An increasing number of large dam projects present a major threat to cultural heritage in much of Africa. This paper asks how such destructive projects can be held to account; not only to mitigate damage, but also to develop local heritage management structures and increase public awareness. It focuses on the situation in Lesotho, which has a history of large dam projects, but a severely under-resourced archaeological and heritage management community. The main emphasis is on a recent and ongoing project in advance of the Metolong Dam in western Lesotho that was founded with training and skills transfer as a primary aim. In addition to some practical suggestions for Lesotho that take into account its particular geopolitical context, this case study brings three broader interrelated issues into view, none of which are new, but all of which deserve fresh attention: the unsuitability of a solely commercial, contract-based response to the threat from development; the negative effects of using unskilled ‘labour’; and the imperative to develop an archaeology that is relevant to and actively involves the rural African communities within which we work.

KEYWORDS dams, Lesotho, developer-funded archaeology, not-for-profit organization, training, interpretation, community-based practice

Introduction

In parts of sub-Saharan Africa where societies struggle to guarantee food, shelter, and healthcare, archaeological research and heritage management remain severely under-
funded. In many of these same areas, however, there is an urgent need to develop archaeological responses to natural resource exploitation. In theory, the relationship between these actions and the heritage on which they are impacting should be straightforward: those who profit from the dam, mine, or pipeline pay to mitigate destruction. This principle, known as the polluter pays (OECD, 1975), has been widely adopted for use in archaeological practice where it has been termed developer-funded archaeology, cultural resource management (CRM), contract, salvage, preventive, or commercial archaeology. In most fully industrialized countries, this makes up the vast majority of archaeological activity, especially in North America and the United Kingdom (Aitchinson, 2007; Green and Doershuk, 1998).

In sub-Saharan Africa, developer-funded archaeology is only established in a small number of countries, namely South Africa, Botswana, and Mali (Arazi, 2009). Outside of these areas, individual projects such as large dams and pipelines have made a significant impact, acting both as a catalyst for research (MacEachern, 2010; Posnansky, 2000) and as a way to extend archaeological enquiry into otherwise unstudied areas (MacEachern, 2010; Van Waarden, 1996). In general, however, the impact of the polluter pays concept on the development of archaeology and broader aspects of heritage management on the continent has been limited (Arazi, 2009; Kankpeyeng and DeCorse, 2004; MacEachern, 2001).

Nowhere is this more apparent than in Lesotho where a significant amount of archaeological work was carried out between 1986 and 2002 in advance of two enormous donor-funded dams. Excavations and surveys were funded by the Lesotho Highlands Water Project (LHWP or Highlands Project) but very little was invested in the development of local skills. By the end of the project there was still only one archaeologist in the entire country and no suitable facilities for the storage and curation of archaeological finds, despite the imminent threat of more large dams (Mitchell, 2000; 2005).

It was, however, largely because of the failure of the Highlands Project to provide support for the development of heritage management that a more comprehensive cultural heritage programme was designed for the Metolong Dam, the next large-scale water project initiated in Lesotho. The Metolong Cultural Resource Management project (MCRM), presented in this paper, is an ongoing, four-year programme that began in 2008 with a specific mandate to increase local capacity to manage cultural heritage.

Before presenting the Metolong case study we take a brief look at the World Commission on Dams report from 2000 which succeeded in highlighting the poor record of most dam projects in Africa and correctly positioned capacity building as the most important objective for large CRM projects. We then review the Highlands Project and describe the growth of heritage structures in Lesotho where a small group of individuals have struggled against a severe lack of investment, and managed to create a solid foundation on which projects like Metolong can build.

The Metolong case study presented here focuses on the development of local skills and public awareness, with preliminary results of the excavations and surveys being described elsewhere (Arthur and Mitchell, 2010a; Mitchell and Arthur, 2010). Some of the key achievements of the MCRM project are highlighted and contrasted to previous dam-building programmes in Lesotho. While Metolong is certainly a step in the right direction, our assessment shows that it is far from ‘best practice’. If we are
to respond effectively to the much larger and evermore socially damaging phases of dam construction planned for Lesotho over the next two decades, then careful consideration must be given to how we organize ourselves as heritage professionals. The role of archaeologists in the context of population resettlement is discussed, with reference to dam-building programmes elsewhere in Africa. Although focused on Lesotho and its neighbour South Africa, and largely from the perspective of archaeologists, central themes will resonate with a wider audience such as the unsuitability of a solely commercial, contract-based response to the threat from development; the negative effects of using unskilled ‘labour’ and the imperative to develop an archaeology that is relevant to and actively involves the communities within which we work.

