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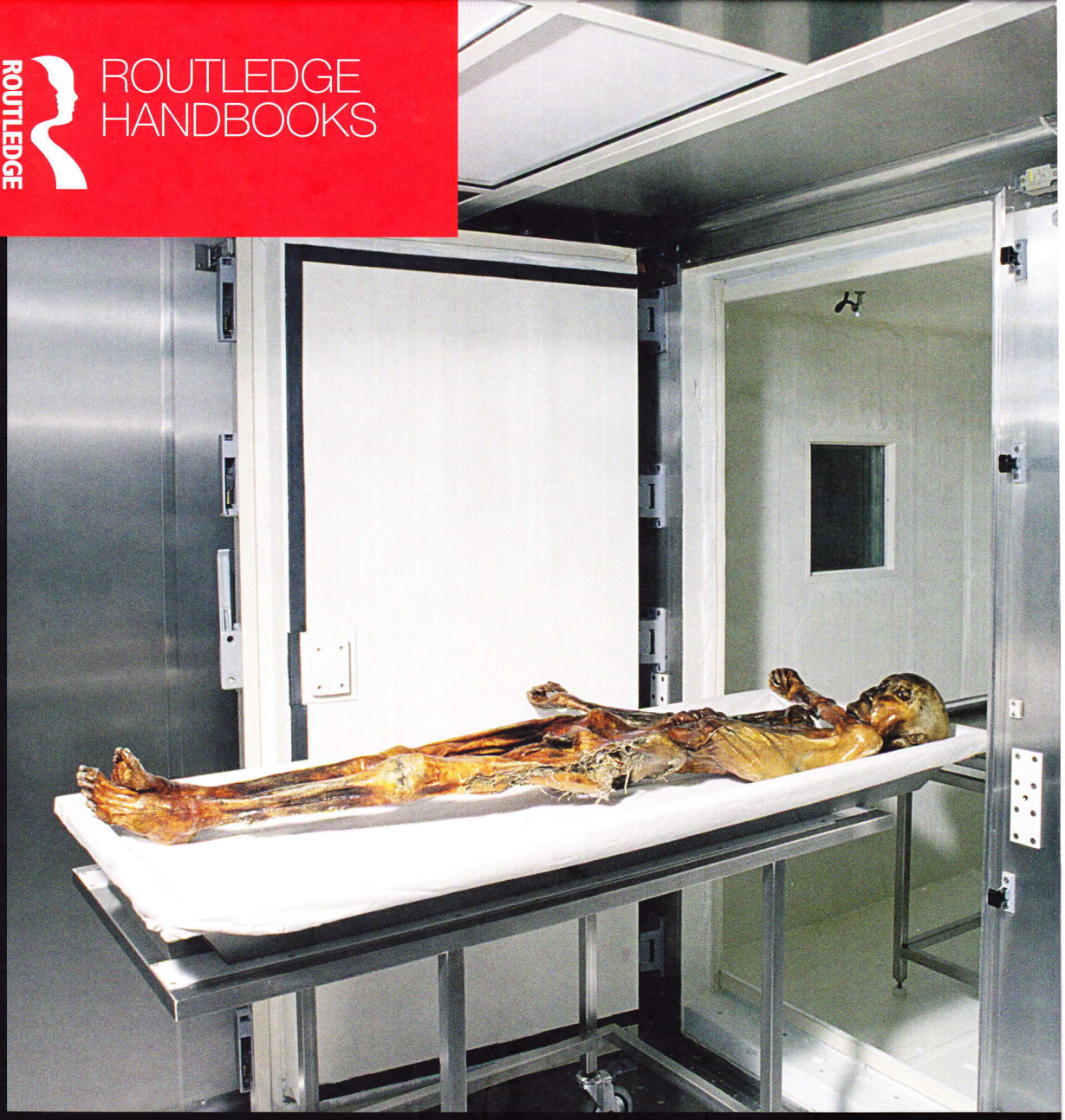

The Routledge Handbook of Archaeological Human Remains and Legislation

An international guide to laws and practice in the excavation and treatment of archaeological human remains

Edited by Nicholas Márquez-Grant and Linda Fibiger

THE ROUTLEDGE HANDBOOK OF ARCHAEOLOGICAL HUMAN REMAINS AND LEGISLATION

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Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2011
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada
by Routledge
270 Madison Avenue, New York, NY 10016

