rendered into marketable oil. In contrast to the tryworks associated with whaling, those used to render seal oil must be fired with wood since the remaining unrenderable fat is not sufficient for use as fuel as is the case in the trying-out of whale blubber. This hypothesis is strengthened by information obtained at the site of a Jersey sealing station located about 80 km west of Red Bay at Isle au Bois, Quebec. One of the students employed at these excavations described the tryworks there as very similar to those from Area G, including the vast amounts of wood charcoal surrounding them. Finally, a date of 150±50 years B.P. (Beta-7268) suggests that the late 18th/early 19th estimate for the age of these features seems reasonable. It remains impossible to say exactly who the proprietors of this enterprise might have been, although a more thorough analysis of the artifacts and historical sources pertaining to this period may reveal something more of their origin.

The late 19th and early 20th century occupants of Area G seem to

have been responsible for the large rectangular foundation reported previously. A portion of the foundation appears to overlie, at least partly, one of the sealing tryworks and post molds associated with the wall contain the well-preserved remains of sawn posts, some of which bear traces of what appears to be red paint. Red Bay was established as a permanent settlement by migratory fishermen from Conception Bay. Newfoundland (to which names such as Moores, Pike, Ryan, and Yetman bear witness) during the mid-19th century. The remains of the original settlement can still be seen on the west side of The Basin, and summer dwellings are reputed to have existed around the outer harbour. However, according to local tradition, the community seems to have shifted within a few decades to permanent dwellings around the harbour where the oldest extant structures in Red Bay now stand. Some of these dwellings were apparently located on Saddle Island. Interestingly, this migration now seems to have reversed itself and several new houses are constructed each year in the bottom of The Basin at the expense of older dwellings near the harbour which are being abandoned or torn down at about the same rate. We suspect that the most recent remains at Area G represent a dwelling dating from early in the period during which settlement shifted from The Basin to the outer harbour. Ceramics from this area are now undergoing analysis by Charles Burke, a graduate student in Archaeology at Memorial University, and will form the basis of his M.A. thesis.

Parenthetically, it is worth noting that there are a number of interesting research topics in historical archaeology which could be carried out regarding the migratory fishery and early settlement at Red Bay. How, for instance, does the domestic and other material from home ports in Conception Bay compare with that from the transitory stations which must exist at Red Bay? How do the winter and summer dwellings of the early settlement period differ? How did the construction of the large merchant premises on Penny Island in the latter half of the 19th century affect the community of Red Bay? These and other similar problems seem admirably suited to investigation by historians, geographers, and archaeologists interested in the last 200 years of southern Labrador history and I suspect that some new insights into the social and economic history of the area would result from their completion.

AREA L is the area in which the first indications of a large cemetery were recovered in 1982. These excavations revealed a group of 12 unburied individuals and two deliberate burials. One of the latter was a double burial with the poorly-preserved skeletons extended on their backs, heads to the west. With the aid of Judith Logan of the Canadian Conservation Institute we were able to remove these skeletons using car body filler in place of the traditional plaster of Paris as a medium for the block lift. The other burial, containing an undetermined number of individuals in a variety of burial positions and orientations, proved to be far too complex to remove in 1982. It, as well as the unburied skeletons, was covered with layers of microfoam, polyethylene, and plywood to await the 1983 field season. When we returned in June, 1983 we found that no damage had occurred during the intervening nine months; in fact Burial I proved to be encased in a large block of ice which preserved the skeletons perfectly during the winter months.

During the past summer the remainder of the unburied skeletons and the textile surrounding them were successfully removed. the course of excavation it became apparent that the skeletons were resting directly upon a shallow midden or living floor containing nails, ceramics, refuse bone, and other evidence of a 16th century occupation. Some sort of structure is suggested by the nails and its use as a dwelling is suggested by the domestic refuse deposit which extended several metres in all directions from the human skeletons. The absence of roofing tiles, except for a few fragments, suggests an insubstantial structure, perhaps resting on the ground surface, for no post molds have as yet been recorded. Although lacking any firm evidence upon which to base such a conjecture, it seems possible that the skeletons themselves were abandoned within some type of structure for, with one exception, the skeletons are perfectly articulated and display no evidence of scavenger activity from bears, foxes, smaller mammals and even birds which might be expected to have inflicted some damage upon exposed cadavers.

