

**BRITISH ASSOCIATION FOR
BIOLOGICAL ANTHROPOLOGY
AND OSTEOARCHAEOLOGY
(BABAO)**

**Written Submission to the Working
Group on Human Remains prepared
on behalf of BABAO by
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Contents	Page No
1.0 Introduction	3
2.0 Principal factors for consideration	7
2.1 Changing socio-political and ideological parameters	7
<i>2.1.1 Changing professional and educational backgrounds</i>	<i>8</i>
2.2 Scientific development	8
2.3 The study of archaeological assemblages and specimens	10
<i>2.3.1 Human evolution and hominid development</i>	<i>11</i>
<i>2.3.2 Palaeodemography</i>	<i>12</i>
<i>2.3.3 Palaeopathology</i>	<i>13</i>
2.4 Historical research	15
2.5 Forensic applications	15
2.6 Medical and clinical applications	16
2.7 The UK as a world-leading centre of research	18
2.8 Public interest and awareness	18
2.9 NAGPRA and issues of ethics in the origin of samples	19
<i>2.9.1 Short term curation and reburial of UK assemblages</i>	<i>20</i>
3.0 Conclusions	22
3.1 Recommendations	23
4.0 Acknowledgements	26
5.0 Bibliography	27
6.0 Appendix I - BBAO constitution	31

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1.0 Introduction

The British Association for Biological Anthropology and Osteoarchaeology (BABAO) was established in 1999 (See Appendix I for the Constitution) with the intent of drawing together expertise and interest in all areas of analysis of human remains. It seeks to promote the study of human remains in the interests of bioarchaeology, comparative anatomy, palaeontology and biological, forensic and medical anthropology. It provides a forum for the exchange of ideas and information on all aspects of the analysis and interpretation of human remains from all temporal and spatial zones. BABAO includes representatives from the UK and elsewhere involved in the excavation and analysis of human remains, tertiary and post-graduate education, and curation of human remains, whether based in Universities, archaeological units, museums or other organisations. BABAO includes those involved in this discipline at all levels ranging from established high-ranking professionals, with decades of experience, international reputations and credibility, through to students. It also seeks to protect the legitimate interests of members in the pursuit of the disciplines represented.

As a fledgling organisation, there are still many aspects of the study of human remains upon which BABAO has yet to develop policies, standards or guidelines (as appropriate).

Reflecting the fact that most of our research focuses upon samples from British archaeological sites our present emphasis reflects the concerns that we have in this area in particular.

The time available to BABAO to undertake such development is constrained by two principal factors. Firstly, BABAO's committee members are all in full-time employment and many give their support to the organisation in their own time. Secondly, reflecting the poorly remunerated status of archaeology and academia as professions the membership fees are low and consequently, BABAO cannot afford salaried administrative or other support.

To-date four sub-committees have been formed with the following goals:

- to procure funding for the development of a database collating information about available skeletal material within British curatorial institutions. This will include such data as the number of individuals within each sample, provenance information including date, where the sample is held, when it was excavated etc.
- to produce guidelines for the production of assessment and analytical reports on human remains excavated from archaeological sites.
- to produce guidelines and standards in the analysis and recording of human skeletal remains.
- to advise the Royal College of Surgeons on the refurbishment of the dental museum (in response to a request from the RCS).

BABAO also plan to establish policies, guidelines and/or standards (as appropriate) in such areas as:

- ethical aspects of the analysis of human remains to include consideration of such issues as: destructive sampling; the use of human remains in teaching; the study of remains whose curation is contested by ancestor groups; the study of remains which have been obtained in the past by methods which are considered inappropriate today; research upon forensic material.

- guidelines and/or standards for field archaeologists and osteo-archaeologists on the excavation, packaging and cleaning of human remains.

Thus far, we have focussed our efforts on areas of immediate relevance and concern to our members and upon which we can legitimately and constructively act. We have not, as yet, considered it our responsibility to review such issues as the retention of contested material by museums. This reflects that this is governed within most UK organisations by legal constraints. However, the Committee consider it likely that many BABAO members support the application of the recommendations of the Vermillion Accord in respect of material that is newly excavated.

This report has been prepared by the author on behalf of BABAO, incorporating the views of members, in response to the request for submissions to the Working Group on Human Remains chaired by Professor Norman Palmer. This Group has its origins in the Select Committee Report on Cultural Property (2000).

