Revealing the person behind the bones

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Like many people, I'm interested in the past and how people lived their lives. Historical accounts that have survived through time can tell us something about what life was like, but they also have their limitations. One aspect that frequently frustrated me was that these accounts didn't really say much about the people involved, the details that I was most interested in. It seemed like the best idea was to start with the people themselves.

I have read some wonderful archaeological reports on excavated sites that provide incredible details on the buildings, pottery, stone, glass, preserved grains, animal and human bones. They allow the reader to really glimpse life at that location in the past. The physical remains of the people who died and were buried at an excavated location can be studied to provide further detail about the demography (age and sex) and pathology (e.g. dental health, arthritis, injury) of a community. This information can provide vastly different insights to those recorded in historical accounts, both in terms of the level of detail and in information about specific individuals.

The human skeleton retains information about a person, such as their childhood growth, diet, injury and illness, and physical appearance. This information provides a detailed picture of the individual along with insight into some aspects of their life experience. We can learn about their early childhood and movement through life, diseases and trauma they suffered from, and possibly survived, activities they undertook, and even if they were left- or right-handed. This is what my training as an osteoarchaeologist allows me to do. My research focuses on a very specific group of individuals, the youngest ones. They are a very special group because their skeletons can provide information about two individuals; themselves and their mothers.

In the UK, if excavated human remains are not reburied, they are stored securely according to strict regulations. Any analysis and research must meet ethical requirements and be carried out by trained individuals. A large part of my research time is spent working in secure-access locations that hold archived skeletal remains. Although I have also worked on archaeological excavations, which can be hard work but is very rewarding. The largest excavation I was involved with was in a very hot, dry environment in central Turkey. More recently, I have been part of an excavation in Devon where we have recovered lots of animal bones, but no human remains.

Left: The author excavating skeletonised remains from a complex burial context. Right: Archived human remains collection.

As an osteoarchaeologist, I'm normally only involved in excavation where burials are concerned. Employing a specialist to undertake this aspect of an excavation ensures that the human remains are dealt with correctly and respectfully, and that nothing is overlooked. On a busy site, my role is to advise and oversee the exposure (uncovering) of burials. Once the remains are visible, I then complete the excavation of the skeleton or supervise others to do so. After a skeleton is excavated, it is cleaned, labelled and stored, ready for future analysis ahead of any planned reburial. Occasionally, there are multiple burials with mixing of the bones. An osteoarchaeologist can usually identify which bones (elements) belong to which person in the burial, but sometimes this needs to be refined in the lab after cleaning. Reassociating bones with an individual can be quite a challenge, especially if there are lots of little bones and bone fragments, and several individuals of similar age.

The author analysing skeletal remains recovered from a multiple burial.

Non-destructive skeletal analysis allows osteoarchaeologists to understand specific impacts that an individual experienced before their death and how this affected their life. Considering the context of how the human remains were deposited provides evidence of how the person was treated after death and the important rituals that were followed by those still living. The combination of these two factors is about as close as we can currently get to 'knowing' past individuals. Specialists can also use destructive analysis techniques to provide further details on where past people spent their childhood, their diet, and potentially any genetic relationships to other individuals. Knowing about the end of their lives and how their community reacted to their death tells us something further, something that cannot be easily measured. Treatment after death can reveal an individual's importance in their community and can lead us to reconsider interpretations of how past people thought about each other and where they drew social distinctions.

It's also important to remember that our own biases, experiences and understanding of our world will frame how we interpret the information we gain through analysing human remains. This is why specialists rely on factual evidence to provide a 'best fit' interpretation with the understanding that we can never really know the full truth of a past person's experience.

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