Despite the complete excavation of the skeletons during 1983 we are no closer to understanding the events which surrounded the abandonment of these individuals, apparently at least partly clothed, than we were at the close of the 1982 season. That they testify to some disaster

seems clear. Whether or not it was one of the overwintering disasters mentioned in several documents from the period (Selma Barkham 1977; personal communication) cannot be stated with any certainty, but it still seems to provide the most reasonable explanation. No trace of violence was found on the skeletons nor is it likely that the cause of death will ever be determined given the poor condition of the bones themselves. Although an overwintering disaster may explain this unusual discovery, several questions remain unanswered. The survivors of whatever took place simply may have been too weak to bury their own dead, thereby accounting for the fact that at least a dozen whalers were never accorded a proper burial. Why they were not buried the following summer when other whalers, or perhaps even a relief party, arrived from Spain remains a mystery. The answer, I suppose, is that this tragic event, whatever It might have been, occurred very near the end of Basque exploitation of the Strait of Belle Isle, and that if there were any survivors they watched in vain for a sail to appear the following spring.

Excavations also proceeded intermittently on Burial 1, the grave partly exposed in 1982 and preserved in ice throughout the following winter. The intermittent nature of the work resulted from one of the wettest summers on record in Red Bay during which the entire excavation was flooded repeatedly and Burial 1 was often completely submerged. Bailing, siphoning, a gasoline pump, and the eventual use of a self-activating bilge pump failed to dry the burial for more than a day at a time. Nevertheless we were able to determine that the grave pit, about two metres in diameter, was a mass grave containing a jumble of skeletons numbering between 9 and 13. Positions range from extended to tightly flexed and all orientations have been recorded. Since the skeletons are literally piled atop one another, since bone preservation is extremely poor, and owing to the inclement weather we were once again unable to complete the excavation of this feature during 1983. Moreover, we are no more able to provide an explanation for this mass burial than we are for the unburied skeletons in Feature 1, although some of the same factors may have been at work.

Excavations were also extended to the area surrounding Feature I and Burial I by which our speculations about a large cemetery were

borne out. An additional 20 graves were found. Adding these to the two graves previously recorded and Feature 1, we now have a total of 23 "burial" features containing the remains of between 77 and 81 individuals. The average number of individuals per feature stands at something greater than three. In fact double or multiple burials were much more common than single interments. Those for which a reasonably accurate accounting can be made include eight single burials, five double burials, one containing three individuals, five with four individuals, one grave each with six and seven skeletons, as well as Burial I having between 9 and 13 individuals, and Feature I which proved to contain the remains of 13 individuals.

Artifacts found with the burials were very few in number. They include only a few nails associated with two individuals who were buried in coffins, several small hooks and eyes, apparently from garments, and a series of unusual metal discs which, thus far, defy interpretation. Six of these objects were found associated with as many individuals always on or near the tibia and/or fibula about five to ten centimeters below the knee. The metal from which they are made has been identified at the Canadian Conservation Institute as lead which was apparently cast or hammered into a flat circular or oval sheet ranging in size from that of a quarter to about five by eight centimeters. These were then crudely perforated by punching small holes from one side with a round object, perhaps an awl. In some instances the resulting raised portions on the opposite side were smoothed by pounding or grinding, but in other cases the opposite side was left rough. The perforations do not form any particularly regular patterns but, in most cases, cover most of the surface of the object. In one case textile fragments similar to those from Feature I were found adhering to the disc. We are presently unable to provide an explanation as to their function, but they seem to have had something to do with wearing apparel. Whether, however, they served as weights in one corner of a cloak, or were locally produced decorations, perhaps in imitation of some more costly counterparts in use in Spain, or served some other purpose we are unable to say.

