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## A bed of ochre

Jelsma, Johan

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# 1 Introduction

*“Mortuary evidence is an extremely valuable archaeological resource, since it represents the direct and purposeful culmination of conscious behaviour, rather than its incidental residue.”*

(O’Shea 1981:39).

## **The Significance of Cemeteries**

The study of pre and protohistoric cemeteries can teach us much about past human societies. Cemeteries are in fact our most important source of information on the life ways of prehistoric people. There are three main reasons for this. The first is that, to a large extent, cemeteries are the material results of intentional human behaviour. The location and construction of graves, the treatment of the dead, as well as the grave goods which are buried with them, are the results of conscious decisions and actions by the survivors; the society of which the deceased were members. In this respect cemeteries differ from settlements, in which most of the encountered material, such as food refuse and lost or discarded artifacts, enter the ground accidentally. As a consequence of the fact that intentional human behaviour is the main determinant in the formation of cemeteries, the mortuary variability observed at burial sites can be used more directly to reconstruct prehistoric behaviour.

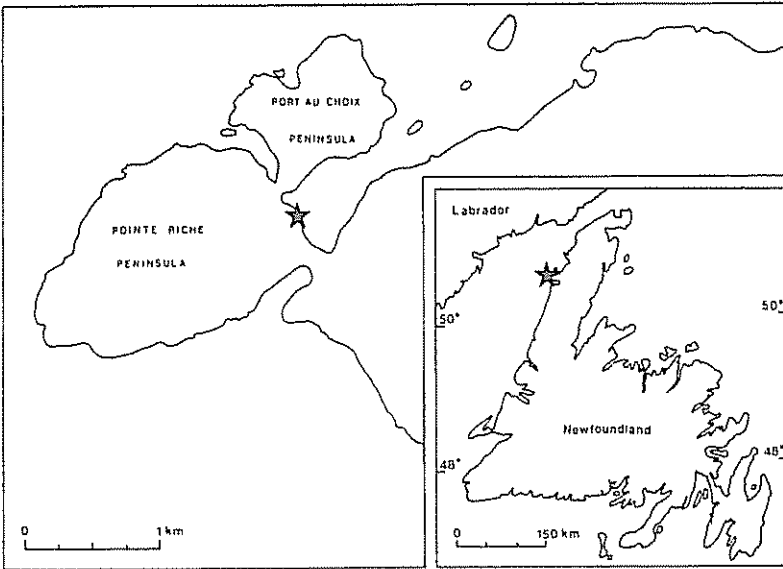
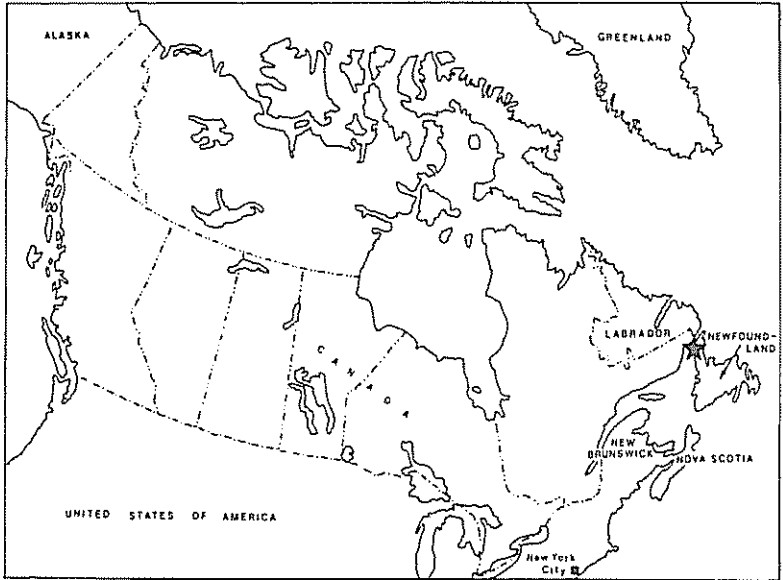
The second reason is that the mortuary variability observed in cemeteries, mainly resulting from prehistoric behaviour, can be expected to reflect the statuses and roles which the deceased had at the end of their lives. In other words: it can give information about the social structure of a society (Saxe 1970, Binford 1971). Social structure is defined here as the enduring network of relationships which institutions and social groups, such as females, males, children, elders, hunters and chiefs, have to each other.

Social structure must not be confused with social organisation, by which is meant the etic classification of societies into hierarchical categories of social complexity, such as 'band level', 'tribal level', and 'chiefdom level' (Service 1962).