Dams and archaeology in Africa

Unfortunately, the failure of large dam projects to take responsibility for longer-term management of cultural heritage appears to be the norm across much of Africa. Ten years have passed since the series of conferences and publications under the World Commission on Dams whose mission statement is summarized as an ‘integrated assessment of when, how and why dams succeed or fail in meeting development needs’ (WCD, 2000). Part of its objective was to investigate the impact of dams on cultural heritage. This was achieved through an international committee set up by Steve Brandt and Fekri Hassan to help form new guidelines for cultural heritage management (Brandt and Hassan, 2000). The report found that well-supported projects can act as a catalyst for research, as in the case of the Volta Basin Project in Ghana (Posnansky, 2000) and the Aswan High Dam in Nubia (Hassan, 2000). A review of Lesotho’s Highland Project in the same document demonstrated, however, that there needs to be more than simply enough funds, or even the congruence of willing authorities and consultants, in order to sustain the development of archaeological structures (Mitchell, 2000). Brandt and Hassan (2000: 71–72) recognized this and, in their conclusion, emphasized that ‘the training of local technicians and professionals, when present, has been ad hoc, unsystematic, intermittent, and insufficient’. They concluded by stating that ‘capacity building is the most important priority for long term, cost effective management of cultural heritage’.

Other writers, including Scott MacEachern (2001) and, more recently, Noemi Arazi (2009), have provided general reviews of CRM in Africa, including large dam projects, highlighting the urgent need to focus efforts on training and engagement with local communities. As Arazi points out, the World Bank has, in policy at least, supported the development of local institutions, clearly stating that this should be included in project costs of bank-funded initiatives (World Bank, 1999, cited by Arazi, 2009: 100), but implementation of most World Bank policy on cultural heritage has been far from consistent (Arazi, 2009; Brandt, 2000; MacEachern, 2001; 2010). Encouragingly, a more recent World Bank Operations Policy document (OP, 4.11) also recognizes the need to provide support between individual projects (World Bank, 2006), an essential measure for sustainable development in countries like Lesotho that have previously only received support on a project by project basis.

The Lesotho Highlands Water Project

The five enormous dams and associated network of transfer tunnels that make up the state-sponsored LHWP aim, on completion, to export 70 cu m of water per second
to Gauteng, the industrial centre of South Africa. With a 7.5 billion dollar completion cost, this will be the largest development project ever undertaken in Africa. Two major dams, one hydroelectric plant and over 100 km of tunnels were built between 1986 and 2002 and three large dams are planned for the next two decades. The scheme has been lauded as a model for transnational water transfer and electricity generation (Haas et al., 2010), yet it is equally as well known for its poor environmental and social record (Akindele and Senyane, 2004; Hoover, 2001; Horter and Pottinger, 2008; Thamae and Pottinger, 2006). In terms of its cultural heritage component, basic archaeological surveys and excavations were carried out, and recommendations made for a specific mitigation unit to be set up (Lehmeyer Macdonald Consortium and Olivier Shand Consortium, 1986), but little was done in terms of training with a view to managing future threats from development, and many of the investigations carried out as part of Phase I are yet to be published (Mitchell, 2005).

**Local developments in heritage management**

Despite the lack of support from the Highlands Project, since the early 1990s a small group of heritage practitioners, museum professionals, and academics has worked tirelessly from inside Lesotho to improve their situation, resulting in a considerable growth in the capacity to manage cultural heritage within the National University of Lesotho (NUL), the Department of Culture and Morija Museum and Archives.

Five years ago the Historical Studies Department at NUL initiated a Cultural and Heritage Studies undergraduate course and in 2008 appointed one of us (Mohapi) to teach the first ever archaeology module there. Unfortunately, reports of recent financial cuts for education and the mismanagement of funds at NUL (Tlali, 2009) make the position of archaeology as a single module on the university’s broader heritage course appear vulnerable, and it therefore remains to be seen whether this can be sustained, let alone expanded.

The Department of Culture has also grown considerably in recent years and now consists of a team of over ten staff members, including three trained heritage professionals. With the support of the United Nations Development Programme (UNDP) and financial aid from the Chinese Government for construction, the department has reopened the National Archives. A new Heritage Strategy and Heritage Bill have also been commissioned (Department of Culture, 2008; Globe Management Consultants and Advision, 2006; Khalema et al., 2007) and the department has redesigned its permitting process to encourage higher standards of reporting and archiving. A functioning national museum still remains to be established, previous efforts having met with little success (Khit’sane, 1991). As a result, and although plans are now being actively developed to remedy this situation (Thahane, 2010), there is still nowhere to house or display excavated archaeological materials, or to act as a national focus for displaying Lesotho’s rich heritage. The Museum and Archives of the Lesotho Evangelical Church at Morija provide a valuable substitute by way of education and archival research, and more recently the temporary storage of palaeontological finds and consultancy work (Gill, 2010). Yet, this institution also lacks a trained archaeological presence and, while some staff members are government-sponsored, it remains a private institution (Gill, 1995).
In 2008, the first archaeologist was employed in the Department of Culture, but the wage disparity between institutions in South Africa and those in Lesotho makes it almost impossible to retain the service of qualified staff (Ntsema Khit’sane, pers. comm. 2010). Nevertheless, even with the lack of investment from the Highlands Project, limited funds, and the difficulty of retaining skilled workers, the situation in Lesotho as a whole has improved considerably over the past five years and there are now for the first-time graduates leaving NUL with a basic understanding of archaeology and heritage management.

