

## BOOK REVIEW

**Tapani Tuovinen, *The Burial Cairns and the Landscape in the Archipelago of Åboland, SW Finland, in the Bronze Age and the Iron Age.* Acta Universitatis Ouluensis, B Humaniora 46 (2002), 315 p.**

In Finnish archaeology a brand-new dissertation always gives reason to celebrate. The amount of information collected in a book is usually so large that this alone marks a considerable step in the research of a certain period, material, group etc. Evidently this is also the case with Tapani Tuovinen's dissertation, the main objective of which is to elucidate Bronze Age and Iron Age cairns in the archipelago of the Åboland region.

Tuovinen makes it clear that he is a first-class expert not only on the prehistory of the archipelago of Åboland but also on the problems of Bronze Age and Iron Age cairns elsewhere in Finland. He has worked several years in the field carrying out both surveys and excavations and has acquired a considerable part of his research material himself. Without doubt we can clearly see that his expertise also covers the multifaceted methodology of handling archaeological data, particularly with mathematical means. At least for these reasons, the book will for long a time remain a reference work for those interested in either the archipelago or cairns dating from the Late Neolithic to the Iron Age.

The dissertation begins with a short preface and an introduction. I find it slightly problematic that neither of them includes any clear framing of questions for the whole work nor any methodological or general theoretical characterization of its standpoints. The introduction briefly describes the course of the work, but it does not specify why precisely these questions and methods were chosen. Interestingly, one can find more information about this in the short abstract, in Finnish and English. It would still have been quite natural that more weight should have been put on prerequisites and question-framing already in the introductory parts of the work.

The short introduction is followed by a general presentation of the frames of environmental

conditions, environmental zones of the archipelago, shore displacement, and climatic conditions. Though brief, this section illustrates not only some "basic facts" but also the author's own interest in these questions.

Considerable attention is devoted to the research history of cairns in the archipelago. In particular, Valter Högman's field work, comprising 13 excavated sites, is presented in detail. An alternative would have been to list these sites in an appendix, while more focus could have been put on a compendium or a general characterization of Högman's investigations together with illustrative maps – or why not some pictures as well. It can be said in general that the number of maps, particularly at the beginning of the dissertation, is not very large. Already some relatively general maps would have helped reader orient himself and approach the text more easily. This problem is not only specific to this work. Very often academic papers have both too few maps or illustrative material supporting the understanding of the written text.

The dissertation covers a long period – from the beginning of the Bronze Age to the Late Iron Age. The presentation of material and empirical field observations play a central part in the work. The author decided not only to describe but also to comment on his material in the main text instead of placing a large amount of detailed information into appendices and lists following the main text. The latter choice would have made the structure of the book "lighter" and easier to approach. It would also have made the work more practical for those who want to find only a single piece of information concerning a site or even an individual cairn. For some archaeologists detailed information from each site or cairn would have been most valuable for their own studies. It now seems that Tuovinen has much more information in the background, which is not available in the book. Still, his solution works relatively well probably because he has interesting things to say all the time. He discusses and communicates both with his methodology and material when presenting different kinds of observations.

One of the basic questions in this work is to define what a burial cairn is. In every single instance an archaeologist has to make this interpretation: whether or not a pile of stones before him is a burial cairn or something else – a field clearance cairn, fisherman's shelter, a stone oven etc. This point has not been left without pertinent problematization.

The empirical material of the dissertation includes both excavation and survey data, most of which the author has collected himself. On the basis of this it is evident that he has acquired an impressive knowledge in many things that cannot be obtained only through publications and excavation reports. Of particular value is the survey data which was collected by the author when inventorying randomly selected islands, islets etc. It is only natural that the whole archipelago cannot be covered by a total survey, but it still seems that the coverage of the analysis is relatively good. This can be proved at least theoretically. Also a versatile view on variables was taken into account when trying to find cairns in the most probable areas.

In general, Tuovinen's basic research strategy seems to be to measure different kinds of variables from all possible measurable aspects and then to test their statistical significance, for instance with the  $\chi^2$ -test, Mann-Whitney's U-test, Kolmogorov-Smirnov's D test etc. Naturally, also basic statistics such as means or standard deviations have been used to a great deal. His way of thinking seems to maintain that the problem can be approached best by treating the available data with the help of mathematics. Statistical analyses give probabilities which help the archaeologist to decide whether or not observations have meaning in archaeological interpretation. Reading the book also gives the impression that it implies a lot of calculations, the meaning or benefit of which is not self-evident to the reader. This kind of information includes, for instance, calculations of the mass of stones and boulders defining the roundness of rocks. It has to be remembered that the amount of information does not necessarily grow despite being treated mathematically.