The first documented occasion when human remains were considered ‘useful’ and consequently valued, dates from the Old Testament when Jezabel was identified from her hands, feet and skull (II Kings 9: 30-37). While being doubtful that contemporary methods would satisfy today’s judicial system, what is apparent from the biblical reference is that past peoples were aware of some aspects of the information inherent within human remains. It is clear from archaeological assemblages that, from the Upper Palaeolithic into the historic period, human remains *per se* were valued as a resource in cultural and political terms and consequently utilized within society (i.e. selected and modified) ritually, or otherwise. A more recent example being the collection and display of holy relics by the Catholic Church. As such present-day curation of human remains in museums is following well-established practice albeit for different reasons.

A key premise exists for the long-term, if not permanent, curation and retention of existing and forthcoming collections of such remains in UK museums and other curating institutions such as universities (for the sake of simplicity they will all be referred to as

museums within this document). This lies within the fact that each generation of researchers reinterpret the past, in this case, human remains, within their own cultural framework and within the constraints of contemporary methodologies whether macro- or microscopic, or chemical. That said, even within each generation of researchers changing socio-political, ideological, scientific, technological and other parameters shift research emphases to reflect new preoccupations and research agendas, and new opportunities. As such, it is considered vital that collections of human remains are retained within our museums representing the broadest possible spatial and temporal range. This scientific imperative is placed within an era when general interest in understanding past lives from human remains has unprecedented levels of public support from grass-roots level and above.

2.0 Principal factors for consideration

The rationale for retaining existing and forthcoming collections of human remains within *bona-fida* institutions is various and most categories in which value can be expressed cross over into others. What follows is a brief description of the principal categories of value into which the analysis of human remains fall. This is combined with an explanation of why collections (and individual specimens) of such remains should be considered an irreplaceable and unique collection of material for the legitimate pursuance and enhancement of scientific and humanities based research.

2.1 Changing socio-political and ideological parameters

As would be expected, prior to the mid-twentieth century more recent analysis of human remains focussed upon areas of research that were expressions of contemporary socio-political concerns and preoccupations. Consequently, the collection and retention of human remains focussed upon ‘different’ ethnic groups, remains recovered from high status sites (e.g. Egyptian and pre-Columbian mummies) and anatomical elements (such as skulls) which were considered important in addressing contemporary concerns (e.g. ‘white’ supremacy). In obtaining such collections, contemporary values (e.g. nationalism, imperialism etc.) and standards pertained, leading to the acquisition of materials that might not be acceptable in light of current values. However, today’s researchers continue to study those remains, asking different questions of the same materials, questions that are entirely legitimate and achievable within today’s socio-political framework and utilizing available scientific approaches.

The mid- to late-twentieth century saw a more comprehensive strategy applied to the acquisition of assemblages, albeit frequently underpinned by the serendipitous nature of archaeological opportunities, and more latterly the influence of planning policies (PPG 16, Nov 1990) upon excavation. This strategy also reflected a broader range of academic interests, which encompassed research upon all socio-economic groups, and special sites

such as hospitals (e.g. Price R, Ponsford M, 1998) and monasteries (e.g. Kemp R, Graves CP, 1996).

2.1.1. Changing professional and educational backgrounds

Since the 1980s, the educational and professional backgrounds of practitioners in the study of human remains has shifted from being predominantly medical to a more balanced position today whereby more than 50% of all practitioners hail from archaeological backgrounds. This has resulted in a shift of focus in the emphasis of research moving away from disease, health and the history of medicine to incorporate such aspects of past lives as demography, cultural practice, diet, and mortuary ritual, as well as such subjects as taphonomy and diagenesis. This transition also witnessed a shift from case study based research to more meaningful population studies, and beyond that to broad-based epidemiological approaches demanding inter-population studies. The author of this report has recently been awarded a grant to study peri- and post-mortem modification of human bone from prehistoric assemblages held in UK museums. It would have been impossible to obtain such funding twenty (or even ten) years ago. The important point here is that had the bone assemblages in question been reburied or repatriated after the initial analysis, re-evaluation of them with new research objectives, and new methods, would have been impossible.

2.2 Scientific development

The range of analyses applied to both pre-existing and more recently acquired collections, in the last decade or so, has been influenced greatly by rapid technological and scientific advance. This development has provided methodologies, and consequently results, that offer insights into new areas and into aspects of human lives that were hitherto inaccessible because of the lack of appropriate methods. The academic importance of such scientific work on human remains is reflected in the many studies published in scientific journals around the world (e.g. Tohme JF *et al.* 1997). Britain is

indisputably one of the leading world centres for scientific work on human remains. This is due in no small part to the large collections available for study in UK museums. The emergence of new research directions and the development of new analytical techniques (such as amplification of ancient DNA) means that new information may be obtained from existing collections of skeletons, and that consequently, UK museum collections continue to attract researchers from all over the world.

