The aim of *Southern African Field Archaeology* is to communicate basic data to professional archaeologists and the public.

Manuscripts of original research undertaken in southern Africa will be considered for publication. These may include reports of current research projects, site reports, rock art panels, rescue excavations, contract projects, reviews, notes and comments. Students are encouraged to submit short reports on projects. *Southern African Field Archaeology* also welcomes general information on archaeological matters such as reports on workshops and conferences.

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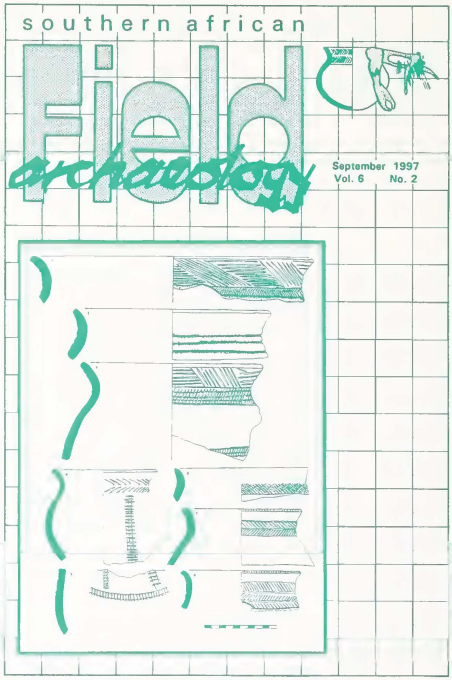

Cover illustration:
Some of the Early Iron Age decorated ceramic vessels found during the excavations at Ndondondwane, p. 61.

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CONTENTS

OPINIONS

TRANSLATING ARCHAEOLOGY

The future of archaeology and the communication of archaeological knowledge to society at large have become dominant concerns for archaeologists in many parts of the world, particularly in southern Africa (*e.g.*, Summers 1967; Inskeep 1970; Humphreys 1972; Deacon 1988; Binneman & Webley 1992; Lewis-Williams 1993; African Archaeological Review 1996:5-34; Kusimba 1996; Binneman 1997; Ouzman 1997). In southern Africa, initiatives in archaeology have and are being undertaken by the Universities of Botswana, Cape Town, Pretoria, South Africa, the Witwatersrand and Zimbabwe and also by those museums at which archaeologists are based. Public archaeology is based on the premise that:

> Research into the past is not, in itself, sufficient; there must be communication, and communication must not be limited, as it tends to be at present, to exchanges between those involved in the task of unravelling the past. It must be extended both to the student and to the public at large, and this may require two, or three quite different kinds of literature (Inskeep 1970:302).

Yet, despite some success in public archaeology - certainly, some forms of archaeology such as rock art have always had a robust public profile and participation - the prevailing mood among southern African archaeologists is pessimistic. For example, Lizeka Mda's statement that "our advances in archaeology are not widely known beyond the National Geographic Society, as there is no vehicle through which we can blow our own horns" (1997:35) and the recent closure of the University of Stellenbosch's Archaeology Department suggests that, at best, mainstream society regards archaeology as a redundant and indulgent pursuit and, at worst, ignores or is entirely unaware of the discipline. This has prompted some thoughts on the "ongoing debate in some quarters on the position and role of archaeology in South African society" (Mazel 1991:59).

Ngaba-Waye succinctly captures the essence of public archaeology when he states that "Archaeology must seek to grasp current phenomena by their roots" (1996:26). Often the search for 'roots' is literal and involves excavation - a necessary though destructive and deeply problematic technique (*e.g.*, Loubser 1990:72; Solomon & Smith 1994:62; Hodder 1997). Far more important than excavation is the intellectual search for 'roots' through the contemplation of archaeological material culture or 'artefacts'; not all of which are obtained through excavation. The artefacts of the archaeological gaze vary tremendously: from extensive landscape studies, to intensive analysis of trace elements, to considerations of ethnographic evidence. In an otherwise hyper-diverse discipline, it is the contemplation of artefacts in a broad sense that unites all archaeologists. For the archaeological contemplation of artefacts to be socially meaningful at least two episodes of translation are required. First, archaeologists have to translate artefacts into contemporary idiom, usually text. Secondly, these textual renderings have to be translated into popular, usually visual, idiom. I discuss each translation in turn.

