



MORE THAN JUST BONES

ETHICS AND RESEARCH ON HUMAN REMAINS

HALLVARD FOSSHEIM
(ED.)



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*The Norwegian National Research
Ethics Committees*

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Introductory remarks

HALLVARD FOSSHEIM

Research involving human remains presents complex challenges. For the archaeologist or anthropologist, for example, the remains represent among other things a source of knowledge about people and places, conditions and developments. However, the remains also represent the individuals from whom they originate. And while the dead can no longer be hurt or mistreated in the same way that the living can be hurt or mistreated, there are still strong and obvious reasons for treating them with some level of conscientiousness and consideration. Perhaps most obvious among these reasons is the notion of respect for the individual.

In practice, we do treat the body as an important aspect of the person. For instance, often when we say ‘I’ or ‘me’, it is our own body we have in mind—think, for example, of ‘He had a bath’, or ‘I was injured in the car accident’. And many of us have opinions about how we would like our bodies to be treated after death. (Many more of us, perhaps, have opinions about how we

would like the bodies of our loved ones to be treated after their death.) Acknowledging that others have such opinions too, we should also acknowledge that we have reason to respect them by respecting their bodies.

In the context of research involving human remains, this already lands us with several issues that are difficult to solve. For one, there is the issue of knowing what the person ‘behind’ the remains would have wanted, or what he or she would have found unacceptable. There is also the question of how sensibly to express such respect within the range of cultural alternatives afforded us today, as well as factors that might weaken the ethical demands on the researcher: we tend to feel that with time, for example, something alters as far as the level or expression of respect is concerned—we see an ancient mummy as different from a body interred in 1992.

Cutting across all of these issues is the undeniable fact that the bodily remains of a human being rarely, if ever, represent only the individual in question. In life, we represent ourselves through a variety of overlapping identities. We are individuals and family members, we belong to national and ethnic groups, and we have various religious and ideological affiliations. To varying degrees, these facts stay relevant after an individual’s death. This means that a lack of respect or consideration concerning a set of human remains can also constitute a lack of respect or consideration for a set of descendants, an ethnic group, or a nation.

Crucial for treating human remains with respect, then, is possessing insight into the cultural, political and historical contexts from which they stem. The dead are silent in some central

senses of the term—they do not sign declarations of consent or give verbal interviews—but in other ways, they can still speak to us. It is the researcher’s responsibility to listen, in this extended sense, and ensure that the remains in question are treated with the appropriate respect. In practice, this means that it is the researcher’s responsibility to strive to familiarize herself with the complexities of the relevant contexts. These contexts sometimes include the history of the scientific disciplines represented by the researcher.

Another, but related, set of ethical issues concerning research involving human remains has to do with the value of the research itself. As research material, human remains are also a non-renewable source of knowledge. Research practices that deplete this resource through destructive sampling of unique material can in some cases threaten our access to a shared heritage. Especially problematic are instances where such research is carried out without proper regard for all the relevant questions, methods, and competencies. Furthermore, ongoing developments in, for example, methods for DNA and isotope analysis remind us that tomorrow’s research possibilities can be expected to permit insights not readily available today. This makes ethically relevant a proper regard for the future scientific community and, more broadly, for tomorrow’s human community.



It is our hope that each of the contributions to the present volume will lead to reflection and debate concerning these and related

research ethical issues. ODDBJØRN SØRMOEN, Chair of the Norwegian National Committee for Evaluation of Research on Human Remains during its first four years, reflects on the committee's experiences. INGEGERD HOLAND of the Norwegian Directorate for Cultural Heritage and INGRID SOMMERSETH of the University of Tromsø, both of them members of the Norwegian National Committee for Evaluation of Research on Human Remains, discuss historical and ethical issues from Norway. SEBASTIAN PAYNE, formerly at English Heritage, presents experiences from the United Kingdom. KJELL-ÅKE ARONSSON, Ájtte Museum, shares historical and ethical issues from Sweden. NIELS LYNNERUP, University of Copenhagen, discusses the Danish—which is to say also the Greenlandic—developments. ERIKA HAGELBERG, University of Oslo, focuses on issues and developments in aDNA research. MALIN MASTERTON, Uppsala University, presents an overarching argument for respecting the dead. BERIT SELLEVOLD, formerly of the Norwegian Institute for Cultural Heritage Research, provides a concrete analysis of research ethically relevant factors pertaining to the state of human remains.



This volume grew out of an open seminar organized by the Norwegian National Committee for Evaluation of Research on Human Remains, part of the Norwegian National Research Ethics Committees, on 20 October 2010. Gratitude is due to both contributors and secretariat for their competence and diligence in the production of this volume.

'To balance the rights of the living and the dead': Reflections on issues raised in the Norwegian National Committee for Evaluation of Research on Human Remains

ODDEBJØRN SØRMOEN

Most of us will agree that when it comes to self-awareness and human rights, and the value of women and men, the times have generally changed for the better, except for some obvious setbacks. As the awareness of the value of humans has increased, dramatic and rapid changes in many sciences have also put ethical values under increased pressure. What was unthinkable yesterday is now easily taken for granted. The scientific innovations in the field of medicine and genetics often call for caution, because they endanger the integrity of individuals or groups.

In her book *Human Remains. Episodes of human dissection* (Melbourne University Publishing, 2005), Helen MacDonald tells

the scandalous story of how medical practitioners obtained the corpses upon which they worked before the study of anatomy was regulated in Australia and Britain, in the 18th century. Convicted murderers received the double sentence of both death and dissection. The poor who died in hospital were routinely turned over to surgeons as study objects, and men traded in human remains, including those of Aborigines. The book seems like a horror story, but similar things also happened here in Scandinavia and Norway not too long ago.

The Kautokeino rebellion of 1852 resulted in the beheading of the two Sami leaders. The heads were sent to the Institute of Anatomy at the University of Christiania, now Oslo, to be used for scientific purposes. Later on, Sami graves were exhumed for the purpose of science, which at that time meant race research, and the remains sent to the university collection. The most infamous case is the exhumation of 94 Samis at Neiden in 1915, in spite of local protests. These remains were reburied as late as 2011.

The fact that the Ministry of Education and Research set up The National Committee for Research Ethics on Human Remains in 2008, is in itself a result of the growing awareness of the complexity of these issues.

BALANCING THE INTEGRITY OF THE DEAD AND THE THIRST FOR KNOWLEDGE

It is not difficult to understand the Sami reactions, knowing the story behind this particular collection. However, the case has made it possible to reflect on not only the scientific value

of human remains in general, but also on the integrity of such remains, on the integrity of the deceased person long after he or she passed away.

Do the religious convictions of the deceased still have any significance? What about their views on the afterlife and their wishes concerning the treatment of their own remains? I believe our own Norwegian indigenous people have done the whole of society a great favour by inviting this debate. It has become possible to ask questions which for so long were not regarded as 'progressive' or politically correct.

Respect for the feelings and integrity of a group or individuals is only one aspect of this concern. Scientific ideas can lead us astray, such as the racial theories leading up to World War II, yes, but science is also the force that leads us to deeper knowledge, helps us to cure diseases, gives us better understanding of our past and makes possible an understanding of our future. Once the remains have been reburied, most of the clues they hide are lost forever.

There is a constant need for knowledge in all fields of science. There is a need for research material. Without the studies in anatomy undertaken by scientists in the past, medicine would definitely not be where it is today, and we would all be suffering from this ignorance. Without the studies of human remains, archaeology, the knowledge of history, anthropology and related fields of science would be much poorer, and we would not be as well equipped to meet the challenges of today.

On the other hand, the belief that pure knowledge in itself will solve all human suffering and fill all human needs is also a

cul-de-sac of modern man. We are perhaps wiser today. We see that human dignity is important and personal faith and religious convictions are also more acceptable again.

Who are we in the committee to give advice to research projects on human remains? Our committee does not consist of average Norwegians. We are biased in more than one way. Almost all the members are scholars. We cover a variety of scientific fields and a variety of knowledge and experience, and inevitably also different outlooks on life. In some ways we know better than many what research on human remains is about. Through our work in the committee we have also learnt a lot, by being 'forced to' meditate on difficult questions. Good ethics often means protecting the weak from the strong, asking the questions no one else dares to ask, and standing up for values when other forces have other priorities. Part of this is knowing where we lack knowledge, and I do believe we have become wiser, and perhaps also more humble when facing these questions and meeting with the scientists planning their research.

The cases we have considered so far have been diverse. The majority of the projects have, however, been in a category where human bones from a university collection are the basis for a research project. The bones in this category have in most cases been from the Middle Ages (which in Norway means before 1537), or much older. As long as the bones are treated with respect and discretion, and are not being harmed or disseminated, the important question of the project's feasibility and aims will be key to an approval.

DESTRUCTION OF RESEARCH MATERIAL

The difficult cases in this sector have been when the research involves a degree of destruction. Destruction is inevitable in many kinds of modern research, such as DNA analysis. DNA analysis can give answers to vital questions, for example about origin. Destruction means that no one else can do the same research on exactly the same material. If one part of the bone has been utilised, one can always continue with a new project on another part. But many projects means greater consumption, and there is a natural limit to how many projects can be undertaken on the same material. The human remains are in these cases information resources, which are finite. And it will be unethical to consume today all the available resources and in that way prevent future scientists from carrying out their projects. For certain periods the Norwegian bone collections are much more limited than those of many other countries. We also know that in the future new methods and new technology will be developed. Hopefully, it will be possible to find answers without similar destruction of the research material. This is indeed a research ethical dilemma.

PROVENANCE AND DESCENDANTS

One recurring issue is that of how the excavations were carried out—the provenance of the research material. Often the archaeological excavations were undertaken long ago, and the documentation and archaeological methodology were not, to say the least, as accurate as we would demand today. The scientists carrying out research on this material do not always take this into consideration, and the theories may therefore be based on

insecure foundations. Often members of our committee will know the collections far better than the researchers in question, and raise doubts if there are dubious items in a project.

The question of provenance is at the core of any project. If destruction of the material is involved, one should at least know for sure that the material is what the scientist believes it to be. The best DNA analysis will be of little use if undertaken on material of unknown origin.

The issue of provenance also includes the question of the circumstances under which the material was collected. The exhumation of the Sami graveyards at the beginning of the 20th century is a good example. If the material was collected against the will of the group to whom it belonged, it will be very difficult to support the project. On the other hand, material collected long ago, under what are today considered unethical circumstances, can still contain valuable information for the group to which it belongs. It is indeed important that such 'owners' consider thoroughly the pros and cons of allowing or preventing research on the material. They will have an obligation to their forefathers as well as to their children.

Ethnicity is an aspect we take seriously. The history of the indigenous Sami people and other minorities are a call to caution. A history of repression and disrespect makes research on the remains of these groups a sensitive issue.

The Sami authorities handle their cases in cooperation with our committee. The cases submitted to the Sami Parliament are sent to us for consultation before a decision is made. It can also happen that a research project does not consider the possibility of there

being Sami remains in the research material until our committee raises the question. In these cases we have a special responsibility.

The questions of ethnicity and provenance have also been raised when a research project involves remains from other countries and parts of the world. Other countries naturally have different traditions and histories, but *our* ethical standards cannot be relaxed due to this. A project undertaken by a Norwegian research institution will have to show the same caution and respect for foreign material as for Norwegian material.

RESEARCH ON MORE RECENT REMAINS: WHO REPRESENTS THE DESCENDANTS?

We do not deal only with pre-reformation material. There have also been cases involving more recent remains. One question concerned whether to open and take specimens from graves little more than one hundred years old at Spitsbergen. The motivation for the project was to find the causes of death of a group of people who had been forced to overwinter in the area, none of whom survived. In this case the respect for the deceased and their families is paramount.

The case raised an interesting question about the interest of the descendents. How much of a say should they have, and how does this say diminish over the generations? Furthermore, who are the relevant descendants after one hundred years?

RESEARCH, EXHIBITIONS, AND SYMBOLIC SIGNIFICANCE

How do we define 'research'? From time to time definitions of words can present challenges. Our work is related to research.

An important part of research is the actual handling of the remains, especially in public spaces. The exposure of human remains in scientific exhibitions and elsewhere should pay respect to the same values and norms as the actual research. If people find some kinds of research on human remains unethical, they will also react against some types of exhibitions of the same material. And for the general public, going to an exhibition can also be a kind of research, in that it involves gaining knowledge.

Human remains carry symbolic significance. Our view of the exposure of human remains is formed by our culture. In Western culture, a skull is traditionally a more potent symbol of the personality or integrity of the deceased than a bone from a toe. In other cultures this might be different, or at least the toe may have a greater symbolic significance. When exhibiting or exposing human remains, one should also be aware of such diverse symbolic significances, because our contemporary culture is not as homogenous as it once was.

DIALOGUE PARTNERS

To expand our knowledge and to develop our understanding of the aims of the committee we have explored different fields.

Hedley Swain, Head of Museum Policy at MLA (Museums, Libraries & Archives, United Kingdom), shared his wide experience at a very early stage of our work. (Swain was previously the head of Early London History and Collections at the Museum of London, and is currently Director

of Museums and Renaissance at the Arts Council England.)

A visit to the Institute of Anatomy at the University of Oslo, guided by Professor Per Holck, to see the collections and learn about the way the human material is stored and treated, was very important and educational.

Dr. Kirsti Strøm Bull, Professor at the Faculty of Law, University of Oslo, looked into the difficult legal aspects of the Sami cases.

Berit Sellevold from NIKU, The Norwegian Institute for Cultural Heritage Research, Senior Researcher and osteologist, has also been of great help and has shared with us her knowledge and work on research ethics.

The scientific views have been of great importance to help us understand the value of the research and the collections. But there are also other ways into exploring the ethical dimensions. Ethnicity is another factor. Because of this aspect our relationship to the official Sami authorities is especially important. We therefore met with the Sami Parliament, Sametinget, a meeting which was important for understanding their views and their ways of working with these questions.

Ethics is very much about culture. Faith and religion, or the lack of those, are important ingredients. We have also explored this landscape. Norway, like all European countries, is absorbing a variety of ethnic and religious groups. Therefore, to be able to give good advice it is important to have a better knowledge and understanding of the traditions and faiths of the more recent minority groups. So far the rabbi

of the Jewish community in Oslo has lectured for us, as well as a Dominican prior, clergymen from the Lutheran Church of Norway, and the General Secretary of the Islamic Council Norway (Islamsk Råd Norge).

Ethical issues in the semi-darkness: Skeletal remains and Sámi graves from Arctic Northern Norway

INGEGERD HOLAND AND INGRID SOMMERSETH

In this article, we wish to shed light on the research history and discuss the ethical implications of research on Sámi skeletal remains. The aim is to contribute to the Norwegian debate on research and research history, by means of issues raised and cases dealt with since the appointment of the Norwegian National Committee for Evaluation of Research on Human Remains in 2007-2008.

Formally, the committee is an advisory body, appointed by the Ministry of Culture, and its members cover a variety of academic subjects. The committee's main task is to discuss and safeguard ethical considerations in every research project involving human remains, in addition to issuing general statements and arranging meetings and conferences. The majority of the cases that the committee have considered so far concern ancient human

remains—i.e. remains from the Middle Ages or earlier. Research projects should not go ahead without approval from the committee, and there is cause for particular concern if there is reason to suspect that the material has been acquired unethically or is without proper documentation.

ETHICAL CONSIDERATIONS

Today the term ‘research ethics’, as used by The Norwegian National Research Ethics Committees (2006), refers to a diverse set of values, norms and institutional regulations that help constitute and regulate scientific activity. Scientific knowledge is important, but we need to be aware of the ethical issues when conducting research on human remains. Ethics may be operationalised as a tradition of good research practice. Good research practice entails that the aims of research do not violate current common morality and respect for human dignity.

As stated by the philosopher Hans-Georg Gadamer in his hermeneutics, our understanding is affected by our effective historical consciousness: when we try to understand a historical phenomenon, we are already subject to the ‘effects of history’, and the awareness that we are historical beings (Gadamer 1975:267, Olsen 2002: 216). If we continue this reflection, it means that we are affected by the history of research and frames of meanings, objectives and rules handed to us by the past (Giddens 1990 in Olsen 2002). This means that we must also accept our need for a critical reflection on our traditions: how they emerged, have been sustained and are mobilised for present conduct and political agendas. Tradition does not

have a justification that is outside judgement (Johnsen & Olsen 1992:430-432).

Taking Norway as an example, the Sámi people has previously been defined as less developed than the Scandinavian cultures, standing outside the emerging nation state. During the previous two decades there has been an ethnic revival and a strengthening of cultural and political rights of indigenous peoples around the world. Indigenous peoples' right to self-determination is of special significance in Norway due to their experience of "Norwegianisation" and marginalisation.

Today's research has a long tradition and practice, and has grown in step with the development of ethical guidelines. Not that many years ago, however, ethical principles were understood somewhat differently from how they are seen today, for example with the reburial issue which has been discussed over the past 15 years (Hubert & Fforde 2001:1). Like other peoples, indigenous peoples, including the Sámi people of the Arctic, have now obtained cultural rights to formulate research policies and ethical issues concerning the treatment of graves and burial finds. To understand the shift towards new ethical considerations in the management of human remains and in the treatment of the Sámi graves and burial finds, we must take into consideration some historical and ideological connections and causes.

SÁMI SKULLS AND SKELETAL REMAINS IN THE SEMI-DARKNESS

In early Scandinavian anthropology, history and archaeology, around the mid-1800s, the Sámi were seen as the indigenous people of northern Scandinavia, a remnant of a primitive Stone

Age population that lived in Scandinavia before the immigration of metal-using Germanic peoples (Storli 1993, Hansen & Olsen 2004). However, these theories came to an end when archaeological research established itself as an academic discipline around 1900. This was the period when classification of prehistoric material, languages and human races became a major topic of research, and a new interpretation of prehistory emerged. The connection between race and culture was raised as an important question by academics in the Nordic countries as well as in Europe (Kyllingstad 2004, 2008). This shift led to a new way of organising knowledge in which people who were earlier considered to be fundamentally the same or similar, with a common origin, gradually came to be classified as different, based on biological and racial differences.

This was a commonly accepted academic practice in European research, where colonial ownership and the relation to 'the Other' were discussed. According to E. Said (1978), the Europeans divided the world into two parts: the east and the west, or the Occident and the Orient, or the civilised and the uncivilised, an artificial boundary based on the concept of them and us, or theirs and ours. The idea that races were still in a process of formation gave birth to political thoughts of racial segregation, which in Norway led to the establishment of the Advisory Board for Racial Hygiene appointed by The Medical Association in 1908 (Schanche 2002:49). The picture of the Sámi as the original Stone Age people did not fit in with a view of a common ancestral branch. How could the Scandinavians, seen as a culturally developed people at the top of the evolutionary

chain, share a common ancestor with the Sámi, who at time were seen as a primitive, undeveloped and static human type? This was one of the many premises that would characterise the research debate which led to a shift in the scientific explanation of the origins of the Sámi. From around 1900, new paradigms were established based mainly on specific skull measurements performed on living people as well as on human remains.

An important type of archaeological material, which was used to describe the Sámi as a primitive race, were the Sámi skulls from Northern Norway and Northern Sweden. In order to compare the Sámi skulls with skulls from south Scandinavian Stone Age graves, a new empirical material was needed, which in turn led to a less than ethical research practice. During a long period, from the late 1800s until the 1940s, a large-scale trade in Sámi skulls and a series of violations of Sámi burial grounds took place in Northern Norway and especially in the county of Finnmark. The first publication appeared in 1878, containing measurements and descriptions of 14 skulls, three of which came from graves at Mortensnes in the Varanger Fjord in Finnmark (Sellevold 2002:60). Later, around 1900, excavations in churchyards were carried out and led by researchers from the Anatomical Institute (AI), and despite objections from the local community, the grave looting continued on a large scale into the 1920s and 1930s (Schanche 2000). Today, only a couple of the old Sámi churchyards remain untouched by this desecration.