An example of the application of new methodologies to museum collections can be seen in research recently published (Buckley SA, Evershed RP, 2001) on chemical analyses of embalming agents used in Pharaonic and Graeco-Roman mummification. This article has achieved widespread publicity in the national and international media. Buckley and Evershed's samples included human tissue as well as samples of mummy wrapping. These samples were provided by the British Museum, the National Museum of Scotland and the city museums of Manchester, Liverpool and Bristol. Without continued retention and curation of such samples by the institutions in question, this work and the advances in knowledge and understanding it represents, would not have been possible.

There is continuing scientific value in museum collections because new techniques of investigation continue to be developed and applied to existing research problems. Furthermore, entirely new scientific questions emerge as science develops. Consequently, new generations of scientists continue to return to UK museum collections to address emerging research topics. While it is possible to substitute such modelling approaches as CT-imaging and replicas for actual remains in some morphometric studies, they are totally unsuitable for most research because they lack the resolution required for detailed histological and other types of sub-macroscopic examination (e.g. trabecular structure, perikymata, diagenesis, palaeohistopathology). Replication and images cannot be used for DNA studies or for bio-chemical analyses (e.g. isotope analyses for dietary reconstruction and provenancing). Without representative collections of human skeletal material from different periods and regions, we will simply be unable to answer fundamental questions concerning human origins, variation and biology in the future. A specific example here could be the continued retention of native Tasmanian skeletons.

These now provide research opportunities that were inconceivable at the time of their collection. Because of the extinction of the living population, the preserved Tasmanian skeletal remains are irreplaceable and represent a unique source of genetic information to which DNA analysis can be applied, as well as providing an important research collection for future scientific research.

Given the pace of scientific advance, it is BABA O's view that long-term curation of such remains is essential, if for no other reason than the impossibility of devising a selective reburial policy that could have any validity other than in the immediate present. In this context in particular, it is impossible to know which of our assemblages of human remains are likely to assume prime importance in years to come. Neither can we predict the nature of the techniques for sub-microscopic and chemical analysis of human tissue that will be devised even within the next five years, or the questions that will be addressed by their application. Such is the current pace of the advance of science and the consequent need to retain our collections of human remains.

2.3 The study of archaeological assemblages and specimens

Human skeletal material (and other types of human remains such as mummies and bog-bodies) curated within our museums is essential evidence if we are to gain a fuller understanding of various aspects of particular societies at certain times in our past. This is illustrated by examples of recent textbooks (e.g. Mays S. 1998; Larsen CS, 1997). The importance of human remains in archaeology is also illustrated by the fact that their study is a component of almost all undergraduate archaeology courses offered by British universities (thirty plus in total). Further to this, a burgeoning number of taught masters courses, covering various aspects of scientific work on skeletal remains, is taught by those universities offering specific areas of expertise in the analysis of human remains (e.g. Bournemouth, Bradford, Sheffield, London, Southampton, Birmingham, Durham). This increasing post-graduate provision means that for the first time, we now have a sufficiently large scientific community of well-educated and appropriately trained

researchers in the analysis of human remains. As a consequence we are now in a position to ensure that many assemblages that have not been used for research in the recent past, can be (re-) examined in light of new research agendas and using new scientific approaches.

A wide range of topics falling within archaeological research frameworks can be enriched by the analysis of data from human remains, which can then be combined with understanding obtained from other archaeological approaches. These include such areas of interest as the examination of population movements and migrations (e.g. Mays S, 2000) cultural practice such as infanticide (e.g. Mays S, 1995) and gender issues (e.g. Grauer, AL, Stuart-MacAdam P, 1998). Even less palatable aspects of human nature can also be addressed such as warfare, weapon technology and use (e.g. Fiorato V *et al.* 2000). Such research may involve the examination of human remains from a single location to establish site-specific cultural practice, or from several sites to assess temporal change in topics such as warfare. Alternatively, particularly for understanding larger-scale patterns of variation, it may involve comparison of remains from many locations in different parts of the world to look at the influence of such factors as environment and migration.

