



NEW ZEALAND  
ARCHAEOLOGICAL  
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**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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they are embedded. This makes their removal almost impossible, but luckily it is not the case further from the swamp, where even tracheal rings lie in position alongside articulated necks and skulls. Amongst the bones are artifacts but they are more numerous in certain areas of shell midden. Species of Moa so far discovered are Euryapteryx gravis and Pachyornis elephantopus (Scarlet det.) at a ratio of 3:1.

The majority of artifacts are of Moa bone, though other bird and whale bone was also used. Chiselling of bone (in the preparation of hooks, etc.) was done to a greater extent here than on most other sites in this area, but the more usual methods of working (cutting, drilling, grinding) were also used.

One of the commonest artifacts found in the deposit is a sub-circular spall of greywacke, used for cutting and scraping flesh from bones. Referring to these from the Rakaia Mouth (Canterbury) site, Julius von Haast suggested that they be called "Teshoa", a North American Indian name for a similar flake (Trans.N.Z. Inst., Vol. 7, 91-98). Although perhaps not strictly correct, I have found it convenient to adopt this name for Maori specimens.

It is yet rather early to draw any definite conclusions, but it does appear that the inhabitants of Tai Rua were mainly occupied with hunting and fishing. There is little evidence of buildings or of tools such as adzes that could be used in preparing timber.

Investigations are continuing as time permits.

M. M. T.

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#### FIRST-AID IN THE FIELD:

Readers of Wheeler's 'Archaeology from the Earth' may well be somewhat dismayed by the lengthy baggage-train of specialists and their equipment which, he insists, should accompany an excavation. No-one with any profession to competence would dispute his arguments - too often excavations have suffered from lack of specialist labour, but it is equally true that often lack of money and personnel make such lavish provisions impossible. It is an important point for discussion whether a site of

considerable importance should ever be dug on a 'shoe-string' principle -- and one which readers of this newsletter might like to take up; for the moment, I am concerned with the fact that, in New Zealand, our digging cannot normally be run on large-scale lines, that money is short, and time probably shorter. It might be useful, therefore, to offer some suggestions on 'first-aid' measures which can be adopted in the field when (as often happens) the labour-force is unspecialised, and is fully extended in 'merely digging'. I make the important proviso, however, that the plea of 'labour-shortage' should never be used as an excuse for skimping any delicate work, for 'shovelling out the bones to see what is underneath,' or for encouraging an attitude of 'Heavens, we haven't time to worry over trifles'.

If a burial, a delicate structure or a wooden or other friable object is found, and shortage of time, or lack of light, or the condition of the material make adequate analysis with the means available a risky affair, it is often best to consider the advisability of covering it up again, having recorded it sufficiently to enable it to be relocated quickly and examined at leisure. Sometimes (as in the case of skeletons in sandy deposits) exposure to the air will greatly accelerate decay, but this risk may have to be taken. Sometimes, on 'rescue-digs', where unsuspected discoveries have been made during commercial operations, and time is short because the bull-dozer is literally at one's elbow, examination, photographic recording and sketch drawing is the only course practicable, and sacrifices have to be made. In such circumstances, if a burial is involved, it is better to record the necessary skeletal features (size, position, number of bones, and skull measurements) while at the same time to try and preserve at least the skull, and to look for possible gravegoods. The operator of a mechanical digger can usually be persuaded to stop operations for long enough to enable such a cursory examination to take place.

On a planned excavation, however, time is not normally so hostile. Indeed, the discovery of a fragile artifact is usually a welcome change to everyone. The rule here is never to hurry; give yourself time to think, and plenty