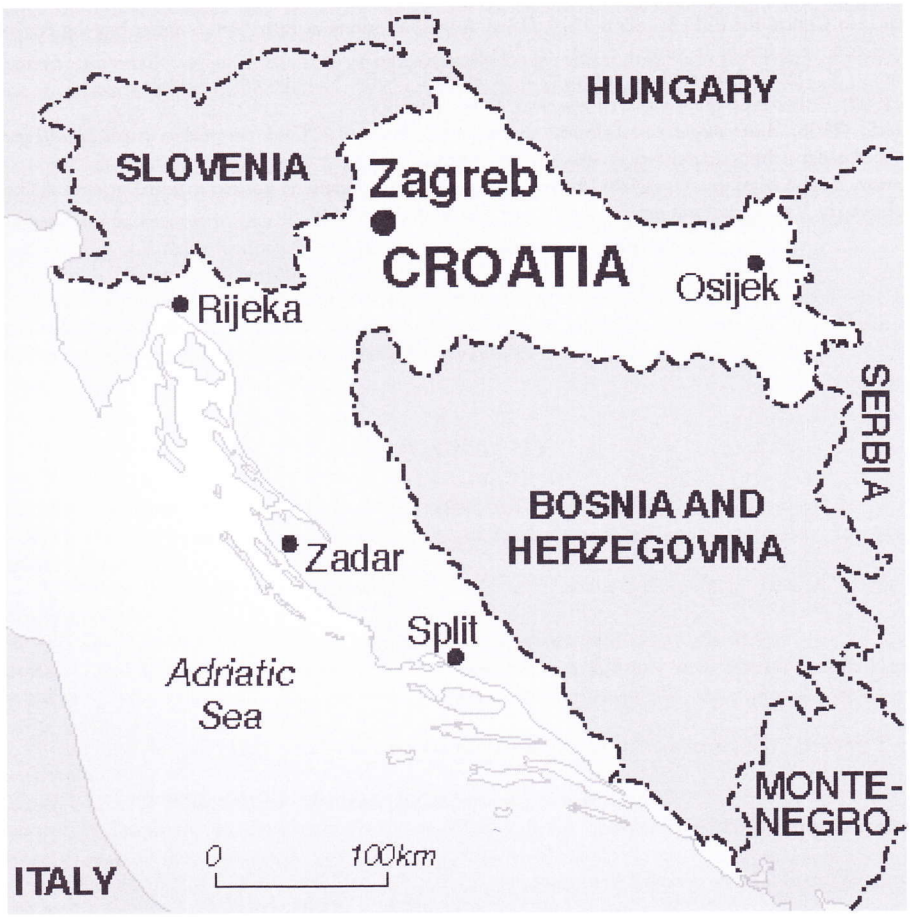
Routledge is an imprint of the Taylor & Francis Group, an informa business

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data
The Routledge handbook of archaeological human remains and legislation: an international guide to laws and practice in the excavation and treatment of archaeological human remains / edited by Nicholas Márquez-Grant and Linda Fibiger.
p. cm.
Includes bibliographical references and index.
1. Human remains (Archaeology)--Law and legislation. I. Márquez-Grant, Nicholas, 1976- II. Fibiger, Linda. III. Title: Handbook of archaeological human remains and legislation.
K3791.R68 2010
344'.094--dc22
2010020706

ISBN: 978-0-415-58857-7 (hbk)
ISBN: 978-0-203-83871-6 (ebk)

Typeset in Bembo by
Taylor & Francis Books
Printed and bound in Great Britain by
CPI Antony Rowe, Chippenham, Wiltshire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Croatia/Hrvatska

Mario Šlaus, Mario Novak and Marin Vodanović

INTRODUCTION: A BRIEF HISTORY AND CURRENT STATUS OF PHYSICAL ANTHROPOLOGY IN CROATIA

The beginnings of bioarchaeological research in Croatia are related to the palaeoanthropological studies carried out by Dragutin Gorjanović Kramberger at the end of the 19th and the beginning of the 20th century (Gorjanović-Kramberger 1899, 1906, 1913). His analysis of the Neanderthal skeletal material recovered from Hušnjakovo brdo near Krapina significantly contributed to the acceptance of the existence of fossil man, and thus, to the acceptance of the concept of the evolution of mankind. Gorjanović's multidisciplinary analysis of human, animal and stone artefacts recovered from Krapina were crucial, not only for the reconstruction of the anatomical features and the quality of life of the Neanderthal inhabitants of Croatia, but they also provided clues to some social characteristics of Neanderthal society. These analyses were part of the foundations of modern palaeoanthropology.