It is this home-grown infrastructure that has provided the platform for the Metolong project, designed to address the urgent need for local development of heritage management and emphasizing the transfer of knowledge (Arthur and Mitchell, 2009a; 2010b; Mitchell and Arthur, 2010). The word ‘urgent’ is used advisedly here, as when the Metolong Dam nears completion, which is currently estimated at late 2012, Phase II of the Highlands Project will be well underway (Lesotho Government, 2010). The impact of this phase of construction, which consists of a 165 m high dam at Polihali, in the northern highlands of Lesotho, at least in terms of rock shelter archaeology, will, because of the area’s basaltic geology, be relatively limited. However, the Lesotho Government has recently announced an estimated 13,000 people will need to be resettled (Lesotho Government, 2010), so the associated effect on burial grounds, ancestral sites, living heritage, and historical archaeology is likely to be severe. Worryingly, feasibility studies were completed in 2008 (Lesotho Government, 2010) but no archaeological or wider heritage impact study has been carried out. Even larger dams are proposed for further Phases of the LHWP (Figure 1) on the Tsoelike/Senqu confluence (Phase III) and at Ntoahae (Phase IV) in what also happens to be one the most rock shelter rich sandstone areas of the country (Mitchell, 2000: 39).

The Metolong cultural resource management project

Background

Impounding water for domestic and industrial use approximately 30 km east of Maseru, Lesotho’s capital, the 65 m high Metolong Dam will flood a 14 km long stretch of the Phuthiatsana River by taking advantage of a steep-sided sandstone gorge. The social impacts of the Metolong Dam are severe and wide-ranging, but the gorge itself does not contain modern settlements. Less than ten households will be moved for the Metolong Dam because they are too close to the water (SMEC, 2008: 113). This means that some of the most serious conflicts of the Highlands Project related to mass relocation of people (between 391 and 496 households in Phase I; Devitt and Hitchcock, 2010) do not apply to Metolong. The fact that no villages or complete burial grounds will be submerged was crucial to the planning of the MCRM project and sets it apart as a different kind of heritage project to those that involve resettlement.

The dam will, however, flood over thirty rock shelter sites, twenty-nine of which contain paintings and three of which contain substantial archaeological deposits. Most of the rock art was located by the Analysis of Rock Art in Lesotho (ARAL)
survey in 1980 (Smits, 1983) and the two largest shelters, Ntloana Tsoana and Ha Makotoko, were excavated by one of us (Mitchell) in 1989. Both were found to contain well-preserved stratigraphy spanning the Pleistocene/Holocene transition and, in the case of Ntloana Tsoana, an older Middle Stone Age sequence, the base of which has recently been dated to 61,000 BP (Jacobs et al., 2008; Mitchell, 1993; 1994; Mitchell and Steinberg, 1992: Figure 2). When the Metolong Dam was first proposed in 2004, there was, therefore, already a strong archaeological case to present to the Ministry of Natural Resources.

The World Bank’s regional staff also took an active role to ensure the mismanagement of environmental and social impacts, including cultural heritage, widely associated with Phase I of the Highlands Project, and for which the Bank has faced a great deal of criticism (e.g. Hoover, 2001), would not be repeated at Metolong. Another significant factor in the planning of the project is that the cultural heritage part of the Metolong Dam Environmental Impact Assessment (EIA) was carried out by Taole Tesele, a former employee of the Highlands Project, who was literally the sole archaeologist active in Lesotho for more than two decades. Recommendations were made to ‘enhance local expertise’ and ‘involve the local community in order to trigger interest and education related to cultural heritage’ (Tesele, 2008: Appendix A).
It was this astutely put-together plan of action and earlier comments by Mitchell (2005), together with support from Lesotho’s institutions and locally active individuals, that provided the background for the inclusion of training and public engagement in the MCRM proposal submitted to the Metolong Authority (the government structure set up to manage implementation of the dam) and the World Bank in 2008.

The final proposal outlined four phases. Phase 1 of the project in 2008–09 consisted of five components: open site survey, photographing and assessment of rock art sites, three small test excavations at rock shelters with potential deposit identified by Mitchell in a 1989–90 survey (Mitchell, 1994), and, importantly, a report that assessed existing cultural resource management structures in Lesotho and suggested how the Metolong project in 2009–12 could contribute to their development (Arthur and Mitchell, 2009a; 2009b). Phase 2 included eight months of continuous excavation at Ntloana Tsoana and Ha Makotoko, limited excavation of a small rock shelter, collection and test excavation of open sites, tracing of all rock paintings, excavation of a nineteenth-century midden at a stone-walled settlement, post-excaovation sorting at the National University of Lesotho, and training programmes for employees and student volunteers. Phase 3 consists of an intangible heritage programme and Phase 4 includes two years of post-excavation analysis in Oxford and Lesotho that ends in mid-2012.