2.3.1 Human evolution and hominid development

Studies of large collections of human skeletal material from different periods and regions are vital to the investigation of human origins and evolution, and help to explain variations in morphology through time and space. Recent skeletal material (i.e. late prehistoric to medieval) is important in studies on hominid evolution, by providing evidence for the final evolutionary phase of Homo and the micro-evolution that has taken place in different geographical regions. For example, the evolutionary position of the Niah skull from Borneo (Sarawak) can only be assessed by reference to more recent examples from such regions as China, Indonesia, Australia and Tasmania. Representative samples from these divergent areas are therefore needed in major collections. Other research ranges from studies on pre-modern humans, such as the Neanderthals, through to

examination of relatively recent populations, seeking to explain patterns of variation, the impact of diet and disease, and the nature of interactions with the environment. At one end of the time scale, there is palaeontological research on our hominid ancestors and close relatives, where the morphological range of recent humans provides a fundamental framework through which to assess past populations. As an example, several recent studies have shown that Neanderthals grew and matured in a manner distinct from living humans (e.g. Ponce de León MS *et al.* in press; Thompson JL, Nelson AJ, 1998). Such a conclusion would not have been possible without the availability of a range of recent human samples as comparative samples. Similarly, the availability of modern material for understanding human variation in skeletal and dental development is crucial for addressing other important evolutionary issues. These include such studies as that investigating the possibility that the Lagar Velho child remains represent a hybrid form (Duarte C *et al.* 1999).

Collections of human skeletal material from different periods (including more recent) and regions provide essential comparative evidence in understanding a wide range of scientific questions on early hominid development and other evolutionary issues. Some of the remains in museum and university collections are from regions of high genetic, linguistic and cultural diversity and were collected at a time when the population groups they represent remained in a state of relative isolation. It cannot be stressed strongly enough that these well provenanced and dated collections are irreplaceable, and most are unique. The significance of their loss to the scientific community would be immeasurable.

2.3.2 *Palaeodemography*

Assessment of biological sex, age at death and parity status are all crucial variables in the determination of mortality and fertility rates and change in these through time and space. As with so many areas of our research, this is particularly crucial for periods before which surviving and representative historical sources serve to provide an alternative source of information. The study of population dynamics in past populations from their

mortal remains is, however, one of the most difficult aspects of the analysis of human skeletons (e.g. Cox M, 2000; Cox M, 2001). This lies in our current inability to accurately determine age at death of adults dying over the age of thirty. (At which time skeletal maturation is complete and after which ageing subsequently depends upon assessment of degeneration and remodelling which are neither linear, constant or predictable.)

It is now generally accepted that previously published determinations of mortality profiles of archaeological assemblages of human remains are flawed, over-ageing young adults and under-ageing the over-forties. As such it is imperative that skeletal samples currently held by museums are retained for accurate age determination, at such a time in the future when this can be reliably undertaken. It should further be stressed that age at death is crucial in understanding the significance of trends in the prevalence rates of disease and trauma affecting bone and teeth in the past in different regions of the UK and the rest of the world, and changes in such trends in health through time.

2.3.3 Palaeopathology

Palaeopathology is the study of the evolution and progress of disease and health through time, and examines how humans adapt to changes in their environment. Numerous general texts have been published on this subject (e.g. Roberts and Manchester, 1995; Roberts and Cox, in press) as well as articles in a broad range of international academic journals. Initially, the focus of research in palaeopathology was on single ‘interesting’ skeletons by dentists and medically trained practitioners with no archaeological background. Since that time, palaeopathology has developed into a sophisticated discipline utilising a myriad of scientific techniques to study the aetiology and nature of disease in contrasting populations, both in their own right and to address broad archaeological questions. Key to the development of the discipline are the pathological specimens held in many medical schools throughout the UK. For example, collections in the Royal College of Surgeons in London and Edinburgh, and University Museums such

as those in Leeds and Oxford, all of which provide invaluable examples of skeletal pathology in individuals whose clinical history is documented.

Collections of known-age and sex individuals from post-medieval contexts are rare and their continued availability to researchers is vital if such questions as age related and male-female susceptibility to disease are to be addressed with confidence, and aspects of human ecology explored. A recent study on the post-medieval sample of Christ Church Spitalfields, held at the Natural History Museum in London has provided primary evidence for the deterioration of child health during the Industrial Revolution (Lewis ME, in prep). Recent research into Egyptian mummies held at the Manchester Museum has advanced our understanding of the epidemiology of *Bilharzia* (parasitic Schistosomiasis). With the Ministry of Health in Egypt and the Medical Service Corporation International in the US, UK researchers have, for the first time provided a detailed study of a disease in a discreet population over a 5000-year period (Contis G, David, AR, 1996).

Scientific advances contribute to this aspect of research in many and varied ways including the extraction of aDNA. This research examines the pathogenesis of such bacterial diseases as leprosy, tuberculosis and syphilis. The appearance of bone changes indicative of treponemal micro-evolution (e.g. syphilis) is of particular interest at present. It is already clear in this ongoing area of research, that a treponematosis was present in pre-Columbian Europe, and a different aggressive form in the Americas and eastern Asia. In this respect it is unfortunate that some Tasmanian and Australian aboriginal material that displayed treponemal changes, held by Edinburgh University, was repatriated without being examined using such an approach and is now lost to science.