Weathering studies are an interesting approach which has not been utilized much so far. Applying Schmidt's hammer measurements makes it possible to estimate weathering curves

for different types of rock. In the best case, the technique can become a kind of dating method, as it can inform scholars whether the stones were used secondarily. The difficulty lies in the fact that there are variables – climate, differences between rock types etc. – having the effect that the models are normally not linear. The random variation of rebound values is a serious obstacle for constructing curves. Despite the general conclusion that the method does not yet work very reliably and more testing and research are needed before it can be taken into normal archaeological use, some interesting observations were nonetheless obtained in the dissertation. They are related to investigating later disturbances such as craters or cavities made in the cairns. In several cases that method supports the hypothesis that craters were opened later or that there are secondary burials.

It is natural that Tuovinen pays much attention to shorelines and their possibilities in dating. He suggests that burial cairns must have been situated at least 1.0 m above the water level before the shore displacement can be appropriately used. He uses both mean sea level dating and shore zone dating which give slightly different results. The latter normally provides later dates. This discussion, for instance, shows that Tuovinen aims at results that are as mathematically correct and as versatile as possible in all his analyses.

Although the author is well aware of new literature in archaeology, some updating of sources would still have been needed. As an example can be mentioned the dating of Kiukainen ceramics, which Tuovinen bases on Christian Carpelan's uncalibrated chronology published in the late 1970s. Otherwise he, naturally, uses calibrated 14C-datings of sites. Although the problem is sometimes visible, it is not very conspicuous, because chronology does not play any important role in the work as a whole.

A considerable part of the book is devoted to the description and interpretation of empirical observations of cairns. In the light of statistics, it seems that their regular shape was most attractive. In addition, although the profile is flat and therefore difficult to determine, the shape of a cairn is usually angular. Here, the problem in interpretation is that cairns which are flat today were not necessarily so when they were built;

also stones in low cairns are usually smaller than in larger ones; small stones were also more easily displaced from their original positions to other places and purposes. The distribution area of cairns and the direction of their longitudinal axes, and their relative length were also investigated. Long large cairns with a length/width ratio of over 2.5 are mainly situated on large islands. In practice, the direction of the longitudinal axis is usually difficult to measure, because most structures are more or less round in shape. It can still be tentatively said that the S-N direction predominates, although one should perhaps not put too much weight on this observation.

An essential phenomenon is that some cairns include inner structures. The indefinite shape of a cairn refers sometimes also to substructures. Not much in general can be said about them. The most common are dry-stone walls. Interesting structures are stone cists, which, however, are quite rare in the archipelago. In addition, some other structures have been observed. An obvious dilemma in researching inner structures is that they cannot be observed without excavation. The excavation of many cairns would be time-consuming: excavations may uncover interesting architectural structures, but much more often they do not recover anything – a basic problem in all excavation related to cairns.

Tuovinen has one short chapter about the relationship of single graves and cemeteries. A practical procedure in approaching the problem was to compare number of cairns within radii ranging from 10 to 300 m. This local density coefficient of cairns was compared with their mean local density in the whole area. The analysis then represents the densities of cairns in groups. For instance, when looking more carefully at radii of 60 m (1.1 ha) and 200 m (12.6 ha) it turns out that in most cases the cairns stand alone without a neighbour. In only one case does the cemetery appear to have 11 cairns. The analysis presented in the book is slightly complicated and not very illustrative. The essential result that cairns are usually without neighbours could also have been achieved more easily. In other words, we can assume that a mathematical solution to the problem was probably not necessary here. It also introduces the problem that it makes the work more complicated and difficult to approach for the reader.

Tuovinen has divided the cairns of the archipelago into two chronological groups by using discriminant analysis. The first one (P) represents the dated Bronze Age type, and the second one (R) the Iron Age type. Then, undated cairns were compared with dated ones and finally each grave was classified as belonging to either the P or R group by the criteria best corresponding to their features. Classification was further confirmed by checking the altitudes of the structures. The key grouping criteria are variables. Potential variables are, for instance, area, the size of the cairn, roundness proportion, distance to the nearest neighbour, the topography of the terrain etc. The comparison of groups shows some interesting results, which are at least partly quite natural. Cairns in group P have a larger stone cover than in group R; the burial sites in group P are situated lower in relation to the highest hilltop than in group R; also, the burial sites in group P are convex and situated in higher terrain than in group R, where sites are often plane and situated in lower terrain. A slightly unexpected result is that the cairns of group P are in a mainland landscape, while those of group R are in a more maritime environment. Stepwise discriminant analysis, which was carried out by choosing interesting variables, uncovered further that cairns of group P are larger than those of group R, “within a distance of not more than 75 meters from the cairn, the land surface is more convex...in group P than in group R” (p. 194). Also topographical variation is greater in group P than in group R. Testing the P and R classifications by shore displacement did not provide perfect matching. Tuovinen states that the result is a stochastic time gradient, which still fits the model quite well. Thus, the grouping is more suggestive than absolute. This result and the conclusion are highly acceptable.