Archaeology and text

The archaeological translation of artefacts operates on many levels and involves many principles (*e.g.*, Wylie 1989). Typically, we translate artefacts by means of metonymy and mimesis (*e.g.*, Kirshenblatt-Gimblett 1991; Hodder 1993), processes by which we understand the artefact to embody or encode the essence of a larger, usually no longer present reality which, in turn, provides the artefact with temporal, spatial and interpretive contexts. In other words, the archaeological artefact is somewhat contradictorily understood to be both a fragment as well as a quintessence of a larger whole. However, the archaeological translation of artefacts is undermined by the archaeologist almost always being an outsider to the whole being studied. "It will always be difficult to write the history of people who did not write the sources, and whose world-view and epistemology was fundamentally different from those of the writers of the sources" (Abrahams 1995:34). The archaeological translation of artefacts is further undermined, at least in Africa, by the use of text which is often experienced as an artificial and even colonial phenomenon that has no convincing link to the past and its artefacts (*e.g.*, Mamdani 1996; see also Valdés 1992). Rather, artefacts are apprehended visually and viscerally and much of their power lies in the difficulty of rendering artefacts textually. Yet most archaeologists, myself included, tend to be textually oriented as a result of years of study, reading, writing and arguing.

Archaeology and the visual

Fortunately, there is a move towards visual literacy which is a far more appropriate means of communication than text, particularly in a region such as ours where words rapidly alter, jargon abounds and many people cannot read. Translation of the textual to the visual requires that archaeologists enter into partnerships with 'idiom translators' such as children, graphic artists, teachers, visual anthropologists and so forth (see Miller 1993:58; Wahl 1996) and "films, theatrical performances, and audiovisual media are among the means to be explored in the future for the dissemination of archaeological knowledge" (Ngaba-Waye 1996:27). For example, the partnership between archaeologists, educationists and students has ensured that South Africa's new History textbooks have a prominent visual and open-ended interpretive component (e.g., Clacherty & Ludlow 1995). It is this visual-associative logic, rather than textual-ascriptive logic, that has the widest appeal and which most fully communicates the meanings of artefacts.

An important part of the visual translation and communication of archaeological knowledge is the example archaeologists set in the manner in which they introduce archaeological artefacts into the public domain. For example, the display of the Linton painted fragment in the 'Africa: the art of a continent' exhibition (4th October 1995 - 21st January 1996), was both good and bad public archaeology. Though the exhibition was not staged on African soil, the detailed and interrelated paintings on the Linton fragment effectively promoted southern Africa's rock art heritage to the world - but at a price. As part of exhibition procedure, the Linton painted fragment was insured for over a million rand. Instead of being price-less (without price), the Linton painted fragment was, unintentionally, given a cash value by an archaeological-museological community, thereby transforming it from an artefact into a commodity which is, by definition, implicated in a market economy. This transformation has potentially disastrous consequences for thousands of unprotected African rock art sites.

Despite such problems, visual translations of artefacts are, in fact, numerous and exist in both embedded and dis-embedded forms.

Those sites and artefacts that have suffered minimal human and natural intervention and which appear 'pristine' represent embedded forms of archaeology. Some of these locales have been developed as site museums, which are enhanced by textual, visual and even aural information. The effectiveness of the embedded form of archaeology lies in the undeniable authenticity of the site and its artefacts; a status that is frequently underscored by the participation of a vocational archaeologist.

Dis-embedded forms of archaeology typically consist of either authentic artefacts wrested from their original contexts or facsimile reproductions of artefacts, both of which are displayed in constructed locales such as art galleries, books, museums, web sites, and such like. The dis-embedded form of archaeology often attempts to mimic the embedded form by means of body casts, dioramas, muted lighting, reproduction rock shelters and so on. People are, however, seldom fooled by these attempts at verisimilitude and have developed alternative translations of artefacts and the past.

For example, a vigorous form of dis-embedded archaeology is already present in mainstream society in the form of innumerable reproductions of artefacts - especially rock art imagery - in advertisements, artworks,

books and films and on clothing, curios, posters and other objects (*e.g.*, Dowson 1996). The placement of these facsimile artefacts in the public domain often galls archaeologists who no longer have the dominant voice and who are no longer the sole custodians of the past's mirablia. We now have to compete with advertising agencies, authors, business, filmmakers, tourists and the lunatic but popular fringe for control over how artefacts are understood and translated. In fact, we have to compete with every South African; after all, the "the consumers [of archaeological knowledge] are people who, through their taxes, contribute to the production of archaeological knowledge. They therefore have a stake in archaeology" (Lewis-Williams 1993:45). Some dis-embedded translations of archaeological artefacts are insensitive, some are informed by archaeological research while still others, such as the National Olympic Committee of South Africa's 1996 'rock art' logo, are a mixture of commercialism and 'nation-building'. This last-mentioned manifestation is ironic. We can only use San rock art as a non-sectarian symbol because the 'Khoisan' have, until recently, been unable to articulate an identity and voice with which to claim, defend and use their symbols and heritage (but see Pietersen 1996; Barnard 1997).