Research in palaeopathology, as with all aspects of analysis of human remains, is carried out by scientists cognisant of the value of this material, and with a profound respect for the remains that they handle.

2.4 Historical research

Archaeological evidence can contribute significantly to historical studies from the medieval and post-medieval periods when they both supplement and provide a counterpoint to historical sources. An increasing number of assemblages from the later periods are now being excavated and these offer invaluable opportunities for enhancing our understanding of the health and life styles of later populations. They also provide samples on which to assess a wide range of variables including such topics as: examination of the impact of rural / urban differences in living conditions, the impact of advances in medical and dental treatments (Cox MJ *et al.* 2000) and of increased industrialisation on adult health (Waldron HA, Cox MJ, 1989). What is unique about such periods is that we have abundant written sources to underpin our analyses and interpretations and against which to test hypotheses.

Further to this, some later assemblages are of known identity (i.e. recovered with associated legible coffin plates) and biographies can be reconstructed for such individuals from genealogical sources. These known identity samples provide a unique and internationally important reference collection against which to test existing methods for accuracy (e.g. sex and age determination) and upon which to develop and evaluate new methodologies. This has been demonstrated most significantly upon the Christ Church, Spitalfields collection held by the Natural History Museum, London (Molleson TI, Cox MJ, 1993; Cox M, 1996) which continues to attract large numbers of researchers from around the world (Humphrey, pers. comm.).

2.5 Forensic applications

Much of the science that underpins forensic anthropology is developed and extrapolated from biological anthropology and has been developed upon archaeological samples, including some of known age and sex. This also pertains to such issues as our understanding of disease and trauma as they apply to forensic cases in the developing

world. Our knowledge of the impact of chronic disease processes upon skeletal tissues, when they are not mediated by modern pharmacological and surgical interventions (such as tuberculosis, leprosy and syphilis), is based upon archaeological data. The same is true of healed trauma such as fractures and dislocations, as well as weapon injury.

Similarly, understanding of the survival and decomposition of bone in buried deposits is enhanced by archaeological observation, which can then assist in our interpretation of modern cases. One such case-study, based upon four archaeological assemblages currently held by three different UK institutions (English Heritage, the Museum of London and Bristol City Museum), provided material and data which was then contrasted with evidence from a modern forensic case (Cox MJ, Bell LM, 1999). The results of this analysis will prevent missing skeletal elements from being misinterpreted in future forensic cases.

It should be stressed here that this case did not involve direct analysis or sampling of the forensic remains. The analysis was based upon data recorded by the forensic pathologists examining the remains for the court. While BABAO have yet to develop their ethical statement about such matters, it is inconceivable that it will ever condone using forensic material for research other than in exceptional cases. Such research could only take place where to do so would not prejudice the evidential value of the remains, or prevent further analysis by experts for the other side, and where both the victim and their relatives have consented to such work.

2.6 Medical and clinical applications

The enormous potential of the diachronic dimension to medical research, and the potential of archaeologically contextualized material to look at such matters, is only just beginning to be appreciated. Consequently, the study of museum collections of human skeletal remains enhances our understanding of some disease processes, which increasingly affect people today with consequent rising resource implications for modern

society. An example here is osteoporosis, a metabolic disorder that has huge resource implications for UK health services. Amongst medical researchers, the role of modern life-style factors in influencing the severity of osteoporosis is much debated.

Investigating this disease in earlier European populations, who are similar in their genetic make-up to modern Europeans, but who had very different life-styles, has helped to shed light on this condition. Although research in this area is ongoing, it seems at present that many earlier populations suffered from the disease to a similar extent to modern subjects, thus throwing doubt upon whether the course of the disease is greatly influenced by life-style (e.g. Mays S, 1999).

BABAO have no knowledge that this type of research has yet been undertaken on aboriginal material held by UK museums. However, it is entirely possible that changing research agendas and developing scientific approaches will lead to such studies. The potential value of archaeological human remains, when investigating aspects of disease in the modern descendant group, has been demonstrated by anthropologists from the United States. (<http://www.peak.org/csfa/mt13-1.html> - accessed 22 Nov 01) This has focussed on the aetiology of non-insulin dependant diabetes mellitus, a chronic disease that is becoming increasingly prevalent in the modern Pima people, an Amerindian population largely located in the Southwest. Work has shown that the susceptible genotype was actually selected in North America (as a result of a 'thrifty gene') rather than being due to a 'founder-effect' (where a genetic trait is present in the first settlers and their descendants). This may reflect that the diabetic genotype was an adaptation to a particular environment where food shortages were common. This type of research potentially provides the key to improving the life-style and health status of present and future populations.