FIGURE 2 Ntloana Tsoana.  
*Photograph by Jess Meyer.*
Not-for-profit organization

Perhaps the most important thing to note about the MCRM project is that it is organized as a non-commercial operation and, although run through the administration of Oxford University in Phase 1 and St Hugh’s College of Oxford in Phase 2, no profit has been made on the institutions’ part, with only the salaries of those persons in the field or laboratory being covered. This meant that enough professional archaeologists could be employed and, most importantly, local excavation staff could be paid wages equivalent to the technical work they were asked to do, whilst a proper training programme was also implemented.

This setup outside commercial archaeology meant that all of the field equipment needed for the project, including a 4x4 and a total station, could be donated to heritage institutions in Lesotho. The other advantage of this arrangement has been that the project base could be located close to the sites for the duration of the fieldwork and strong relationships developed with local communities, students, and institutions over the two-year fieldwork period. This is in stark contrast to previous dam projects in Lesotho, whereby individual consultants or small companies from South Africa would come in for short bursts of fieldwork that involved little or no engagement of this kind.

Recent archaeology and intangible heritage

Although understandably weighted in favour of rock shelter archaeology that is largely associated with hunter-gatherer histories, the project was also designed to pay due attention to more recent history and contemporary cultural practices that are likely to be of more significance to local populations. For this reason a range of historical investigations were initiated with the assistance of Morija Museum and Archives (Gill, 2010). During the Phase 1 survey, the museum director, Stephen Gill, acted as oral historian and advisor following the realization that a substantial nineteenth- and early–mid-twentieth-century ruin, Ha Makoanyane, was located in the area that had been earmarked for housing development (Peter Hancock and Associates, 2007). One local resident, Ntate Khorai Neko, who had lived at the site until the 1960s, provided a detailed account of its history, including the identification of infant burials inside large middens, in addition to confirming that the main burial ground is currently used for *Mekete ea balimo* (ancestor worship). The case was presented to Metolong Authority management on 14 January 2009, who decided that the new houses would be moved to preserve the site (Arthur and Mitchell, 2009a; 2009b). This represents a significant step for the preservation of recent heritage in Lesotho, as one of the published complaints following resettlement during Phase Ia of the LHWP was that no cultural heritage policy was in place for dealing with middens where still-born and infant burials were located (Hoover, 2001:15; TRC, 2000).

Building on this Phase 1 work, the final Phase 2 proposal included additional survey of the area around Ha Makoanyane and a small test excavation at the same site, well away from any of the known burial sites (Figure 3). Significantly for the promotion of historical archaeology in Lesotho this small trench has yielded well-preserved stratigraphy and a substantial assemblage of glass beads and pottery that is now under analysis (Arthur and Mitchell, 2010b). Morija Museum also completed a one-month
archival and oral history survey during Phase 2 to produce a baseline settlement study of the Metolong area (Gill and Nthoana, 2010).

During the Phase 1 survey our team members from the local community identified five rock shelters used by initiation schools that are threatened by inundation and, following an interview with an initiation instructor, confirmed that red pigment on one shelter wall was left by male initiates (‘M’e Pulane Nthunya and Ntate Maama Makotoko, pers. comm.). In addition to these ochre smears and patches, which were also recorded at a number of other sites, finger-painted horses and finger-painted ‘contact’ period human figures comprise two other rock art types that had been ignored by previous surveys in Lesotho (Arthur and Mitchell, 2009b).

The use of the rock shelters by initiation schools presents some issues of concern for the management of riverine environments threatened by dams, not least because communities may not want to discuss the issue of possible alternative sites. The whole point of the initiation schools is, after all, secrecy and seclusion. At least one site with San (Bushman) rock painting had also been severely damaged through the lighting of initiation school fires, highlighting the fact that the conservation of these sites and the current uses of them may also come into conflict.

The deep connection that present-day communities have to the river gorge landscape is one of the key themes currently being investigated during Phase 3 of the MCRM project. A two-month pilot survey — soon to be expanded to six months — is in progress under the supervision of Tumelo Monyane, a lecturer at NUL. This
part of the Metolong project focuses on intangible aspects of heritage including, amongst other topics, the meaning of sacred places, myths, and performance associated with the river and indigenous knowledge of natural resources. In addition to simply recording living heritage, the survey aims to document potential strategies for ensuring its survival post-dam construction. In this respect the study sets an important precedent for future heritage work in Lesotho, and may help to build a framework for assessing the effects of landscape loss during further phases of the Highlands Project.