Skeletal parts from graves were systematically collected in order to obtain research material for establishing the racial origin of population groups. Skulls in particular were popular, since

it was believed that racial characteristics were most strongly expressed in the skulls (Sellevold 2002:60). The shape of the skull, for example the index describing 'long skulls' or 'short skulls', was thought to indicate a set of psychological characteristics. Theories claimed that the 'long skulls', belonging to the blond Nordic race, were the supreme products of evolution both corporally and spiritually. Races lacking the proper characteristics were, on the other hand, doomed to remain primitive. It could now be reasoned that the Stone Age had been sustained by Germanic long skulls, and (based on skull measurements) that the Sámi had arrived at a far later date. They were thus portrayed as a static, doomed and dying element from the past, with no ability for independence or development (Schanche 2002:48).

MANAGING THE SÁMI SKELETAL MATERIAL AT THE UNIVERSITY OF OSLO

The Sámi skeletal material collected during the late 1800s and early 1900s is today still kept at the Anatomical Institute, part of the University of Oslo. At the end of the 1990s, a couple of high-profile cases involving Sámi skeletal remains in the AI, but also the treatment of the skeletal material more generally, triggered a need for new guidelines concerning the management of this material at the AI.

In 1996, the University of Oslo decided to return two Sámi skulls to the Sámi Parliament for reburial. These were the skulls of Aslak Jacobsen Hætta and Mons Aslaksen Somby, who had both been sentenced to death and beheaded in Alta in 1854, after the so-called Kautokeino uprising of 1852. This is an event

which has inspired a lot of research and many theories as to its background (see, for instance, Zorgdrager 1997). The result of the uprising was at any rate that some of the local Sámi killed the shopkeeper and the sheriff, burned down the shop and flogged the vicar and his family. A couple of the perpetrators were killed by other Sámi, most were apprehended and sentenced to long prison sentences, while two of them were sentenced to death and beheaded. Their bodies were buried at the churchyard in Kåfjord in Alta, while their heads were dispatched to the Anatomical Institute in Oslo. This was contrary to the Criminal Act of 1842, which prescribed that executed individuals should be buried (Lønning et al. 1998:9). About 100 years later, their families started a process to have the skulls returned for burial. It was then discovered that only Somby's skull was still at the AI, while it was unclear what had happened to Hætta's skull. Nothing happened, however, until a formal request was sent to the university in 1996, demanding the return of Somby's skull and that Hætta's skull must be found and returned.

At the same time, the Sámi Parliament asked for the establishment of a working group whose task should be a review of the skeletal material in the AI as well as a proposal for how the material should be treated in the future. This request was partly based on concerns raised by an article by two scientists from the Forensic Institute (Depuy & Olaisen 1996), who had carried out DNA research on serum samples collected in Inner Finnmark in the 1970s and 1980s, as well as research carried out on human material from other parts of Norway. The samples were analysed in order to contribute to different hypotheses

regarding the ethnic origins of the Sámi, and the scientists planned to continue studying ‘ancient bones which hopefully will add valuable contributions to the knowledge of the history of people living in these areas’ (Depuy & Olaisen 1996; see Harg 1999:52). Samples had already been extracted from some of the skeletons at the AI, but the scientists were unable to extract viable DNA, and the research was abandoned.

THE COMMITTEE FOR ESTABLISHING GUIDELINES FOR THE USE AND MANAGEMENT OF SKELETAL MATERIAL IN THE ANATOMICAL INSTITUTE (THE LØNNING COMMITTEE)

In 1996, the university returned Somby’s skull to his family for reburial, and a search was instigated for Hætta’s skull. The search showed that both skulls had arrived at the AI in 1854, but that one of them had been dispatched to Copenhagen University in 1856, in return for two Inuit skulls, and was now in the Anthropological Laboratory there. The skull was returned to Norway in 1997, and later that year both skulls were formally buried at the churchyard in Kåfjord. (Harg 1999:41-43, 52)

At the same time, a committee was appointed whose task would be to develop guidelines for the use and management of the skeletal material at the AI (Harg 1999:43, footnote 6). The committee, commonly called the Lønning committee after its chairman, included a representative from the Sámi Parliament (Lønning et al. 1998:2). It started its work in 1997 and decided to concentrate on the Sámi skeletal material in particular. The aim was to develop new guidelines for this collection, which first of all had to be ethnically identified.

The committee also discussed who had legal ownership of the skeletons at the AI (Lønning et al. 1998:12f.). They concluded that the university owned everything that had not been deposited from other institutions. The deposited material forms quite a large part of the collection, as all Norwegian university museums have transferred most of their skeletal finds to the AI for storage, in addition to skeletal material from urban excavations carried out by the Directorate for Cultural Heritage (Riksantikvaren). The AI only manages the collection on behalf of the university, so it is the university that has the right to make binding decisions about all or parts of the material. There was, however, more doubt about the skeletal remains which had originally been excavated according to the Churchyard Act of 1897, some of them from Sámi churchyards in Finnmark county, since the Act prescribed reburial after the necessary investigations had been carried out. The committee decided, however, that it was not so much legal ownership as modern considerations of ethical, historical and political principles that ought to guide the management of the collection.

As for the deposited material from the other university museums, it would be up to these institutions to decide what should happen to their material, perhaps in cooperation with the Sámi political authorities when appropriate. The material included the Eastern Sámi skeletons from Pasvik, excavated in 1958 by Tromsø Museum. The reason why the Pasvik graves were excavated as late as 1958 was that the river islet where they were buried was due to be flooded by hydroelectric development in the Pasvik River. The skeletons were meant to be reburied at a nearby churchyard, and this was in fact what happened to the

post-cranial parts of the skeletons, which were buried in a collective grave at nearby Svanvik churchyard in 1963. The skulls, however, were passed on to the Anatomical Institute.

The Lønning committee report gives a detailed presentation of laws and regulations from other parts of the world, which regulate how skeletal remains from indigenous peoples are managed in other countries (Lønning et al. 1998:15-17). Best known among these laws is perhaps The Native American Graves Protection and Repatriation Act (NAGPRA), which has influenced legal regulations elsewhere, but which has also led to discussions and controversies. The best known example is probably Kennewick Man, a possibly 9,500 year old skeleton found in Kennewick in Washington in 1996. In accordance with NAGPRA regulations it was handed over to the local Native American tribe who wanted a quick reburial. This, however, led to repeated and vocal protests from scientists in particular, who argued that the age of the skeleton made it very unlikely that it had any relationship to the modern Native American tribe, and also made it a vital piece of evidence in the study of the first immigration of people into the North American continent. For scientists, it was thus unethical to destroy this unique source material by reburial. In 2004, the United States Court of Appeals for the Ninth Circuit ruled that claims about a cultural link between any of the Native American tribes and the Kennewick Man were not genetically justified, allowing scientific study of the remains to continue. Kennewick Man is most likely related to the ancient Jomon, who also were the ancestors of the Ainu people of Japan (Powell and Rose 2004).

A somewhat similar question of return and reburial of skeletal

material has recently come up in Norway as well, since the Orthodox Church in Norway, supported by the Norwegian Church, in 2007 requested the return of the Eastern Sámi skeletons from the Orthodox churchyard in Skoltebyen in Neiden, Eastern Finnmark. A working group was convened by the University of Oslo, including representatives from the two churches as well as the Sámi Parliament and the university, and concluded in 2008 that the request should be granted. Prior to the return, however, samples were to be taken from the skeletons in order to facilitate future research on the material. The skeletons were reburied on 25 September, 2011.

The Lønning committee also based its discussions on the international obligations that Norway had signed throughout the 1990s, recognising the Sámi as an indigenous people in Norway through the ratification of ILO Convention No. 169, and likewise on the institutional power and authority that had been or would be devolved to the relatively newly appointed Sámi Parliament. First of all, the Sámi material in the collection at AI had to be identified and physically separated from the rest of the material. The identification was done by two of the committee members, Audhild Schance and Torstein Sjøvold, in 1996 (attachment 2 of Lønning et al. 1998). Their work was based on information in catalogues and register cards. The result was a list of 687 catalogue numbers.

Secondly, it was recommended that access to the Sámi collection should be restricted to scientists from the Medical Faculty at the University of Oslo, from the archaeological teaching institutions and research institutes, and individuals employed in heritage management as part of their work. Students from the

same institutions would be allowed access at the behest and recommendation of their supervisors. Everyone else would have to apply for access (Lønning et al. 1998:20-23).

The committee further recommended that any research carried out must conform to ethical norms for Norwegian research generally. Special permission would be required in order to extract samples, for instance for DNA testing or dating, since this involved destruction of material. It was suggested that decisions would have to be made by the board of the Medical Faculty, but only after recommendations from a medical or research ethical committee. Research on deposited material would in addition require permission from the original owner institution. The material would normally only be made available at the AI, and even if it could be borrowed for short periods for research elsewhere, this did not include exhibition purposes.

The Sámi material would be physically separated from the rest of the collection, and would be kept locked away out of sight for visitors to the AI. Any application for research on this material would need approval from the Sámi Parliament, as would access to the material for anyone outside the groups of scientists and professionals listed above.

Another recommendation was that any descendant in a direct line should have the right to claim identifiable remains for reburial, whether they be Sámi or non-Sámi. In special cases, the university could grant the same right to more remote relatives. This was because the Sámi family system includes other family relatives than the Norwegian one.

If the Sámi Parliament wanted the skeletal material returned for storage elsewhere, this could be granted by the board of the Medical Faculty, with no further say for the university. If reappropriation meant making the material inaccessible for future research, the AI would be allowed to secure a sample of the bones before handing them back. The same would apply if they had to return material to any of the depositing institutions.

Finally, the committee concluded that the skeletal collection at the AI needed a full review carried out by staff from the AI, the university museums and the Sámi heritage management council (Samisk kulturminneråd). The aim was to physically separate the Sámi material, identify deposited material, identify archaeological finds which had followed the skeletons to the AI, and update the registers and catalogues, not least about how much was still retained of the individual skeletons.

The recommendations of the Lønning committee were approved by the University of Oslo in September 1999 as temporary guidelines for the use and management of the skeletal material at AI. At the same meeting, the university extended the same apology to the Sámi Parliament as had been made by the AI earlier that year, for the way Sámi human remains had been collected and treated by its staff over a long period of time.

**THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR
EVALUATION OF THE SCIENTIFIC VALUE OF THE COLLECTIONS
AT THE ANATOMICAL INSTITUTE**

When the recommendations of the Lønning committee were circulated to a number of institutions for comments before being

finally accepted, several of the institutions questioned the scientific value of the collection at AI (Lønning et al. 1998:47-50). They pointed out that the AI was not a museum but a storage institution, and that information regarding the context and provenance of finds was lacking for large parts of the collection. The University of Oslo agreed that a full review of the collection would be needed in order to bring it up to a museum standard (Harg 1999:55), but since this was a large and comprehensive task, the university needed to know whether the collection had a scientific value which justified the expense involved.

A second committee was therefore needed, one which could evaluate the scientific value of the skeletal collection for research within all relevant fields (Harg 1999:56). This second committee was appointed in November 1999 and carried out its work over the winter of 2000. The committee's tasks also included the physical separation of the Sámi material at the AI. In its principal work, however, the new committee faced a dilemma (Holand et al. 2000:7-8): evaluating the scientific value of the collection ideally required that a full review of the collection had taken place, while the purpose of the evaluation was to provide the university with enough arguments to decide that the collection was valuable enough to justify a full review! The committee therefore had to evaluate the collection as though the review had already taken place. The evaluation also had to take into account the collection's potential value for a number of different subjects: anatomy, medical history, and culture historical subjects such as archaeology. The value of the collection had to be measured against its potential for producing both new and relevant knowledge.

The critical factors were identified as date, representativeness, the condition of the material, provenance and anthropological data. Among the most problematic aspects was the unethical acquisition of large parts of the material (Holand et al. 2000:19ff), which was divided into seven categories, dependent on its origins: donations, traded material, exchanged material, corpses received for use in education and research, skeletal material received from the police, excavations carried out by staff from the AI, as well as depositions from other museums or scientific institutions, i.e. mainly archaeological material.

The donated and exchanged material was extremely heterogeneous, with little information about original context, and came mainly from countries outside of Norway. The traded material consisted mainly of an old private collection with no information about context, and the corpses came mainly from prisoners who had died of natural causes or been executed in fortresses and prisons in the 19th century. The archaeological material was generally better documented, but also came from very different sources. It included Sámi skeletal material from Finnmark which was bought at the end of the 19th century from private excavations with some description of context, as well as material from excavations carried out by the AI at Sámi grave- and churchyards in the early 20th century, again with a basic recording of context. Best documented was the deposited material from the other university museums and from urban excavations in the 19th and 20th century, although the reliability of the documentation varied with the date of the excavations. In addition, not all skeletal material recovered through a given excavation had been handed

in to the AI, while the AI had discarded as irrelevant some of the material received. In 1992, there had been a trial review of some material in the AI that originated from the County of Hedmark, comparing information in the AI with that in the University Museum in Oslo which held the excavation reports and any additional finds. This showed little confluence of information between the two institutions. It was difficult to say whether all skeletal material handed in to the AI still existed, and with the skeletons were other types of finds which should have been in the museum (Holand et al. 2000:26-27).

The scientific committee's evaluation of the material in the AI was sober, but merciless (*ibid.*, 2000:32). It concluded that the collection represented the history of physical anthropology for better and for worse. The acquisition methods employed to establish the collection would have been totally inadequate and unacceptable today. This created a fundamental problem regarding the provenance, finds context and basic archaeological data for the material. The birth of the collection was also characterised by an unacceptable disregard for the attitudes of the local populations, in particular the Sámi, affected by excavations and removal of skeletons. The origins and composition of the collection, with its emphasis on skulls, displayed an old-fashioned physical-anthropological and scientific view, based on deterministic racial typologies and barren craniometry.

Such attitudes were not intrinsic only to physical anthropology, but existed in other professions as well. The character of the material used in physical anthropology does, however, exemplify these attitudes particularly poignantly, and this gives

the collection value as a historical document. Its main drawback is the general lack of recorded context. This may not, however, affect all studies negatively, and may even be remedied through a thorough review of the collection. Research on the material up to the point of the investigation was described by the committee (*ibid.* 2000:28) as mainly publications on biological variety and function, as well as morphological descriptions based on geography, ethnicity or chronology. The collection had also been used for comparative studies of living populations and for clinical studies.

The conclusion of the committee regarding the scientific value of the collection was that it is of considerable value for culture-historical/archaeological studies, medical/biological studies, and for scientific theory and history. While this value is not fully realised due to the lack of documentation for parts of the material, such documentation should be possible to acquire (Holand et al. 2000:33). A total review of the collection was calculated to require about two years' work. The University of Oslo undertook a review of the material in 2005 (Pedersen 2005).

The committee did, however, find the question of unethical acquisition of parts of the collection particularly challenging. It therefore recommended establishing which parts of the collection fall into this category, noting that remedying the situation might involve a number of measures, including reburial, deposition elsewhere, or continued storage at the AI. Future researchers must also be made aware of the situation. Research on these parts of the material could be governed by a research ethical committee, as suggested in the temporary guidelines for the collection

and by the National Research Ethics Committee for Medicine (NEM) in 1999. NEM accepted that the question of whether to allow research on unethically acquired material did not have a simple answer, but recommended that an independent ethical committee should evaluate whether such research was justifiable. NEM therefore recommended that the university should initiate the process required to appoint a national ethics committee whose task it would be to evaluate all research projects involving skeletal material before they were undertaken (<http://www.etikkom.no/no/Vart-arbeid/Hva-gjor-vi/Uttalelser/NEM/UtNEM980817/>).

The scientific committee supported this suggestion and requested particularly that Sámi research milieus be represented on such a committee, and that the mandate of the ethics committee be formulated in such a way that it would not clash with the right of the Sámi Parliament to approve or disapprove of the use of Sámi skeletal material.

The Norwegian National Committee for Evaluation of Research on Human Remains was finally appointed by the Ministry of Culture in 2007 and started its work in 2008. The authors of this article represent the Sámi research milieus on the committee, which has also established good working relations with the Sámi Parliament (Ekern 2009a).

RESEARCH ON SÁMI SKELETAL REMAINS AND ITS CONSEQUENCES

One of the effects of early 20th century research on skulls and on human remains has been to construct an image of the Sámi as

a people without history, as well as a set of stereotypical images of Sámi livelihood, settlement and culture. In archaeology, this stereotyping of a group or a people can be seen as an act of simplification. It involves reducing a multitude of qualities into a few factors that are deemed essential, innate and natural (Baglo 2001:37). Stereotyping has also been a central discursive strategy in the colonial world's exercise of power against 'the other' (Bhabha 1994). To be effective, stereotypes must be constantly repeated and confirmed—preferably without anyone having to express them directly. The naturalised and stereotypical images produced about the Sámi contributed to essentialising, epitomising and consolidating ideas about race and culture, and thus in the end to legitimising politically oppressive programmes such as 'modernisation', 'assimilation' and 'Norwegianisation' (Baglo 2001:37).

In spite of the fact that the historical situation in Norway was created by the presence of two ethnic groups, the Norwegian and the Sámi, only the former has been honoured with a 'History' in connection with the period of nation-building from 1905 until the late 1980s. The Sámi vanished into the domains of ethnography during this period, and became a people without History (Olsen [1986] 2007). From the early 1900s to the 1970s the prevailing hypothesis was that the Sámi had immigrated from the north and east with their reindeer, at a very late phase, i.e. the 15th century. It was only during the 1980s that new hypotheses were put forward by a few archaeologists calling attention to the notion that the Sámi history extended far back in time. This implies that the Sámi origins in Scandinavia go much further back than

the old written sources from the first millennium AD, where the Sámi are described as ‘the Lapps or the Fenni’, groups that inhabit the true north (Hansen & Olsen 2004:48).

These are important topics which are still debated today in various political and popular forums, when questions concerning Sámi rights to land, water and natural resources are disputed. One of the major relevant political developments so far in this century has been the introduction of the Finnmark Act in 2005, giving the population in the County of Finnmark greater influence in the administration of land in the county. Discussion and recognition of existing cultural and historical rights is an important element, but there are many political groups and individuals who claim that the Finnmark Act is based on misinterpreted historical rights for the Sámi. These allegations sometimes go hand in hand with a desire to close down the Sámi Parliament and are often based on the question: Who came first, the Sámi or the Norwegians? In this way, a research history where human remains and Sámi skulls were measured and classified in a search for racial origins and characteristics, contributes to throwing long shadows into today’s political debate. While academic archaeologists repudiate national myths of a Nordic-Germanic people, such ideas can have a powerful afterlife in the popular mind and, in more hidden ways, persist even in academic discourse (Mulk 2009:199).

FROM SKULL MEASUREMENTS TO DNA AND ISOTOPE ANALYSES—THE EMPEROR’S NEW CLOTHES?

In recent years, research on skeletal remains has developed a number of new scientific approaches which may answer

questions that could not have been answered previously and were perhaps never even asked. In particular, research on human DNA and stable isotopes has proved successful in developing ever new angles on the general questions of population movement and relationships. A search for 'DNA analysis' on Google provides 10.6 million hits while 'stable isotope analysis' gives 1.1 million hits; and these are just the English language ones.