Bioarchaeological analyses of modern man in Croatia began after the Second World War with two major publications by Franjo Ivaniček. In these works Ivaniček presented the results of detailed palaeodemographic and craniometric analyses of the mediaeval sites of Bijelo Brdo (Ivaniček 1949) and Ptuj (Ivaniček 1951). Unfortunately these studies, although in many respects ahead of their time (for instance the anthropological analysis of the 11th–13th-century Bijelo Brdo site incorporated the results of animal bone and pollen analysis), were not noticed by the international scientific community, possibly because of the fact that they were written in Croatian. Twenty years later, Ivaniček's student Georgina Pilarić published several papers that focused on the craniometric characteristics of early mediaeval Croat populations (Pilarić 1967, 1968, 1969, 1974; Pilarić and Schwidetzky 1987).

A major qualitative and quantitative leap forward in Croatian physical anthropology and bioarchaeology began in the 1990s. It was enabled through the work of two extraordinary scientists: Pavao Rudan and Hubert Maver, who in 1977 founded both the Croatian Anthropological Society (Hrvatsko antropološko društvo), and the scientific journal *Collegium Antropologicum*. They organized numerous international scientific workshops including among them the annually held School of Biological Anthropology. Their work led to the founding of the first scientific and educational institution dedicated exclusively to anthropological research in Croatia: the Institute of Anthropology in Zagreb, established in 1992.

Today, bioarchaeological and physical anthropological analyses are performed in numerous Croatian scientific centres of excellence: the Institute of Anthropology, Department of Archaeology at the University of Zagreb; the Institute for Archaeology in Zagreb; the Department of Pathology and Forensic Medicine at the University of Split; the Department of Dental Anthropology at the School of Dental Medicine, University of Zagreb; and the Department of Archaeology at the Croatian Academy of Sciences and Arts. The results of the research undertaken by these institutions are published in international peer-reviewed journals of the highest quality, such as the *American Journal of Physical Anthropology*, *Homo*, *International Journal of Osteoarchaeology* and the *Journal of Forensic Sciences*. Scientists actively engaged in this field of science in Croatia today are: Ž. Bedić, J. Boljunčić, H. Brkić, Z. Hincak, I. Janković, M. Novak, P. Rajić Šikanjić, M. Šlaus, M. Vodanović, and V. Vyroubal.

Besides the tireless work of Pavao Rudan and Hubert Maver, additional impetus to the development of bioarchaeology in Croatia was given by the establishment of three undergraduate and two postgraduate courses in bioarchaeology at the universities of Zagreb and Zadar, and the founding of the osteological collection of the Croatian Academy of Sciences and Arts. Readers interested in a more detailed review of the history of physical anthropology/bioarchaeology in Croatia can get a better appreciation of it in the works of Rajić Šikanjić (2005) and Šlaus (2006).

Physical anthropology/bioarchaeology in Croatia today

The leading centre of bioarchaeological research in Croatia today is the Department of Archaeology at the Croatian Academy of Sciences and Arts in Zagreb where four scientists (Ž. Bedić, V. Vyroubal, M. Novak and M. Šlaus) are actively engaged in bioarchaeological studies of Croatian archaeological populations. These researchers study a wide range of topics including demography (Šlaus 2000, 2002, 2006), subadult stress (Šlaus 2008a), infectious diseases (Šlaus 2006; Šlaus and Novak 2007), dental pathology (Šlaus 2002; Vodanović *et al.* 2005) and bone trauma (Šlaus 2008a; Šlaus and Novak 2006). A list of the archaeological sites in Croatia at which anthropological/bioarchaeological studies have been carried out is presented in Table 9.1.

Skeletal collections and databases

The osteological collection of the Department of Archaeology at the Croatian Academy of Arts and Sciences in Zagreb is the largest collection of human skeletal material in Croatia. It currently holds skeletal material from more than 37 archaeological sites in Croatia dating from approximately 8,000 years BC to the eighteenth century AD, with a total number of over 5,500 skeletons. The collection holds approximately 150 skeletons dated to the prehistoric period, 600 skeletons from the Antique period, over 3,000 skeletons from the mediaeval period, and 1,750 skeletons from the Historic/Modern Age period. The numbers are approximations because the collection is growing, both through the addition of skeletons from newly discovered sites, and through the addition of skeletons from systematic excavations that have, in some cases, continued for over ten years.