Training

The Phase 1 2008–09 season of survey and test excavation provided one month of intensive training for ‘M’e Puseletso Moremi from the Department of Culture and two months training for a local secondary school teacher ‘M’e Pulane Nthunya, both of whom went on to play a significant part in Phase 2 of the project, as a communications facilitator and senior MCRM team member respectively. The commencement of eight months of continuous rock shelter excavation in October 2009 allowed a more structured archaeological training programme to be implemented. A team of five professional archaeologists from Britain, Ireland, and South Africa were employed to provide mentorship for Basotho trainees. Four senior assistants were trained in excavation, to act as supervisors for the sieving and sorting teams and as liaison officers between the project and nearby communities. Seven junior assistants from the villages adjacent to the sites were also trained in sieving, sorting, recording of sediments, and the processing of archaeological finds.

On the excavations we used a modified version of single context recording system as devised by the Museum of London Archaeological Service and widely used by field archaeologists trained in the UK or Ireland (MoLAS, 1994). This system emphasizes excavator interpretation and allows for a greater sharing of on-site responsibilities. The simple formula of cleaning, photographing, issuing a context number, planning, taking levels, detailed soil descriptions, followed by removal of the context, together with a strict use of registers, makes it easy for beginners to know what to do and also for senior members to teach archaeology. It also allows the whole process to be undertaken by any staff member and avoids diggers being left on one task for long periods of time.

This system emphasizes the need for the excavator, not the site director, to offer an interpretation of the particular context being excavated. The use of this method for training new archaeologists was so successful that, six months into our project, senior MCRM team members from the local community were able to run small rock shelter excavations themselves. The same concept was also applied to the sieving and sorting station, where an additional record sheet was filled out for each archaeological unit sieved. Once trained, the team worked without supervision, noting any unusual finds or differences in sediments and highlighting what this might mean for the interpretation of the rock shelter deposits. Not only did this practice reduce errors because people felt responsible for what they were doing, it encouraged everyone to take an active role, so that even those sieving and sorting for hours on end were genuinely involved in the process of interpretation (Figure 4).

In order to ensure that all staff members could benefit from training, and also with the hope that some will work on upcoming archaeological projects, we made it a
requirement that all employees spoke English and had good written skills. Whilst acknowledging that this approach could perpetuate unequal access to education amongst different spheres of the local population, we believe that it facilitated the least hierarchical structure that was possible at the time and was the only effective way to move beyond the traditional archaeologist and labourer relationship that is typical of most African field archaeology. This also caused some tensions between the project and community leaders, but we feel that as a result of our open-site policy, whereby all members of the public could visit at any time and see the process in operation, most people understood that literacy skills were essential if the programme was to be a success.

The potential of this interpretation-centred approach to enrich the archaeological experience became apparent towards the end of the 2010 field season. One evening in August, a senior team member, ‘M’e Pulane Nthunya, who is also a local resident, discussed the excavation of a nineteenth-century midden at Ha Makoanyane with her grandmother (an active potter) who suggested that perhaps the frequent baked earth inclusions in the midden came from a nearby pottery kiln (‘M’e Pulane Nthunya, pers. comm.). The large collection of tiny glass beads from the same site also prompted much discussion amongst the female students working with us as to whether during the nineteenth century the coloured jewellery was used to decorate grass skirts during ceremonies in the same way that they remember from their own childhoods. These both remain valuable interpretations that can be investigated through further excavation and analysis, and demonstrate just how easy it is for local communities to get involved in the creative side of archaeology.
**Student involvement**

Local schools were visited by MCRM team members, given packs of printed newsletters in Sesotho, and invited to bring students to view the excavations. Site tours were organized and mock excavations conducted on the spoil heap. As previously mentioned, since 2008, NUL has offered undergraduate teaching in archaeology. To take advantage of the fact that the Metolong excavations were within relatively easy reach of the NUL campus, a formal training day for twenty-four undergraduate students was provided on 26 February 2010. Subsequent to this open day, NUL students were able to visit on successive Fridays to receive further training. After the excavations ended in May 2010 six students were able to gain further experience of finds processing by helping to sort excavated material back on the NUL campus. Two of these students also gained a further eight days’ experience excavating at the nineteenth-century village of Ha Makoanyane in late July 2010 and one month of rock art tracing in August 2010. Training will continue throughout 2011 for NUL students during the post-exavocation phase of the project (Phase 4).

**Communication**

In addition to our plans to publish in a range of academic periodicals, 1000 copies of the first MCRM newsletter were distributed to local villages and schools in December 2009. A small news feature that included footage of the excavation and interviews with local staff was aired on Lesotho TV on 24 February 2010, marking the first time that archaeology has appeared on national television. A subsequent interview during early post-exavocation work at NUL featuring Teboho Mokotjo, one of our senior team members, appeared in Lesotho’s national press on 13 July 2010 (Khanyela, 2010).

**Limitations of the MCRM**

The MCRM is one of the largest developer-funded cultural heritage programmes ever implemented in southern Africa and, as we have just described, in terms of training, support of local institutions, and the popularization of archaeology, significant progress has been made. Not surprisingly, however, there is still a long way to go before we can begin to talk of ‘best practice’. Most worryingly, there was no cultural heritage component in the original 2003 feasibility study for the Metolong Dam, demonstrating that, despite the high density of known sites, it was never going to play a role in determining the final location of the dam. There was also no comprehensive desktop assessment or field survey conducted as part of the EIA fieldwork undertaken in 2005 (Tesele, 2008).