Since population movement and relationships to neighbouring groups have always been important parts of the research discussion about the Sámi, one might expect these new tools to be widely used in research on Sámi skeletons as well as on living people. However, if isotope analysis is linked to the Sámi population this gives only a handful of Google hits from Sweden and Finland, and although there is a much larger number of articles on Sámi DNA, they all tend to originate from sources and research institutions outside Norway. Norwegian Wikipedia summarizes DNA research on the Sámi like this (<http://no.wikipedia.org/wiki/Samer>, accessed 28 December, 2011; our translation):

[T]he origin of the Sámi has been of special interest in genetic research since the 1990s, because the Sámi are genetically the most different from the rest of the European populations. Research on the North Sámi populations in Sweden, Finland and Norway, and the East Sámi populations in Finland and Russia, shows some genetic variation between the Sámi groups, but a large degree of common descent. Mitochondrial DNA among the Sámi seems to be mainly (95.6%) of European descent, probably from the Iberian peninsula, with only the remaining 4.4% of a Siberian-Asiatic descent. Male Y DNA indicates that 29.8%

originate from the Iberian peninsula and 58.2% from Eastern Europe (Tambets 2004). There is even a genetic link to the North-African Berber population (Achilli 2005). Other studies indicate that the Sámi have no close relatives (Cavalli-Sforza 1994, Niskanen 2002) and that they separated from today's European populations about 10,000 years ago (Chikhi 1998). The nearest of the remote relatives are the Finns (Meinila 2001), and the Sámi are no closer to the Siberian peoples than the rest of the European populations (Niskanen 2002).

Even though Wikipedia may not be absolutely accurate and up-to-date, the summary points to a number of potentially interesting questions with wide implications for how the Sámi and the other Scandinavians see themselves and each other. The question is whether any of them have surfaced in research on the Norwegian Sámi skeletons. In an article in *Forskningsetikk* (Ekern 2009b), the Sámi Parliament (SP) lists the only four applications which they have received in the period 2001-09 for research on Sámi skeletons (two of them from foreign institutions):

1. A study of body proportions relating to cold climate adaptations (2001): The application was turned down for various reasons, including lack of knowledge about Sámi cultural history and awareness of the earlier stereotyping of the Sámi.
2. Hip dysplasia in Sámi infants (2008): The application was turned down because the Sámi Parliament doubted the basic assumption, and because the application did not include ethical considerations.
3. Changes in bone substance over time (2008): The application was granted, since it related to potential changes in bone

substance for people going through climate change, and it was thus seen as relevant today.

4. 14C-dating of 10 skeletons from the East Sámi churchyard in Neiden (2009): The application was granted, as it would provide information about the age of the churchyard, before the skeletons were returned for reburial.

None of these applications address the topics that have dominated DNA and isotope research over the last 10-20 years, i.e. population movement and relationships. The question is ‘Why’? Does the lacuna imply a lack of interest in such questions among Norwegian researchers, or could it be that the controversy surrounding the Sámi skeletons, ever since the 1990s, and the rules and regulations limiting access to them, act as a deterrent to *any* research on Sámi skeletons? Wasn’t the intention rather that research should be carried out according to ethical guidelines that did not repeat the mistakes of the past, and that the Sámi themselves should have the right to judge whether new research projects fulfilled these criteria? There does not seem to have been a general wish for less research; on the contrary, many Sámi are curious to see what modern research can contribute to the old debate about the ‘otherness’ of the Sámi. Researchers may, however, have interpreted the debate differently and decided to avoid potential controversy by not using Sámi remains.

So, the emperor may indeed have new clothes, but does he dare to wear them?

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Archaeology and human remains: Handle with care! Recent English experiences

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The study of human remains has made an important contribution to our understanding of our past and, with the discovery of new techniques, continues to provide new insights. This work, however, raises important ethical questions which archaeologists need to consider with care.

The basic issues are, in essence, fairly simple. While some people, including archaeologists, believe that an increase in understanding of our past is an important shared benefit, other people believe that it is wrong to dig up human burials for archaeological study however interesting the information that is gained. How much weight should society, and we as archaeologists,

1 At the time this talk was given, the writer was the Chief Scientist at English Heritage; he has since retired. The views expressed here should not be taken as a statement of EH's views, though the writer has no reason to believe that EH takes a different view.

give to these beliefs, and to the hurt that people with these beliefs feel, and how should we balance this against the gain in understanding? Should the views and feelings of particular groups of people be given greater weight because they have a special link with particular groups of human remains? How much weight should we give to the beliefs of the dead people whose remains we are studying (if it is possible to know what they were)? And how much weight should we give to the future interests of unborn generations?

As these issues depend to a large extent on beliefs which vary in different groups and countries, the way the balances are drawn and decisions are made will play out differently in different countries and situations. The purpose of this contribution is to describe some relevant English examples, and to try to draw some general conclusions from them.

ENGLISH BACKGROUND

The study of human remains from archaeological sites has a long history in England, and has made an important contribution to archaeological understanding not just of prehistoric periods, but more recently of historic periods, as for instance the study of Medieval and more recent human remains from church burial grounds at Wharram Percy (Mays 2007) and Barton on Humber (Waldron 2007), and of eighteenth and early nineteenth century human remains from the crypt at Christ Church Spitalfields, in London (Molleson and Cox 1993, Cox 1996). This work has also started to contribute to forensic work in medico-legal cases, for instance in the prosecution of war crimes in Bosnia, and

to medical research. At Wharram Percy, for instance, Simon Mays has showed that osteoporosis was just as common among Medieval women as it is today, suggesting that it is not simply something caused by modern lifestyle (Mays 2010: 206-209).

Every year, archaeologists in England, mainly working in advance of urban development, excavate and study large numbers of human burials, ranging in date from deep prehistory to the early nineteenth century. There is considerable public interest in England about this research, as shown by popular publications, viewing figures for television programmes such as *Meet the Ancestors*, and visitor numbers to special museum exhibitions such as the Museum of London's *London Bodies* in 1998-9, and the Wellcome Museum's *Skeletons: London's buried bones* in 2008.

Events over the past twenty years, however, have increased sensitivity about human remains.

The discovery that children's organs had been retained after post-mortem examinations at Alder Hey Hospital in Liverpool without the consent of their families provoked public anger which led to the Human Tissue Act 2005. This has made it illegal in Britain to retain human remains less than 100 years old without a licence and without the consent of relatives and partners.

Australian and other indigenous groups have been asking museums for the return of human remains which were collected, often in ways that would now be regarded as unacceptable, during the colonial period. In response, the government published guidelines, again in 2005, for museums considering these requests (DCMS 2005). These emphasised the need for a clear process which considers not only the scientific importance of

the remains, but also other criteria including how they had been obtained, whether the claimants had special links with them, and what would happen to the remains if they were repatriated. They stress the importance of collecting information evenhandedly from scientists and from the claimants, of publishing this information, and of being clear and open about the reasons for the decisions that are taken. Interestingly, the process that the guidelines recommend is voluntary; it was felt that a mandatory legal process would be expensive and would lead to unhelpful polarisation and antagonism.

Possibly as a response to these developments, some English museums have become concerned about all displays of human remains. Human remains have traditionally been included in archaeological displays in English museums. In 2008, Manchester Museum covered unwrapped Egyptian mummies with sheets so that they could not be seen; visitor response led to the rapid removal of the covers. At the same time it is clear from legislation and from published guidelines that in England excavated human remains are not treated as just another kind of archaeological find: the special nature of human remains is explicitly recognised, as is the need to treat them with appropriate respect.

EXAMPLE 1: THE AVEBURY CLAIM

In 2006, shortly after the publication of the DCMS guidelines in 2005, a Druid group contacted the National Trust and English Heritage requesting the reburial of prehistoric human remains from the Avebury area (Wiltshire) excavated in the 1920s and 1930s and dating from the fourth to late second millennia BC

(Figure 1). The way in which the request was considered followed the DCMS guidelines with some additions.



Figure 1: One of the skeletons that a Druid group wished to rebury: this child was buried around 5,000-5,500 years ago (Early/Middle Neolithic) at Windmill Hill, and is kept and displayed at Avebury Museum. Photo: Sebastian Payne.

The Druid request was based essentially on three claims. First, that the Druid group had special links with the dead through genetic relationship and shared beliefs, and thus should have special rights in deciding what should happen to the remains; and that it was wrong to disturb, study and display these remains because it was contrary to the beliefs and wishes of the dead and those that buried them, as evidenced by the care with which they were buried. Second, that archaeologists had had plenty of time to study the remains, and so no good purpose

was served by not reburying them now. And third, that public opinion supported the Druid request for reburial.

The available evidence did not give strong support to these claims. Modern Druid groups are of recent origin, going back at most to the eighteenth century. There was no evidence for any particularly close genetic relationship between the Avebury dead and these Druid groups, and no good evidence for continuity with late Iron Age Druidry, let alone with the much earlier remains that are the subject of the claim, and so this provides no basis for special rights. Our understanding of prehistoric beliefs is rather uncertain; there are many more recent examples of people who bury their dead with great care, but place much less importance on what happens to dry bones once close friends and relatives are long dead. Osteologists were clear that the development of new techniques means that the remains still have good research potential. And on the question of public support, most available surveys and polls did not appear to support the Druid claim, though they were based on self-selected groups such as museum visitors and so did not necessarily reflect the views of the wider public.

Two things were done to test these conclusions. First, a draft report (Thackray and Payne 2008) and the evidence on which it was based were put out to public consultation so that interested groups and individuals could comment, give their views, and put forward any new evidence. Second, an opinion survey was commissioned to find out more about public attitudes.

A large majority (between 80% and 90% depending on the particular question) of the 73 organisations and 567 individuals

who replied to the consultation agreed with the conclusions put forward in the draft report, and thought that the remains should be retained in the museum (Thackray and Payne 2009). No substantial new evidence emerged.

As one option, the consultation suggested that the human remains from Avebury Museum might be buried, but in a way that kept them accessible for future research. Very few of the respondents supported this as it was seen as an unsatisfactory compromise.

The opinion poll was particularly important because, for the first time, and unlike the consultation, the results were based on a random sample of English adults rather than a self-selected group. Rather than focusing on the Avebury request itself, about which many members of the general public probably did not have an opinion, it asked more generally whether people thought it was right for excavated human remains to be kept in museums, studied, and included in museum exhibits.

The results (BDRC 2009) showed very clearly that over 90% of the general public in England thought that museums should keep excavated human bones for research and include them in displays provided that they are over 1,000 years old and treated sensitively. There was some variation between different sub-groups: there was stronger support for research and display among the young and the more educated. But support did not fall below 80% in any of the sub-groups. Respondents were asked how important religious belief was to them; support for research and display was just as strong in those to whom religious belief was important. Opinions were, however, more divided in relation

to more recent human remains, and in relation to remains whose identity is known.

English Heritage and the National Trust therefore decided (Thackray and Payne 2010) that the human remains should be retained by the Avebury Museum on the basis that they have continuing research potential; that there is general support, public and professional, for this; and that there is no good reason to give the Druid group special rights. A final important consideration that also led to the same conclusion was that the decision better protected the interests of future generations.

The Avebury example shows the value of having an explicit process that both sides can agree to follow, and which stresses the importance of considering evidence, and of balancing different considerations. It was a slow process, which at times felt frustrating, but gave time for those involved to examine their reasons for what they thought, and encouraged frank discussion and the growth of mutual respect. Although the decision was not what they wanted, the claimants felt that they had had a fair and open hearing. The process also allowed time for collecting new evidence: when it emerged that there was very real doubt about what the general public thought, this could be resolved by the opinion survey.

EXAMPLE 2: JEWBURY

In the early 1980s, development just outside the medieval walls of York in an area known as Jewbury led to a trial excavation that revealed large numbers of well-preserved burials. As these were oriented north-south, the Chief Rabbi's Office decided that the

burials were probably not Jewish and that they had no objection to excavation, in spite of the name of the area and documentary evidence that there had been a Jewish cemetery there.

Larger-scale excavation then led to excavation of 400 burials, and human skeletal biologists started to study the human remains. Despite the use of iron coffin nails and other fittings which are not acceptable to modern Orthodox Jewish practice, and despite their orientation, it became increasingly clear that the human remains were almost certainly Jewish; ultra-Orthodox Jewish groups in the area demanded their immediate reburial. After demonstrations and press cover, the decision was taken to stop the study of the remains, and hand them to a Jewish group for reburial.

While the reasons underlying the decision do not appear to have been clearly recorded, it seems likely that the main reason for this decision was that there was little doubt about the Jewish religious identity of the remains, and that the Jewish community therefore had the right to decide what happened to them, especially in view of the strong orthodox Jewish belief that Jewish burials should not be disturbed. No doubt sensitivities about the Holocaust also played a part, as also the wish of the archaeologists concerned to avoid strongly negative publicity.

The Jewbury example is interesting in showing that a particular group was given special rights in deciding what happened to human remains even though they were nearly a thousand years old and of unknown personal identity. With the benefit of hindsight, the final outcome is problematic: the excavation of a large number of burials angered what were very vocal but

probably relatively small groups, not necessarily representative of all Jews; the decision to rebury without full study was one that other Jewish voices, especially from the liberal tradition, regretted, and which wasted the substantial cost of excavation. After the trial excavation, when it was clear that there were a large number of burials which were, on the basis of the historical evidence, likely to be Jewish, it would probably have been better either not to carry on excavating, or once the burials had been excavated, to complete the research before reburying the human remains (cf. Payne 2009).

EXAMPLE 3: ST. PETER'S, BARTON UPON HUMBER

The disused Saxon church of St Peter's at Barton upon Humber (Lincolnshire) is of great architectural importance. In the course of excavations aimed mainly at investigating the architectural history of the church, around 3,000 burials were excavated between 1978 and 1984 in the church and churchyard. At the time of excavation, it was intended that the human skeletal remains, once studied, would be reburied in the churchyard.

Detailed stratigraphic work on the grave cuts and a substantial 14C dating study allowed the burials to be grouped in five phases covering about 1,000 years; this work and the study of the remains took longer than had been expected, and proved to be very interesting, providing a unique insight into the health and diet of a small, relatively isolated market town over the course of a millennium (Waldron 2007).

By the time this work had been completed, interest in further research on the remains, and the increasing rate at which new

methods are being found, made it very desirable that they remained available for future research, even though the original intention had been to bury them once studied. Continuity of community and religion clearly gave the people of Barton upon Humber special rights.

In this case a solution was reached without difficulty. Barton upon Humber's Parochial Church Council was interested in what the bones had already told them about their past: the disused church is open to visitors, and in it there are displays about the architectural history of the church and the work on the human remains. A Victorian organ chamber has been adapted to provide secure storage, which has provided a way for the human remains to be returned to the church, back on consecrated ground within the parish, and at the same time accessible for future research. Research access is controlled by a committee which includes a member of the Parochial Church Council to make sure that they know what is happening, and have a voice in deciding on what happens.

DISCUSSION

For an archaeologist or an anthropologist, the study of burials and human remains opens a unique window through which we come face to face with our past. But human remains are not like other archaeological finds: they are the remains of people who had feelings and beliefs, and who may be related, genetically or through shared culture and belief, with people now alive. The relationships people feel with past human remains are based not just on objective evidence and reason, but also, just as importantly, on belief and emotion.

One of the most difficult aspects of dealing with human remains is this interplay between reason and belief. The two may be in conflict— and may even be in conflict within the same person; and they involve different ways of thinking and communicating which are hard to bring into the same frame. Nonetheless, this has to be done: we have to find ways to balance the views, beliefs, needs and desires of different people.

As the examples illustrate, this is sometimes not simple— we may have to find ways to reconcile and, where necessary, find a balance between different and sometimes incompatible beliefs, and balance real or potential harm and hurt against real or potential benefit. Some people feel passionately that the dead should not be disturbed; and some have, or may feel that they have, a special relationship with the dead which should give them predominant rights to determine what is done. Others feel with equal passion that it is important to understand our shared past through the study of human remains. It is clear also that we should not just consider the living—who can speak for themselves. We should also consider the dead—who they were and what they believed, which may be difficult and uncertain. And we should, as far as is possible, consider the interests and views of future generations, for whom we hold the past and the world in trust.

These are difficult issues; and as they involve feelings and beliefs that vary widely in different cultures, places and times, they need to be addressed in ways that are appropriate at the time and for the case. Experience in one place is of limited value for another. It may, however, be helpful to put forward some thoughts based on English experience.

First, every situation is different, and needs to be considered on its own merits. Often the right response is clear, or, as at Barton upon Humber, a compromise solution which meets everyone's needs emerges with little difficulty— in this case made easy by the availability of space within the disused church. Sometimes a single consideration outweighs anything else; if a solution feels right to most people, it probably is. Repatriation provides some kind of restitution for past wrongs to Australian and other indigenous groups; reburial at Jewbury was probably to some extent driven by feelings about the Holocaust.

Second, there may sometimes be greater consensus than appears at first sight. In the Avebury example, for instance, the Druid claimants believed that there was substantial public support for their request; but the public opinion survey showed rather clearly that by a large majority the public in England support archaeological research on human burials and the inclusion of human remains in archaeological displays in museums, provided that the remains are not recent, are of unknown identity, and are treated appropriately. Similarly the staff of the Manchester Museum were concerned about visitor reaction, but found that nearly all their visitors thought they should be able to see the mummies.

Third, where there is divergence of views, our experience in dealing with the Avebury claim suggests that it is likely to be helpful to have available a clear process to follow which encourages those involved to consider a wide range of different considerations and criteria, and to collect relevant information and explore the reasons for divergent views. We found it helpful

that it was an informal and voluntary process, without legal basis or compulsion, which encouraged those involved to be open and to take ownership of the process and helped to avoid confrontation and polarisation; and that it was possible to take the time that was needed to discuss issues fully, understand different viewpoints, build relationships, and collect more information when needed. It was helpful also that the process was open— that the relevant information was made public, that there was wide and open consultation, and that the reasons for decisions were explicit. This made the final decision much more acceptable to the disappointed claimants— as subsequent exchanges made clear, they felt that they had been given a full opportunity to set out their viewpoint, and that this had been listened to and given careful consideration.

Finally, the need to give weight to the interests of future generations creates a general presumption that we should avoid irreversible actions, as future generations may feel differently. This is what has happened after very early human remains were found at Lake Mungo in South Australia. Research on these and associated hearths and middens is currently being blocked by local indigenous groups, who believe that they have close links and therefore special rights even though the remains are tens of thousands of years old. However, the skeletons and other remains are being carefully conserved so that they will still be available for research if future generations feel differently. The first skeleton (LM1) is kept in a vault with a double lock which can only be opened if two keys are used. One key is controlled by archaeologists, the other by the local indigenous peoples.

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Research on human remains of indigenous people: Reflections from an archaeological perspective (with an example from Rounala)

KJELL-ÅKE ARONSSON

At least since the 1970s, claims for repatriation of items and human remains have been a part of the struggle for self-determination among indigenous people all over the world. The United Nations Declaration on the Rights of Indigenous Peoples from 2007 is a result of these efforts for self-determination. Repatriation of cultural remains of indigenous people can be viewed from three perspectives:

1. The perspective of power
2. The perspective of reconciliation
3. The perspective of knowledge

From an indigenous people's horizon, the perspective of power includes several aspects. In the postcolonial epoch, decolonisation of the administrative system is a part of the political

process. Decolonisation, however, consists not only of political acts for self-determination, but also efforts for decolonisation of the human mind. Access to one's heritage is a part of this. Striving for power and self-determination can also include religious claims. Thus, demands for reburial of human remains may be put forward by religious or ethno-political organisations.

Reconciliation is related to political and religious repression in the past. The aim of the reconciliation politics of today is to make things better in the future and leave the dark sides of history behind.

Empowerment and knowledge are essential aspects of the struggle for self-determination among indigenous people, and access to the cultural heritage is important in this. Heritage is a part of cultural identity on an individual as well as on a group level. Research in archaeology and history can also give new perspectives on the background of today's situation and make it easier to look forward to the future and find new solutions.

THE LOSS AND RECLAIMING OF SÁMI CULTURAL HERITAGE

As a result of the colonisation of Swedish Lapland, the main bulk of Sámi cultural heritage material was brought to museums or private collections in other regions or other countries. The formal starting point for this colonisation may be seen as the decision in AD 1605 to establish specific church sites, a new administrative order, and market places controlled by the Swedish kingdom. Paganism was punished and shaman drums and other items were systematically collected or destroyed by Lutheran priests. After this early period of colonisation, a period of private collectors and museums collecting Sámi cultural heritage followed in the 1800s.