In the osteological laboratory of the same department, skeletal material is processed through strictly defined procedures. First, the bones are cleaned under running water with soft brushes, dried, numerated and when necessary and possible reconstructed. Following this a complete inventory of all present bones, joint surfaces and teeth is made for each skeleton. After that, each individual skeleton is sexed, aged, and the available pathological and trauma data are collected and detailed taphonomic data are recorded, as is the potential presence of associated

Table 9.1 Archaeological sites in Croatia for which anthropological/bioarchaeological studies have been carried out

Site	*Chronology*	*Type of analysis*	*Author(s)*
Vukovar – Srednja škola	Neolithic	Demography, pathology	Šlaus 2002a
Vinkovci	Neolithic	Demography, DNA	Hincak *et al.*, 2007b
Josipovac – Gravinjak	Eneolithic	Pathology	Vlak *et al.*, 2009
Vučedol	Eneolithic	Demography, pathology	Šlaus 2002a
		Demography, artificial cranial deformation	Teschler-Nicola and Berner 1994
		Demography, DNA	Hincak *et al.* 2007b
Franjevac	Eneolithic	Pathology	Rajić Šikanjić *et al.* 2009
Bezdanjača	Bronze Age	Demography, pathology	Šlaus 2002a
		Lead concentration in human bone samples	Brajković *et al.* 1990
		Occipital bone analysis (qualitative and quantitative characteristics)	Boljunčić 1994/1995
		Anomalies – upper portion of the vault	Boljunčić 1991
		Blood types of ABO system	Petričević-Jagić *et al.* 1992
		Oval defect on frontal bone	Malez and Nikolić 1975
		Morphological characteristics of lower jaws	Percač 1993
Laganiši	Bronze Age	Demography, pathology	Rajić Šikanjić 2008
Nadin	Iron Age	Demography, pathology	Rajić Šikanjić 2006
Vinkovci – "NAMA"	Early Iron Age	Demography, pathology	Šlaus 2002a, 2003
Zvonimirovo – Veliko polje	Late Iron Age	Analysis of cremated human bones	Šlaus and Novak 2004
Šepkovčica	Antique period	Microscopic analysis of cremated human bones	Hincak *et al.* 2007a
Štrbinci	Late Antique period	Demography, pathology	Šlaus 1998, 2001, 2002a, 2008a; Šlaus *et al.*, 2004b, 2004c
Osijek	Late Antique period	Demography, pathology	Šlaus 2002a, 2008a; Šlaus *et al.*, 2004b
Zmajevac	Late Antique period	Demography, pathology	Šlaus 2002a, 2008a; Šlaus *et al.*, 2004b
Vinkovci	Late Antique period	Demography, pathology	Šlaus 2002a, 2008a; Šlaus *et al.*, 2004b
Treštanovačka gradina	Late Antique period	Craniometric analysis	Pilarić 1974
		Dental measurements	Kallay 1974
Vid	Late Antique period	Demography, pathology	Šlaus 2002b, 2004a, 2004b, 2008a
Kaštel Sućurac	Late Antique period	Demography, pathology	Šlaus 2008a
Zadar	Late Antique period	Demography, pathology	Šlaus 2008a
Split – Ad basilicas pictas	Late Antique period	Demography, pathology	Šlaus 1999, 2008a

(Continued on next page)

Table 9.1 (continued)