The third reason why cemeteries are of such great importance for the study of life ways of prehistoric people is that they most often contain the remains of the people themselves. The potential of a well-preserved collection of human skeletons has quite frequently been underestimated by archaeologists. Due to the development of chemical and biochemical analytical techniques, such as stable isotope analysis and DNA analysis, our knowledge about the lives of our ancestors can be increased considerably. In addition to sex and age-at-death determinations, as well as the detection of pathologies and trauma, it is now possible to establish genetic affiliations between (groups of) individuals, and to reconstruct prehistoric dietary patterns. These dietary patterns give information on the subsistence of prehistoric groups. In addition to aspects of social structure and subsistence, the analysis of prehistoric cemeteries in combination with suitable analogies may also reveal elements of prehistoric religion.

Only a part of the prehistoric mortuary behaviour has material remains, which can potentially be detected and analysed by the archaeologist. It is impossible to reconstruct burial rites which did not leave any material traces, such as songs, prayers, music, and dance. Therefore the observable material remains of mortuary behaviour can be grouped into four domains. These are 'placement in the cemetery' (I), 'grave construction' (II) 'body position and treatment' (III), and 'grave goods' (IV). Each of these mortuary domains consists of a series of mortuary attributes, for example in the 'body position and treatment' domain, the attributes 'facing direction' and 'flexing degree' are included, and 'bone needle', and 'axe' are attributes in the mortuary domain 'grave goods'. Each individual is likely to be buried with a specific set of mortuary attributes, appropriate for his/her sex, age, terminal status and/or social affiliation(s).

By means of an analysis of the qualitative, and quantitative variability in the mortuary attributes, and a comparison with the results from skeletal, biochemical and chemical studies, the archaeologist can synthesise a reconstruction of the social structure of a specific prehistoric society. Doing this, one has to take into account that mortuary variability is not a direct manifestation of social structure as not all aspects of this structure are necessarily displayed in mortuary practices. In addition to that, mortuary practices are not only influenced by social aspects but also by economic, political and religious motives. The role of historical and long-term cyclic trends must be taken into account as well (Cannon 1989). A cemetery does not reflect the mortuary practices in use at a single moment in time but rather a mix of the practices which were exercised over the same period as the cemetery was used.



**Figure 1.1.** The island of Newfoundland and the Port au Choix area. The location of the Port au Choix-3 locus II cemetery is indicated by a star. Drawing by Geert Delger.

In this study the Maritime Archaic cemetery at Port au Choix-3 locus II, Newfoundland, Canada (Figure 1.1.), was analysed. This cemetery was discovered in 1967 and excavated by J.A. Tuck (1970, 1971, 1976) in the years 1967 to 1969. It contained the remains of 93 well-preserved human skeletons and many perishable and non-perishable artifacts. The dead of Port au Choix-3, locus II were buried in three spatially segregated clusters (Figure 3.2.).

The research goal was to formulate a diagnostic reconstruction of the social structure of the prehistoric Maritime Archaic society which buried its dead at Port au Choix-3 locus II. The main research question concerns the nature of the three spatially separate burial clusters in the locus II cemetery. These clusters could be the burial grounds of three different social status categories in the society. They could also represent different lineage, or corporate groups. A third possibility is that these three clusters are chronologically different groups. In the latter two cases one could expect those groups to be, to a certain extent, genetically different from each other.

The nature of the three burial clusters was investigated by means of a statistical analysis of the archaeological and physical anthropological data retrieved by Tuck (*ibid.*), Tuck *et al.* (*n.d.*) and Anderson (1976, *n.d.*) in combination with the results of our own studies of non-metric and metric skeletal and dental traits, stable isotopes, radiocarbon, and DNA. If the burial clusters would contain different biological populations, be it lineage or chronological groups, we would expect to find genetic differences between them. In that case we would also expect each cluster to contain more or less equal numbers of females and males and appropriate numbers of children in the various age classes. If both the above conditions were fulfilled, we should detect whether these biological groups represent contemporaneous corporate, lineage groups or whether the biological differences are merely resulting from chronological differences between the burial clusters. In both cases the burial clusters may show differences in their mortuary practices.

If the burial clusters would represent status groups, we would also expect them to show differences in the occurrence of mortuary attributes, particularly those in which a certain amount of energy investment is involved, *e.g.* grave construction and numbers of grave goods. Because status is often related to sex and age differences, especially in hunter-gatherer societies (see Chapter 4), we would further expect the three burial clusters to show different and biologically biased age and sex-profiles. Finally we could expect them to show dietary differences, as can be revealed by stable isotope analysis. The analyses which were used to address our research question are presented in Tables 1.1. and 1.2.