Repatriation and access to the Sámi cultural heritage is an important task for the Ájtte Sámi museum in Jokkmokk. When the museum opened in 1989, the Ethnographic Museum in Stockholm provided a deposition of their collection of Sámi items to the new Ájtte museum. The Ájtte museum is the principal museum in Sweden for the Sámi culture. The role of the museum is not just to reproduce and present a once and forever fixed cultural identity, but also to play a part in a reflective discussion on Sámi history and identity.

In 2006, the Sámi Council of the Swedish Lutheran Church put forward a claim for repatriation and reburial of all Sámi human remains stored or exhibited in Swedish institutions. Their claim was that all Sámi human remains should be reburied according to the rituals of the Swedish Church. This was intended as an act of reconciliation between the Swedish Church and the Sámi people (Ekström 2006). Whether the human remains belonged to Christians or pagans was supposed to be of less importance in such a symbolic act of reconciliation. The human remains which could not be identified on an individual level were to be reburied in a mass grave, somewhere in Sápmi or in the Uppsala clerical centre. However, this resolution has caused some debate, because it is said by some to demonstrate a lack of respect for human remains from pre-Christian periods or remains of persons with other or no religious beliefs.

In a declaration from 2007, the Sámi Parliament in Sweden put forward a claim for repatriation and the possible reburying of all Sámi human remains in all institutions and

museums. The Sámi parliament recognised that more efforts were required to identify Sámi human remains, especially in the collections of the Museum of National Antiquities in Stockholm. In the museum's survey of their collections of human remains of indigenous peoples, the Sámi human remains were not listed. As a result of this unsatisfactory situation, the Museum of National Antiquities set up a working group with participants from the Sámi parliament, the Ájtte Sámi museum, and staff from the museum.

THE ROUNALA CASE AND THE NEW DATING OF THE HUMAN REMAINS

My discussion will now focus on the human remains from the Rounala burial site in northernmost Swedish Lapland (Figures 1 and 2). These remains have sparked an intensive debate in Sweden (Björkman 2009).

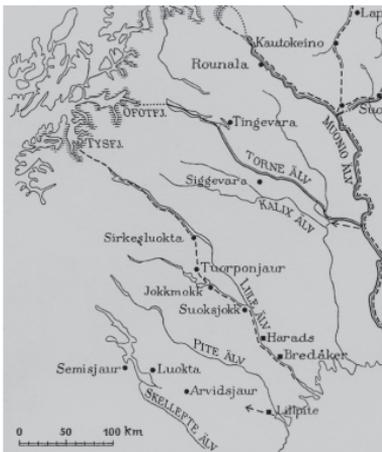


Figure 1. The Rounala site is situated alongside one of the main trade routes between the Bothnian Gulf and North Atlantic. (The figure is reprinted from Gunnar Hoppe: *Vägarna inom Norrbottens län—Studier över den trafikgeografiska utvecklingen från 1500-talet till våra dagar*. Uppsala, 1945; *Geographica - Skrifter från Uppsala Universitets Geografiska Institution Nr 16*.)

From historical sources it is known that a Lutheran chapel was situated in Rounala at the end of the 1500s (Wiklund 1916). Following an instruction in AD 1606 by the Swedish King Karl IX, a new Lutheran church was built in Enontekis (Anderzén 1989). The written sources inform us that the chapel and burial ground at Rounala were successively abandoned during the 1600s and finally during the 1700s. Nothing is known from written sources about the earlier history of the place.

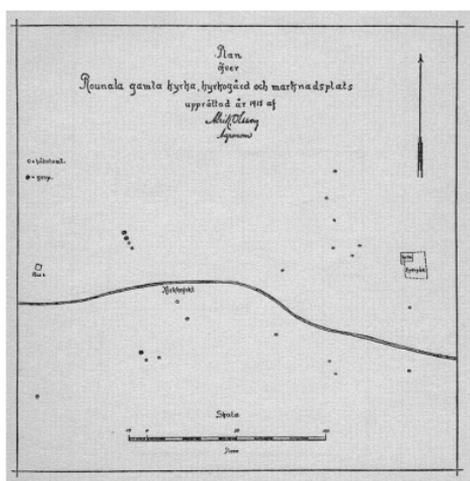


Figure 2. Sketch from 1915 by Eskil Olsson of the Rounala burial site. (The sketch is reproduced from K.B. Wiklund: Rounala kyrka. Uppsala, Almqvist & Wiksell, 1916.)

As a result of an archaeological excavation by Eskil Olsson in 1915, a total of 21 skulls and some skeletons from the Rounala site were brought to the university in Uppsala. It was supposed that the skulls and skeletons were remains of a Sámi population buried at the Lutheran churchyard during the late 1500s and 1600s. The purpose of this excavation was to provide Sámi skulls for the university's anatomical collection. As a result of a serious fire in

1892, the collection of Sámi skulls in the anatomical institution was destroyed. The excavation and new sampling campaign were rooted in the ideas of racial biology in the early 1900s. In 1996, part of the anatomical collection in Uppsala was given to the Museum of National Antiquities in Stockholm. Twelve skulls and some parts of the skeletons have now been identified in the museum collection in Stockholm.

When the working group started the survey and dialogue about the human remains in the collections at the Museum of National Antiquities in Stockholm, the group came to the conclusion that the excavation at Rounala was questionable from an ethical point of view. The excavation provided a clear example of the ideas and practices of racial biology concerning the Sámi people. The human remains may even belong to a time when names of Sámi families in the area are known from taxation lists. So far, repatriation and even reburying seemed to be a fair and relatively unproblematic act.

Only later was the working group informed about the sampling and analysis for radiocarbon dating and stable isotope analysis by Professor Kerstin Lidén at the University of Stockholm and Thomas Wallerström at the University of Trondheim, carried out some years earlier. It had hitherto been assumed that the human remains belonged to the period around AD 1600. The preliminary radiocarbon analysis, however, indicated a dating as early as the 1200s or 1300s. Comparable Sámi burials from this period are unknown in Sweden. Even more surprisingly, the site may have been an inland Christian underground burial site from medieval times.

The general opinion among researchers is that a medieval Sámi ethnic identity was formed in contrast to the Nordic societies that had become parts of Christianity (Hansen and Olsen 2004:140, Welinder 2008:129). This view has been fundamental to our understanding of the formation of Sámi ethnicity. In this context, the results from the Rounala analysis raise some questions. As no comparable burials are known in a Sámi context, there may be doubts about the ethnic identity of the remains (compare Schanche 2000). The Sámi population from that time is generally described as pre-Christian pagans with burial customs different from the Christians. The ethnic identity becomes more problematic with an early dating and no comparable graves from a Sámi context (Figure 3).



Figure 3. Typical Sámi over ground burial constructed of flat stones on a rocky island in an inland lake. (Photo: Kjell-Åke Aronsson.)

However, these datings also raise the possibility that other assumptions in earlier research are incorrect and can be questioned. This opens up new perspectives on medieval Sámi history. Christian contacts and influence may be dated back in time. The early Lutheran missionaries of the 1600s described the Sámi people as pre-Christian pagans. Probably, the Lutheran church and its missionaries had their own reasons for viewing the situation in this way. In this light, the descriptions might have been intended to make their roles as missionaries seem more heroic. These aspects of the Lutheran mission have been discussed by Granqvist (2004) among others.

However, the Sámi population may also have had earlier contact with, and influence from, the Catholic and Orthodox churches. Indeed, some priests were also aware of the possibility that the Sámi were influenced by Christian beliefs much earlier than the Lutheran mission. Hollsten (1768) discusses some information and traditions relating to missions and priests during the medieval Catholic period. He also describes some specific cultural traits indicating early contacts with the Sámi population.

RESULTS FROM STABLE ISOTOPE ANALYSIS OF THE ROUNALA HUMAN REMAINS

As mentioned, sampling for stable isotope analysis was also carried out on the Rounala human remains by Professor Kerstin Lidén. In archaeological research, stable isotope analysis from bone collagen is commonly used to investigate human living conditions in the past. The analysis can give information about the

kind of food that was consumed and from which region it came. Carbon and nitrogen isotope analysis can aid our understanding of the role of marine and terrestrial resources and the role of wild and cultivated plants in the diet of ancient human populations. Sulphur isotope analysis can give information on movements at an individual level. The content of sulphur can give information about whether a person has stayed throughout life in the same place where they were born or if they moved as an adult.

The results from the analysis of the Rounala human remains show that the diet was a combination of marine and terrestrial food. Reindeer meat was part of the diet but not very important. The sulphur values indicate that two individuals came from another region. All individuals have now been radiocarbon dated with corrections for a marine reservoir effect. Most of the individuals pre-date the time of the chapel in the mid 16th century. The datings also indicate continuity in the use of the burial site from the 14th to the 18th centuries. Males and females, juveniles and old people are represented. However, a much larger group should be expected for such a long period of time. What happened to the rest of the population? Did Eskil Olsson, inadvertently or not, leave parts of the site unexcavated? Or does this population represent the social and clerical elite of the contemporary society? This may be the case. According to the 17th century narrative of the vicar Tornaeus in Tornio, the old priest Dn. Georgius was buried by him in Rounala. This was Georgius' last wish. However, for those individuals buried 300 years earlier our knowledge is still very restricted. The possibility that the Lutheran chapel was established at an older pagan burial site must not be disregarded.

Such symbolic acts were more the rule than the exception when the Christian church established its power.

A researcher in Sámi history is usually of the opinion that the social structure of *siida* societies and territories was established in the Sámi settlement areas during the medieval period (Hansen and Olsen 2004:93-103). It is supposed that the inland resources became more intensely exploited when the inland *siida* territories were established. The Rounala *siida* is supposed to be a typical inland *siida* territory from this period. Other researchers have questioned this view and see the *siida* territories as resulting from intervention and administrative organisation enforced by the Swedish and Russian states at a later period (Aronsson 2009, Eidlitz Kuoljok 2010). The Rounala burial site can also be discussed from this alternative perspective.

What about the formation of inland territories and intensified utilisation of the resources of the interior, as the analyses demonstrate a combination diet of marine and terrestrial food? The results from the analysis of samples from the Rounala human remains contradict established opinions about Sámi medieval history. Nor does the Rounala burial ground correspond to the general opinion on medieval Sámi burial customs. However, it must also be taken into consideration that the general view on Sámi medieval history and ethnic identity is a construction based on a rather weak empirical basis.

NEW CLAIM ON THE SKULLS AND SKELETON

When information about the dating of the skulls and skeletons reached the public, a new claim for more research was

raised by Kvenlandsförbundet, an organisation representing the so-called *Kvän* ethnic group in Norway and Sweden. The *Kvän* group in Sweden are mainly descendants of the Finnish speaking population of the Tornio river valley. This opinion of the *Kvän* group was also recognised at the Ministry of Culture when they decided not to repatriate the Rounala remains for reburial. The Minister of Culture Lena Adelsohn Liljeroth also mentioned the *Kvän* group when she informed the media about the government's decision (16 July 2009). 'This is very important for us' was the comment from Vice-Chairman Gertrud Monlund of the Kvenlandsförbundet. Wallerström has discussed the problems related to identifying past ethnic groups. The ethnicities of our own time have not been exactly the same through history (Wallerström 2006). The new knowledge about the dating of the Rounala remains has also aroused new interest in research among the inhabitants of the small villages close to the Rounala site. A local association called 'Rounala lappby' named after the old *siida* territory Rounala has also contacted the museum in Stockholm and asked for more research into the prehistory of the area.

ETHICAL CONSIDERATIONS

Who has the right to the skulls and skeletons from Rounala from an ethical point of view?

How far back in time does a religious, political or ethnic group have an exclusive right to decide about remains from a distant past? Religion, politics and ethnicities have shifted throughout history and different ethnic groups of today can

also have a common history in the past. At least in terms of the language, the Sámi and Kvän populations have a common Finno-Ugric origin. The starting point for the dialogue about the human remains at the Museum of National Antiquities in Stockholm was the claim for repatriation and reburial by the Swedish Lutheran church in 2006. However, the main part of the human remains seems to belong to a time long before the Swedish Lutheran church existed and even before the Swedish Kingdom acquired control over the area in question. So far this claim can be questioned. Even more questionable is the proposal for reburials at the clerical centre of Uppsala or at some other place. One of the 17th century burials may be the priest Georgius. We know it was his last wish to be buried in Rounala. If he can be identified, his last wish must be taken into ethical consideration.

The results of the scientific analysis of the human remains from Rounala have definitely provided new information about this burial site. The results so far also raise questions and doubts about the established views on Sámi medieval history. Does anyone have the exclusive right to decide on the 'correct' and 'final' opinion about the human remains from Rounala? No one can with certainty state that they are 'my' ancestors. Is reburial of the remains in the earth, thus putting a stop to research and scientific discussion, the best decision in this situation? To obtain more knowledge about what the Rounala site represents, new archaeological investigations are necessary and also more analysis of the skulls and skeletons. More research may also reveal new surprises contradicting established views.

EPILOGUE: WHAT WILL HAPPEN WITH THE HUMAN REMAINS FROM ROUNALA?

The Swedish Sámi Parliament in 2009 presented a claim for repatriation to the Swedish Government doc.no. 2009-648). With reference to the scientific importance and well-preserved status of the human remains from Rounala, the Sámi Parliament considered deposition to the Ájtte museum a plausible solution, acceptable also from an ethical point of view. The remains will be accessible for scientific research but the Sámi Parliament will have control through an ethical framework and committee.

As a result of this claim, the Museum of National Antiquities decided to transfer the human remains from Rounala to the Ájtte museum in Jokkmokk. The Ájtte museum is an independent foundation by the Sámi organisation Svenska Samernas Riksförbund (SSR), Same Ätnam, the municipality of Jokkmokk, the county of Norrbotten and the Swedish state.

According to the ICOM ethical rules, the Ájtte museum is responsible for taking care of the human remains from Rounala. The scientific analyses hitherto have demonstrated the importance of the human remains for research and for rethinking Sámi medieval history and, in a broader sense, the medieval history of northern Fennoscandia. Further research may also open up for serious dialogue.

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The ethics of destructive bone analyses (with examples from Denmark and Greenland)

NIELS LYNNERUP

Destructive analyses of human remains, i.e. analyses dependent on (usually very) small biological samples from human, archaeologically found bone or teeth, have yielded important new data and added to our knowledge about our past. To give a few examples, one may point to recent analyses of human remains from the Danish Iron Age. Previously, archaeologists thought that the people of the Iron Age society were broadly dependent on a varied subsistence pattern, including a varied diet of meat from terrestrial animals, both game and domesticates, and fish and crops, and probably with some social differentiation between high and low status (the better-off consuming more meat). This was assumed to be the case not least because of finds of fishing utensils at coastal settlements and ploughing patterns in fields. However, based on a major study of stable isotopes in human bone, we may now have to adjust this interpretation. Indeed,

since stable isotopes reflect the dietary constituents over a period of 10-15 years for the single individual, we were able to show that there was no difference at all between people living in coastal settlements and inland, nor between high and low social status (judged by grave furnishings), male or female, and that agricultural products probably only constituted a minor source of food. Thus, crops may mainly have been used as fodder for domesticates, and fish may have had a limited seasonal (ceremonial?) role, rather than being an important food staple (Jørkow et al. 2010).

Likewise, we have recently performed a major stable isotope study of a large material including human bones, both Inuit and Norse, bones of domesticates and wild animals, and marine animals (fish). We are thus able to discern how the Medieval Norse Greenland society changed subsistence pattern over 500 years of settlement, and how the Inuit closely followed specific marine game animals on their southward settlement of Greenland (Arneborg et al., to be published).

Finally, we have shown the existence of a genetically mixed population at an Early Christian cemetery near Roskilde (ca. 1000 AD). One individual even seemed to have his origins near the Black Sea (or at least his so-called mitochondrial DNA did). In fact, the population then was probably just as genetically varied as the Danish population is today (Rudbeck et al. 2005).

These results have all been achieved because we were allowed to take miniscule samples from human bones and teeth. The individual samples comprised some 100-250 mg of bone tissue.

THE ETHICAL PRINCIPLES

Before describing in more detail how permission to extract samples and perform analyses are obtained in Denmark (and Greenland), a brief description of the general ethical principles involved may be useful. Broadly speaking, ethical analyses often come down to two different kinds of principles (cf. Wulff and Gøtzsche 2007):

I: Utilitarian or consequentialist principles. These principles were mainly proposed by Jeremy Bentham and John Stuart Mill. According to utilitarian principles, whether a certain act is judged to be ethical or not depends on the utility or usefulness of the act. All else being equal, if the act means, for example, more knowledge for more people, then it should be allowed, i.e. it is ethically commendable.

II: Deontological principles. These principles state that certain acts are either good (and can thus constitute duties) or bad. Examples of such categorical imperatives range from the Ten Commandments to the ‘taboos’ of different cultures and peoples. In Kant’s deontological philosophy, the categorical imperative rests on respecting the rational personhood of each human being, e.g. by never treating humans as mere means (no matter the consequences).

Natural science, developed especially in the 17th and 18th century, often implicitly involves utilitarian and consequential thinking. Applied to our discussion: whether or not to drill out some milligrams of bone tissue from archaeologically found human

material does not really present an ethical problem if the aim, and the only result, will be more knowledge about the past, which is seen as an absolute beneficial consequence, resulting in a better understanding of our human biological and societal development. However, the categorical imperatives may be brought to bear as well: one may feel that the human remains, and the memory of the once-living people, deserve respect, and that handling and sampling these bones is incompatible with such respect. Following this line of ethical reasoning, it is possible to conclude that sampling human remains is wrong and must not be done.

Ethical discussions which set categorical imperatives against useful (i.e. perceived beneficial) consequences, is well known in medical science, concerning issues such as informed consent for treatment, permission to perform autopsies, compulsory vaccination, and the use of organs for transplants, to name a few. There is no simple philosophical solution to these kinds of ethical discussions, and the deontological and utilitarian/consequentialist positions are often seen as incompatible. To address these ethical problems, the authorities have usually resorted to setting up ethical committees, to which scientists can apply for permission to perform analyses, and often these ethical committees may also be charged with discussing and presenting ethical principles and problems for the general population.

SO WHO DECIDES WHAT IN DANISH AND GREENLANDIC ARCHAEOLOGY?

There is as yet no ethical committee to handle questions of the above nature in Danish archaeology. Following the Danish

Antiquities Act, specific local museums and the Danish National Museum may conduct archaeological excavations. Materials found and secured are then for all practical purposes owned by the excavator (the museum), to be stored, preserved and displayed. This is also the case for human remains. In most cases, following an almost 100-year-old tradition, human remains are sent to the Laboratory of Biological Anthropology at the Institute of Forensic Medicine, University of Copenhagen, which now stores the remains of some 30,000 individuals (The University of Southern Denmark also stores a sizeable number of medieval human remains). Likewise, animal bones are sent to the Zoological Institute at the University of Copenhagen. In principle the material is deposited, so the Laboratory of Biological Anthropology functions as a repository institution. This means that when scientists wish to take biological samples from the human remains, permission is formally requested from the museum which deposited the human material. Thus, the transaction takes place between the scientists (via the repository institution) and the museum, and does not involve any specifically ethics-oriented entity. At the Laboratory of Biological Anthropology, we also curate human remains from Greenland, and in this case discussions about sampling often have an ethical dimension. Formally, however, the issue is again solely a matter between the scientists and the Greenland National Museum. The reason for Greenlandic material more often involving an ethical dimension is culturally rooted in the fact that many Greenlanders see human remains as something which must be left in peace and not be unduly disturbed. Furthermore, there is perhaps also a residual

feeling of having been exploited by earlier Danish scientists and explorers, who—often without any archaeological knowledge or control—indiscriminately ‘collected’ and gathered human skeletal remains from graves and sacral sites.