Site	*Chronology*	*Type of analysis*	*Author(s)*
Ferenci	Early Mediaeval period	Case of dental anomaly	Rajić Šikanjić and Meštrović 2006
Guran – Na križu	Late Antique/Early Mediaeval period	Case of perimortem trauma	Šlaus *et al.* 2007a
Novigrad	Late Antique/Early Mediaeval period	Demography, pathology, correlation: grave type and sex/age	Rajić and Ujčić 2003; Rajić Šikanjić and Ujčić 2003
Vinkovci	Early Mediaeval period	Demography, pathology	Šlaus 2002a; Šlaus *et al.* 2002
Jopićeva pećina	Early Mediaeval period	Case of artificial cranial deformation	Šlaus 2002a
Privlaka – Gornje njive	Early Mediaeval period	Demography, pathology, discriminant analysis of crania	Šlaus 1993, 1996a, 2002a, 2008a; Šlaus *et al.* 2002
Stari Jankovci	Early Mediaeval period	Demography, pathology, discriminant analysis of crania	Šlaus 1993, 2008; Šlaus *et al.* 2002
Buzet – Mejica	Early Mediaeval period	Dental pathologies	Dolinar and Vidović 1974
Nin – Ždrijac	Early Mediaeval period	Demography, morphology and typology of crania	Štefančič 1995
Donje polje	Early Mediaeval period	Demography, pathology	Šlaus 2006, 2008a
Radašinovci	Early Mediaeval period	Demography, pathology	Šlaus 2006, 2008a
Glavice	Early Mediaeval period	Demography, pathology	Šlaus 2006
Velim – Velištak	Early Mediaeval period	Demography, pathology	Šlaus 2006, 2008a
Konjsko polje – Livade	Early Mediaeval period	Demography, pathology	Novak *et al.* 2008
Mravinci	Early Mediaeval period	Cranial measurements and indexes	Mikić 1990
Bijelo Brdo	Early Mediaeval period	Demography, craniometry, cranial measurements and indexes	Ivaniček 1949; Pilarić 1968
		Dental pathologies	Vodanović *et al.* 2004, 2005
		Sex determination based on morphology of the lower jaw and odontometrics	Vodanović *et al.* 2006, 2007
Vukovar – Lijeva Bara	Early Mediaeval period	Multivariate craniometric analysis	Pilarić and Schwidetzky 1987
Bribir	Early and Late Mediaeval period	Multivariate craniometric analysis	Pilarić and Schwidetzky 1987
Vinkovci	Early and Late Mediaeval period	Demography, pathology	Šlaus 2002a; Šlaus *et al.*, 2002
Daraž – Bošnjaci	Early and Late Mediaeval period	Demography, cranial measurements and indexes	Pilarić 1967
Lobor	Early and Late Mediaeval period	Demography, pathology	Šlaus 2002a; Šlaus *et al.* 2002
		Case of osteochondroma	Šlaus *et al.* 2000

Table 9.1 (continued)

Site	*Chronology*	*Type of analysis*	*Author(s)*
Ščitarjevo	Early and Late Mediaeval period	Demography, pathology	Šlaus 2002a; Šlaus *et al.* 2002
Đelekovec	Early and Late Mediaeval period	Demography, pathology	Šlaus 2002a; Šlaus *et al.* 2002
Stenjevec	Early and Late Mediaeval period	Demography, pathology	Šlaus 2002a, 2002c; Šlaus *et al.* 2002
Zvonimirovo – Veliko polje	Early and Late Mediaeval period	Demography, pathology	Boljunčić 1997a; Boljunčić and Mandić 1993
		DNA	Boljunčić 2007
Josipovo	Early and Late Mediaeval period	Demography, pathology	Boljunčić 1997b
Đakovo	Mediaeval period	Demography, pathology; craniometric differences between 2 phases	Šlaus 2002a; Šlaus and Filipec 1998; Šlaus *et al.* 2002
Danilo – Šematorij	Mediaeval period	Demography, pathology, multivariate craniometric analysis	Šlaus 1996b
Suhopolje – Kliškovac	Mediaeval period	Trauma analysis	Šlaus and Novak 2006
Ozalj	Mediaeval period	Perimortem trauma and occupational stress	Šlaus 1994
Ričice	Late Mediaeval period	Demography, pathology	Mikić 1988
Krbavsko polje	Late Mediaeval period	Trauma analysis	Šlaus 2008b
Dugopolje	Late Mediaeval period	Demography, subadult stress	Novak and Šlaus 2007
Nova Rača	Late Mediaeval period	Dental pathologies	Šlaus *et al.* 1997
		Sex differences in mortality profiles and stress levels	Šlaus 2000
Kamengrad	Late Mediaeval period	Demography, pathology	Šlaus 2002a
Zagreb – Sv. Franjo	Late Mediaeval period	Demography, pathology	Šlaus *et al.* 2007b
Tomaš	Late Mediaeval period	Demography, pathology	Šlaus 2002a
Koprivno – Kod križa	Early Modern period	Demography, pathology	Novak *et al.* 2007
		Subadult stress	Novak 2008
Crkvari – Sv. Lovre	Mediaeval/Early Modern period	Trauma analysis	Šlaus and Novak 2006
		Case of venereal syphilis	Šlaus and Novak 2007
Torčec	Mediaeval/Early Modern period	Demography, pathology	Šlaus *et al.* 2003b
Požega – Sv. Terezija	Modern period	Sex determination based on lower jaws	Vodanović *et al.* 2006

archaeological material or animal remains. Finally anthropometric and craniometric data are recorded.

