

ARCHAEOLOGY IN NEW ZEALAND



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REVIEWS

Adams, W.Y. and E.W. Adams. Archaeological typology and practical reality. A dialectical approach to artifact classification and sorting. Cambridge University Press, Cambridge. 1991. 427 pages.

My experience of teaching the foundations of archaeological classification to students for more than twenty years, as well as attempting to discuss it with colleagues, has underlined for me the truth of Dunnell's (1986:149) observation: workers tend to divide into two camps. A majority it seems 'hold that unit formation is a necessary but intellectually uninteresting activity without major significance for the discipline's primary goals' A smaller group 'argue that classification is the most critical and pressing issue in the field' (Dunnell 1986:149). There is no doubt that I belong to the latter group and, as the many students of the core graduate paper 03.401 will attest, wilfully inflicted Systematics in Prehistory (Dunnell 1971) on them, with the admonition, 'yes I know, it is difficult reading, but good for your souls (and training as archaeologists)'. They, among others, will love Adams and Adams' (1991:273) comments on what these authors correctly recognise has been 'arguably the most important book on archaeological classification up to its time'. It was neither 'a clarion voice', nor the 'most readable'; rather 'lt is written in jargon so dense as to be in places almost impenetrable'.

With such views of the principal predecessor, one would expect Adams and Adams' own efforts to be a model of clarity, readable, and jargon free (or where that is not possible, providing every technical term with an explicit translation as in their Appendix A, a full glossary of definitions in no less than 44 pages!). They are, in part, successful. In my view this next major text in the field beyond *Systematics in Prehistory* fulfils the requirements of a work that stresses a pragmatic approach to classification in archaeology (based on instrumental relativism) in which one of the bottom lines is practicality, and another is utility in application and analysis. It serves as a suitable antidote to the far more theoretical treatment of Dunnell, or much else in the contemporary programmatic (i.e. telling you what to do without showing you how it is done) archaeological literature.

As Dunnell (1986:150) himself admits 'The 'theoretical' literature has diverged from practice to such a degree that the two are now unrelated'. Yet this book has strong theoretical underpinnings, in part provided by its philosopher joint author (Ernest W.), and in part by the archaeologist (William Y.) familiar with the disciplinary literature, so that the relationship between theory and practice is consistently addressed. For my taste, however, long standing practice is to some extent overdone; too great an emphasis is placed on the archaeological classification of portable artefacts (especially Nubian pottery), and

classifications whose main purposes are chronological/spatial or culture historical. Granted, a wide range of other kinds of possible classifications and purposes is admirably outlined, but extended discussion of them is somewhat abbreviated, especially those that would fall under their categories of stylistic, functional, emic, and 'cultural'.

Thus for those who wish to bring themselves up to speed in archaeological classification, my prescription is this book, a good dose of Dunnell's *Systematics*, and a short course of related essays: Dunnell (1986), Adams (1988), plus those old standbys by Ford, Brew, and Rouse which appear in Deetz's (1971) edited volume. This will either cure the information deficiency among the indisposed to classification, or perhaps to their detriment, put them off the subject forever. Certainly the price of £50.00(UK) for the book would have; but you can now buy it as a 1994 Summer Bargain from Oxbow Books, Oxford at £24.95(UK) (\$64.00NZ). It will serve then as a standard source, worth the cost, if you are one of those archaeologists who believe this topic to be a critical issue in what you do in archaeology.

Roger Green

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G. Connah. The Archaeology of Australia's History. Cambridge University Press, Melbourne. 1993. Paperback, 176 pages.

When I began reviewing this edition it struck me as very familiar which is because it was first released under another title 'Of the hut I builded' : The Archaeology of Australia's History as a hardback in 1988. Then it was published to coincide with Australia's bicentennial and in doing so revealed how extensive and intensive research in this field had become over a very short period.

The original title was an extract from a most appropriate poem

"But of the hut I builded there are no traces now, and many rains have levelled the traces of my plough."

reflecting the rapidly disappearing state of colonial period activities and while rural in reference was even more appropriate to the urban remains of Georgian and Victorian immigrants. It is certainly true of New Zealand as well, that the 1980s was a period of 'urban renewal' with development wiping away the 'unsightly' and 'unsafe' buildings of the earlier era. At the same time, much of the increased awareness of our historic resources and funding came as a direct result of such development. 200 hundred years of colonial activity may seem short in archaeological terms, but as the author indicates, there has been massive change to the Australian landscape in that short period, and that the transformation was complex with some areas altered in countless ways.