A different area in which museum collections play a valuable role is the analysis of aDNA from infecting micro-organisms. This is amplified from diseased ancient bones and such research may provide important insights into the evolution of pathogenic micro-organisms which cause diseases that are of importance today. These include such conditions as tuberculosis (e.g. Sola C *et al.* 2000).

2.7 The UK as a world-leading centre of research

A key-member of BABA0 (Dr Simon Mays) sits on a committee over-seeing access to human skeletal collections in York. In his capacity as human skeletal biologist for English Heritage (since the late-1980s) he has also supervised access to collections excavated from English Heritage sites. Over the years he has, in each of the above capacities, received many requests for access to collections from researchers based in Britain and around the world. These amount to about fifty per year, which by extrapolation would be consistent with more than a thousand requests for access to skeletal remains per annum to museums and other institutions over the whole of the UK. Failure to retain remains for the future would mean that we would lack the material upon which to continue current research and to maintain the UK's leading position in scientific work in this field.

In light of the present rate of scientific advance, there is a more general ethical principle in scientific research that is relevant here. Specimens should, as far as is reasonably possible, be made available to *bona fide* researchers for a sufficient period of time so that studies can be repeated and findings replicated by other workers. The threat of repatriation and potential removal of important materials from the research community, especially if undertaken in haste, violates this ethical principle and may damage the integrity of scientific research in our discipline. It will also diminish the role of the UK as a leading centre of research in human remains and this is undesirable.

2.8 Public interest and awareness

The study of human remains from archaeological contexts enjoys widespread support from the general public whose interest and enthusiasm is reflected in the success and popularity of a wide range of television programmes. These include such popular genre as BBC2's 'Meet the Ancestors', Channel 4's 'Time Team' as well as more specialist approaches included in such series as Channel 4's 'Secrets of the Dead' and other

occasional documentaries. Further, museum displays such as the recent (1999) 'London Bodies' exhibition at the Museum of London attracted a huge audience.

It is an undisputable fact that recent media interpretations of past lives focussing upon human remains have done much to increase public awareness of the science involved in the analysis of such remains, as well as increase public interest in past lives *pers se*. In light of such support it would be untimely to initiate any disposal or repatriation policy, particularly one in which those responsible for the analysis and interpretation of such remains have only been peripherally involved (see 3.0 below).

2.9 NAGPRA and issues of ethics in the origin of samples

We have all heard seemingly legitimate objections to the curation by British universities and museums of foreign aboriginal skeletal remains along the lines that many have lain on shelves for perhaps a century after the initially prescribed observations and measurements were made. However, scientific advances made during the interim ensure that their value to research continues and we are now in a position where there are enough appropriately trained scientists in the field to re-examine such remains using modern methods to address contemporary research agendas.

Within a UK context we are fortunate in being free of the political manipulation of NAGPRA (Native American Graves Protection and Repatriation Act, 1990) and its glaring excesses (Ackerman DW, 1997; NAGPRA, 2000). UK researchers are also fortunate that we are not yet directly affected by the complex issues and precedents set by the Kennewick fiasco (Gugliotta G, 1999; Chatters JC, 2000), neither have we had to deal with such absurdities as the forced re-burial of European colonists excavated in an area currently claimed by one of the Amerindian nations. Having said this, even though such actions as described above thwart present and future scientific research, it is not difficult to understand why the groups who presently wield such power do so as a mode of revenge for arrogant colonial oppression in the past. However, it is possible to press this

indignation too far and revenge is no justification for past wrongs, neither does it redress them. The deliberate extermination of the aboriginal population of Tasmania by the end of the nineteenth century is an appalling crime by any standards and amongst the worst atrocities of colonialism. In this particular case, these facts, appalling as they are, render demands for the repatriation of remains of Tasmanian origin empty. Strictly speaking, the Tasmanians were a geographical isolate and have left no descendants to claim their remains.