Despite a lack of basic archaeological survey, the budget for the Metolong Project was fixed through a World Bank loan following the results published in the EIA report in 2008. This fact was unknown to us at the time of our Phase 1 survey (which began later in 2008), and only later did we find out that there was no process by which further funds could be raised for as yet unidentified heritage resources, such as open air, rock shelter, and historical sites found in the survey. Other commentators have highlighted similar situations elsewhere in Africa and noted how cultural heritage resources are frequently sidelined in the EIA process associated with dam construction in Africa (Campbell, 2000). One of the reasons for this is that environmental and
engineering companies are the only groups in a position to win such large tenders, yet usually have little experience of cultural heritage management (Arazi, 2010). The fact that Snowy Mountains Engineering Corporation (SMEC) won the tender for the Metolong EIA and approved a very limited and incomplete archaeological assessment is a case in point (SMEC, 2008). The Metolong EIA was so poorly implemented that it failed to identify the large stone-walled settlement, Ha Makoanyane, that is well known locally and clearly visible on the ground, resulting in the destruction of a number of homesteads and middens by advanced road construction and the costly redrawing of plans by the Metolong Authority (Arthur and Mitchell, 2009a).

Discussion

The brief history of archaeology and dams in Lesotho presented at the beginning of this paper highlighted how small private companies brought in from South Africa have done little for the local development of cultural heritage management structures. More positively, we have also shown how Lesotho has developed its own infrastructure in recent years by initiating an undergraduate archaeology course and drafting and developing new heritage legislation. The MCRM project has demonstrated how such local initiatives can be supported with funds from development projects and young archaeologists trained to be competent excavators in a number of months. Large, state-sponsored mitigation programmes like the Metolong project can act as a catalyst for growth in the heritage management capacity of a region, but one project can only do so much. Unless longer-term initiatives are put in place in the near future, Lesotho will struggle to cope with the next wave of dam building.

Three major dam projects currently proposed by the Lesotho Government will require urgent attention from both the local authorities and the international community to make sure that cultural heritage concerns are identified in the planning process. The lack of a heritage component in the recently completed feasibility study for Phase II of the LHWP emphasizes the need to act quickly on this (Lesotho Government, 2010). These projects are of a sufficient size that they could lead to substantial development of Lesotho’s heritage structures and a significant increase in public awareness. It is not, however, simply a question of funds. Detailed consideration needs to be given to the overall organization of heritage management in Lesotho. In the following discussion we pull together many of the topics raised in this case study and imagine alternative ways of organizing heritage management in Lesotho. Key questions include whether small private companies are suitable for Lesotho; what alternatives exist; and how might funds be raised to support a more sustainable type of archaeological heritage management? Finally, we consider the future threat from dams in Lesotho, making reference to two contrasting situations elsewhere in Africa.

The tender-and-contract system and the use of unskilled ‘labour’

It is often said that those archaeologists working in the private sector are goal-focused, driven by deadlines, and possess a detailed understanding of client needs (Wheaton and Joseph, 2000). This may be true, but such a business-orientated approach to cultural heritage is far from ideal as companies trim down tenders to win
the contract and, in so doing, seriously reduce opportunities for training and community engagement. Another disadvantage of the commercial tender-and-contract model is the obligation to please the client, particularly when future large contracts are at stake, which may prevent them from engaging sufficiently with the public or from becoming active in political disputes that may surround large developments (Shoup, 2006). As should be clear by now, this latter concern is of particular relevance for Lesotho with the extensive resettlement schemes planned for upcoming dams.

Lesotho’s neighbour South Africa undoubtedly has one of the best-developed CRM structures on the continent with strong legislation and professional bodies to regulate practice (MacEachern, 2001; McIntosh, 1993). The profession has been growing steadily since the 1990s and preventive archaeology units are now established in most parts of the country. The growth of contract archaeology has, however, not produced a well-structured career path for young graduates or potential trainees to follow. Even the largest and longest running outfits attached to universities and museums are run by a small number of senior staff members and there are few junior archaeologists with permanent positions. Instead, untrained workers are hired as and when they are needed for fieldwork. Most excavators are given little responsibility and do not learn how to fill out the most basic of recording sheets; neither do they have the opportunity to draw plans or take photographs (Arthur, pers. obs.).

This is not the fault of the senior archaeologists themselves; unskilled labour has always been used on excavations across Africa. Moreover, in order for contract units to stay competitive they will, in the current climate, have to carry on doing so. But, if tenders are based on one archaeologist and a team of labourers, then surely they are being priced too low. Indeed, the recent publication of the Association of Southern African Professional Archaeologists (ASAPA) Transformation Charter included a commentary that highlighted this issue and called for a reduction in the use of unskilled labour and an increase in the use of trainees or interns (Smith, 2009: 89). Whether the proposed ‘transformation programme’ (Ndlovu, 2009: 92–93) will include specific guidelines for employment structure and fair salaries for all those working on archaeological sites remains to be seen.