The volume tackles the subject by a number of themes, industrial, rural, urban, etc, which very much reflect the foci of activity in the field at the time of writing. In general it is not data rich; not a compendium of Staffordshire ceramics nor moulded bottles, but in such a collection of studies we would not expect (nor desire) such (often tedious) detail.

One of the aims of this book is to bring the subject to the attention of the broader public and specialist alike and I feel that it provides the breadth and interest to achieve this. Apart from outlining areas of research, it also provides endless avenues and potential areas of research for those in this and related fields. As an aid to future research, a section of suggested resource material is provided on the various topics covered in the volume. This is useful, but I would add that its most recent reference is 1987 - even without revising the volume it might have been desirable to bring the suggested readings up to date, as much of relevance has been published in this field over the past 6 years.

Connah refers to some of the issues in the field of Historic archaeology such as why investigate when there are volumes of historic records. And while these issues are far less contentious today, the volume clearly reveals the value of such research. To the archaeologist, the historic records are just another form of material culture (albeit an often informative one) to be evaluated and today more historians are treating archaeological materials as another means of enriching our understanding of history.

Taking a lead from Deetz, Connah has made another aim of the book 'to look at what the men and women who made Australia actually did, rather than at what they said they did'. And certainly the volume demonstrates that archaeology can successfully look at material remains from the past which reflect the lives and activities of those who were never likely to be the subject of written records.

The chapters deal with broad themes, and present some of the archaeological research related to those themes. In *Precolonial contact*, the

earliest contact is revealed through the fascinating archaeology of the Macassan 'trepang camps', and of shipwrecks - particularly in Western Australia where underwater archaeology has provided detailed insights into Dutch and English maritime activities of the 17th and 18th centuries. The birth of a nation covers several topics (from government house to the botanical gardens) relating to the remains of early Sydney, selected to demonstrate how the archaeology reflects the character of the times. It didn't always work, looks at investigations of failed settlements such as Port Essington and Sullivans Bay. These are usually fascinating episodes for archaeologists because they have the potential to capture a very narrow time period usually obscured by the continuous development of urban areas. These chapters, along with others on the remains of the penal system, extracting history from houses, the rural landscape, the archaeological evidence from mining and finally, information from industrial relics. all provide interesting background and insights into themes forming an important core of colonial society and the formation of modern day Australia. The author emphasises the need to take an integrated approach to the archaeology and not, for instance, attempt to understand the remains of industry in isolation from the broader political and economic setting.

There is an awareness of the lack of studies reflecting the interaction between the colonised and the colonisers, though Judy Birmingham's study of Wybalenna, a government aboriginal settlement of the 1830's-40's in Tasmania, is mentioned. This study has since been published and will be reviewed in a coming issue of this journal.

The main criticism I have of this paperback edition is that much has happened in the years subsequent to its first publication and revision would have been useful. However, this volume still succeeds in providing a useful introduction and source book for the subject of historic archaeology in Australia. It is very readable and still relevant. It would also provide some useful background for those interested in the subject in New Zealand, as the colonists (apart from the political relationship between the two countries) often expressed themselves in similar ways from colony to colony.

Rod Clough

L.T. Evans. Crop Evolution, Adapatation and Yield. Cambridge University Press. 1993. 500 pages. Price: A\$210.

Projects to estimate the productivity of crops and hence the population they might support have often enticed archaeologists. Although more often expressed as a pious wish than a fulfilled programme, Polynesianists have had some success in estimating crop yields and relating this to aspects of settlement pattern. For example, Bayliss-Smith, working on modern Pacific horticulture, has made many eminent theoretical contributions to the modelling of the relationship between crops, subsistence and cash incomes. This plainly titled book is therefore of more than passing interest for two reasons. First, the opening chapters contain useful summaries of the domestication of all major and many minor crops. This summary is followed by an account of the adapatation of crops as they passed in propagules with human beings to other climatic regions. Second, the volume contains a mass of data about the influence of climate, fertiliser and cultivation on actual and theoretical yields of crops, even the minor ones (in modern perspective) of most interest to Polynesianists.

The advantages sought in crops brought into domestication include: seed retention, modification of protective features (originally evolved to protect against animal browsing), greater size of harvested product (and hence efficiency of gathering) as well as other size changes, increases in chromosome number (which are closely indicated in the size of the product), changes in form (e.g., in bearing florets at numerous nodes, as in broccoli), rapid and uniform seed set, improved germination, loss of toxic substances (evolved to combat pests), and community or ecological factors involved in the garden setting.