Although many of the skeletons were in extremely poor condition, a lens of crushed shell which crosses the burial area was responsible for the excellent preservation of a number of skeletons. Combining the burial pattern information with preliminary observations upon the skeletons themselves a few preliminary conclusions, or at least suggestions, are possible. Dr. Sonja Jerkic, of Memorial University, who assisted in the excavations, and Brenda Kennedy, a graduate student at the University of Calgary, who will continue the analysis of the skeletal material, provided the field observations. The tentative conclusions are my own and subject to modification pending further excavations and the completion of the osteological analyses.

Preliminary indications are that, insofar as they can be analysed, all of the skeletons are of European males ranging in age from their early 20's to early 40's, and that while they were relatively short in stature, they represent an extremely robust population. The burial population, therefore, seems unrepresentative of the Basques "..of all ages .. some as young as 11 or 12 years .. which Selma Barkham (1978:18) reports could normally be expected to be found among the crewmembers of a whaleship. Adding together the unrepresentative burial population, their robust appearance, and the high frequency of multiple burials, at least two hypotheses can be put forward. The first is that the multiple burials can be accounted for by starvation or deficiency diseases such as those presumably responsible for the deaths of the unburied individuals who comprise Feature 1. If this were the case, however, I would expect that both older and younger individuals would be represented which, so far, is not the case. Also, diseases such as scurvy and other deficiency diseases should leave evidence on the skeletons and this does not appear to be the case, at least from the preliminary analysis. The second hypothesis, and the one which presently seems best to fit the available information, is that the skeletons we have exposed to date represent the crewmembers of whaleboats who drowned or were killed in the dangerous business of harpooning and killing whales. This would account not only for the multiple burials -- several boat crew members or even entire crews having been killed when their boat overturned -- but it also accounts for the restricted age range and robust nature of the skeletons. If, as seems to be the case, harpooners and boat crews were among the better paid members of a whaling expedition, it stands to reason that the men

best able to obtain these positions might well have been of approximately the ages of those found on Saddle Island and that they were selected on the basis of their physical prowess — of which the skeletons also display ample evidence. As a final note, it seems that the boat crews who shared richly in the profits from a successful whaling voyage to southern Labrador and who probably competed vigorously for their positions, were also subject to the enormous risks of hunting whales, a fact to which the cemetery on Saddle Island bears dramatic witness.

TWIN ISLAND, the small island south and east of Saddle Island, was also the scene of several excavations during the 1983 field season. Excavations were begun there when Ralph Pastore and Reginald Auger (this volume) conducted excavations at several small structures, some of which apparently pertain to recent Inuit occupations. At two locations, however, earlier European material was found, some of it closely resembling 16th century material found on Saddle Island. At the close of the past summer's excavations a small rectangular structure had been exposed, a stratified refuse deposit near a whalebone tent ring almost completely excavated, and a pond adjacent to the latter structure drained, tested, and refilled.

At Twin Island-1 (EkBc-5) a small rectangular structure utilizing a near vertical bedrock outcrop for one wall was completely exposed. The bedrock runs roughly NNE by SSW and the structure extends approximately 6.5 m from the rock face. The other dimension is approximately 8.0 m. It is comprised of large rocks and small boulders with post molds in the corners. At the southeast corner, adjacent to the rock face, a gap in the foundation and a pair of post molds approximately one metre apart appear to define a doorway. A portion of the wall opposite the natural rock represents a double wall with the intervening gap filled with fine beach gravel and shell. Several large whale vertebrae and ribs were found immediately outside the walls and appear to have been used in the construction of the structure. Traces of wood, either wall beams or roof supports, parallel two of the walls, and other fragments of degraded wood were found elsewhere in the structure. The remains of a fireplace composed of large rectangular blocks of flat stone mortared with grey clay similar to that used in the tryworks and more recent sealing ovens are apparent on the rock outcrop. Although this is the

best defined structure we have thus far exposed at Red Bay, its age and function remain somewhat uncertain. The nails which apparently fastened whatever frame was constructed there are identical, at least upon superficial inspection, to those from 16th century structures on Saddle Island. A single sherd of grey stoneware, identified by Gerard Gossett of Parks Canada as "Normandy stoneware" is also identical to sherds from three Basque structures on Saddle Island. The use of whalebone and these few artifacts therefore suggest a 16th century origin for the Twin Island-1 site. However, the excavation of the collapsed fireplace revealed three fragments of a kaolin smoking pipe with a small bore diameter characteristic of a much later period. While these are beneath the rubble and clay from the collapsed fireplace and could conceivably have been deposited some time after a 16th century structure was abandoned, they are sufficient evidence to question the suggested 16th century origin of the structure. Wood charcoal samples obtained from the fireplace and wood from the structure itself will be submitted for radiocarbon analysis with the hope that they will clarify this confusing picture.