Although — due to its unusually long fieldwork period — the Metolong project may not serve as a useful model for everyday CRM practice, it has acted as a testing ground for an alternative approach to organization and shown that much can be achieved if less hierarchical structures, interpretation-based recording systems, and fair wages are put in place. If responsibility is shared amongst junior colleagues and more archaeological jobs created, the subject would have a greater appeal to university students. Based on our experience at Metolong we suggest that CRM could, in fact, lead the transformation of the discipline as a whole if excavators and other field workers were valued as the highly skilled workers that they are and, importantly, if the entire archaeological community, led by our professional associations, takes a stand together.

**Alternatives to commercial archaeology**

Encouragingly, many South African archaeological units remain closely related to universities and museum departments and there is less of a divide between academic and field archaeologists than exists in countries with a fully privatized version of CRM such as North America or the UK and Ireland (MacEachern, 2001). Museums
and universities provide a natural environment for training and sharing of ideas and may — if care is taken to ensure enough positions for junior archaeologists — be the ideal model for Lesotho to follow. Recent, albeit small, heritage impact surveys have, in fact, been conducted by both Morija Museum and NUL, suggesting that this type of system may already be developing (Gill, 2009; Leyana et al., 2006).

Non-governmental organizations (NGOs) or charities represent another possibility for Lesotho (Chen, 2000; Van Waarden, 1996) that could work effectively alongside government, university, or museum-based heritage practitioners. An archaeological and heritage NGO or charity dedicated to monitoring natural resource exploitation could be donor-funded and possibly linked to international bodies such as the International Commission for Archaeological Heritage Management (ICAHM). The World Bank has recently committed to supporting the development of cultural heritage structures outside of specific projects (World Bank, 2006) and there are trust funds that could be used for this purpose (e.g. World Bank, 2001). Perhaps funds such as these could support groups of heritage specialists organized specifically to act as watchdogs and conduct surveys and excavations in areas under threat from extractive industries, dams, and pipeline construction.

**Long-term funding options: green taxes and corporate social investment**

Those responsible for initiating the loss of cultural heritage can also be held to account in different ways that may free up southern African heritage practitioners from their current contractual ties. In Britain, an alternative to competitive, contract-based archaeology has long been proposed in which companies that profit from destructive activities pay a fixed rate ‘development tax’ rather than fund the mitigation of individual projects (Graves Brown, 1997). Examples of this type of tax include the Landfill Tax and the Aggregates Levy, both introduced in 2002. The Landfill Tax has contributed significantly to cultural heritage projects, but the Aggregates Levy, which collects revenue per tonne of aggregate, has had the largest impact. The money generated is channelled back into environmental and archaeological projects in riverine or coastal areas where gravel extraction is prevalent. Some 357 projects across the UK (e.g. Howard et al., 2008) have now been funded in this way. An initiative similar to the Aggregate Levy could generate a significant amount of funds for cultural heritage work in parts of Africa where large corporations are involved in enormous extractive or infrastructural development projects.

Corporate social investment schemes are well established in South Africa — the Johannesburg Stock Exchange (JSE) was the first in the world, as of June 2010, to make it a requirement that all 450 registered companies report their environmental and social credentials (SAICA, 2010) — and may also represent an alternative funding route for supporting heritage projects in dam affected areas. Many of the same companies registered on the JSE are also beneficiaries of the Highlands Project’s water resources, so it would seem only logical that some of this private sector revenue was secured for cultural heritage initiatives in the region.

**A new role for heritage practitioners on large dam projects**

Advantages of out-of-project funding arrangements include the introduction of long-term employment and the expansion of research objectives to include more than
merely mitigation. Most important is the establishment of at least a degree of independence from construction agencies. This, in turn, would enable archaeologists to develop stronger ties to community organizations. One such group in Lesotho is the Transformation Resource Centre (TRC) which has done a commendable job of raising the profile of dam-impacted communities on the Highlands Project and has many years of experience recording oral testimonies (e.g. Hoover, 2001).

A more varied funding pool to deal with the impacts of natural resource exploitation would also act as a safeguard for the often flawed EIA procedure. As illustrated by the Metolong EIA, cultural heritage can be sidelined or sometimes completely ignored and so far archaeology has never featured in a feasibility study for any of Lesotho’s large dam projects. The goal for countries like Lesotho is to have enough practitioners active in the region who have no specific ties to construction activities in order to monitor government departments and other developers. With support from donor agencies such as the World Bank and UNESCO and regional, continental, and international bodies such as ASAPA, the Society of Africanist Archaeologists (SAfA), and ICAHM, much can be achieved. ASAPA’s explicit support for the campaign against mining near Mapungubwe in northern South Africa (ASAPA, 2010) is a testament to the importance of keeping professional archaeologists independent from industry.