Where plant propagules have moved through gross latitudinal (or indeed altitudinal) change, Evans notes the importance of day-length which controls the initiation of reproductive process, not growth. Assimilatory or growth characteristics are dependent on temperature (for which all plant species have inflexible and non-adaptive requirements), irradiation (sunshine), and tolerance of the dry. The last has required many plants to adapt to initiate flowering at the hint of drought (which can be regular and bred for), much as any home cultivator of lettuce fears a dry spell.

Productivity beyond the centres of origin is apparently higher, although "the ecology of yield" remains "a dark continent", mainly because radiation, day length and temperature co-vary; their influences are difficult to separate.

Subsequent chapters deal with increases in yield in the modern era and include a fascinating section on maximum yields. For white potato, in the U.K. and U.S.A. respectively, the record is 102 and 126 t.ha⁻¹ (about 12 kg per square metre). Sweet potato based on dry weights reported would be about 8 kg per square metre. Rice (with a dry grain) comes in at between 14 and 17 t.ha⁻¹. Predicted maximum yields for maize, wheat and rice are 27, 18 and 14 t.ha⁻¹. A common technique is to assume that, when an otherwise exponential increase in yield starts to level off, a plateau will soon be reached. Evans notes that these estimates are carried out in "epidemic proportions" whenever pauses are detected in productivity increase.

Rather disappointingly, routine yields are poorly described, and historical yields are pretty much non-existent. This is because one of the aims of the book is a consideration of potential maximum yields that could be bred into

cultivars. Nevertheless, there is much potential to extrapolate back to prehistoric or nineteenth century yields. In addition, there is much useful general commentary on the effects of crop growth time and the limitations imposed on high-protein crops (of which sweet potato is one) by fertliser shortages. Climate warming and increases in CO_2 will also affect crop growth (favourably, it would appear, in most mid-latitude climates).

The final chapter of the book deals with inputs (fertiliser, labour, agronomic practice generally) and here again there is a useful return to an analysis of historical practice.

Overall I found great interest in this book, particularly in its summary of plant domestication and, more broadly, in the discussions of plant physiology and yield and the influences on them. A similar volume, *Crop Ecology: Productivity and Management in Agricultural Systems*, by R.S. Loomis and D.J. Connor, is also available.

Kevin Jones

du Cros, Hilary and Laurajane Smith (eds), Women in Archaeology: a Feminist Critique. The Australian National University. 1993. 262pp. A\$32

Trying to put women into archaeology started with the publication in 1984 of an article 'Archaeology and the study of gender' by Margaret Conkey and Janet Spector. The first conference on the topic was held at Calgary in 1989, and the collection of papers from that conference 'Archaeology and gender' came out in 1991. Also in 1991 Joan Gero, in association with Conkey, published a book entitled 'Engendering archaeology: women and prehistory'. Again in 1991, the first Australian conference was held at Albury, Charles Sturt University, New South Wales, of which this publication is the outcome.

Throughout this time there has been a development in the different discussions on women in archaeology: firstly, they were very concerned with bringing to attention the androcentric biases in the literature. In some cases an alternative interpretation was put forward (along the lines of Women the Gatherer vs Man the Hunter); secondly, an evaluation of theory and the subjects that were conventionally being studied by archaeology; thirdly, a reinvestigation of selected ethnographies; and finally, the re-interpretation of material culture, such as pottery and burials. However, at this point the dialogue seemed to repeat itself.

What is interesting about this volume is that different approaches have been attempted: firstly, (as the title suggests) there is a call for a wider use of feminist theory within archaeology; secondly, a discussion about the need for a wider frame of analysis; thirdly, more detailed ethnographic analysis; and fourthly, looking at the role of women in the archaeological workforce and academia itself.

The theoretical discussions raised several interesting points. Conkey calls for the development of a body of feminist theory to be formed for archaeological enquiry, not merely a borrowing of certain concepts (archaeology is extremely good at borrowing, much to the chagrin of other disciplines). She argues that in trying to find women, entirely new fields of enquiry can be opened up. This sentiment was echoed by Alison Wylie. Conkey also suggests that a review of the areas of study and contexts considered important is overdue. Gero's paper on the narrow techno-environmental association with males, used in Palaeo Indian studies, enforces this view. Conkey, as well as Jane Balme and Wendy Beck, warn against adding women and stirring. They argue that looking for gender relations in the archaeological record should not just be a case of adding women to the list of phenomena, but to be effective there has to be a fundamental underlying change in approach. The problem of the invisibility of women (women use soft, organic material which perishes over time vs men who use hard material that is preserved) is often quoted as a reason for not being able to study women in the past. Sheila McKell discusses this issue in relation to Aboriginal stone tool technology, which is in part answered by Caroline Bird's ethnographic study.

