

Forensic anthropology: Theoretical framework and scientific basis



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It is believed that forensic anthropology (FA), as a discipline, was born in the United States of America around the 1930's, where it flourished and was formally recognized in the 1970's (Dirkmaat and Cabo, 2012). However, for the past fifty years, the importance of the field has been called into question. FA has been considered a laboratory-based subdiscipline of biological anthropology, mainly focusing on helping identifying unknown individuals deceased under unusual circumstances. In a seventeen-chapter book, thirty American specialists – from bioarchaeology to geosciences – join Donna and Clifford Boyd to discuss this inaccurate outdated idea.

What started as an off the clock interest for pathologists and other practi-

tioners is now a scientific field settled in most of the world. Protocols have been established, forensic anthropologists have been properly trained and acknowledged, and job positions have been created. From universities to human rights organizations, experts have shown the scientific community that FA goes beyond the four walls of a laboratory. In biology, chemistry or even statistics, FA has found some good and reliable partners. The interdisciplinary collaborations in forensic sciences that have been established through hard work have helped FA take the big leap towards a future beyond the assessment of the biological profile (ancestry, sex, age-at-death and stature). Nowadays, forensic anthropologists also conduct research in antemor-

tem traumatic injuries, time-since-death estimation and the taphonomic processes that take place after death, to name a few. Though skeletonized remains are still the major focus of FA in an academic context, advanced decomposed bodies, burnt human remains and living individuals are some of the other customers forensic anthropologists may encounter on a daily basis (Dirkmaat et al., 2008).

To those who might ask how FA reinvented itself over the years, Boyd & Boyd have the answer. Forensic anthropology: Theoretical framework and scientific bases navigates through the theoretical bases of some of the current areas of study in the field. In the very first chapter, the editors explain how theories are the basic foundation in FA research unlike many believe. Boyd & Boyd go back in time to Charles Darwin (1809-1882) and his theory of evolution by means of natural selection that has launched population-specific methods. An important note is also given to Michael Schiffer (1947-) whose theoretical levels in archaeology were the underpinning in FA: the foundational, interpretive and methodological theories have sustained the development and test of new methods. After peer review and thoroughly investigating their scientific soundness, these are the methods employed by experts in police investigations or humanitarian actions.

After the first chapter, the book is divided into four parts. In the first one, three distinct chapters highlight the role

of subjectivity, objectivity, cognitive bias, and ethic in FA: The methods applied in the field and in the laboratory influence the interpretation of the analysed data. This realization is then followed by a second part focused on ancestry assessment, age-at-death estimation, histological analyses, and isotope landscape – theories are fundamental in all contexts in order to understand what data need to be studied, and why are they so important.

Theoretical foundations of antemortem, perimortem and postmortem processes are discussed on the third part, with two chapters emphasizing child abuse. Despite of the theoretical basis for fracture healing in time since injury estimation, the latter lacks from a well-documented forensic sample. This subject is mentioned latter on by the editors on the fourth and final part of the book: The importance of modern skeletal collections on the development of accurate methods is unquestionable when experts attempt to transpose the results to real-life scenarios. All around the world, including Europe, there is a dearth of contemporary osteological samples which might disguise secular trends and interbreeding among different populations.

Within and outside forensic sciences, communication is a key-factor to clarify the victories already conquered and the ones to come. This book might be a good start-point to change the perception people have of FA and its theoretical and scientific basis, but a long and intri-

cate road still needs to be travelled. It is of great relevance to let scientists and laymen understand how vital FA might be when applied in specific scenarios such as criminal investigations, mass disasters or crimes against human rights. However, this subject should be represented globally, expanded to cover other countries and continents beyond the perspective held by the United States of America. In some countries, such as Romania (Rebeleanu et al., 2017) and Estonia (Morrone et al., 2019), FA is still under development and it is central to start by shifting how governments and institutions look at this scientific field.

As mentioned along this volume, theory guides everything in forensic sciences. Nevertheless, progress is not achieved on our own. As the perfect web that it is, this book reminds us of some of FA right-hand fields, and its legal implications in our present-day society. It is important to speak for the dead and tell their story, as we recognize and value both the challenges forensic anthropologists face and the major role of working side-by-side with other scientific bodies.

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