The place of the nature and mode of acquisition of a collection, in determining its future, is something that demands extremely thorough examination. NAGPRA, while well intended as a means of redressing socio-political imbalance and injustice has led to the decimation of US museum collections of human remains and of associated archaeological artefacts. Clearly, such a situation is undesirable within a UK context for the reasons set out above. Furthermore, because a collection was instigated or obtained through mechanisms that we today might find unacceptable, does not automatically mean that we should consider consigning it to repatriation. Perceptions of acceptability change within and between generations. While it is entirely appropriate that we should now have collection policies that are underpinned by ethical and moral constraints, to apply these retrospectively will not redress the sins of ‘our fathers’ but merely deny opportunities of scientific research and endeavour, which is itself unethical and wasteful of a precious and irreplaceable source of scientific information. In fact, it could be argued that we are beholden to justify the original collection and subsequent retention of such materials by ensuring that they continue to be utilised in addressing contemporary research issues, many of which may benefit descendant populations.

2.9.1 Short term curation and reburial of UK assemblages

The last fifteen to ten years of UK archaeology, particularly in England, have witnessed an insidious development in curatorial policy towards human remains. Whereas previously remains that were considered important enough to warrant excavation and analysis would have automatically been subject to long-term curation in an appropriate

institution, the last ten years have seen the gradual move towards short-term retention. In such cases reburial has followed what is often little more than a very cursory analysis and recording exercise (e.g. Kingston-upon-Thames Quaker Burial Ground, Start H, Kirk L, 1998) or no analysis at all (e.g. Broad Street, London). The reason for this shift in policy is often that of limited resources but this can only take place within a socio-political and intellectual framework that facilitates such practice. It is possible that the reburial movement in such places as the US, Australia and Israel has insidiously affected the sub-consciousness and subsequent responses of UK planning policy advisors dealing with archaeology within the planning and development process.

What is objectionable about this apparent change of policy is that it has taken place without any discussion amongst the wider archaeological and anthropological community. The debate about the long-term retention and curation of human remains is one that should happen given the financial and ethical considerations that it raises. However, until it takes place, the knee-jerk impulse to rebury should cease until all legitimate users have engaged in a full and considered debate about the subject. The argument put forward by some curators that reburial will allow future re-excavation and subsequent analysis by researchers is misplaced and naïve. To excavate bone that is in a state of equilibrium with its burial environment from a (generally) moist but stable substrate, cleaning it and allowing it to dry out alters the bio-chemical status of the bone. If it then remains cool and dry little further deterioration will occur, but if it is then replaced in the ground, further unquantifiable deterioration and dissolution of bone mineral will take place. On the same theme, the occasional rafting of burial grounds as a means of not disturbing human remains is also unacceptable archaeologically and, I would suggest, ethically. The process of rafting (or piling) to facilitate development will affect site hydrology and consequently the biochemistry of the substrate. This will in turn lead to the deterioration of buried human remains. This situation is in itself unethical. If the resources do not exist to properly excavate, curate and analyse human remains then they should not be excavated, nor should they be compromised by engineering solutions for which the archaeological consequences are unknown but which are predictably deleterious.

3.0 Conclusions

It is the view of BABAO that human remains currently held within UK museums, universities and other specialist institutions such as the medical colleges represent a unique and irreplaceable resource for the legitimate pursuance of scientific and other research. Such research falls within a wide range of disciplines ranging from archaeology through to clinical applications. BABAO considers that UK collections of human remains, from all temporal and spatial regions, in different forms of preservation ranging from skeletons to mummies, should be retained in UK museums as an accessible resource for legitimate researchers from around the world for the foreseeable future. The broad categories of value and issues for consideration are bulleted below and set out in detail in sections 1.0 and 2.0 above.

- Opportunities for new areas of research presented by advances in scientific methodologies which in itself generates new research agendas
- Changing socio-political, ideological and professional parameters
- Each generation of researchers reinterprets the past
- Public interest and support
- Contribution to archaeological knowledge and understanding
 - Human evolution and hominid development
 - Palaeodemography, population studies
 - Palaeopathology, the aetiology of disease and the history of medicine
- Contribution to historical research
- Forensic applications
- Medical and clinical applications
- UK standing as a leading centre of research of international standing
- The current political and intellectual framework imposed by NAGPRA, and other ethical issues

3.1 Recommendations

3.1.1 In light of the information contained in this report and the weight of expertise and experience that the report represents, BABAO considers it appropriate that the **WGHR support its recommendation for the retention of all human remains currently curated within UK institutions and museums.**

3.1.2 Should the outcome be different from that recommended in 3.1.1, and the WGHR decide to recommend the repatriation of some specimens or collections currently held within our museums, we make the following recommendations:

- If the WGHR decide that it is appropriate to repatriate remains to legitimate descendant groups we recommend **that this should only be permitted if the claimant group can demonstrate a legitimate claim to the material that is beyond reasonable doubt and based upon biological ancestry.**

In such cases, the descendant group must also be able to guarantee curatorial policies and resources that will ensure the following:

- **That the material remains readily accessible and available to legitimate researchers from around the world.**
- **That the remains are curated in a manner that will not compromise their research potential** (i.e. cultural practice that will prevent further analysis e.g. anointing the remains with oils and smoking, the first of which will jeopardise the potential for general biomolecular analysis and the second for C¹⁴ dating).