The question of the maritime character of graves again arises in discussing the effect of shore displacement and the visual dimensions of cairns. On the basis of Student's t-test Tuovinen concludes that the difference between the maritime character of the P and R groups is still not statistically significant. One must also remember changes in the landscape during the Bronze Age and Early Iron Age. He then concludes that the R group graves are not closer to the shoreline than the graves of group P.

Ranges of vision towards the sea are also a point of interest in Tuovinen's work. He investigates viewing angles in the four best-surveyed areas with the purpose of finding out the composition and configuration of the landscape. The former means the presence, absence or relative proportions of landscape components, the extent of the field of vision. Configuration describes the positions of places in the landscape, their shape and their relative positions. Comparisons were made in each area between the P and R groups. The essential result of the analysis is that graves in group P are often directed towards the land and graves in group R open onto the sea; also the viewsheds from grave sites in group R were most often open, whereas the opposite is the case in the P group of cairns.

In investigating the Bronze Age burials and cairns in the archipelago it is also necessary to discuss religious aspects. These questions are taken into account, and much attention was focused on the concept of "holy" (Fi. *pyhä*) and its meanings. Tuovinen directs criticism against the interpretation of *pyhä* suggested recently by Veikko Anttonen. He maintains that the word *pyhä*, which may originally have referred to the wilderness, is not the most probable lead in trying to understand meaning of cairns. According to Tuovinen, cairns are signs of places and areas. This is because SW Finland and the archipelago provide a concentration of habitation, and cairns were particularly made for burials – not for marking borders between inhabited and wild areas.

It is evident that Tuovinen is familiar with contemporary discussion regarding the significance of prehistoric monuments, and takes up interesting points on change and sustained aspects of life, the consciousness of society. Because the comparative examples come from the European Neolithic monumental building tradition and the societies behind them, these discussions evidently imply pitfalls in giving too much room for free interpretation. The author is still quite aware of these problems and uses analogies with care in the case of the archipelago of Åboland.

Interesting viewpoints taken into discussion are also meanings embedded in the landscape. Tim Ingold's and Christopher Tilley's concepts of "taskscape" and "the phenomenology of

landscape" refer to tradition and experience, which are constituted, for instance, in long oral history. Toponyms or place names belong to this group; they acquired significance in earlier life, and they still live today. In itself this is nothing new. The central problem is instead, in what way our understanding today is attached to past socio-cultural reality. The answer which is often given today is a multitude of interpretations, pluralism, and again renewal of interpretations. Tuovinen seems to be well informed of these viewpoints, although he does not discuss the problematics to any length in the light of his own material. Despite a certain hermeneutical colouring in his thinking he still seems to be more inclined in empirical and positivistic directions: "The starting point in building a visual imagery of the landscape and its elements is the physical pattern of the mosaic of the land and sea. To accomplish an empirical analysis of the landscape it is necessary to construct a well-argued model of the outward appearance of the landscape in the prehistoric period. Any observations and interpretations of archaeological remains can be attached to this model. The landscape thus comprises the aspects and phenomena of nature which are independent of man: animals, plants, land, sea, sky, celestial bodies, natural phenomena, and antagonisms (light-dark, calm-stormy, warm-cold etc.); briefly, the biosphere" (p. 72). Looking these words makes it obvious to the reader that Tuovinen's analysis is still not mechanistic, because he wants to link various kinds of entities into his world. Analysis proceeds in the spirit of Ingold's ideas, where man, culture, and nature form an integrated unity.

What then are the archaeological results of the dissertation? What is new or what are the new interpretations which have been presented to the community of scholars to await comments? On several occasions, the author has stressed that the view of the archipelago as a periphery or a severe and harsh area almost impossible to live in needs to be updated and corrected. The large number of graves speaks for another kind of model. Also other kinds of data – pollen analyses – will support this kind of view. Slash-and-burn cultivation began in the archipelago already in the Late Neolithic, roughly at the same time as the first cairns were built in the area. It still

remains a fact that the area never became a centre of settlement, and that particularly during the Iron Age agriculture can be found particularly on the mainland, but still close by the sea.

Some discrepancy seems to exist between views presented by the author and another expert of Bronze Age and Early Iron Age archipelago – Henrik Asplund, Lic. Phil. – with regard to reasons for the scarcity of population in the area. In a footnote (p. 45) Tuovinen states that he does not find it likely that Bronze Age populations would have abandoned archipelagian area of Åboland for social and economic reasons by changing their dwelling sites to the mainland at the end of Early Iron Age. His argumentation is based on the fact that the field data is invalid and too limited to support the hypothesis of population movement hypothesis suggested by Asplund. It is then evident that Tuovinen does not believe in any population movement to the mainland, a phenomenon which is explained by agriculture or military reasons. This is an interesting controversy of views, which might have been of interest to follow further.