Certain case studies stand out. Bird's discussion is a good example of how detailed analysis of ethnographies can assist pre-contact studies and suggest where and rocentrism is creeping in. Stephanie Moser gives a delightful study of androcentrism in the pictures of human origins. Indeed a picture is worth a thousand words, and many ideas on gender relations are portrayed in these. Linda Conray's paper on Pleistocene figurines casts a fascinating angle on gender by asking whether in the past the oppositions were not female vs male, but rather adult women vs pre-adolescents. A warning is sounded by Lauraiane Smith about racial biases creeping into the discussions and recording of Aboriginal sites, which are compounded by the biases of class and gender present in European sites, highlighted in Anne Bickford's and Chris Johnston's articles on the lack of representativeness of women's historic sites. Marilyn Truscott and Lauraiane Smith's discussions of women and men in archaeology in Cultural Resource Management, Museum and University positions was fascinating, as it echoed a paper by Gero (1990) based on U.S. data and a talk given by Liz Hudson (1992) at a New Zealand Archaeological Association conference based on N.Z. data. These talked about the marginalisation of women in the workforce. Megan Goulding, Kristal Buckley and Gabrielle Brennan presented the rather depressing findings of a questionnaire on employment. Although the hypotheses they presented were a little complicated, the questions they raised were answered in part in Wylie's informative second contribution.

The book is divided into seven parts, the first five being about

interpretations within archaeology (I Theory, II Pleistocene and Physical Anthropology, III Case Studies, IV Art Studies, V Cultural Resource Management), and the last two being about the archaeological workplace (VI Career Structure and VII Women in the Workplace).

It must be said that the grouping of the different papers within the Parts is a little strange. One example among several is Pamela Russell's article on Palaeolithic Mother-goddesses (Part II), which should have been with David Frankel's discussion of Mid-Bronze Age Cyprus figures (Part III), together with Conroy's analysis of Upper Pleistocene figures (Part IV). Also Parts VI and VII could have been amalgamated, and Buckley 's and Jeannette Hope's articles on the marginality of employment within CRM (Part IV) could have been included. Some of the Parts contained introductory chapters, while others did not. A curiosity was Wylie's first paper in Part II, in which she not only introduces but critiques the following articles.

The degree of editorial control is difficult in books such as this, which combine articles written separately. However there was some disparity in length, some being quite long (such as those by Denise Donlon, Hope and Mathew Spriggs), and others could have benefitted by more supportive detail (examples such as Jane Lydon, Susan Lawrence-Cheney and Frankel).

Regarding the illustrations, consistency of scale and style of would have been assisted the look of the volume, and a map for each Part showing place names mentioned in the text would have made this more accessible for a wider audience. More illustrations would have assisted the reader in the interpretation of certain articles, although obviously this is at the discretion of the various authors.

There were some editorial errors related to formatting, including the misuse or absence of headings, and erratic spacing between paragraphs. There was also the unfortunate spelling mistakes, notably in Beverley Parslow's article where *kainga* was spelled *kianga*.

The conference obviously benefitted by the attendance of the keynote speakers from America - Margaret Conkey, Joan Gero and Alison Wylie. This is an exciting topic which is very much in its formative stages, and I look forward to the upcoming conferences in North Carolina and Sydney to see the progression of ideas. I suspect that when further theories and methods have been formulated, new contexts and fields of enquiry have been suggested and several case studies accomplished, that many more archaeologists, both female and male, will explore this new avenue of research. I also hope that these conferences will build much needed support groups for women scholars, so that Wylie's comment on the tragic loss of commitment and the contribution of women graduates is not continued for too long into the future.

Caroline Phillips

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Sites and Monuments: National Archaeological Records. Edited by C.U. Larsen. National Museum of Denmark, Copenhagen, 1992. 250 pages.