Nor is there in Denmark any central ethical committee to handle questions about the ethical implications of sampling from human remains (although archaeological activity is overall controlled by the Danish State Heritage Agency). Given the rather homogenous nature of the Danish archaeological institutions and their staff, the basic understanding does not vary much: destructive sampling may be warranted for scientific analyses, but it is implied that the sampling be done according to certain guidelines, and that the project of which the sampling is a part should lead to reasonably important data of benefit for the community. (Of course, there is also always a curatorial consideration: we cannot just sample away on the few and precious Mesolithic materials we have, or they would rapidly depreciate in value for future scientific enterprises.)

Recently, however, there have been some archaeological excavations that have alerted archaeologists and natural scientists to ethical problems. These were excavations entailing that graves in recently closed-down cemeteries, some containing individuals buried as late as less than 100 years ago, would suddenly be exposed. In one case involving the Assistens Cemetery in Copenhagen, many graves would need to be cleared due to the construction of a subway. A field osteological laboratory was established, so that human remains could be studied in detail after excavation and before reburial. The decision to rebury most

or all of the human remains may be seen as a clear indication that this material, being more recent than usual archaeological material, was thought to merit a different ethical evaluation. This situation also presented a good opportunity for discussing the ethics involved and presenting these considerations to the public at large. However, this was not quite the way it turned out.

THE MEDIA

The media had a field day concerning the Assistens Cemetery excavation. The number of burials to be excavated and cleared was subject to gross inflation: even though the museum had estimated that some 500 graves would be involved, this became '4,000-10,000' graves in newspaper stories. The public were asked leading questions like 'Do you think the dead should be left in peace?' It turned out that very few had any grasp of the usual, church-mandated period of 'grave peace'. In Denmark this is set at 20 years, and after this period a grave is anyway cleared (unless special precautions are taken). Nor indeed were many aware of how churchyard personnel actually clear such graves (the standard procedures certainly do not meet exacting archaeological standards). The media also presented members of the clergy condemning the excavations, while other clergy did not. Generally, a rather confused picture of general ethical uncertainty was exposed. This must not be taken to mean that everything would have been better had the media not been involved, but it does perhaps point to the fact that in our modern societies the media must be seen as a player. Ethical discussions are all very well between various institutions, but the

various institutions should perhaps also adopt a more proactive stance. Being only reactive in the media in a case like this easily leads to being seen as purely defensive, and this impression may diminish the perceived importance of the archaeological excavation in question. The archaeologists should rather contribute to the general public's awareness of the limitations of 'grave peace' and of how many graves are cleared every day by cemetery personnel. If it is deemed important to perform archaeological excavations of human remains, there should be some consideration of what will be gained, and how the process will be handled (or, indeed, why one may choose not to excavate human remains). The scientists involved should not shy away from an ethical discussion.

WHAT TO DO?

In a given archaeological excavation (involving human remains), the use of stakeholder analysis may be advocated, as this is a quick analysis of who may play a role in evaluating the excavation. A stakeholder is any person or organisation who may be positively or negatively impacted by, or cause an impact on the actions of, a company, government or organisation. The first step in building any stakeholder map is to develop a categorised list of the stakeholders, and then specifying their importance for the realisation of the project, and their influence over the project (Kaufmann & Rühli, 2010). In turn, this is then marked on a graph. An example is given in Figure 1. It is important to acknowledge the ability of the media to move the stakeholders around in the graph.

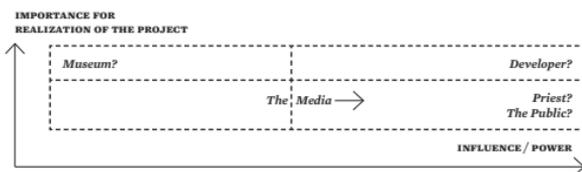


Figure 1: The graph shows a simple stakeholder analysis. ‘Stakeholders’ i.e. persons, institutions etc., that will play a role in the course and outcome of e.g. an excavation, are placed on the graph according to their perceived importance for the realisation of the excavation and their perceived influence and power over the excavation. In terms of an ethical analysis, a stakeholder analysis may help to clarify who may take ethical stances concerning excavation of human remains, and what impact this may have. Note that the media especially have the possibility of moving stakeholders around, for instance by singling out and presenting a stakeholder’s stance. In the graph it is shown how the media augmented the impact of one priest by giving much voice to his religious and ethical stances (in the case of Assistens cemetery: a clergyman very much opposed to excavation of human remains). (Graph by Niels Lynnerup.)

Speaking more generally, setting up specific ethical committees, or at least outlining ethical guidelines, would be beneficial. Such guidelines have indeed been formulated by the Museum of London, by the International Council of Museums (ICOM), and also by certain professional associations, e.g. the BABA Code of Ethics for archaeological human remains. Inspiration may also be gained from existing experience in medical circles and among forensic specialists, e.g. those involved in exhumations after genocides (e.g. Eriksen et al. 2000).

Aside from the more lofty ethical principles described above, we should also stress the fact that scientific correctness is in itself ethically relevant. Sloppy handling of human remains and botched sampling is not only bad science, but should also be judged as unethical conduct. When excavating human remains, and when sampling such remains, ethically responsible behaviour

also implies correct and diligent registration and documentation, and trying to keep destructive sampling to the minimum amounts required. Furthermore, human remains must be seen as fundamentally different from other kinds of archaeological find material, and be handled with appropriate respect. To put it bluntly: human remains are not pot shards. Archaeologists and natural scientists involved in analyses of human remains must be prepared to explain their intended projects and analyses, and be open and forthcoming about this to the general public, including about the ethical considerations.

FALSE DICHOTOMY

Sometimes one may get the impression, especially from the media, that there is a “them versus us” thinking going on: between scientists wanting to secure human bone samples at any cost, solely to satisfy their own inquisitiveness (and further their career), and a concerned public, feeling that somehow the remains of their forbears are used for trivial ends, and that the scientists show no concern for ethics. I feel this is largely a false dichotomy. In my own experience, scientists are very much concerned about the ramifications of their research, and given the chance, they will gladly present the case, including ethical considerations, for conducting their studies. Granted, these ethical considerations often follow utilitarian and consequentialist ethical principles, but when encountering more deontologically minded principles, they will often express understanding and respect. An example of such circumstances are the major scientific studies that were launched when eight 15th century Inuit

mummies were located and secured in Greenland in the 1980s. In agreement with the Greenland National Museum, the mummies were flown to Denmark for detailed analyses before the most intact mummies were repatriated for exhibition in Greenland. The less well-preserved mummies are stored at the Laboratory of Biological Anthropology (but formally owned by the Greenland National Museum). The results of the studies were presented both for the general public and in proper scientific publications (Hart Hansen and Gulløv, 1989). The results generated huge public interest and implicit public acceptance, not least for showing how the Inuit had managed to sustain a highly specialised culture in an extreme environment. Indeed, the mummies showed evidence of habits and lifestyles hitherto only uncertainly recorded ethnographically at the turn of the preceding century. More worryingly, the occurrence of heavy metals in tissues of the mummies, compared to present-day results, could attest to the pollution and accumulation of unhealthy heavy metals in marine animals and in the Inuit themselves.

While perhaps not the result of a proper, stringent ethical analysis, it was decided not to perform destructive analyses on one of the mummies: a six-month old boy. This child mummy was so intact, including the delicate facial features, as to plainly generate strong emotions. It was somehow felt by all involved, comprising museum staff, archaeologists, natural scientists and the public, that this little boy should be “left in peace” (but on display). This may be a situation where a deontological consideration (not to perform destructive analyses on the boy mummy) was combined with a general utilitarian perception of research (data

obtained from the other mummies), and in my opinion points to how such ethical considerations may be solved: mutual respect for emotional, scientific and ethical standpoints with a balanced solution addressing all these dimensions. While archaeologists and scientists certainly should not feel entitled to excavate and perform destructive analyses against the wishes and feelings of others involved, the points of view of the archaeologists and scientists should also be heard.

THE FUTURE

The Inuit mummy study may point to the future of how to handle destructive analyses of human remains. While demands raised by for example close descendants, indigenous populations, clergy etc. should be addressed, and certainly at times respected, much is to be gained by all if one also points to the consequences and utility of performing destructive analyses on human remains.

This is becoming ever more evident with the many new scientific methods introduced in recent years. I have touched upon the implications of recording pollution and climate shifts, data of obvious use for assessing our situation today. Of similar usefulness are e.g. for example data showing how there have always been gene-flows between human populations. Future scientific endeavours may very well be able to show, using samples from human remains, the emergence of diseases and the interaction between these diseases and humans and their societies. This is not a trivial matter. Climate shifts in the future may change the disease patterns of our societies, so that hitherto rare diseases re-emerge: we still do not know exactly why a disease once so

ubiquitous as leprosy all but disappeared in Europe during the 13th and 14th century, or why tuberculosis was not common in earlier times, or even whether all the plague epidemics were really caused by the same micro-organism. Did certain hereditary diseases arise as a consequence of where our forbears chose to live, as has been proposed for diseases such as haematomachrosis (abnormal uptake of iron which might be beneficial for populations having an iron-depleted diet) and sickle-cell anaemia (abnormal blood cells, which are more resistant to malarial infection)? Archaeology and biological anthropology may give us some very real and important answers—but destructive analyses of human remains will be necessary to secure these insights.

When destructive analyses of human remains are carried out they are also the results of ethical reflections, whether stated or not. In some cases, these reflections may perhaps not even be consciously formulated. But not performing destructive analyses, and thereby not obtaining the scientific results, certainly also has ethical implications, for all of us.

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Analysis of DNA from bone: Benefits versus losses

ERIKA HAGELBERG

Bone DNA typing, the molecular analysis of DNA from skeletal material, has developed at an extraordinary rate since its beginnings in the late 1980s. Before that time, the extraction of DNA from archaeological bones, or even bones of recently deceased individuals, was considered impossible. The first attempts to recover DNA from archaeological remains and museum specimens involved soft tissues such as preserved animal skins (Higuchi et al. 1984) and Egyptian mummies (Pääbo 1985). Forensic anthropologists were limited to physical measurements of the bones of the dead. Today, one generation later, bone DNA typing is widely used in forensic identification, and is applied in many scientific fields, most notably in the study of human evolution, but also in the study of animal domestication, in archaeology, palaeopathology, taxonomy, and conservation. Most remarkably, powerful novel DNA sequencing techniques have helped

elucidate the genome sequence of past humans, including an approximately 4,000-year-old Greenlander (Rasmussen et al. 2010), and our closest archaic relative, the Neanderthal (Green et al. 2010), in high-profile projects costing millions of Euro.

ANCIENT DNA STUDIES

The analysis of DNA from old bones belongs to the field of research known as ‘ancient DNA’, or aDNA for short, which includes the study of DNA from old and degraded biological tissues including stuffed animals in museums, archaeological remains, animals preserved in permafrost, material from ethnographic collections, hair, ivory, old pathology specimens, stored blood and serum samples, and even religious relics. Ancient DNA and forensic DNA studies share the fact that the biological samples they deal with—hair, blood and bones—may be damaged by heat and ultraviolet light, and contaminated by dirt or DNA from other sources. It is not surprising, therefore, that DNA forensics and ancient DNA have developed in parallel, both profiting from technical advances in molecular biology.

In 1984, Alec Jeffreys (now Sir Alec) at the University of Leicester, England, first described DNA fingerprinting, a technique that was to revolutionise human forensic identification (Jeffreys et al. 1985). The same year, Allan Wilson and colleagues at the University of Berkeley in California published the first study on ancient DNA, the analysis of DNA from the preserved skin of a quagga, an extinct member of the horse family (Higuchi et al. 1984). While praising the scientific achievements of the Berkeley group, Jeffreys emphasised that ancient DNA analysis

was fraught with technical problems, warning that the recovery of substantial genetic information from ancient tissues would present formidable obstacles (Jeffreys 1984).

The molecular genetic methods of the early 1980s, including Jeffreys's multilocus DNA fingerprints, required large amounts of relatively intact DNA, like that extracted from fresh blood stains or hair roots. In contrast, old biological samples generally have tiny quantities of physically and chemically degraded DNA. Old materials may be heavily contaminated by humic acids and soil microorganisms, as well as by glues and preservatives used by museum curators. In an attempt to overcome these technical problems, scientists turned to a powerful novel technique, the polymerase chain reaction, or PCR for short (Saiki et al. 1985).

PCR is used to amplify, or copy, specific DNA fragments to produce quantities sufficient for DNA sequencing. The method uses heat to separate (denature) the two complementary (mirror-image) strands of a DNA molecule, each of which is afterwards copied by a DNA polymerase (an enzyme that copies DNA) to produce two copies of the original molecule. The exact piece of DNA to be copied is specified by little pieces of single-stranded DNA called 'primers', which define the region of interest. The process is repeated over and over again, each time doubling the number of desired DNA molecules. As little as one single specific DNA fragment can be copied to yield usable amounts, and the technique has proved invaluable in many different fields of research because it allows scientists both to detect one interesting piece of DNA among many, and to recover informative DNA from materials containing very little DNA.

In 1988, the first ancient DNA study involving PCR was published, the amplification of a small piece of DNA from a sample of 7,000-year-old human brain tissue preserved in a neutral bog in Florida (Pääbo et al. 1988). The introduction of PCR led to a revolution in ancient DNA studies, with a flurry of articles describing the recovery of DNA from bone (Hagelberg et al. 1989), plant fossils aged millions of years (Golenberg et al. 1990), and many other ancient remains (for a review of the early advances in ancient DNA, see DeSalle & Grimaldi 1994). In Great Britain, several ancient DNA research initiatives were established by organisations such as the Natural Environment Research Council and medical charities like the Wellcome Trust. The first international conference on ancient DNA took place in Nottingham, England, in 1991, followed by a much larger meeting two years later at the Smithsonian Institute in Washington D.C. (The tenth international ancient DNA meeting, in October 2010 in Munich, Germany, had less than 50 participants, reflecting the downturn in the fortune of many ancient DNA studies, about which more below.)

Ancient DNA studies attract much scientific and public interest and tend to be reported noisily in the media, as they often appear the stuff of science fiction. It is no accident that the early breakthroughs in ancient DNA coincided with the publication of the novel *Jurassic Park* by Michael Crichton (1990) and the film of the same title directed by Steven Spielberg (1993). In the story, scientists used PCR to amplify dinosaur DNA from blood ingested by insects preserved in amber (using the DNA to reconstruct living dinosaurs), with techniques analogous to those used by

real-life scientists of the day. The publicity helped generate funds for researchers, but raised overly optimistic expectations about the results of ancient DNA studies. In the years that followed, the reliability of studies on DNA from organisms embedded in amber was questioned (Austin et al. 1997).

BONE DNA

In 1987, I began to investigate the analysis of DNA from bones, something that had not been done before. The possibility of recovering DNA from skeletal material created new opportunities for the study of past human populations, as bones are more abundant than soft tissue remains in the archaeological record. At the time of the earliest aDNA research and the first applications of PCR, there was comparatively little discussion of some of the issues that concern us today, most notably the destructive nature of the analyses, and the potential of contamination by the DNA of living people. The focus of aDNA research was on the limits of longevity, or how far back one can go before the DNA has completely vanished in plant or animal remains. Some scientists argued that the limits of DNA survival were five or ten thousand years (Lindahl 1993) while others claimed to be able to extract DNA from fossils millions of years old (Cano et al. 1993). In the mid-1990s, scientists announced the recovery of DNA from dinosaur fossils, but their findings were later found to be artefacts caused by contamination: the dinosaur DNA sequence was in fact human (Woodward et al. 1994). The debate on the longevity of ancient DNA is still unresolved, but scientists agree that DNA preservation depends not primarily on age, but on

environmental conditions. For example, typical human burials in Europe, 'six feet under', maintain an even cool temperature throughout the year, and many skeletons are well preserved after thousands of years if the soil pH is favourable. However, shallow graves in gravel or acid soils are detrimental to preservation. Most importantly, bones thousands of years old may be well preserved on excavation, but decay rapidly in the hot, damp, or too dry conditions which are unfortunately all too common in the store rooms of museums and universities.

The issue of contamination has been the bane of aDNA research, especially studies on human bone. Early on, scientists became keenly aware that the very advantage of PCR, the ability to amplify DNA with exquisite sensitivity, was also its greatest hazard, as one was more likely to amplify the DNA from the person handling a bone than from the bone itself. With human bones there may be no way to exclude possible contamination, making the interpretation of such studies a nightmare. Contamination can arise from shed dead skin in the laboratory reagents and equipment, or even from DNA sequences carried over from earlier PCR experiments. Certain commonsensical precautions were eventually implemented, including control DNA extractions and the inclusion of blanks, which made possible the detection of contamination in the reagents. In the case of human bone, as in my own research, the results could be verified by parallel extractions of animal bones handled in the same way as the human bones. For example, in one early study, a DNA sequence extracted from a 500-year-old pig bone was shown to be pig-like and not human, whereas laboratory contamination of the bone

would have yielded a human sequence (Hagelberg & Clegg 1991). This seems a trivial observation now, but at the time it was an important demonstration of the principle that genuine DNA could be extracted from old bones.

Interestingly, the most definite proof of the feasibility to recover authentic DNA from human bones came from forensics. In 1990, Alec Jeffreys and I identified a murder victim using DNA extracted from the skeleton. DNA markers from the bone DNA were compared with markers from blood DNA of the parents of the presumed victim. The results showed that the bone DNA markers were 'consistent' with the deceased being an offspring of the parents, with a very high degree of probability. This case was the first instance of the use of bone DNA typing as evidence in a murder trial, as well as the first application of a novel type of DNA markers, known as microsatellites (also STRs or short tandem repeats), in forensic identification (Hagelberg et al. 1991). We used a similar approach to identify the skeletal remains of the Auschwitz physician Josef Mengele, this time comparing the bone DNA (the presumptive Mengele) with DNA from the blood of Mengele's living son and former wife (Jeffreys et al. 1992). In both instances we observed an inclusion (a match between bone DNA and that of living relatives), using several independent DNA markers. This indicated that the bone DNA was authentic, as random contamination would almost certainly result in an exclusion (non-match between bone DNA and reference samples).

Autosomal microsatellite markers—carried on the autosomes or non-sex chromosomes—like those we used, are inherited in a Mendelian fashion, where the offspring inherits one allele

from each parent. In the two forensic cases described above, the deceased person and living relatives were separated by one generation, so the identification itself, though technically challenging, was a relatively straightforward comparison between parents and offspring. However, if a deceased person is separated by several generations from the living 'reference' person, or in historical cases where the bones are hundreds or thousands of years old, there is an exponential increase in the number of ancestor/descendant relationships for each generation (two parents, four grandparents, eight great-grandparents, etc.), and it becomes harder to unpick what came from whom. In these cases, scientists use other genetic systems, known as uniparental markers, which are passed on generally unchanged through the maternal or paternal line. These uniparental systems are mitochondrial DNA and the Y chromosome.

Mitochondrial DNA, mtDNA for short, is an ideal genetic system for evolutionary and genealogical studies, as it is inherited through the maternal line (analogous to the way surnames are inherited through paternal lineages). Cells contain many thousands of copies of mtDNA, so it is easier to extract mtDNA sequences than nuclear sequences from degraded samples. This makes mtDNA particularly useful in ancient DNA and forensic studies. Markers on the Y chromosome are also widely used both in forensic and phylogenetic studies to study paternal lineages, but are less applicable in ancient DNA research as the amount in cells is low compared to mtDNA.

A classic example of the use of mtDNA is the identification of the skeletal remains of the Romanov family, exhumed

in Ekaterinburg in 1991. Mitochondrial DNA sequences from bone extracts of the presumptive Tsarina Alexandra and three of her daughters were compared to the sequence amplified from a blood sample from Prince Philip. The Prince's grandmother and the Tsarina were sisters, both the daughters of Princess Alice (the second daughter of Queen Victoria); thus, Philip and Alexandra were linked by an unbroken maternal line. The investigation showed a positive match between Prince Philip's mtDNA sequence and that of the four bone samples, consistent with the shared maternal connection between these individuals. The DNA data, with other independent evidence, led to a positive identification of the remains (Gill et al. 1994).