In many occasions Tuovinen points out to the hypothesis presented by A. M. Tallgren in the 1930s when explaining the nature of archaeological finds and remains of settlement in general in the archipelago of Åboland. For Tallgren, the Åboland region was habited by small Swedish populations, which utilized it for visiting and using the hunting and fishing resources of the area. They also came into contact with the Kiukainen populations through collecting tributes from them and through trade relationships. It emerges from Tuovinen's argumentation that he does not believe in this kind of relationship and that there is a kind of circular reasoning to it. The preliminary hypothesis makes an archaeologist believe that harsh and unfavourable climatic conditions and environment made the area not worth surveying and excavating. For this reason, it has also remained almost uninvestigated and unsurveyed by archaeologists. This assumption of the peripheral geographical location of the archipelago survived long, and it also received support from Hackman's immigration theory. The so-called find vacuum of the Late Iron Age has been explained by the

Vikings and their strong negative influence in the area.

Sometimes discussion proceeds in an intermittent manner in the dissertation. For instance, after discussing the periphery hypothesis Tuovinen turns back to the field work projects and investigations conducted since World War II. Then he returns to the interpretation and discussion of the immigration vs. cultural context hypotheses. Nonetheless, these brief chapters are among the most interesting in the whole dissertation and they serve as a good introduction to its basic themes.

An evident result is also that the author has formed quite a clear picture of Bronze Age society in the archipelago and in SW Finland. He rejects the models which have suggested that the Early Bronze Age represented a hierarchical upper class society. At the end of the dissertation Tuovinen returns to the discussion relating symbolic questions to the landscape in the light of information presented in earlier parts of the book. After an interesting, but relatively short, discussion he arrives at the conclusion that the cairns could most naturally be understood as expressions of territoriality and patriarchal reproduction of power in the archipelago of Åboland. He also finds it most probable that the communities were egalitarian which is an opposite view from what has been sometimes suggested by some Finnish archaeologists. He interprets the cairns as monuments pertaining to religion, tradition, social relations and reproduction. Despite strong opinions Tuovinen emphasizes interpretation and temporary nature of knowledge in archaeology – our views which always strongly influence results.

With regard to the structure and manner of representation of the results it can be said that it does not function in the best possible way. The text is sometimes – which is, of course, almost a norm in many scientific works – quite difficult to perceive. This applies particularly to the parts which have been carried out by utilizing statistical analyses. It often comes to mind that all these statistical packages are perhaps not necessary when presenting the results to the reader. Of interest are the results which in the best cases can be obtained with the help of analyses. A good aspect in Tuovinen's chosen approach is that he takes up the most important results of the

analyses for further examination and utilizes their use value and “probative force” when making interpretations. It turns out that in many cases hard statistical operations have not provided very much important information, which could not be obtained by simpler statistics. Perhaps their value ultimately lies in making sure that nothing essential has not been forgotten or showing to the academic reader that everything possible was done for obtain all possible information from piles of stones, although the author himself can often surmise already in advance that it will not lead to any epoch-making discoveries.

Tuovinen has defined some of the objectives of the dissertation as discussing the religious and sociological questions. Despite some interesting observations it is still quite evident that they remain in the shadow of material analyses and the practical modelling of empirical data. One alternative would have been not to emphasize detailed analyses so much and to concentrate more, instead, on social and religious themes, which remain without deep-going discussion. A slightly more coherent result could have been reached by arranging chapters and their contents. Now the dissertation gives the reader the impression of a group of articles, which do not follow a sufficiently solid “plot”. At the beginning of the work one would have wished to see more focus on the definition of questions. Now different themes and issues are discussed in the course of the presentation. This is also reflected at the end of the book, which is normally reserved for presenting the results of the study. For some reason, the author has several concluding parts, but the text still finishes unexpectedly, when all what is to be said has been written down.

All in all, the reader who wants to concentrate on the most important results of the work can find them in the empirical side of the research. It is still evidently quite difficult to press much juice from stone cairns, which cannot tell anything – nor to bring forth any other information because the amount of archaeological information related to them is extremely small. Despite difficulties, it is without hesitation right to congratulate Tapani Tuovinen, because he has been able to glean so much valid information from them, to use a large number of different illustrative

methods and to discuss many kinds of possibilities when explaining phenomena relating to cairns. Tuovinen’s book is a long step in understanding the secrets of the Finnish cairns in particular and the archaeology of the archipelago of Åboland in general.

Mika Lavento  
Institute for Cultural Research  
Department of Archaeology  
P.O.Box 59 (Unioninkatu 38 F)  
FIN - 00014 University of Helsinki  
Finland  
E-mail: [mika.lavento@helsinki.fi](mailto:mika.lavento@helsinki.fi)