Twin Island-3 consists of a whalebone tent ring, an associated midden, and a pond containing large amounts of organic refuse. Pastore and Auger (this volume) tested both the tent ring and midden area where they recovered material dating both from the 16th century and some later period. More extensive excavations in the midden area revealed a stratified deposit containing two culture layers. The uppermost produced European material and a small soapstone pendant with a drilled hole which probably pertain to a late 18th century Inuit occupation of the site. Most likely the whalebone tent ring was also constructed by these people. Beneath this more recent material, however, was a layer of wood chips and fragments, baleen, and occasional artifacts which are identical to those from 16th century deposits elsewhere. The wood chips are largely of local softwoods and suggest that some construction activities took place there in the 16th century. Although additional excavations will be necessary to confirm it, we believe that the tent ring may be superimposed upon an older Basque structure. Hopefully, these excavations will take place during the summer of 1984.

The pond located a few metres from the Inuit tent ring and the

suspected Basque structure was drained during the latter part of the summer; the material collected from the surface of a deep deposit of silt on the pond bottom suggests that our hypothesis regarding a Basque structure nearby is probably correct. In addition to more than a dozen whale vertebrae, at least six whale ribs, and a large number of wood fragments, three artifacts from the sixteenth century were recovered. They include: the side of a reel about 30 cm long, made from oak and identical to others from Saddle Island; three fragments of a turned bowl made from beech and very much like those recovered by Parks Canada divers from the San Juan (cf. Ringer 1983:90, figure 6); and an unusual curved hardwood artifact mortised at one end which contains an iron It has not yet been identified but appears as if it might have been the handle of some weapon. We believe that the deep oxygen-free silt in the bottom of this pond has preserved a wealth of 16th century (and probably later Inuit) material and plan a major excavation during 1984 using siphons to remove the silt and pumps to provide a balanced inflow of clean water.

This technique was used effectively during the summer of 1983, although on a much smaller scale, on several small ponds on Saddle Island. In these were preserved wood, leather, feathers, bone, lead, iron, ceramics and other materials dating from both the 16th and 19th centuries. While designed primarily to devise suitable techniques for excavating such waterlogged sites, these limited excavations produced a large number of artifacts, most of them in a remarkably good state of preservation. The quality and quantity of material from these small ponds and the discovery of what appear to be even richer deposits on both Twin and Saddle Islands promise to provide a sample of material culture from the 16th century which we can presently only imagine.

## REFERENCES

BARKHAM, Selma

1978 The Basques: filling a gap in our history between Cartier and Champlain. Canadian Geographical Journal, vol. 96, no. 1, pp. 8-19. Ottawa.

RINGER, R. James

Progress report on the marine excavation of the Basque whaling vessel San Juan (1565): a summary of the 1982 field season. Archaeology in Newfoundland and Labrador 1982, J.Sproull Thomson and C. Thomson eds., Annual Report 3:76-94, Historic Resources Division, Department of Culture, Recreation and Youth. St. John's.

TUCK, James A.

1983 Excavations at Red Bay, Labrador - 1982. Archaeology in Newfoundland and Labrador 1982, J. Sproull Thomson and C. Thomson eds., Annual Report 3:95-117, Historic Resources Division, Department of Culture, Recreation and Youth. St. John's.

TUCK, James A. and Robert GRENIER

1981 A 16th century Basque whaling station in Labrado

A 16th century Basque whaling station in Labrador. Scientific American, vol. 145, no. 5, pp. 180-190. New York.