Papers on archaeological record systems usually do not make very engrossing reading, even for people with a direct interest in the subject. This collection is an exception. It had its origins in the first National Archaeological Records Conference at Copenhagen in May 1991. Information about 'what is where' is vital for heritage management, particularly in areas experiencing rapid development. Judging from the contributions to this volume, many countries have completed, or are just now completing, programmes to get some or all the information that they had previously stored on paper into electronic form. Most are now actively looking to develop their systems to cater to growing demands for more detailed information.

The book has chapters on record systems in Denmark, Norway, Poland, Germany, Netherlands, France, England, Scotland, Ireland, and the USA. Denmark has a long tradition of making surveys of prehistoric sites and finds. A nationwide survey (not the first) was initiated in 1873 and took 60 years to complete. Much of the information is only now being made available in electronic form. The Danish experience is clearly that these things are not done overnight. After low levels of recording in Denmark in the 1950s and 1960s, there was a big increase in the 1980s when nearly 20,000 sites were located. Over 130,000 sites have been recorded to date, to at least a preliminary level. Few survey and record systems have a history as complex as this, but an understanding of the history is crucial to a proper interpretation of the records. This is true of the Danish system, and of all the others described here.

The New Zealand archaeological record system (NZAA Site Recording Scheme) would not look out of place amongst the record systems described in this book, for all the institutional and legal differences between countries. My distinct impression is, however, that New Zealand is lagging well behind developments elsewhere. Since 1982, when development of the electronic database (Central Index of New Zealand Archaeological Sites or CINZAS) was completed and was up and running routinely, there has been little effort to develop our system further. There is still a heavy reliance on the paper records, and the system depends on the detailed knowledge of a small group of people to interpret data and identify other relevant material for the user. That can be seen either as a strength or as a weakness. The trend now, however, is very definitely towards direct access to, and interpretation of, information by the users themselves. This trend exposes some inadequacies in the existing New Zealand system.

The demand for better information, and, in particular, for better definition of the nature and extent of sites, is not being matched in New Zealand with the resources needed to produce the level of detail required. The Auckland Regional Council is developing a more detailed heritage information system but resources for the further development of the national system are hard to obtain in an era when shrinking budgets are the norm. Making do with what already exists, and even getting by with less, is the commonplace situation in most institutions.

Some countries are still struggling with the difficulties of integrating information held by different heritage organisations and are already facing the prospect of a further proliferation of a myriad of independent special-purpose databases. New Zealand has avoided the former, and is doing its best to cope with the latter by encouraging use of the NZAA Site Recording Scheme as the umbrella system. Organisationally, the national record system here is unique in the way it has been run as a co-operative venture. If there is a disadvantage, it is that its success has caused it to be taken for granted and it has not had the resources it needs to develop further. In many countries, the development of national archaeological record systems has been linked to programmes of fieldwork to add and upgrade information. This is another area where the effort has faltered badly in New Zealand over recent years.

The authors present a range of information about the record systems they are writing about. Some comparisons will illustrate this. The ORACLE relational database is used to support a number of record systems, as it is also in New Zealand. The National Archaeological Record system (Royal Commission on the Historical Monuments of England) contains nearly 150,000 records, over 3 times more than the New Zealand figure. Some 53% of the 20,000 sites in the Central Archaeological Archive in the Netherlands are findspots and this category also figures prominently in the County Sites and Monuments Records in England: the New Zealand figure is just 3%. For all the differences in emphasis and detail, it is the similarities which are most striking. Each country has different

legislation and organisational structures, but inventory is a basic need, and heritage programmes ultimately stand or fall on the adequacy of this work.

Many papers discuss the new technologies, including Global Positioning Systems, graphical user interfaces, and GIS. Harris and Lock, in particular, lay out the dilemma for systems like the New Zealand one in relation to GIS. They point out that GIS has no advantages over traditional digital mapping systems "if sites continue to be recorded solely by single point centroids". This does not mean that existing information cannot be used by a GIS. The information is, however, not in a form which allows use of the main feature of GIS: the ability to show the topology of features. It is not a simple or inexpensive task to convert an existing database to a GIS format. Many overseas organisations apparently plan to use their existing relational databases alongside a GIS, at least in the short term, rather than develop a proper GIS capacity immediately. Harris and Lock suggest that this compromise will have its costs.

Whatever the advantages of GIS, there is little prospect of converting the existing New Zealand database to a full GIS format. The cost, and organisational and political circumstances, are not propitious.

This book provides a standard against which to set the New Zealand experience. So much of the overseas experience is germane to our situation: the contexts are so different, but the responses have been all so remarkably similar.

Tony Walton