SCEPTICISM RAISES ITS HEAD

The recovery of mtDNA from the Neanderthal type specimen by Svante Pääbo and colleagues (Krings et al. 1997) marked a watershed in ancient DNA studies. Due to the importance of the Neanderthal in understanding modern human evolution, as well as the sheer iconic status of this archaic human, the work promised to have a huge impact on the scientific community and the public, and was therefore performed with extreme safeguards against contamination, and in two independent laboratories. The study became a benchmark in aDNA and helped formulate a series of standards for this type of research. In a commentary in *Nature*, Rick Ward and Chris Stringer (neither of whom had first-hand experience with ancient DNA work) listed four 'standard' procedures or 'criteria of authenticity' to which all future

ancient DNA studies should adhere (Ward & Stringer 1997).¹ The standards were later expanded by others to include various physical, chemical and molecular procedures.

While the standards were undoubtedly a practical reaction against some of the nonsensical aDNA claims of preceding years, they had some negative consequences, including the rejection of sound studies not adhering to the standards, while it was still possible to publish artefacts or erroneous results that seemed 'good' because they met the standards. For example, amino acid racemization, which offered verisimilitude to some studies of insect DNA from amber, was later shown not to be a useful guide to DNA preservation (Austin et al. 1997). Another example was the stipulation to clone PCR products before sequencing, because one is as likely to clone contamination as genuine ancient DNA. Cloning yields a lot of sequences, from which researchers can pick and choose presumed authentic sequences to create a consensus sequence—a highly subjective operation. In addition, although the measures were appropriate in high-profile or unique studies like that of the Neanderthal, involving just one or a few samples, they were not readily applicable or even useful in population studies, such as cemetery populations or large archaeological

1 These consisted in: 1. estimation of the extent of amino acid racemization in the residual bone proteins (as an indirect guide to DNA survival), to be carried out *before* DNA analyses; 2. estimation of the number of intact DNA template molecules in the polymerase chain reaction, to identify reactions with too few DNA molecules, which should be considered 'highly suspect'; 3. the use of cloning to identify the different PCR products (presumably a collection of original DNA, damaged DNA and contaminant sequences), to help build a consensus sequence, hopefully the original DNA sequence; 4. independent replication of the work in a different laboratory. As may be imagined, this was a considerable extra burden for aDNA researchers.

projects with a range of conditions and source materials, and the potential for verification using other approaches.

A further consequence of the rigid guidelines was to polarise research into two groups: those scientists imposing and policing the standards (typically in well-funded laboratories with technical backup), and the mainstream ancient DNA community in modestly funded university laboratories. As one participant at the tenth international ancient DNA meeting in 2010 commented, ‘the field of ancient DNA is split into the haves and the have-nots’ (C. Greenblatt, oral communication).

The insistence on absolute standards stifled many projects, while resources were diverted to a few high-profile studies to the detriment of emerging scientists. The criticisms of projects not meeting the standards seemed even unprofessional at times, for example emotive titles such as ‘Ancient DNA: do it right or not at all’ (Cooper & Poinar 2000). Scholars deviating from orthodoxy were sometimes attacked in the literature or at conferences, or blocked from research grants by ill-informed referees. While the orthodoxy itself was sometimes mocked (for example, humorous references to the ‘do it with me or not at all’ school of aDNA studies), the purported technical difficulties and the obstacles to publication discouraged some researchers from embarking on aDNA projects, and caused an excessively negative impression among potential users of aDNA studies, for example archaeologists and museum curators. Fortunately, common sense has prevailed on the part of researchers, journal referees and editors, and the virtual censorship of the past years is slowly disappearing.

A PRAGMATIC APPROACH TO BONE DNA TYPING

Although I am a cautious researcher with experience in the analysis of both archaeological and forensic human bones, I have been an opponent of rigid standards of authenticity. I believe it is good to be flexible and resist prejudices and preconceived ideas. When I started working on old bones, experienced scientists claimed it could not be done, but now bone DNA typing is routinely applied in forensic identification around the world. Novel research is often about working against set rules. Moreover, while we should avoid publishing erroneous results, the history of science teaches us that subjects develop through technological innovation and new hypotheses, a gradual process helped by open discussion and questioning, not by suppression of unpalatable results.

To progress meaningfully, aDNA research should be accessible to scientists with a wide range of interests, even on limited budgets. Good results are achievable not only in high-tech laboratories with purpose-built facilities like positive air pressure rooms. For a wide range of studies, it is feasible to work on an open bench, albeit with extreme cleanliness and dedicated equipment and glassware. Conversely, a dedicated aDNA laboratory with operators who slavishly follow the ‘standards of authenticity’ may not always guarantee trustworthy results.

In nearly three decades of ancient DNA research, there have been gains and losses, triumphs and disappointments. On the one hand, DNA typing has led to developments of techniques that are now routine for the identification of victims of mass disasters and war (e.g. Holland et al. 1993; Corach et al. 1997;

Rios et al. 2010). We can affirm without doubt that ancient DNA studies are feasible, and have huge unrealised potential in archaeology and anthropology. On the other hand, robust studies on archaeological bones are still comparatively rare and, with a few exceptions, aDNA has not yet made a significant contribution to understanding past human populations. Many aDNA studies are concerned with the relics of saints or famous historical personages (for example, the 'Mozart skull' (Stadlbauer et al. 2007)) which, while not uninteresting, may have relatively little scientific value. In some studies, DNA analysis becomes an end in itself, rather than a means to obtain information, while in other cases one wonders if techniques not involving DNA (for example good osteological investigations or stable isotope analyses) might yield similar information more easily and cheaply.

ETHICAL CONSIDERATIONS

While there is no doubt that analytical techniques, including aDNA typing, can potentially offer new types of information on past human populations, we should not forget that many of these techniques are destructive. In the case of radiocarbon dating, the introduction of accelerator carbon dating meant that the amount of material needed for dating decreased from grams to milligrams. Likewise, other physical, chemical and biological techniques are improving, progressively requiring less bone while providing more information. Unfortunately, aDNA analyses still require a substantial amount of bone, particularly if one wishes to perform duplicate extractions, as well as abrasion of the outside surface of the bone to remove potential contamination. While a

few grams of bone may be a modest price to pay for important information about the identity, kinship relationships or origin of past peoples, overenthusiastic sampling may destroy indicators of age, occupation, lifestyle and disease.

Rose Drew, an experienced osteoarcheologist, advises that before sampling bones destructively an osteoarchaeologist should examine the bones and record surface features possibly missed in earlier examinations. She believes that old bone reports are no longer completely reliable as techniques have changed significantly in recent years. In addition, Drew points out, some analytical techniques may even be misleading, for example the high nitrogen signals taken to indicate a high quality diet, which may possibly be the result of a starvation scenario where muscle protein is utilised by the body (Beaumont et al. 2011). One may argue that such insights may only be gained by performing destructive analyses, but the example illustrates the need both for caution and a meaningful hypothesis when designing a research strategy involving destructive sampling. British organisations such as BABAO (British Association of Biological Anthropology and Osteoarchaeology) and English Heritage propose that careful consideration should be given to whether the proposed analyses are relevant and justify the sacrifice of osteological material (R. Drew, personal communication).

Molecular biology techniques such as DNA sequencing are developing at an astounding rate, and provide new and exciting opportunities for ancient DNA research. Second-generation sequencing methods have been used to generate the genomic sequences of ancient humans, but have so far told us relatively

little of value about the lives of past peoples. For example, DNA sequences revealed that a 4,000-year-old Greenlander had a receding hairline and waxy ears (Rasmussen et al. 2010), a great scientific feat, but without significant insights into the life of this individual. Technology is advancing faster than our ability to interpret genetic data meaningfully. In the case of living people, we may learn whether someone carries a gene for a dangerous disease before we have the knowledge required to cure or prevent the disease. In the case of a dead person, DNA may reveal something that may have implications for his or her descendants. Thus, the fact that we have the technical knowledge to perform DNA analyses on a living person or on the remains of the dead does not mean that we should necessarily rush to carry out the work in every case, particularly without due regard to the ethical and even legal implications of the studies, including issues of privacy and our attitudes to the remains of members of our species.

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Duties to past persons: The moral standing and posthumous interest of old human remains

MALIN MASTERTON

In 2004 a proposed law on genetic privacy was under discussion in Sweden (*Law on Genetic Integrity etc. [Lag (2006:351) om genetisk integritet]* 2006). This law only applies to the living, and possibly up to 70 years after a person's death, which means that there are no legal constraints on conducting DNA testing on old human genetic material in Sweden. In Uppsala there is genetic material of Queen Christina in storage, and her biological gender has been discussed for about 300 years. Could there be any reason for acknowledging that possible genetic information concerning biological gender could be sensitive and private information for the long dead Queen, and should therefore not be sought? In other words, can there be direct interests of the dead that are of moral relevance? In this text I will propose an argument for why the dead should have a moral standing in the present time.

There are strong arguments for why posthumous rights or interests are impossible, fictions of our imaginations. My own first spontaneous thoughts on this question were: Nothing can happen to the dead, how could the dead be harmed when they do not exist? From this viewpoint it is more plausible to understand and argue for the moral standing of future people, whose life-situations are very much dependent on how we choose to act today. How can it matter to those who have already lived their lives how we choose to act? If we think about the non-existent there are actually three groups:

1. those who no longer exist, but once existed (past persons)
2. those who have not existed, but will exist in the future (future people)
3. those who will never exist and have never existed (eternally non-existent)

The non-existent who will live in the future are actually not a pre-defined group, since different future people will live depending on how we choose to act. In contrast to the group of future people, at least for some of the dead, there are traces of their lives, perhaps of their wishes in life, we may know their names, there are physical traces which we sometimes collect. What I will try to argue here is in principle a gradient of non-existence, that there is an important difference in moral status between group one and group three.

LINGERING POSTHUMOUS INTERESTS

There are two central questions concerning possible posthumous interests: (1) what (kinds of) interests can survive one's own

death? and (2) who is the interest-holder? Of course there are many reasons to respect the dead without committing oneself to the posthumous interests of the dead. For example, it may be wrong to DNA test a historical person, not because it could reveal private information about that past person, but because it may reveal genetic information about now-living relatives. This is an example of an indirect reason to protect the dead. What I am looking for is an argument for a direct reason to protect the dead, not least because of an idea of fairness: if we only rely on indirect reasons for respectfully handling the dead, what about those historical persons or human remains for whom there are no living relatives or no living cultural representatives? Would it be ethically unproblematic to genetically test, preserve or exhibit these human remains? In our recent history we have exhumed and exhibited those human remains of the dead who were not considered part of our own social or cultural group, who were in some way defined as ‘other’ (Crossland 2009, p.114). It appears to me unsatisfactory to let the deciding factor in how we handle old human remains be whether or not a living representative can be found. So, what (kinds of) interests can survive one’s own death?

Two possible interests of the dead have been proposed by Joel Feinberg and Sören Holm (Holm 2001; Feinberg 1984):

- interest in one’s good name
- interest in one’s final resting place

I will focus on the possible posthumous interest in one’s good name and I am not limiting posthumous interests only to interests

that were formed during life.

The interest in one's good name does not mean that one has the right to a good name or a good reputation. It only means that it is of moral relevance how one is described and how one's name is used. One can only have a legitimate claim to a correct description (Masterton, Hansson, and Höglund 2010; Masterton, Helgesson et al. 2007). Connected to the interest in one's good name is the issue of privacy. A person's good name, or reputation, is a more or less public entity, and not all information about the person is to be shared (Prosser 1984, pp.109ff.). For historical persons I have mainly considered informational privacy, that some information continues to be private and sensitive, also after death (Masterton, Hansson, and Höglund 2010; Masterton, Helgesson et al. 2007). The moral issues that are relevant can be somewhat different for old human remains. Old or ancient human remains are more often anonymous, which gives some protection from intrusions into private information. On the other hand, it is more common to exhume and preserve old human remains, which raises questions about physical privacy. The remains of historical persons are more often analysed on site or returned to their burial place after analyses. There are a few cases where the wishes of the past person are known, and where the wishes have not been respected, such as in the case of Charles Byrne, also known as the Irish Giant, who was exhibited all his life and took steps to avoid his physical remains being exhibited after death (McAlister 1974). His physical remains are kept at the Royal College of Surgeons in London (*The Hunterian Collection*). Most of the time we do not know the express wishes of the dead, but

it can be reasonably assumed that the past person would wish to remain buried in the original location, or at least would not have expected or wished to be stored in a museum.

TWO MORAL INTUITIONS

So, one possible posthumous interest that it could be reasonable to assume is one's good name. I will return to how the good name argument is relevant for the anonymous dead. I will now go on to discuss some intuitions concerning the moral standing of the dead. Philosophically this is a challenging argument. I will be assigning properties to some entity that does not exist. Joan Callahan argues that posthumous interests are impossible, because there is no one who stands to lose or gain (Callahan 1987). This argument in many respects agrees with our intuitions. How can we possibly do anything to the dead when by definition, they do not exist now? This is the second of the two central questions concerning posthumous interests, that is: who is the interest-holder? To consistently hold that nothing can happen to the dead is more difficult than it may seem. Let us consider the thinking attributed to the philosopher Epicurus of ancient Greece: that where she (the person) was, death was not, and where death was, she was not.

Epicurus argued that it was illogical for us to fear our own death, but the quote also points at a different question. If an instantaneous murder is assumed, with no pain or fear for the victim, then at what point did the murderer harm her victim? Before the murder, the victim is alive and no crime has occurred. After the murder, the victim has ceased to exist and can therefore

not be harmed. In this situation it is unsatisfactory that we can only claim that the murder caused harm if there are family, friends or a society which are upset by the victim's premature death. Surely the murder was primarily an enormous harm to the victim, and as a consequence a cause of grief for living people. This example channels our intuition in the opposite direction. With these two examples I wish to show that there are intuitions both for and against posthumous interests.

The question of whether the dead can be harmed after death also involves questions of how we understand and define change. I will now briefly present a second line of argument to dispute the position that nothing can happen to the dead because they do not exist.

CHANGING THE PAST IN A CAMBRIDGE WAY

Whether or not we take it that the dead are able to go through change depends on how we understand the concept of change. The Cambridge philosophers had the following definition of change:

An object, *x*, changes if and only if there are distinct times, *t* and *t'*, and a property, *P*, such that *x* has *P* at *t* and fails to have *P* at *t'* (or vice versa). (Lombard 1978, p. 63)

According to the Cambridge definition, a change has occurred if some state in the world is true at one time and then false at some other time. For instance, this means that everyone changes whenever a new baby is born, since each individual now lives in a world with one more person in it. Changes can be assigned to things that merely went through a so-called Cambridge change

(living in a world with one more person in it), whereas what is regarded as the real change (the birth of the baby) occurred elsewhere. Even if it were possible to formulate a definition of change which only covered the instances that we take as ‘real’ change, I will in the following two examples show why Cambridge changes should be seriously considered to be instances of change. (I can here only touch on the full line of arguments but for further reading see (Ruben 1988; Masterton 2010; Masterton, Hansson et al. 2007; Plaisted 2002)).

EXAMPLE 1: BECOMING AN UNCLE

A man can become an uncle if one of his siblings has a child. The property of becoming or being an uncle is a relational property since having that property necessitates the existence of at least one other person, in this case the nephew or niece (Ruben 1988, p.217). It may be objected that the ‘real’ change occurred for the mother and baby at birth, but nonetheless, the man has gained a new property by becoming an uncle. There are many examples of relational properties which are acknowledged by society, for example it is relevant in inheritance laws whether one is an uncle or not. Being married or being someone’s sibling are examples of properties of a person which are regarded as genuine, and which may in some situations be of moral relevance.

EXAMPLE 2: BEING THE LATEST DESCENDANT

There are also reasons of logic for accepting new properties being ascribed to the dead. I have borrowed the following example from David-Hillel Ruben (Ruben 1988, pp.215-216). It may be assumed

that in order for a thing to have a property, then it must exist at that time. This can be formulated as follows:

If, at t , x has the property P , then x exists at t .

Although it appears reasonable to assume that the above sentence is correct, it actually causes problems in logic when sentences which include posthumous predications are considered. Consider the following two premises:

- Since Smith has just now been born, Smith is now the latest remote descendant of Adam and Eve.
- Whoever is Smith's remote ancestor was human.

Only if we accept that sentence (1) posthumously predicates, that is, that the sentence assigns new properties to Adam and Eve long after their death, can we infer as a conclusion that Adam and Eve were human.

Cambridge changes may be regarded as creating phony or virtual changes, but even with a definition of change that only includes what we regard as real changes, there are many examples of real changes that are of no importance. I have, for example, become some seconds older than I was when I started writing this sentence. It seems necessary to decide on separate grounds which changes are significant (Masterton, Hansson et al. 2007).

A person's good name is clearly an example of a relational property. Queen Christina would not have a reputation if

there were not a group of people who knew of her. At the same time, the group of people could not have an opinion of the historic person if Queen Christina had never been. Using the argument by David-Hillel Ruben, I come to the following conclusions:

- There are relational properties, as well as intrinsic properties.
- Relational properties can go through real and Cambridge changes.
- Things or beings that do not currently exist can go through Cambridge changes.
- Posthumous predication is possible, i.e. gaining new properties whilst being non-existent.
- Properties acquired through Cambridge changes are not phoney or ‘Cambridge properties’.
- Which properties are deemed to be significant needs to be decided on a different basis from how they were predicated.

THREE DUTIES TO THE PAST

In our society, a person’s good name is of moral importance. We pay a lot of attention the life stories of the now living and of historical persons. We are upholding Queen Christina’s reputation, and we can choose to dwell on more private information out of pure curiosity, but we may then bring Christina into disrepute. Assuming that we want to uphold the difference between fictional characters and historical persons, there must be a limit to what can be claimed or rumoured about a person before it becomes slander.

I am proposing three duties to the past, a duty of truthfulness, a duty to respect privacy, and a duty of recognition (Masterton, Hansson, and Höglund 2010). The duty of truthfulness many may agree with for numerous reasons. It can be seen as a duty to distinguish between history and fiction, whether or not it involves facts about a particular person. Although I hold truthfulness to be an important value in general, I hold it to be particularly important when statements are about a person or their actions. There are numerous articles to be found on PubMed on the topic of ‘retrospective diagnosis’ (Lorch 2006; Guttmacher and Callahan 2000; Campbell and Matthews 2005; Majka, Gozdzik, and Witt 2003; Ackerman and Lomazow 2008; Androutsos 2002; Arnold 1996; Blumer 2002; Cox et al. 2005; Goldsmith 2009; Ho et al. 2003; Orth and Trimble 2006; Warren and Rohrer 2009). President Abraham Lincoln has long been a popular person to diagnose and has been diagnosed with the following diseases, the list of which could be made longer:

- Heavy metal poisoning (Hirschhorn, Feldman, and Greaves 2001)
- Craniofacial microsomia (Fishman and Da Silveira 2007)
- Marfan syndrome (Schwartz 1964)
- Spinocerebellar ataxia type 5, SCA5 (Hirschhorn and Greaves 2006)

I argue that our duty of truthfulness means that we must have at least some evidence in support of our theory to avoid pure speculation. Retrospective diagnoses are often based on little

evidence. The diagnosis may be confirmed by genetic testing but if so, limited amounts of DNA would be destroyed for a technically advanced analysis that may give zero result.

Since my research project originated from a question about Queen Christina, many of my examples are well-known persons in western history. However, the points that I am making are also relevant for those past persons who do not fit into this narrow category. In the old Vasa museum exhibition there was only one skeleton on display, with the explanatory text ‘the ship boy’. This ship boy is now known to be the remains of an adolescent girl (since 1994). In the new Vasa museum, the human remains are exhibited in their own designated area, and where facial masks have been constructed, these are shown separately from the remains. Since a facial reconstruction is only one possible way the person could have looked, it is appropriate that the reconstruction is exhibited in its own area, and is not taken to be a correct description of the past person’s appearance.