**Table 1.1.** Analyses used to detect sex and age in Port au Choix-3 locus II. 'X' = combinations where significant differences can be expected.

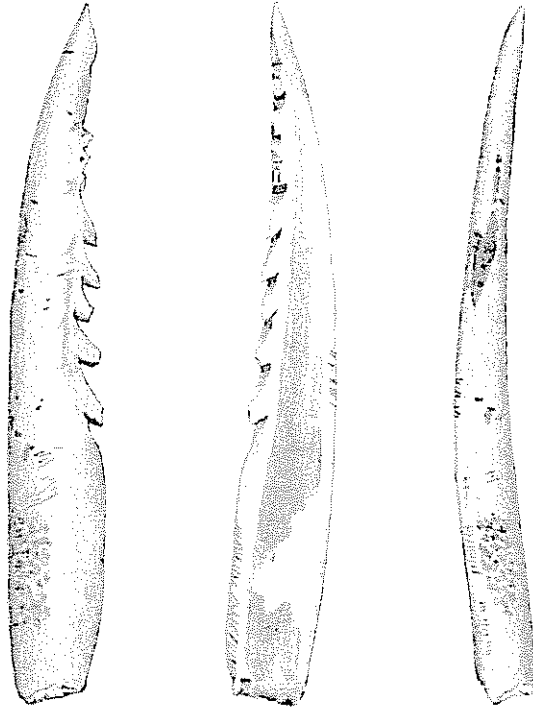
	Skeletal morphology	Dental metrics and wear	DNA
Sex	X	X	X
Age	X	X	

**Table 1.2.** Analyses used to obtain information on past social and biological patterning in Port au Choix-3 locus II.

'X' = combinations where significant differences might occur.

	Sex distribution	Age profiles	Non-metric traits	Cranial & Dental metrics	Stable isotopes	DNA	<sup>14</sup> C & Stratigraphy	Mortuary attributes
Status groups	X	X			X			X
Corporate groups			X	X	X	X		X
Chronological groups			X	X	X	X	X	X

From Table 1.2, it is clear that significant differences in one specific dimension cannot always be interpreted unequivocally. Especially differences in the mortuary attributes may be open to multiple interpretations and a specific difference in one of the mortuary domains may result from two or more (interfering) factors. Only a combination of the results from all investigated dimensions will lead to an optimal interpretation of our data in terms of social structure.



**Figure 1.2.** Sawtooth bone point (attribute 89) from burial C 47B. Length of the object is approximately 11 cm. Drawing by Katherine Scott. (EeBi-2:1371).

In addition to giving information on the nature of the burial clusters, the data may reveal the existence of other patterns which should be interpreted and which may deepen our insight into the Port au Choix-3 locus II social structure. To detect such patterning, we have tested the relationships between all variables involved in our investigation. Furthermore we have looked for internal patterning within the domain non-metric traits, cranial and dental metrics and DNA and in the grave goods. The observed groupings were subsequently interpreted by investigating their relationship with other relevant variables. In this manner an optimal interpretation of the data patterning was obtained.

The approaches used in this research go beyond the archaeology of the Port au Choix-3 locus II cemetery. This research should be seen as an attempt to increase the emic resolution of archaeological analysis and an attempt to extract more information about prehistoric people and their life ways from archaeological data in general. For the archaeologist, knowledge and

understanding of physical anthropological, biochemical and chemical techniques is essential. If used in a responsible manner these techniques can confirm, refute or expand the data resolution acquired by archaeological methods alone.

## **The Data Sources**

The data on the mortuary attributes of the Port au Choix-3 locus II cemetery originate from several sources. Firstly, there is the artifact collection of the Newfoundland Museum, St. John's. The archaeological objects from the locus II cemetery were studied and unpublished artifacts were described, drawn and photographed. Also providing indispensable information were the field plans, drawings and excavation records present in the Archaeology Unit of Memorial University of Newfoundland, St. John's. These sources provided vital information on the grave goods and other mortuary attributes observed in Port au Choix-3 locus II.

Additionally the data provided by Tuck (1976) were used after confirmation. Information on the first physical anthropological analysis of the Port au Choix-3 skeletons was taken from Anderson (1976) and the unpublished notes Dr. Anderson kindly made available to the author.

In Ottawa, at the Canadian Museum of Civilization, the artifact collection of the Curtis Site cemetery at Twillingate, Newfoundland was studied. Also a visit was paid to the Maine State Museum at Augusta, Maine in order to study the grave goods of Archaic cemeteries discovered in that area.

A description of the Maritime Archaic Indian culture is given in Chapter 2.