Skeletal material may be sent for additional analyses (x-ray, DNA, CT, stable isotope analysis, etc.) to other institutions in Croatia, or other parts of the world if required. Once the analysis is completed, all bones are stored in individually marked boxes in the osteological collection of the Department of Archaeology of the Croatian Academy of Arts and Sciences.

Apart from the Department of Archaeology of the Croatian Academy of Sciences and Arts, bioarchaeological analyses are also conducted at the Institute of Anthropology in Zagreb by P. Rajić Šikanjić; the Institute of Archaeology in Zagreb (J. Boljunčić); the Department of Archaeology, Faculty of Philosophy, University of Zagreb (Z. Hincak); and the Department of Dental Anthropology, School of Dental Medicine, University of Zagreb (H. Brkić and M. Vodanović).

In terms of the popularity, interest from the general public and from the media for the results of bioarchaeological research, the situation in Croatia is specific. The high quality of the work undertaken by Croatian physical anthropologists in the identification and analysis of the cause of death of civilian victims of the 1991 war that followed the dissolution of the former Yugoslavia has highlighted both the importance of physical – in this context forensic – anthropology, and the importance of developing an osteological database.

The 1991 conflict between Croatia and Serbia caused extensive material destruction and loss of life. From 1991 to 1995 there were more than 14,000 war-related deaths in Croatia. Among these were a large number of civilians whose remains were subsequently recovered from 143 mass graves and a large number of individual inhumations. To identify and determine the cause of death of these individuals, a joint USA–Croatia forensic anthropology project was developed. In this project, forensic anthropologists from the Croatian Academy of Sciences and Arts (Hrvatske akademije znanosti i umjetnosti), and the Department of Forensic Medicine at the School of Medicine, University of Zagreb, together with forensic anthropologists from the Smithsonian Institution, Washington DC, and the University of Tennessee in Knoxville, developed a forensic anthropology database in which data were collected on age, sex, stature, metric characteristics, osteological and dental pathology, and on peri-mortem trauma and possible cause of death. The purpose of this database, modelled on the forensic database developed at the University of Tennessee, has been to:

1 Identify a basic and standard set of measurements, observations and definitions to ensure that data are comparable;
2 Store the data in a computer in such a way that particular subsets can be quickly accessed;
3 Provide up-to-date discriminant formulae for determining sex, estimating stature, and defining other traits useful for comparative research and forensic analysis.

The formation of this database has contributed to the high frequency of positive identifications of civilian victims of the 1991 conflict (85.7%), and has educated the Croatian public and media on the type of data that physical anthropological research can yield. This has carried on to bioarchaeological research, with results frequently featuring on TV shows and in newspaper articles.

An additional positive response following the formation of the forensic osteological database was the increased interest of scientists from related scientific fields, particularly archaeologists, for the preservation and analysis of human skeletal material. The vast majority of Croatian archaeologists today are aware of the usefulness of bioarchaeological analysis for reconstructing the living conditions and lifestyles of archaeological populations. However, because bioarchaeological analyses of human skeletal material from archaeological sites in Croatia are not legally required, physical anthropologists/bioarchaeologists still utilize every opportunity (workshops, lectures, science festivals, etc.) to emphasize the importance of these analyses. The result is that virtually all human bones found in archaeological sites in Croatia today are analysed.

The downside of this significantly increased interest for bioarchaeological research is that the large number of rescue archaeological excavations related to large state infrastructure projects

such as the construction of highways, coupled with the relatively small number of active bioarchaeologists/physical anthropologists in Croatia, means that physical anthropologists are rarely able to stay on a site throughout its entire archaeological excavation. Bioarchaeologists are present on an archaeological site usually at the invitation of the archaeologist, and generally for a short period of time. This sometimes causes problems in terms of the recovery of the less well preserved skeletal remains. Apart from preliminary analyses of sex and age, physical anthropologists on archaeological sites assist in differentiating between human and animal remains, and between archaeological and potential forensic cases.