The archaeology of tomorrow and the day after

In an increasingly bland and derivative world (*e.g.*, Eco 1986:133-159), people are experiencing the need to formulate and express distinctive identities, which are accompanied by similarly distinctive objects and symbols. Archaeological sites and artefacts, with their authenticity, antiquity and frequent uniqueness, have an important, concept-forming role to play in the construction of local and national consciousnesses and histories (*e.g.*, Appadurai 1981; see also Barnard 1997). In a southern African context we must, however, guard against replacing divisive Apartheid-era concepts with inclusive Rainbow nation-era concepts. It is not at all certain that "we need to develop approaches to the past that will contribute to the formation of concepts that will promote unity" (Lewis-Williams 1993:46); rather we need to produce 'honest' and diverse research and visual displays that convey the fragmentary nature of the past, our similarly fragmentary understanding of it and the fractious nature of contemporary society. "South Africa may be ethnically diverse, but it is far from tolerant. We simply do not have a history of pride in our cultural diversity. We do not have enough self-confidence to boast of anything" (Mda 1997:35). Mda may be overly pessimistic: isn't the 'rock art' T-shirt a translation, display and boast of our archaeological heritage?

The chain of translation from artefact-text-visual has many participants and strong as well as weak links. The problems we face are not limited to Africa and we can turn to the resources offered by trans-nationalism and globalization (e.g., Lyotard 1984; During 1997). Yet it would be a mistake to uncritically embrace globalization, as the local is often more immediate and important than the global:

> Research should, as much as possible, be relevant and easily translatable to local needs in order to gain support and understanding of the local communities in whose domain such projects are undertaken. As a consequence, these communities become guardians of archaeological sites rather than mere neighbors (sic) (Kusimba 1996:169).

In this way, partnerships between archaeologists and communities are transacted in which the artefact and even the archaeological site have multiple owners and custodians. Indeed, some individuals and communities have been actively using 'other' people's archaeological sites and artefacts for their own purposes for some time (*e.g.*, Ouzman 1995). At a practical level, the repatriation, display and custodianship of artefacts acquired from both research and salvage archaeology may help alleviate the problems of inadequate storage facilities and poor conservation practices (*e.g.*, Loubser 1990), lack or absence of funds and trained staff (*e.g.*, Kibunjia 1997), the illicit trade in cultural property (*e.g.*, Mvenge 1996) and so on.

Southern African archaeology as viewed from the inside appears socially sensitive and aware of its deficiencies and "when it comes to terms with such deficiencies, and this is by no means impossible, we can expect [a] new and greater understanding of a rich and varied past" (Garlake 1995:37). On the other hand, "the decade between Nelson Mandela's release from prison and his appearance on the podium as Patron of the Fourth World Archaeological Congress might witness the cruellest period of change in the discipline of archaeology" (Hall 1997:vi). Re-placing artefacts from the past into the public domain "is an attempt to reach into the unknown - both past and future. But it is a journey that may be impossible - indicated by the death in the desert of the archaeologist, who died chasing a chimera, a mirage, an unknowable archetypal symbol. His body was found by the others, his mission unaccomplished" (Tomaselli 1993:87).

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REFERENCES

Abrahams, Y. 1995. 'Take me to your leaders': a critique of Kraal and Castle. Kronos 22:21-35.

African Archaeological Review. 1996. The future of African archaeology. 13:5-34.

Appadurai, A. 1981. The past as a scarce resource. Man (N.S.) 16:201-219.

Barnard, A. 1997. Problems in the construction of Khoisan ethnicities. Paper presented at the 'Khoisan Identities and Cultural Heritage' conference, Cape Town, 12th - 16th July.

Binneman, J. 1997. Opinions: Archaeology in the trenches? Southern African Field Archaeology 6:1-2.

Binneman, J. & Webley, L. 1992. Editorial. Southern African Field Archaeology 1:1-2.

Clacherty, G. & Ludlow, H. 1995. Looking into the past: Standard 3 or Grade 5. Cape Town: Maskew Miller Longman.

Deacon, H.J. 1988. Guest Editorial: What future has archaeology in South Africa? South African Archaeological Bulletin 43:3-4.

Dowson, T.A. 1996. Re-production and consumption: the use of rock art imagery in southern Africa today. In: Skotnes, P. (ed.). Miscast: negotiating the presence of the Bushmen: 315-321. Cape Town: University of Cape Town Press.