Furthermore, it is a matter of considerable concern to BABA0 that a decision to repatriate some remains could be misinterpreted by planning and development control officers, and developers. Hypothetically, in light of such a decision it is not inconceivable that when considering forthcoming development schemes (on sites that will yield human remains), such a decision might be interpreted in such a way as to allow developers to gain planning consents without the requirement for the human remains to be subject to an appropriate archaeological response. This could result in the loss of materials, information and scientific opportunities with human remains being exhumed and reburied or cremated without an adequate programme of analysis and curation, as is required by PPG 16. In light of the potential loss of unique scientific resources, we make the following recommendation:

- **That BABA0 have the opportunity to review and comment upon the WGHR's findings prior to publication** in order that we might assess the possible impact of any such form of words within such contexts as the planning and development arena.

3.1.3 BABA0 also considers it appropriate that the **WGHR should recommend that a policy be developed and adopted within the UK considering the future of all unexcavated archaeological human remains within the UK.** Such a policy should be developed out of broad based and full consultation with all legitimate interest groups. Those groups would include representation from such interests as archaeology, anthropology, museums, medicine, forensic science, the history of medicine and disease, the law and representatives from relevant religious and other cultural organisations.

3.1.4 We would like end this report by respectfully restating the point made in the letter, written by the author of this report, to Professor Palmer (dated 18th June 2001). It continues to be unfortunate that the WGHR contains no member who is directly involved in the archaeology and analysis of human remains. Such specialists have a legitimate interest in the outcome of the Group, and much relevant expertise and knowledge that would only serve to enhance the ability of the Group to arrive at findings that represent a balance of opinion of those directly.

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6.0 Appendix I

BABAO Constitution

1. The name of the organisation shall be The British Association of Biological Anthropology and Osteoarchaeology.
2. The object of the association is to promote the study of human bioarchaeology and for the purpose of understanding the human condition from the past to the present. The association aims to provide a forum for the exchange of ideas and information on these topics and improve standards in all aspects of the study of the biological remains of past and present peoples.
3. Membership of the organisation will be open to all those interested in these areas of study.
4. The first annual subscription shall be paid by members on joining the association and thereafter on 1 February each year.
5. An annual general meeting will normally be held at the end of the summer. The agenda for the meeting shall be distributed to members at least 30 days in advance of the meeting.
6. A special general meeting may be called at any time by the managing committee or by ten members of the organisation on application to the managing committee. At least thirty days notice of the dates and purpose of such a meeting must be communicated to all members, only items for which the meeting was convened may be discussed.
7. At annual general meetings and special general meetings twenty members shall form a quorum.

8. Each member of the organisation who is present at a general meeting shall have one vote. Members who are unable to attend may appoint a proxy. A signed statement appointing a proxy must be given to a committee member before the start of the general meeting to which it applies, and must be renewed for any further meetings.
9. The amount of the annual subscription can only be changed by vote at the annual general meeting.
10. The affairs of the organisation shall be handled by a management committee, which shall include eight executive members, and a maximum of two non-executive members.
11. Each member of the management committee may choose to serve for two or three years (membership secretary and treasurer may serve for five years). No more than five members of the management committee may stand down from their posts in any one year. Members of the management committee must stand down after ten years continuous membership on the committee.
12. The managing committee shall have the power to co-opt to fill any vacancies that may arise in the managing committee until the next Annual General Meeting.
13. At meetings of the management committee four members shall form a quorum.
14. The managing committee shall receive and keep account of all monies of the association. They shall produce accounts for each year ending 31 December, and submit these to the next annual general meeting. All monies received for the association shall be paid into such banks as the managing committee shall appoint.

15. The organisation shall not be dissolved except at a special general meeting called for that purpose. The motion for the dissolution must be agreed by at least two thirds of the members present and by at least half of the total membership.
16. In the event of dissolution the funds and other properties of the organisation, after payment of all proper debts and liabilities, shall not be distributed among the members of the association, but shall be given or transferred to a charitable institution appointed by majority vote of those present at the special general meeting.
17. Any proposals for amendments to this constitution must be submitted to a general meeting. The text of the amendment shall be circulated with the notice convening the meeting. Any such amendment must be agreed by at least two thirds of the members present.