There are several professional associations in Croatia in which bioarchaeologists/physical anthropologists actively participate. The most important is the Hrvatsko antropološko društvo (Croatian Anthropological Society), which is a part of the European Anthropological Association. This association assembles not only bioarchaeologists/physical anthropologists but also experts and scientists from all branches of anthropology. Beside this association, almost all Croatian bioarchaeologists are active members of the Hrvatsko arheološko društvo (Croatian Archaeological Association), and actively participate in their annual congresses. The seat of the International Association for Paleodontology (IAPO) is at the Department of Dental Anthropology, School of Dental Medicine, in Zagreb. This is an association that deals with the research of the oral and dental health of ancient populations.

ARCHAEOLOGICAL HUMAN REMAINS AND LEGISLATION

There is no legislation that specifically regulates the excavation and treatment of human skeletal material found in archaeological sites in Croatia. The fate of newly discovered human remains in Croatia depends on the circumstances of their discovery. When the remains are discovered in archaeological excavations they are treated as any other archaeological finds. If human skeletal material is found accidentally (for instance, during construction works), a team consisting of forensic experts, physical anthropologists/bioarchaeologists and archaeologists is sent to the site to determine whether the discovered remains are from an archaeological context or represent a forensic case. If the bones are considered to be a forensic case they are transported to the pathology departments of a local hospital, or to the Departments of Forensic Medicine in Zagreb, Split, Rijeka or Osijek. When human bones are considered to be part of an archaeological context they are transported to the local museum, or to one of the institutions in which bioarchaeologists are active.

There is no regulation that determines when human remains are considered to be from archaeological contexts, and when they are considered to be part of a forensic investigation. A general rule is that human skeletal remains dated to the end of the 19th century are usually considered to be from archaeological contexts.

Because of atrocities committed during the Second World War and its immediate aftermath, mass graves with victims from this time period are sometimes uncovered. Although there have been several attempts to develop a governmental body that would holistically deal with these remains, from identifying the number, age and sex of the victims, through possible positive identification of some victims, to the reburial of the remains in one or several specific cemeteries, as yet nothing has transpired. At present, these remains are treated as forensic investigations in the sense that the remains are transported to and analysed in departments of forensic medicine – usually the department in Zagreb.

As previously noted, there is also the possibility of uncovering individual or mass graves related to the 1991 war in Croatia. In instances where there is any indication that this may

be the case, the remains are handled by the 'Committee for Imprisoned and Missing Individuals'. This governmental body coordinates all procedures related to the recovery, transportation, storage and identification of these remains and treats them as forensic cases (Šlaus *et al.* 2007c).

Archaeological legislation

The 'Law on the protection and preservation of cultural goods', adopted in 1999 and revised in 2003, legally regulates archaeological research in the Republic of Croatia. Below are described the most important articles of this act that relate to archaeological excavations and the handling of archaeological findings, including human skeletal material.

According to article 2 of the Croatian 'Law on the protection and preservation of cultural goods', cultural goods include movable and immovable items of palaeontological, archaeological, and anthropological significance. Consequently, human skeletal remains recovered during archaeological research are considered archaeological findings. Article 6 of the same law cites the competent legal authorities responsible for the protection and proper handling of archaeological material found during excavations: conservation departments of the Ministry of Culture, and the Zagreb City Bureau for the protection of monuments of culture and the natural heritage. Article 47 describes the conditions that need to be satisfied in order to get approval for archaeological excavations:

> ... approval may be issued only to legal and physical persons that meet the requirements of qualification for the performance of such works, and if the necessary material and technical resources to carry out the excavations, the conservation of sites, planning, and presentation of sites and the findings are provided.
>
> *Law on the protection and preservation of cultural goods, Article 47 (author's translation)*

Article 68 defines the procedure employed when archaeological material is sent abroad:

> ... it may be temporarily sent abroad for purposes of exhibition, expertise, analysis, implementation of procedures for the protection and preservation, or other justifiable reasons, with the approval of the Croatian Ministry of Culture. The applicant for the temporary export shall at the request of the Ministry of Culture give a guarantee in case of damage, destruction or theft of cultural goods in the form of cash deposit in a bank in the full amount of the value of cultural goods, or some other appropriate guarantee. The Minister of Culture prescribes conditions for the temporary export of cultural goods.
>
> *Law on the protection and preservation of cultural goods, Article 68 (author's translation)*