During, S. 1997. Popular culture on a global scale: a challenge for cultural studies? Critical Enquiry 23:808-833.

Eco, U. 1986. Faith in fakes. London: Secker & Warburg.

Garlake, P. 1995. The African past. In: Phillips, T. (ed.). Africa: the art of a continent: 31-37. Munich: Prestel.

Hall, M. 1997. The transformations and? future of South African archaeology. The World Archaeological Congress Newsletter, Southern Africa Focus 5:v-vi.

Hodder, I. 1993. The narrative and rhetoric of material culture sequences. World Archaeology 25:268-282.

Hodder, I. 1997. 'Always momentary, fluid and flexible': towards a reflexive excavation methodology. Antiquity 71:691-700.

Humphreys, A.J.B. 1972. The relevance of archaeology in a modern world. South African Museums Association Bulletin 10:12-19.

Inskeep, R.R. 1970. Archaeology and society in South Africa. South African Journal of Science 66:301-311.

Kibunjia, M. 1997. The management of archaeological collections and resources in Africa. African Archaeological Review 14:137-141.

Kirshenblatt-Gimblett, B. 1991. Objects of ethnography. In: Karp, I. & Lavine, S.D. (eds). Exhibiting cultures: the poetics and politics of museum display: 386-443. Washington: Smithsonian Institution Press.

Kusimba, C.M. 1996. Archaeology in African museums. African Archaeological Review 13:165-170.

Lewis-Williams, J.D. 1993. Southern African archaeology in the 1990s. South African Archaeological Bulletin 48:45-50.

Loubser, J.H.N. 1990. Guest Editorial: Skeletons in our cupboards: archaeologists and conservation. South African Archaeological Bulletin 45:71-72.

Lyotard, J-F. 1984. The postmodern condition. Minneapolis: University of Minnesota Press.

Mamdani, M. 1996. Citizen and subject: contemporary Africa and the legacy of late colonialism. Cape Town: David Philip.

Mazel, A. 1991. Guest Editorial: Time to expose the unexposed data in our cabinets, files, boxes, etc. South African Archaeological Bulletin 46:59-60.

Mda, L. 1997. Has the rainbow faded for ever? Mail and Guardian, 24th December: 35.

Miller, D. 1993. Opinions. Southern African Field Archaeology 2:57-58.

Mvenge, G. 1996. Editorial: The illicit traffic of cultural property. Southern African Development Community Association of Museums and Monuments News 2:3.

Ngaba-Waye, A. 1996. Cultural continuity and the future. African Archaeological Review 13:26-27.

Ouzman, S. 1995. Spiritual and political uses of a rock engraving site and its imagery by San and Tswana-speakers. South African Archaeological Bulletin 50:55-67.

Ouzman, S. 1997. Guest Editor: The World Archaeological Congress Newsletter, Southern Africa Focus 5:i-xvi.

Pietersen, C. 1996. Miscast: negotiating Khoisan history and material culture. South African Historical Journal 35:135-139.

Solomon, A. & Smith, J. 1994. Opinions. Southern African Field Archaeology 3:61-62.

Summers, R. 1967. Penelope - or the future of the African archaeology. South African Journal of Science 63:125-131.

Tomaselli, K. 1993. The post-Apartheid era: the San as bridge between past and future. In: Boonzajer Flaes, R.M. & Harper, D. (eds). Eyes across the water II: 81-89. Amsterdam: Het Spinhuis.

Valdés, M. 1992. World-making: the literary truth-claim and the interpretation of texts. Toronto: University of Toronto Press.

Wahl, B. 1996. Opinions. Southern African Field Archaeology 5:1-2.

Wylie, A. 1989. Archaeological cables and tacking: the implications of practice for Bernstein's 'Options beyond objectivism and relativism'. Philosophy of the Social Sciences 19:1-18.

Southern African Field Archaeology 6: 106-107. 1997.

BOOK REVIEW

THE TSODILO JEWELLERY: METAL WORK FROM NORTHERN PROVINCE

By Duncan Miller. 1996. University of Cape Town Press. R94.95.

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This is a detailed report (124 pages) on the examination and assessment of iron and copper artefacts as well as slags discovered at the Divuyu and Nqoma sites in Northern Botswana. The report comprises seven chapters.

Chapters 1 and 2 are of an introductory nature and deal with the classification and description of the artefacts. It is evident from these two chapters that a lot of painstaking excavation was undertaken and a very large number of artefacts were unearthed and classified. The sketches of artefacts in Chapter 2 are excellent and plentiful but one wonders whether a similar objective could not have been achieved at a lesser cost through photography.

