

Editorial

The scientific approach in the field of bioarchaeological heritage is so well-established that it has given rise to new interdisciplinary disciplines born from the continuous collaboration between the so-called “hard” sciences and historical-archaeological disciplines.

This synergy has not only allowed more detailed and comprehensive reconstructions of human history, but has also highlighted the importance of integrating different skills for an in-depth understanding of our past.

One of the main objectives of bioarchaeology is the reconstruction of human history through the analysis of bioarchaeological contexts, which include the study of human remains, burial sites and associated artefacts. This thorough investigation not only reveals biological and health aspects of ancient populations, but also offers a socio-cultural and environmental picture of their lives and society.

The potential of bioarchaeology in transferring knowledge to the public is evident thanks to innovative and engaging methodologies.

For instance, virtual reconstruction and the reproduction of computerized axial tomography (CT) images of osteological finds provide museum visitors with a deeper insight into the lives of ancient peoples. These technologies allow museum visitors to immerse themselves in the lives of ancient individuals in ways previously unthinkable. This approach not only makes scientific information accessible, but also makes history more tangible and fascinating, helping to bridge the gap between academic research and public education.

Moreover, integrating these technologies into archaeological sites that will soon become museums proposes an innovative use of cultural heritage. These sites can serve as living laboratories where visitors witness firsthand the application of cutting-edge scientific methods to uncover the secrets of the past. By leveraging new technologies, we can create interactive and immersive experiences that bring history to life, making it more relatable and understandable for the general public.

In this issue, we explore how bioarchaeological studies are increasingly enriching the cultural heritage that can be shared with the interested public. For example, the discovery of gold dental prostheses in ancient skeletons not only provides information about the technological capabilities and medical knowledge of past societies but also offers a glimpse into the personal lives of individuals who walked the Earth centuries ago. Studying these prostheses in relation to anthropological data can reveal details about the health, diet, and social status of these individuals.

Similarly, the analysis of entheses—where muscles and tendons attach to bones—in a population from the sixth century BC can provide valuable insights into their daily activities, occupational stresses, and overall lifestyle. These studies can tell us how different social groups lived, worked, and interacted with their environment, offering a more complete picture of ancient societies.

Furthermore, advancements in the digital acquisition and analysis of bioarchaeological data are revolutionizing the field. State-of-the-art imaging techniques, coupled with the development of standardized technical protocols for the validation and utilization of cost-effective structured light scanners, are continually being refined and implemented. As these technologies evolve, they not only increase the accuracy of our findings but also democratize access to sophisticated analytical tools, making high-quality bioarchaeological research more accessible to a broader range of scholars and institutions. These advancements not only allow us to preserve and enhance the

archaeological and historical heritage of sites but also offer the public the opportunity to tangibly connect with the past.

In conclusion, the integration of scientific methods into bioarchaeology has transformed research by creating a dynamic and interdisciplinary approach to understanding human history.

By continuing to develop and refine these techniques, the future of bioarchaeology promises to be even more inspiring and enlightening, offering new perspectives on our shared historical and cultural roots.

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