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of room to work. Before you start to remove (say) the remains of a self-contained bone or wooden artifact, examine it carefully, and make sure that it does not appear to be part of a larger complex which it would be better to excavate completely before lifting. If immediate removal is the only possible course, first ensure that you have a dry and sheltered place (ideally, the hut or tent) in which to house it, and that thereafter it will be handled directly as little as possible, if at all. Next, obtain a container large enough not only for the object, but also for adequate packing (whatever form you decide to use). Thirdly, record as much as possible while the object is still in situ, with lots of notes - even if they later become superfluous. Fourthly, watch the object carefully during cleaning (and here brushes and blowing are often the only means suitable) for signs of decay or cracking. Often it will be decided that laboratory treatment is necessary - such as strengthening of organic remains or even reconstruction. In this case, I found it useful to adopt the simple rule of changing as little as possible the 'habitat' of the object. If waterlogged wood, perhaps lying in mud, can be kept in some of its original matrix in a watertight tin (and the mud not allowed to dry), until the laboratory is reached (even if this is only a farmer's barn or your own kitchen), chances of preservation are high. Direct sunlight and rapid changes of temperature should be avoided; equally a policy of 'let's leave it in the hut and see what happens' may be fatal. If it is impossible to retain an object in its habitat, and it is wet rather than dry, a careful wrapping of soaked newspaper is better than nothing at all. Do not use cotton-wool for packing; it fluffs and sticks, and is nearly impossible to remove cleanly.

In some conditions, in clay, or dry subsoils, many friable objects can be removed without much difficulty. Bones can be washed, dried slowly, marked and packed with newspaper in boxes; metal objects (which though rare may be correspondingly important on late Maori sites) can be brushed, air-dried and sorted - but never mechanically cleaned with a file or pen-knife on a site, in an attempt to get the corrosion off! Leave that for

chemical treatment later.

Equally, however, some strengthening of an object of say, wood, bone, leather or fibre, may be imperative before any lifting occurs, with your nearest 'export' (if any) 100 miles away and not on the 'phone. In this situation, one cannot be dogmatic about particular treatments; one should, however, always aim to apply a strengthener which can later be removed in the laboratory, before the final cleaning and strengthening operation. In other words, your 'temporary' strengthener should be adequate for the purpose of preserving the object during lifting and transportation.

If it is dry but fragile, a solution of a cellulose acetate cannot be used - the liquid being carefully sprayed or painted on. Several coats may be necessary, but this preparation dries quickly and often the specimen may then be turned over and treated on the 'underside'. In this case, it is unnecessary to lift the object on an existing 'bed' of the soil in which it has been found, and it is therefore much easier to treat in the laboratory.

Where a 'bed' is required, this particular treatment may be useless, as moisture in either the object or the 'bed' will lead to the solution turning milky and peeling off. In this case, one can use an emulsion of the solution - this allows sufficient penetration to facilitate removal, but may leave a sticky mixture of object, solution and soil which is often tedious to separate later (with a solvent).

Alternatively, wet plaster bandages may be used. These may be purchased ready for use, bar wetting, and can be applied to the top and bottom in turn, the whole then being securely bound together.

As far as I am aware, there is no comprehensive hand-book available on field-treatment as such. Atkinson (Field Archaeology, p. 60), and Cornwall (Bones for the Archaeologist, pp. 210-211), and Plenderleith (The Conservation of Antiquities and Works of Art, pp. 1, 2-3, 151, 326), only refer to it briefly. There is clearly much work to be done in this aspect of excavation, and each of us may be in a position to contribute from our

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experience. It would be particularly useful if members could publish results and any problems in this Newsletter - which is an admirable medium for the exchange of ideas.

P. G.

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#### BOOK REVIEWS:

Japan Before Buddhism by J.E. Kidder Jr. -  
Thames & Hudson, London.

This is another of the excellent Ancient Peoples and Places series, under the general editorship of Glyn Daniel. The periods covered are Palcolithic and Mosolithic, Neolithic, Bronze-Iron and Protohistoric. The book is illustrated with 108 excellent photographs, 65 line drawings and seven maps.

It gives a very good summary of what is known of the life work and art of the people who lived in Japan before the coming of Buddhism. The later portion, of course, can to some extent be supplemented by literary references, but all that we know of the earlier periods is from chance finds and archaeological excavation, except for a few references in the older Chinese literature.

Japan, like many other islands, was subject to considerable movements of people in early times, and the present Japanese people, as is indeed evident even from photographs, are derived from several different ethnic stocks, who have all left behind in the earth the non-perishable tools, weapons, ornaments, pots and house-sites that they used, and the remains of the vegetable and animal food that they ate. The shallowness of many Japanese archaeological sites is remarkable.

This book has particular interest for those of us who live in the Pacific area, and is remarkably good value at the price of 25/-.

Two minor criticisms may be permitted. The Author, like so many overseas archaeologists, confuses adzes and axes