If there were only a duty of truthfulness, there would be no reason not to find evidence for an illegitimate child or illness. For past persons I argue for a right to privacy, of both a physical and informational kind. We regard certain pieces of information as private, and which kind of information this is varies between cultures and time-periods. What is specific for private information is that it is possible to slander a person by inappropriately sharing this information, even if the information is true (Prosser 1984, p.109). In Queen Christina’s case there is a theoretical possibility of investigating her biological sex, and this information must be regarded as private, both from the perspective of Queen

Christina's time and of what we regard as private information today. To probe further into this question, without being able to give some good arguments for why it would be of significant historical interest for us to know the answer, just shows that the reason or motivation is curiosity. It is one thing to reveal personal information if there are other important values at stake, such as understanding historical events, but there is no competing value suggested in the case of Queen Christina. Generally, articles on retrospective diagnosis of historical persons provide no reason for why particular personal information would be of public interest. In the case of ataxia the single sentence of justification runs like this: "[d]etermining President Lincoln's status relative to SCA5 would be of historical interest and would increase public awareness of ataxia and neurodegenerative disease" (Ikeda et al. 2006, p.188). This quote leaves me with the impression that President Lincoln can be used to raise public awareness of this disease rather than the genetic information being of historical interest. I argue that we as researchers must justify why personal information is of historical interest.

As for physical privacy, we show respect for physical boundaries. How large this personal space is, again varies from person to person as well as between cultures and over time. In the case of the dead, it is the body, the human remains and the cremation ashes that we show respect for. It is well known that what is regarded as respectful handling of the dead varies greatly over time and between cultures. However different people's actions have been over the ages, they may be expressions of the same moral principle, that one should show respect for the dead. In a

textbook on human remains, Vicki Cassman encourages ethical reflection when handling the physical traces of past persons: ‘Human remains are entitled to a high level of dignity, and to begin with, curation must include a sense of reverence.’ (Cassman, Odegaard, and Powell 2007, p.49). The human remains of Charles Byrne, an example I gave before, are preserved against his express wishes. To my knowledge there are no scientific reasons to retain these remains. In many other cases too we can presume that preservation is against the wishes of the past persons. So whose views on what qualifies as respectful handling should we consider? I believe that it is possible and necessary to consider both the perspective of the past person and the perspective of our time concerning what is regarded as respectful handling. If we don’t know anything of a past person’s culture or views, then a minimum level of respect entails considering private information from our perspective.

The duty of recognition of past wrongs is limited to our recent history, since it would be untenable to remember and recognise all wrongs committed in the past. An example of systematic wronging on a major scale are the exhumations of graves of those regarded as ‘others’ and where these human remains were used to support the racial theories of the 1900s (Furuhagen 2007). I leave open how the wrongdoings are to be recognised. Consider the different ways old human remains from three locations have been handled in Sweden in recent times: the presumed Sámi skulls from the abandoned churchyard in Rounala, human remains found on the Vasa ship, and the remains of three infants found under a church in southern Sweden (Masterton 2010, pp. 43-45).

The twelve Rounala skulls were exhumed in 1915 and used to support the racial theories prevalent at that time. The exhumation was legal since the churchyard had been abandoned since the 17th century. In recent years the skulls have been shown to be at least 500 years older than previously thought, dating to the 14th century, and are attributed a higher scientific value than before (*Repatriation of Human Remains in the Collections of National Historical Museums* 2009, p.4). It is possible that the skulls will be repatriated but reburial is not an option at this time.

When the Vasa warship was salvaged in 1961, skeletons of at least sixteen individuals were found on board. After just two years, these individuals were given a funeral and were buried in such a way as to preserve the human remains. For the remains of at least six other individuals that were later found in the sea bed around Vasa, burying them was never discussed as an option. In 1989 the remains were exhumed and it was then discovered that many had been partly destroyed by mould and humidity. Osteologists do not recommend reburying remains in this way if they are of scientific value (Kvaal and During 1999).

In 1988, a church in southern Sweden was undergoing restoration works. Under the church floor the workers found the skeletons of three infants. These remains were estimated to be 1,000 years old and they were taken to the osteology department of the University of Lund (Iregren and Redin 1995, pp.8, 11, 12, 35). Although the scientific value was deemed to be high, local protests led to the skeletons being reburied under the church floor. They are now placed in a controlled environment and are to be accessible for research.

When these three examples are compared, it is obvious that the skulls exhumed from Rounala have not been treated in the same way as the skeletons that may be viewed as 'our dead'. We have a duty to recognise the wrongs committed on past persons when these remains were exhumed and to consider the differences in treatment from other examples of reburials in Sweden, also concerning those past persons who do not have descendants or living cultural representatives.

THE MORAL STATUS OF THE DEAD

I have introduced some central concepts, such as non-existence, interests, change, and posthumous wronging. I have presented three duties to the past, and I will now approach the so-called missing subject. The discussion on ethics and archaeology was triggered by reactions to how old Native American remains were handled like mere physical objects (Atalay 2006). A difficulty with old human remains and with dead bodies is that we do not know where to place them in our categories of subject/object (Masterton 2010, pp.22ff). In one sense all physical things in the world are objects. Those objects which have a certain degree of inner experience of the outside world, we call subjects. By definition, subjects who die cease to have an inner experience of the world; however, this fact does not mean that we treat our own dead like any other physical object. The term object is

1 Depending on the level of inner experience demanded, some animal species apart from humans have started to be counted as subjects. However, traditionally it has been presumed that only humans can be subjects.

sometimes used,² but it is unclear how this third category could clarify the moral status of the dead.

The division of moral agents and moral recipients is distinct from the categories of subject/object, but in western history, moral agents as well as recipients have been assumed to be subjects. There is only consensus for healthy human adults to count as moral agents. This means that healthy human adults are responsible for their actions towards others as well as having the right to be respected. In the category of moral recipients we may find children, foetuses, some animals, and some argue that even non-subjects like ecosystems should be placed here. Moral recipients can have interests and rights which must be respected by moral agents, but have no corresponding responsibilities towards others. I will now present an argument for why past persons should be counted as moral recipients, based on the fact that they were once living subjects and how we choose to portray past people is directly related to the person who once lived.

My starting point is Paul Ricoeur's narrative theory (see for example Ricoeur 1991, 1992, 1988). Using narrative theory I argue that all of the subject does not disappear when the person dies. There can be a fragmented narrative subject remaining, sometimes long after the person's death. The question of defining the moment of a person's death is quite tricky. The two main theories on personal identity are the psychological criterion and

2 'Through the emergence of the cadaver, that person is neither present nor absent. Being no longer subject nor object, it qualifies into the category of the abject, as proposed by Julia Kristeva.' (Stutz 2008, p.23)

the biological criterion. By the psychological criterion a person can cease to be before the biological functions have stopped, for example when a person is in a permanent vegetative state (Schechtman 2005, p.10). By the biological criterion, on the other hand, a person only dies at the moment when the biological functions cease. Eric Olson in fact holds that death means total extinction of the person or the animal.

If there is such a thing as your body, it must cease to exist at some point (or during some vague period) between now and a million years from now, when there will be nothing left of you but dust. The most salient and most dramatic change that takes place during that history would seem to be your death. Everything that happens between death and dust (assuming that your remains rest peacefully) is only slow, gradual decay. So whatever object there may be that your atoms now compose, it is plausible to suppose that they cease to exist no later than your death. (Olson 1997, p.152)

There are definitely situations where it is important to agree on an absolute moment when a person is to be counted as living or as dead. My purpose in introducing theories of personal identity is not to establish a criterion of death, but to contemplate whether death must be equivalent to total nonexistence, an either/or, or if there is room for a gradual process.

Narrative means story or life story. We continually tell stories about ourselves, about others, and about fictional characters. When reflecting on personal identity, it is the who, the subject that we are searching for. When Joan Callahan argues against

posthumous interests, she asks: Who is harmed? (Callahan 1987) Ricoeur's narrative theory proposes that we can never answer the question of who we are directly. Instead we have to start with a question about what we are. The answer to this question is an infinite number of life stories, through which we approach but probably never reach the answer to who we are: 'It is the identity of the story that makes the identity of the character.' (Ricoeur 1992, p.148).

Ricoeur discusses the living subject, but makes some remarks about how a narrative subject relates to the individual's death.

If my life cannot be grasped as a singular totality, I could never hope it to be successful, complete. Now there is nothing in real life that serves as a narrative beginning; memory is lost in the hazes of early childhood; my birth and, with greater reason, the act through which I was conceived belong more to the history of others - in this case, to my parents - than to me. As for my death, it will finally be recounted only in the stories of those who survive me. I am always moving toward my death, and this prevents me from ever grasping it as a narrative end. (Ricoeur 1992, p.160)

This quote not only shows the difficulty in delineating one person's life story. It also shows how from the very beginning a person's life is entangled in other people's lives. This entanglement is twofold: 1) we act and react in relation with other people and 2) we are born into a narrative. On the first point, we have roles as colleagues or as family members and depending on these roles and on our responsibilities, others are part of making us who we are. On the second point, to begin with our parents know

more of our narratives than we ourselves know. In the telling of our narratives it is impossible not to mention other people. Other people may also know things about my life which I myself am unaware of. In consequence this leads to a decentralised subject which is partly fragmented. So, even for living subjects there is no unified, authentic, or complete narrative. What happens then when a person dies? In terms of their narrative identity the first person voice is lost. However, the narratives which are entangled in other life stories remain. For example, the Swedish Penal Code is open to the possibility of defaming the dead, whose peace may be disturbed and to which the 'deceased should be entitled' (The Swedish Penal Code 1999, p.23). The commentaries to this law clarify that although the amount of time elapsed since death may be of relevance, no general rule can be established, instead it is important that the memory of the deceased is of 'living personal force' (Holmqvist 1998, p.255). There are traces that point toward the person that once was. For historic persons these traces may be personal belongings or written documents, either by the person him-/herself or by contemporaries. For older human remains the only traces remaining may be the physical remains. Still, these remains are part of the past person's narrative and the information that we may extract from the remains directly relates to the person that once lived. The reason why we collect human bones is because they are a trace of a past person. There is no longer anyone who remembers this person, there are no written sources from which we can learn more about who this person was. Nevertheless, we can create a (highly fragmented) narrative of the past person by investigating the person's age,

gender, diet, diseases, family relations, and so on. By making ourselves the authors of this person's (fragmented) narrative, we have duties to that person in what we claim about them and how we handle or exhibit their physical remains.

The narrative subject is a metaphorical subject, but this does not negate that our stories continue to refer to this specific person. In terms of Queen Christina, we are the co-authors of her narrative and if we propose to reveal sensitive personal information, we should have good reasons for doing so.

CONCLUSION

I have argued that the dead have a moral standing that is not based on the indirect interests of the living, and this philosophical discussion is relevant for how we view, handle and exhibit old human remains. In the case of repatriations and reburials, there are several interest holders and more than one moral value. How these are to be weighed against each other I leave unsaid, but the interests of the dead should be taken into consideration. How we choose to describe or portray past persons and their actions directly relates to the persons who once lived.

I would like to finish by saying that the traces of past persons, not least the human remains, help personalise the past. Most people have a moral reaction when faced with old human remains. Sweden has a dark past when it comes to exhumations and retaining the physical remains of prisoners. Our research on skull measurements and their link to intelligence and to race was world renowned (Furuhagen 2007). Whilst there are strong arguments for reburying the human remains that were acquired

during this period, I believe that it is important also to consider the possible negative consequences of reburial. We can learn from the past and there should be room to morally engage with what happened to people in the past, assuming that the handling of human remains is respectful.

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Ancient skeletons and ethical dilemmas

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The skeletal remains of at least twelve thousand individuals from inhumation and cremation burials from all periods of Norwegian prehistory are stored in Norwegian museums and collections. Most of the cremated remains and half of the unburned remains are in the archaeological museums' repositories while the other half of the unburned remains are kept in the skeletal collection of the Department of Anatomy at the University of Oslo.

The skeletal remains have been collected during the past 150 years. Most of them derive from archaeological excavations, but some have also been collected by scientists who wanted study material for specific research projects.

Until fairly recently, there were few public debates in Norway about the ethical implications of excavating graves, of doing research on ancient human remains, and of storing human remains in museums and collections. In the mid-1980s, however, this situation changed. In 1985, Niilas Somby requested the

release of the skull of his grandfather's brother, Mons Aslaksen Somby, from the skeletal collection at the University of Oslo. In 1997, the grandchildren of Aslak Jakobsen Hætta requested the release of their own grandfather's skull. The Department of Anatomy refused to release the remains to the families, and there was a bitter fight over the two skulls. After extensive discussions between the Sami Parliament, the University of Oslo and the Ministry of Church and Education, the Department of Anatomy was ordered to release the skulls for burial. The burial took place in November 1997 (Schanche 2002, Bull 1996, Bull 2001, Sellevold 2002). The establishment of the National Committee for Evaluation of Research Involving Human Remains in 2007 was a direct consequence of the controversy regarding the two Sami skulls.

There are ethical implications pertaining to several aspects concerning ancient skeletons, such as the excavation and disinterment of the remains, the research which is done on the material, and the way in which the remains are stored and handled. The following discussion will mainly concentrate on the ethical dilemmas pertaining to the storing and handling of human remains in museums and collections. Efforts to deal with such dilemmas have resulted in the formulation of codes of ethics and ethical guidelines and in the implementation of practical measures such as repatriation of the remains. With regard to the situation in Norway, the discussion will centre on the endeavours of the University of Oslo to resolve the ethical dilemmas pertaining to the University's own skeletal collection.

ETHICS AND DILEMMAS

'Ethics' may be defined as 'a philosophy or a system of morals'. All definitions I have found of the term 'ethics' emphasise a distinction between 'right' and 'wrong' or 'good' and 'bad'. What is considered right or wrong, good or bad, however, may vary from person to person and from culture to culture.

With regard to human remains, ethical dilemmas often arise because scientists and the general public have different ethical concerns. The issue is further complicated by concerns which range from academic freedom to the rights of the dead.

To scientists, freedom in the pursuit of knowledge is of the utmost importance. Studying human remains

can generate information about past cultures and civilizations that is unavailable from any other source. For living people descended from those past cultures, the study of remains is a vital link to their past, a means of gaining insight into their present, and even offers the opportunity to catch a glimpse of the future. (Ubelaker and Grant 1989: 250)

Archaeologists consider it their ethical responsibility to advocate for and to conserve archaeological data. Mortuary evidence is an integral part of the archaeological record of past culture and behaviour, informing directly about social structure and organisation, and also, although less directly, about aspects of religion and ideology. Human osteologists and physical anthropologists consider it their ethical responsibility to glean as much information as possible from human remains. The remains of the dead constitute a unique source of information about our ancestors

and about past life, social structures and cultural heritage. Scientists have an ethical obligation to contribute to increasing this body of knowledge. For these reasons, mortuary data and the remains of the dead should be kept available for research.

As for the general public, the rights of the dead themselves and the cultural needs of indigenous peoples have been cited as reasons for ethical concerns (Bahn 1984; Bahn and Pater-son 1986). Many groups, especially indigenous peoples, have profound concerns about the ethical treatment of the dead by scientists such as archaeologists, physical anthropologists and museum personnel. Human remains should be treated with respect for the dignity of the dead and for the feelings and ethical concerns of relatives and friends of the deceased.

The question is how to combine two seemingly opposing interests: preserving the integrity and dignity of the remains of the dead while at the same time securing the scientific potential of the remains.

THE COMPLEXITY OF ETHICAL CONCERNS

Population groups have different attitudes toward death and the remains of the dead. There is no uniformity across cultures with regard to the ethical concerns surrounding the disposition of human remains. Ethical stances may vary, both between individuals and communities, and relative to specific cases and situations.

Figure 1 below is an illustration of how ethical concerns may vary, given different circumstances and different categories of human remains. The strength of the concerns is ranged on a scale from very weak to very strong.

Figure 1: Ethical aspects

ETHICAL CONCERNS	BODY TREATMENT	IDENTIFIED REMAINS	CHRONOLOGY	RELIGIOUS AFFILIATION	ETHNIC AFFILIATION	REASON FOR ACQUISITION
<i>Strong</i>	<i>Unburned</i>	<i>Known identity of the individual</i>	<i>Very recent graves</i>	<i>Jews, Muslims</i>	<i>Strong known ethnic identity</i>	<i>Research</i>
			<i>Recent graves</i>			
			<i>Post-medieval graves</i>	<i>Protestant</i>		
	<i>Religious relics</i>		<i>Medieval graves</i>	<i>Catholic</i>		
	<i>Mummified, natural or artificial</i>					
<i>Weak</i>	<i>Cremated</i>	<i>Unknown identity of the individual</i>	<i>Prehistoric graves</i>	<i>Pagan, unknown religious affiliation</i>	<i>Ethnic identity unknown</i>	<i>Rescue excavation</i>

In order to illustrate ethical concerns, the following six categories have been selected:

- the treatment of the body
- whether or not the remains are of an identified person, whose name is known
- how much time has passed since the burial
- the religious affiliation of the deceased
- the ethnic affiliation of the deceased
- the reason for the excavation or the disinterment of the human remains

Body treatment: With regard to the treatment of the body at burial, there seems to be a considerable difference between the ethical concerns pertaining to unburned remains and those that arise in relation to cremated remains. In Norway, discussions so far have focused exclusively on unburned remains. There have never been any discussions about the ethics pertaining to cremated remains.

Identified remains: There seems to be universal agreement that the strongest ethical concerns pertain when the remains are of an identified individual, and agreement that such remains should be buried, and not kept in a skeletal collection.

Chronology: There also seems to be a general agreement that the closer the origin of the remains is to ourselves in time, the stronger are the ethical concerns. Members of the public associate the remains of the recently dead with their own ancestors. The further back in time, the less is the chance that the remains are identifiable as direct ancestors, and the less is the ethical concern.

Religious affiliation: Different religious systems have different views of the integrity of the remains of the dead. Some of the major religions are violently opposed to any kind of grave disturbance of their own ancestors, while others have no deep concerns for the earthly remains of the dead. Among those who care very strongly about the disturbance of human remains are, for example, Orthodox Jews in Israel. They have fought battles with the authorities to protect graves from being disturbed, going to extremes to prevent the bulldozers from touching old graveyards. In the mid-1990s, Israel's Attorney General passed a rule that effectively prohibits the examination of human skeletal remains found in archaeological contexts (Yearbook of Physical Anthropology 1995).

The Christian religion as such does not have any generally agreed ethical stance regarding disinterment of the remains of the dead. In the Middle Ages in Norway, for example, there were

set fines for disturbing old graves when new graves were dug. The size of the fine depended on the degree of decomposition of the body in the disturbed grave. There are no such fines today. The practice today is that when an old, abandoned grave is disturbed by the construction of a new grave, the new grave is dug very deep, and the remains from the old grave are gathered and deposited in the bottom of the pit below the new burial (pers. comm., Gravferdsetaten (Cemeteries and Burials Agency), 27.09.01).

Within the Christian religion, there may be differences between e.g. Catholics and Protestants with regard to the ethical concerns pertaining to human remains. Catholics are more used to seeing and handling human remains than are Protestants, being more familiar with human bones in ossuaries or charnel houses and as relics. But even among Catholics there may be differences in attitude: disturbance of graves where an individual has been laid to eternal rest may be a problem to a devout Catholic.

Among Protestants in Norway, however, the situation is different. Public displays of human remains are quite alien to the Norwegian culture. There are no ossuaries and no relics. Although the Church embraces the ethical concerns of the general public, it has not expressed any views on the questions of disinterment of human remains by archaeologists, or on the maintenance of skeletal collections.

Ethnic affiliation: As with religious affiliation, there are also differences between ethnic groups. Some ethnic groups have very strong ethical concerns about the remains of their ancestors. Many indigenous populations throughout the world have been,

and are, battling with the authorities in their respective countries for control over the remains of their own ancestors. The question of the rights of indigenous peoples will be discussed below.