Another successful example of archaeological organizations taking a stand is the recent Bui hydroelectric dam project on the Black Volta River in Ghana. The dam builders, Bui Power Authority, and the funders, Synohydro, were initially reluctant to support CRM initiatives, but successful lobbying on the part of University of Ghana archaeologists supported by SAfa forced compliance with the EIA procedure and enabled an extensive archaeological and community heritage project to be undertaken (Gavua and Apoh, 2010). Presenting recently at the November 2010 joint PANAF/SAfA conference in Dakar, Kodzo Gavua and Wazi Apoh spoke candidly about some of the sensitive issues with which they were confronted including the need to keep their independence from Bui Power in order to work with affected local communities. In some instances they found that villagers wrongly believed they represented Bui Power.

Archaeologists working on the Merowe Dam in Sudan have recently encountered similar misunderstandings with local communities, who closely associated them with the dam builders, to the point that they were forced to halt their excavations on a number of occasions and hand over artefacts to community representatives (Nässer and Kleinitz, 2010: 109–10; see also this volume). Reflecting on their own role in the project, Nässer and Kleinitz (2010: 114) suggest that the principal reason for the disastrous end to the project was because the archaeological teams from various universities and museums failed to involve local communities in their work.

The Bui Project presents us with a useful example of heritage work in the context of forced removals and provides a good example of how archaeologists might operate in such a politicized environment. Key to their approach is that they gave the community the opportunity to define which aspects of their cultural heritage were important. Aspects of everyday life were also recorded and detailed plans of inhabited villages were made to help with resettlement programmes. Importantly, Gavua and Apoh highlighted that community standpoints are varied and depend on
existing power relations and that one of their key roles was mediating between different communities and the dam building authorities.

Human rights NGOs working in Lesotho have claimed that the loss of ancestral landscapes is irreversible and impossible to mitigate (Hoover, 2001: 15) and heritage practitioners in Cape Town remind us how difficult it is to incorporate intangible heritage with the positivist values and technical procedures of heritage management (Malan, 2007: 16). There may, however, be a role for heritage practitioners in helping people better understand the potential impacts on their landscape, to resist development when necessary and also to cope with the trauma of resettlement and the loss of landscapes and sites. Although relocation is a relatively minor issue on the Metolong project, the impact on the river valley landscape and the intangible heritage associated with it is a serious concern. For this reason interviews conducted as part of the ongoing Phase 3 pilot survey are aimed at investigating how rural communities in Lesotho may want to define their own heritage and whether there are ways to help cultural traditions survive the impact of large dams.

Significantly, Gavua and Apoh have designed a holistic approach to heritage management that sees a place for conventional archaeological methods alongside community based practice. We hope we have shown that this is also a primary aim of the MCRM project and we do not see living heritage and archaeology as mutually exclusive. Granted there are points of contestation, as the case of the initiation school fires affecting rock art demonstrates, but negotiating these conflicts is surely the role that archaeologists have to play. We have also seen the beginnings of fruitful community participation on the Metolong project through the introduction of interpretation-based recording systems, the involvement of initiation instructors in rock art interpretation, the community identification of heritage significance at stone-walled villages, and the archaeological interpretations coming from family discussions and personal experience.

Conclusions

Lesotho’s geopolitical relationship to South Africa has limited attempts to develop a heritage management infrastructure as salaries are far higher across the border and dam builders find it easier to bring in private firms from outside rather than to have to pay for training and mentorship in Lesotho. The link between the tender and contract process that is tied to specific projects and the lack of long-term funding is also a causal factor in Lesotho’s slow development of archaeological and heritage management structures. The MCRM project presented here is designed to counter this state of affairs. Importantly, although funded by a World Bank loan to the Metolong Authority (Lesotho Government), the project is a non-profit operation and remains autonomous. This has provided the freedom to act in the best interests of all the local heritage structures, focus on training young archaeologists, and engage effectively with dam-affected communities.

The polluter pays concept should remain the cornerstone of preventive archaeology and heritage management, but exactly how the polluter is held to account requires careful analysis. The private consultancy model, which has greatly increased archaeological employment and knowledge in many parts of Europe and North America, is
often held aloft as the example to follow, but perhaps more caution should be exercised in contexts where there are inadequate structures to police consultancy work and public awareness of archaeology is limited. We should also be wary of a system that turns the polluter into the client (Aitchison, 2000: 26), especially in the context of large dams that include resettlement schemes. We advocate a more independent organization of heritage management with various and longer-term funding solutions to ensure that client or state affiliation does not restrict the potential for training, long-term employment, support of local organizations, and community involvement. Archaeologists should get used to lobbying companies and governments that profit from dams and other natural resource exploitation in southern Africa. The success of our response may well decide whether archaeology can truly become relevant by empowering rural people to act when faced with the loss of their own cultural heritage.

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