The 'Regulations for archaeological research', adopted in 2005, describe in more detail the procedures for excavation, analysis, documentation and storage of archaeological material, including among them human skeletal material. Article 4 of the 'Regulations for archaeological research' prescribes the measures that have to be taken before the start of the excavation, such as obtaining the approval of the conservation departments of the Ministry of Culture, or the Zagreb City Bureau for the protection of monuments of culture and nature. The same article cites which documents must be provided by the applicant for authorization: a form for specific details on the director of the excavation; data on the type, methodology, location, time, scope, content, and goals of the research; data on the manager and individuals involved in

the work; and data on the storage place that will be used for the recovered archaeological artefacts. Article 6 prescribes the necessary conditions that the professional manager of the archaeological research must satisfy: he or she must be a citizen of the Republic of Croatia, must have a BA in archaeology, must have at least 12 months' experience in archaeological excavations, and must have the approval of the Ministry of Culture. Article 10 prescribes the technical requirements and equipment that the professional manager is required to provide. Article 17 lays down the conditions that must be met if the material is to be exported outside the country:

> ... exporting the samples intended for analysis abroad is only possible with the approval of the Ministry of Culture and under the conditions prescribed by the Law on the protection and preservation of cultural goods. A professional manager must submit the application for export.
>
> *Regulations for archaeological research, Article 17 (author's translation)*

Article 18 addresses the issue of the publication of the excavated and analysed material and documentation.

HUMAN REMAINS AND LEGISLATION

The above information indicates the most important legal regulations in Croatia concerning issues of excavation and the handling of archaeological findings, including among them human skeletal material. So far, these legal provisions have worked well in practice, and there are no significant negative experiences. This does not mean, however, that in the near future the possibility of further elaboration of legal provisions that would better regulate the treatment of human skeletal material found during archaeological excavations should be ignored.

Skeletal material can be, and in fact almost routinely is, sent to other countries for additional analyses. Skeletal samples are frequently sent for C^{14} dating (for instance to the Leibniz-Labor für Altersbestimmung und Isotopenforschung in Kiel, Germany, or to the Beta Analytic Laboratory in Miami, USA). Bone and dental samples from the collection of the Department of Archaeology of the Croatian Academy of Sciences and Arts have also been sent for stable isotopes analysis to the Dorothy Garrod Laboratory for Isotopic Analysis at the Department of Archaeology, University of Cambridge.

So far no ethical issues have been raised by any religious or non-government groups that would impede the analysis of human skeletal material recovered from archaeological sites.

METHODS OF ANTHROPOLOGICAL ANALYSIS

Internationally recognized standards and methods for determining age and sex (for a more detailed list of these see, for example, Šlaus 2008a) are generally used in the bioarchaeological analysis of skeletal material from Croatia, although specific methods generated for Croatian archaeological populations are also utilized. These include discriminant functions for determining sex in mediaeval Croatian populations based on the dimensions of the femur and tibia (Šlaus 1997; Šlaus and Tomičić 2005), as well as discriminant functions for determining sex in modern Croats based on the dimensions of the femur (Šlaus *et al.* 2003a).

CONCLUSION

Croatia has a long history and tradition of research in physical anthropology dating from the end of the 19th century, and the exceptional palaeoanthropological studies carried out by Dragutin Gorjanović Kramberger on the Krapina Neanderthal remains. Bioarchaeological research of archaeological populations that inhabited Croatia significantly intensified at the end of the last century, when a new generation of bioarchaeologists/physical anthropologists working under the tutelage of Pavao Rudan and Hubert Maver emerged. The increased interest in bioarchaeological research in Croatia was additionally fuelled by a widespread interest in physical anthropology triggered by the role that Croatian physical anthropologists played in the identification of civilian victims of the 1991 war in Croatia.

Although the level of funding and equipment in Croatian bioarchaeological laboratories cannot be compared to that in more developed countries, the results that Croatian bioarchaeologists/physical anthropologists are able to achieve are of the same high standard achieved throughout European bioarchaeology/physical anthropology.

There is no specific legislation in Croatia prescribing the treatment of human skeletal remains recovered from archaeological contexts. Procedures that must be implemented prior to and during archaeological excavations, as well as procedures related to the handling of all archaeological material, including human skeletal remains, are regulated by the 'Law on the protection and preservation of cultural goods' and the 'Regulations on the archaeological research of the Republic of Croatia'. So far, there have been no significantly negative experiences, and the cooperation between Croatian archaeologists and bioarchaeologists/physical anthropologists is generally excellent. This does not mean, however, that more detailed legal provisions in the form of regulations that would standardize the process of excavation, transportation, analysis, presentation and publication of human skeletal remains should not be developed in the future.

USEFUL CONTACTS

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