Chapter 3 gives metallographic and petrographic descriptions and includes tables of chemical analyses and summaries of descriptions and artefacts. A detailed description is given for each article which entails a lot of repetition which makes reading laborious. For instance the mass of artefacts, their corroded appearance and their hardness could be restricted to the Tables. Text could be used to highlight important aspects of artefacts. The fact that the photomicrographs appear at the end of the report also makes references rather difficult.

Chapter 4 gives an evaluation and summary of the Divuyu technology while Chapter 5 is an evaluation and summary of the Nqoma material. These two Chpaters are effectively discussions of Chapter 3.

Chapter 6 makes comparisons of the findings with those from other sites and Chapter 7 contains the conclusions.

An extensive bibliography and glossary of important terms are included followed by an impressive list of 143 photomicrographs.

The report is the result of an awful amount of work and should prove very useful to archaeologists and others in the field. It should nonetheless be examined with some circumspection because it contains phraseology and statements which might confuse or mislead the novice. It itself "perpetuates" some incorrect or imprecise views and technical terms of previous researchers when reference to standard textbooks have provided more lucid expression.

A few examples may be sited. The author states on numerous occasions that the carbon content of near non-metallic inclusions in different ways (*cf.* pp 54, 58, 59). The simple explanation of this occurence is that the carbon in the hot iron continues to reduce iron oxide inclusions in the iron resulting in the decarburization of the surrounding areas.

A "glass transformation temperature" does not convey any meaning because a glass does not transform. A glassy material simly becomes less and less viscous (hard) as the temperature rises. The term has been used to explain the fragmentation of slag in metal worked below a certain temperature and their plastic deformation when working took place above such temperature. The change-over from a non-deformable to a deformable condition does not involve a transformation and depends on the details of composition.

The treatment of slag microstructures adopts a piecemeal approach which can leave the reader wondering why the microstructures vary as they do and if there is coherence between the different observations. Slag microstructures form upon solidification and cooling in a fashion similar to that observed in metallic alloys. However, the microstructures are modified by the fact that some slag constituents crystalize in non-cubic lattices. For instance, the FeO-SiO_2 combination gives itself beautifully to a synoptic treatment based on the relevant part of the phase diagram. The system forms a eutectic at 75% FeO and the microstructure of "slags" or unreduced siliceous ore lumps can supply valuable information on the process and extent of reaction. Unfortunatly no mention is made of the FeO-SiO_2 system.

The author does not explain adequately the origins of the dendritic and "smaller" wusite particles in fayalite (*cf.* p. 61 & Fig. 76). It is incorrect to say that the small wusite particles were "exsolved" within the fayalite. Figure 76 shows a beautiful microstructure of a slag containing more than 75% FeO. Solidification commenced by the formation of the primary wusite

dendrites and ended with the precipitation of the FeO-Fe_2SiO_4 eutectic mixture. This microstructure shows definitely that the material was in the liquid state and that its temperature was in excess of 1300°. The author does not draw this firm and important conclusion.

All spheroidization of pearlite was attributed to long annealing treatments after hot forming. This is not necessarily so. Spheroidization takes place in a matter of minutes when the metal is worked during transformation to pearlite. One can hazard a guess that this was probably more often the case than not.

Reference is made to hot working of copper (pp 64 & 65) and subsequent recrystallisation by annealing. Recrystallization is a pre-condition of hot working. Subsequent annealing of hot worked metal does not produce recrystallization.

The presense of martensite in a nodule (p. 68) is interpreted as evidence of quenching, perhaps deliberate, to increase the hardness. The author notes the extremely coarse gain size of the alloy but does not point out that hardness increases with the increasing grain size. Thus the martensite could well have been the result of air cooling. The simplest of methods to increase hardness and strength is by cold working. But even this process does not appear to have been used deliberately. In fact, even artefacts which required hardness were more often than not "annealed" after forming. The possibility, therefore, of deliberate fast cooling to produce martensite is very remote.

On the basis of silica inclusions in the metal it is suggested that temperatures of about 1723°C may have been reached in the smelting operations. That is unlikely because this temperature is well above the melting point of pure iron. No evidence has been presented so far to show melting of pure iron; not even iron with 1 %C or more with a liquidus temperature of about 1460°C and a solidus temperature of about 1340°C.

Further examples of inadequate phraseology and interpretation could be sited.

In conclusion it may be said that the report could prove very useful from the historical perspective and the author should be commended for his extraordinary effort. However, technological expressions and interpretations could do with re-examination.