Reason for acquisition: The last column in Figure 1 deals with the acquisition of remains presently stored in skeletal collections. The ethical sanctions are stronger if the remains were acquired by what are now considered to be unethical means. In some cases, the collection of human remains for research purposes may be regarded as an unethical activity. This was the case in Norway in the 1920s and 1930s, when anatomists collected skulls from churchyards in Finnmark to obtain material for the study of the craniology of the Norwegian Sami, in spite of very strongly voiced protests from the local population. This unethically acquired material is now part of the skeletal collection at the University of Oslo.

If the remains in a skeletal collection derive from excavations that have been performed as rescue operations, however, the situation is different. From an ethical point of view, it is easier to defend the disinterment of bones during rescue excavations. Whereas in research excavations, the scientist deliberately decides to disturb the sanctity of the grave, in rescue excavations, the role of the researcher is to strive to ensure an ethical treatment of human remains with must be removed, for example in connection with building-construction. If the researchers do not take responsibility for the remains, these might end up being handled as refuse and sent off to the local dump, for example. However, even though remains from rescue excavations may be said to have been acquired by more ethically acceptable means

than remains from research excavations, the subsequent manner of their storage and handling may be open to debate.

The application of the model proposed in Figure 1 to four Norwegian finds of human remains will clearly illustrate the complexity of the ethical concerns.

Figure 2: The skulls of Mons Aslaksen Somby and Aslak Jakobsen Hætta

ETHICAL CONCERNS	BODY TREATMENT	IDENTIFIED REMAINS	CHRONOLOGY	RELIGIOUS AFFILIATION	ETHNIC AFFILIATION	REASON FOR ACQUISITION
<i>Strong</i>	<i>Unburned</i>	<i>Known identity of the individual</i>	<i>Very recent graves</i>	<i>Jews, Muslims</i>	<i>Strong known ethnic identity</i>	<i>Research</i>
			<i>Recent graves</i>			
			<i>Post-medieval graves</i>	<i>Protestant</i>		
			<i>Medieval graves</i>	<i>Catholic</i>		
	<i>Religious relics</i>					
	<i>Mummified, natural or artificial</i>					
<i>Weak</i>	<i>Cremated</i>	<i>Unknown identity of the individual</i>	<i>Prehistoric graves</i>	<i>Pagan, unknown religious affiliation</i>	<i>Ethnic identity unknown</i>	<i>Rescue excavation</i>

Figure 2 illustrates the case of the skulls of Mons Somby and Aslak Hætta. Following the uprising of a group of Sami people against the Norwegian authorities in 1852 in Kautokeino, Finnmark, Mons Somby and Aslak Hætta were convicted, sentenced to death and decapitated in 1854 (Zorgdrager 1997). After the execution, the bodies of the two men were buried outside the churchyard perimeter at Kåjord church. The severed heads, however, were not buried with the bodies because the anatomists wanted the heads of these Sami as scientific specimens. The heads were sent off to the University in Christiania (Oslo) where they were placed in the anthropological skull collection of the Department of Anatomy.

Strong ethical concerns apply to these remains. They are the unburned remains of identified persons from the recent past, with a strong ethnic identity. The skulls were acquired through highly unethical means, having been more or less confiscated to be used as scientific specimens.

Figure 3: The skeletal finds from the medieval Hamar Cathedral cemetery

ETHICAL CONCERNS	BODY TREATMENT	IDENTIFIED REMAINS	CHRONOLOGY	RELIGIOUS AFFILIATION	ETHNIC AFFILIATION	REASON FOR ACQUISITION
Strong	Unburned	<i>Known identity of the individual</i>	<i>Very recent graves</i>	<i>Jews, Muslims</i>	<i>Strong known ethnic identity</i>	<i>Research</i>
			<i>Recent graves</i>			
		<i>Religious relics</i>	<i>Post-medieval graves</i>	<i>Protestant</i>		
			<i>Medieval graves</i>	<i>Catholic</i>		
Weak	<i>Cremated</i>	<i>Unknown identity of the individual</i>	<i>Prehistoric graves</i>	<i>Pagan, unknown religious affiliation</i>	<i>Ethnic identity unknown</i>	<i>Rescue excavation</i>

Figure 3 illustrates a second case, namely the skeletal assemblage from the medieval Hamar Cathedral cemetery. In this case, the ethical concerns regarding the remains are not by any means as strong as is the case with the skulls of Somby and Hætta: although the Hamar remains are unburned, the skeletons are 7-800 years old; the individuals were mostly probably Catholic but they are anonymous and have no strong ethnic affiliation. The excavation was conducted as a rescue operation prior to the construction of a protective building over the medieval cathedral ruins (Sellevold 2001).

Figure 4: The skeletal finds from Hummervikholmen, Søgne

ETHICAL CONCERNS	BODY TREATMENT	IDENTIFIED REMAINS	CHRONOLOGY	RELIGIOUS AFFILIATION	ETHNIC AFFILIATION	REASON FOR ACQUISITION
Strong	Unburned	<i>Known identity of the individual</i>	<i>Very recent graves</i>	<i>Jews, Muslims</i>	<i>Strong known ethnic identity</i>	<i>Research</i>
			<i>Recent graves</i>			
			<i>Post-medieval graves</i>	<i>Protestant</i>		
		<i>Religious relics</i>	<i>Medieval graves</i>	<i>Catholic</i>		
		<i>Mummified, natural or artificial</i>				
Weak	Cremated	<i>Unknown identity of the individual</i>	<i>Prehistoric graves</i>	<i>Pagan, unknown religious affiliation</i>	<i>Ethnic identity unknown</i>	<i>Rescue excavation</i>

Figure 4 illustrates the even weaker ethical concerns regarding a third case, namely the skeletal finds from *Hummervikholmen*, Søgne, Southern Norway. These remains were accidentally discovered in 1991 in the sea at Hummervika in southern Norway, close to the shore, at a depth of one metre. They have been dated to 6,600 BC and are the oldest human remains ever found in Norway. The remains from Hummervikholmen are almost exclusively seen as having value as scientific specimens, and there have been no ethical concerns voiced. Although unburned, the remains are of unidentified individuals; they are extremely ancient (in Norwegian terms), of unknown religious and ethnic affiliation, and they came to light during a rescue excavation.

Figure 5: Prehistoric, cremated remains

ETHICAL CONCERNS	BODY TREATMENT	IDENTIFIED REMAINS	CHRONOLOGY	RELIGIOUS AFFILIATION	ETHNIC AFFILIATION	REASON FOR ACQUISITION
Strong	<i>Unburned</i>	<i>Known identity of the individual</i>	<i>Very recent graves</i>	<i>Jews, Muslims</i>	<i>Strong known ethnic identity</i>	<i>Research</i>
			<i>Recent graves</i>			
	<i>Religious relics</i>		<i>Post-medieval graves</i>	<i>Protestant</i>		
			<i>Medieval graves</i>	<i>Catholic</i>		
	<i>Mummified, natural or artificial</i>					
Weak	<i>Cremated</i>	<i>Unknown identity of the individual</i>	<i>Prehistoric graves</i>	<i>Pagan, unknown religious affiliation</i>	<i>Ethnic identity unknown</i>	<i>Rescue excavation</i>

Finally, Figure 5 illustrates the case of the category *prehistoric cremated remains*. So far nobody, lay or professional, has attached any kind of ethical concern to such remains. The cremated remains are ancient; they are from pagan times; they are of anonymous individuals of unknown religious and ethnic affiliation; and finally, they are not even recognisable as human remains. And most often, they derive from rescue excavations.

GUIDELINES AND CODES OF ETHICS

Among the endeavours to resolve the ethical dilemmas regarding archaeological human remains are the formulations of various guidelines and codes of ethics in order to deal with the problems of conflicting interests. Below are outlined three such codes or guidelines that have been formulated by three different interest groups, namely indigenous peoples, museums and archaeologists.

INDIGENOUS PEOPLES: THE WAC

The point of view of indigenous peoples has been most forcefully expressed by the World Archaeological Congress (WAC). The members of WAC have accepted a set of principles according to which the members have obligations to indigenous peoples. These are set out in the Vermillion Accord, which is a six-clause agreement formulated by WAC's First Inter-Congress in 1989, *Archaeological Ethics and the Treatment of the Dead*. In the Vermillion Accord, *respect* is a key concept, both with regard to the rights of the dead and the rights of the living. The Vermillion Accord states among other things that agreement on the disposition of fossil, skeletal, mummified and other remains shall be reached by negotiation on the basis of mutual respect for the legitimate concerns of communities for the proper disposition of their ancestors, as well as the legitimate concerns of science and education.

THE MUSEUMS: ICOM

The point of view of the museums is expressed by ICOM's Code of Ethics from 1986. ICOM is short for the International Committee of Museums.

Where a museum maintains and/or is developing collections of human remains and sacred objects, these should be securely housed and carefully maintained as archival collections in scholarly institutions, and should always be available to qualified researchers and educators, but not to the morbidly curious. Research on such objects and their housing and care

must be accomplished in a manner acceptable not only to fellow professionals but to those of various beliefs, including in particular members of the community, ethnic or religious groups concerned. Although it is occasionally necessary to use human remains and other sensitive material in interpretative exhibits, this must be done with tact and with respect for the feelings of human dignity held by all peoples. (Ubelaker and Grant 1989: 278)

THE ARCHAEOLOGISTS: THE SAA

The point of view of the researchers is best expressed by the four Guiding Principles which were proposed by the SAA – the Society for American Archaeologists. The guidelines do not differ from those expressed by the WAC, but are more pragmatically oriented. Again, the key concept is mutual *respect* and recognition of the fact that both the public and the scientists have an interest in human remains. The Guiding Principles point out that remains lacking context and archaeological associations are generally judged less scientifically valuable than carefully documented collections, and that the determination of cultural affiliation must be based on a set of evidence that can be examined and evaluated; cultural affiliation cannot be based on assertions alone (Lovis, Kintigh et al. 1999).

Key concepts in the Vermillion Accord, ICOM's Code of Ethics and the SAA's Guiding Principles are: respect, communication and compromise. The ethical concerns both of the indigenous peoples and of the scientific community must be respected. On this basis, compromises and solutions to dilemmas may be reached.

REPATRIATION AND REBURIAL

The codes of ethics and guidelines address the worldwide concerns of indigenous peoples about their rights to the management of their own cultural heritage. One of the practical measures that have been proposed is *repatriation*, a term which has now become familiar to archaeologists and anthropologists. It means ‘the return of human remains and cultural objects to the associated indigenous people’. In the words of Tamara L. Bray of the Repatriation Office of the Smithsonian Institution:

Repatriation may best be understood within the broader historical context of global decolonization. It parallels and is on a continuum with other indigenous movements around the world in which native rights are being asserted. Among the issues being pressed are the right of control over one’s own cultural heritage and the right to the sanctity of the grave. (Bray 1995: 2)

THE UNITED STATES: NAGPRA

In the United States, the differences of opinion about the merit of scientific studies of ancient bones and the question of repatriation and reburial of American Indian skeletal remains have been particularly pronounced. The United States, however, has come far in dealing with the issue: on 16 November 1990 an act was signed by the President which, among other things, regulates the treatment of skeletal remains in collections that are financed wholly or in part by federal funds.

The act is called *The Native American Graves Protection and Repatriation Act*, better known as NAGPRA (McKeown 1995: 13). The term ‘repatriation’ in this case refers to the legislatively

mandated return to culturally affiliated native American groups of human remains, funerary objects, sacred objects and objects of cultural patrimony which are currently housed in museums and other institutions.

NAGPRA has three provisions regarding graves and human remains in particular:

- to increase protection for native American graves on tribal and federal lands
- to prohibit traffic in Native American human remains, that is, the buying and selling of skeletal parts
- to require federal museums and institutions to inventory their collections of native American human remains and funerary objects within five years (after the implementation of the Act) and to repatriate them to culturally affiliated tribes upon request.

THE SITUATION IN EUROPE

NAGPRA regulates the situation in the United States. It has served to establish a new ethical outlook for museums in the United States in their relationships with Native peoples and other minority groups (Bray 1995: 4). There have been similar processes in Canada and Australia.

In Europe, the questions of repatriation, reburial and ethics have not been given the same attention. Few European countries, with the exception of Scotland, have a formal policy on this subject. But there are *discussions* going on in Europe.

The situation in Scandinavia is as follows:

- In Sweden, the debates about the ethics of excavating and storing skeletal remains have at times been very heated. Reburial of medieval and post-medieval remains is very frequent, while prehistoric bones generally are not reburied. Unburned remains that are reburied are often cremated before being interred.
- In Denmark, excavation, storing and reburial of ancient human remains is not an issue at all. There seems to be universal agreement that ancient skeletons are to be stored in collections to be available for research. There are no plans for repatriation, and no plans for reburial of any of the stored skeletons. All Inuit remains from Greenland, which are formally the property of the National Museum of Greenland at Nuuk, are by agreement stored in the anthropological collection at the University of Copenhagen, whereas the recently investigated well-preserved Inuit mummies have been returned to Greenland, not to be buried, but to be put on exhibit in the museum at Nuuk.
- In Finland, a collection of 57 Sami skulls, which were kept at the University of Helsinki, were repatriated and reburied at Enare in 1995. This event is part of the awakening consciousness on the part of the Sami of the many remains of their ancestors that are kept in museums and collections.

NORWEGIAN EFFORTS

In Norway in the first half of the last century, archaeologists frequently reburied human remains, proclaiming that for ethical reasons, Christian remains should be in the churchyard. Prehistoric bones, however, were submitted to museums and collections.

But sometimes, ethical concerns also embrace prehistoric, non-Christian finds. Some prehistoric remains have also been reburied. The most renowned cases are the Oseberg and the Gokstad finds, both of which are pagan finds from the Viking Age. In both cases, the human skeletons were reburied at the instigation of the Vestfold Historical Society. This caused a heated discussion between two scientists, the anthropologist and professor of anatomy Kristian Emil Schreiner, and the archaeologist and professor of archaeology A. W. Brøgger. Brøgger supported the Vestfold Historical Society, while Schreiner wanted to keep the remains available for scientific research. In the end, Schreiner had to capitulate and yield up the remains. In the 1930s, the Oseberg and Gokstad bones were reburied in the reconstructed mounds.

There is an interesting sequel to this story. When I was doing research on the Schreiner collection some years ago, I discovered that Schreiner had not in fact yielded up all of the material from the Oseberg skeletons: he had retained some of the most interesting bone fragments and teeth, and these were still present in the collection.

In 2009, the Oseberg mound was reopened. The skeletal remains were again taken out, and are now on exhibit in the Viking Ship Museum in Oslo.

THE MUSEUMS' CODE OF ETHICS

In Norway, there are legal acts, provisions and guidelines dealing with the treatment of human remains. Ethical committees control the treatment of the remains of the recently dead with regard to autopsies and medical research. The Funerals Act regulates

burials and the treatment of recent graves. The Cultural Heritage Act regulates the excavation of ancient graves, that is, graves older than 1537 AD.

None of the laws, however, provide guidelines for the treatment of ancient human remains *after* excavation. But the ethics pertaining to the treatment of skeletal remains in museums and collections is increasingly being debated.

A few years ago, the Norwegian Council of Museums adopted guidelines to protect objects in museum collections. Section 5.3 of the guidelines, which deals with human remains, is practically identical to that of ICOM's Code of Ethics, quoted above: skeletal remains in museums and collections should be treated with tact and respect. Research on the material must be acceptable not only to the scientific community but also to members of the public with different religious beliefs and ethnic affiliations.

Supplements to the code of ethics of the museums are provided by the Directorate for Cultural Heritage (*Riksantikvaren*) and the University of Oslo.

RIKSANTIKVAREN (THE DIRECTORATE FOR CULTURAL HERITAGE)

In 1986, Riksantikvaren commissioned a report entitled 'Questions pertaining to osteology in Norwegian archaeology' (Brendalmo, Müller et al. 1986). The report demonstrated that human remains receive adequate ethical treatment only in the museums, since the museums had well-established sets of rules covering the treatment of all cultural historical material, even prior to the present Museum Code of Ethics. The skeletal finds in the collection of the Department of Anatomy at the University of

Oslo, on the other hand, were found not to have any such protection. The report concluded with a recommendation that the archaeologically derived skeletal remains currently housed in that collection should be relocated to the regional archaeological museums (Sellevold 1996: 7).

THE UNIVERSITY OF OSLO

In recent years, the Administration of the University of Oslo has shouldered its responsibility as the keeper of the largest skeletal collection in the country. The University appointed two different committees to evaluate the ethical, political and scientific aspects pertaining to the maintenance of its collection of human remains, in order to provide a basis for deciding the future course of action regarding this collection. There were representatives of the Sami Parliament on both committees.

Subsequent to the burial of the skulls of Mons Aslaksen Somby and Aslak Jacobsen Hætta, the Sami Parliament requested an inventory of all Sami remains stored at the University. In order to do this, it was necessary to examine and update the fiduciary management of the entire collection. In cooperation with the Sami Cultural Heritage Council, the University appointed an interdisciplinary committee (the Lønning Committee) to look into the ethical and legal questions concerning both the Sami and the Norwegian skeletal remains. One of the aims of the committee was to provide a basis for deciding whether or not to repatriate the Sami skeletal remains.

In April 1998, this Committee submitted its report in which it was recommended that:

Sami skeletal material should be kept separate from the other skeletal remains in the collection, and should be kept behind closed doors with limited access

The Sami Parliament or a representative of this parliament should have the rights of administration over the Sami skeletal material, and the right to repatriate the remains.

A complete revision of the collection was also recommended, since the find documentation in the collection was found to be inadequate. In order to implement such a revision, which would be a very costly process, an assessment of the scientific value of the skeletal collection was needed.

In 1999, the University therefore followed up the work of the Lønning Committee by appointing an international scientific committee to assess the scientific value of the skeletal collection as source material in an interdisciplinary perspective. The scientific committee was also given the task of identifying the Sami skeletal remains.

In September 2000, the international scientific committee submitted its report. The committee concluded that the collection potentially has a scientific value. But before this value can be appraised, the entire collection must undergo a comprehensive revision in accordance with the principles for revisions which govern the university's museum collections. More than 1,000 find units of Sami remains were identified in the collection. The revision was implemented in 2005 by the University Museum of Cultural History.

CONCLUSIONS

As a result of the awakening political awareness on the part of indigenous peoples around the world, the ethical dilemmas pertaining to the treatment of ancient skeletal remains have been addressed in various guidelines and codes of ethics. In the United States, the efforts have resulted in legal action with the implementation of NAGPRA in 1990. In Europe, there are ongoing discussions about the issues.

In Norway, these discussions have come far. The Directorate of Cultural Heritage, the museums, and in particular, the administration of the University of Oslo, have put the debate about the treatment of ancient human remains on the agenda, not least through the University's recent endeavours to provide a basis for deciding the future use of its skeletal collection, firstly by determining that the control of and responsibility for the Sami skeletal remains in the University's collection is in the care of the Norwegian Sami Parliament, secondly by implementing a partial revision of the skeletal collection.

In my opinion, the heaviest responsibility for solving the ethical dilemmas regarding the treatment of ancient human remains rests with the scientific community entrusted with these. The scientists must be responsive to the feelings of descendants and the general public.

If the ethical dilemmas surrounding the treatment of ancient human remains are to be resolved, a consensus must be reached on *who* should decide *which ethical stance* should pertain, and whether considerations of the ethical or unethical means of acquisition of the material should be a decisive factor.

A future course of action must be to decide whether or not skeletal remains should be kept accessible for research, or whether they should be reburied. If there are to be skeletal collections, it must be decided whether the skeletons should be stored in central or in local repositories. Finally, it must be decided who should be in charge of such collections, a given institution or a body of governors from different sectors and academic disciplines.

In any case, key words in the process must be Consultation, Informed consent, Compromise, Respect, Dignity and Decency.

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