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Final Thoughts on WWI and WWII Legislation, Recovery, Identification and Burial of Human Remains: Best Practice, Challenges, and Recommendations.

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1.0 Introduction

The *'WWI and WWII Symposium: Legislation, Recovery, Identification and Burial of Human Remains',* took place on 13th March 2020 (Márquez-Grant and Errickson, 2021). The event was in the form of a round table discussion with participating specialists who focus on the forensic recovery and identification of war casualties, particularly with a focus on Europe. Although the event saw a large amount of knowledge exchange, the discussion went far beyond those who attended the session. As a result, this Special Issue in 'Forensic Science International' is aimed at disseminating the discussion to a wider number of individuals while incorporating further views and input from specialists who could not be in attendance on the day.

2.0 The Aims and Discussion Points

Although the authors were encouraged to suggest further points for discussion, the aims of this symposium were as follows (Márquez-Grant and Errickson, 2021):

1. Which authority deals with WWI and WWII human remains in a particular country?
2. Which organisation undertakes this work?
3. What legislation needs to be considered?
4. What professionals work in the recovery and analysis of human remains?
5. How is identification achieved if at all?
6. What is the interaction with the public and how is this information disseminated to the media?

Many of these points have been addressed in each individual article within this special issue. However, entwined with these questions are also the thoughts on how the human remains of those who fell are remembered and reburied after identification, even in those cases where identification has not been possible. All of these pertinent points and questions that have been raised and reiterated in the different discussions and contributions within this Special Issue have led to four main summary points for discussion:

1. The need for trained personnel.
2. There is a right to identification, ethical respect and duty of care.
3. Standardisation of protocols.
4. Dissemination of data.

Therefore, the editors of this article wanted to provide an overview of these specific points and have summarised these topics for further consideration, with the future of the discipline at the forefront of their minds.

2.1 The need for trained personnel

It must be remembered that the identification of the casualty starts during the discovery of the remains, and in particular identification starts at the site during the archaeological intervention. Indeed, there is a limitation to what information a forensic anthropologist or any other investigator examining a body can retrieve from the mortuary analysis if the entire context, personal effects, etc. are not taken into account. It is important that, wherever possible, the field team are professionals. For instance,

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professional archaeologists or individuals who are trained to undertake the work. If possible, yet of paramount importance in cases of commingling and/or where there are many individuals, a physical/forensic anthropologist should be present too. Unfortunately, this is not always achieved. Ultimately, there may be a case to answer in court, and thus practicing forensic scientists must be involved in the investigation. Not only is the archaeological context essential but the association between artefacts and an individual are essential. If proper documentation is not undertaken, this information may be lost.

Allowing for professionals is also about preparedness and awareness. Certainly, if the recovery does not employ trained personnel it can lead to the loss of information, and thus identity or make the latter more challenging and limited. Further, in challenging scenarios where context may have been disturbed and human remains are discovered due to metal detectorists and relic hunters, a sound methodology must be in place. Therefore, training and awareness is essential, especially for non-professionals, and this does not only apply to human remains, but to artefact specialists too.

One argument for some of the investigations is to use personnel from the police, in particular if military teams are deployed and have their own scientific/crime scene investigators These trained personnel are very familiar with different evidence types, documentation techniques, DNA sampling protocols, repatriation, gathering of intelligence, and can maintain the chain of custody; which can then assist archaeologists and anthropologists.

2.2 There is a right to identification, ethical respect and duty of care.

As stated, the identification starts at the scene, or in the pre-desk based assessment. It is so important to associate artefacts to one individual, to understand the context in which the body has been buried, to be able to date the human remains, and correctly interpret stratigraphy. It is important that forensic archaeologists (see Groen *et al*., 2015; Hunter *et al*., 2013) are present to search, document and recover the remains. This can be seen in countries such as the UK, USA, Belgium, and France, primarily where archaeologists attend the scene upon the discovery of the remains. Not having professionals working at the site may cause commingling, loss of personal information, incorrect dating, and may create additional work for DNA analysis. Although DNA analysis is not the only method used for identification as it is a combination of many, including archaeology and anthropology (e.g. see Márquez-Grant *et al*. 2019a), there must be active and continual communication between the DNA laboratory and the scientists in the field or mortuary. This is in order to manage expectations. For example, the laboratory personnel may not be aware of the commingling of the remains and the need for forensic anthropologists to undertake visual pair matching, reconstruction, association of elements according to age and sex, for example, in order to minimise the number of DNA samples taken. Protocols for sampling and which sample to take may also vary according to the lab.

Identification can be provided tentatively/presumptively through identification discs (e.g. see Ashbridge and Vergebem, 2020; Herrasti *et al*., 2014), personal effects, and using forensic anthropology (e.g. see Ubelaker *et al*., 2018; De Boer *et al*., 2020) to compare against a known list of individuals buried in a grave. But genealogists and DNA scientists also need to find the right relative (if possible) in order to identify. Therefore, consent and data protection are of utmost importance. It must also be recognised that identification is not always possible or cannot always be achieved where there are hundreds, if not thousands of individuals. For instance, in a mass grave with many limitations including poor preservation, commingling, lack of relatives, no identification tags, lack of documentation or records, few witness accounts or witnesses no longer being alive, lack of personal effects and limited funding. Likewise, incorrectly identifying bone as human may provide a false hope to remaining family members and as a result, caution in any diagnosis should be managed accordingly.

Indeed, there are a number of ethical issues on top of that to solve. For example, the screening of human remains from the public. This may be a positive or negative experience and one that solely depends on the context. Some governments will not want images of human remains or even the public

to visit the deposition site, whilst others see this as a necessity, as the public wishes to see what cannot be seen again. For example, they want to see the ´truth´ or see what should not be repeated again.

Ethically, there are also the issues around destructive DNA, ensuring the remains are in the right coffin and understanding what scientific approach to undertake with common tissue. Unfortunately, at times the relatives are not always aware they had a missing relative or understand the conflict, how they fell, or how they were buried. It may be, that depending on the conflict, the family are not interested or do not want to be associated to a relative who fought in a particular war.

2.3 Standardisation of Protocols

The practice of archaeology is flexible and should not be bound by one approach due to the complex nature of excavation and recovery. However, protocols are needed not only for the methods used to excavate remains from these conflict zones or what anthropological methods to use; but most importantly who deals with these human remains upon discovery, how to manage the discovery and custody of human remains, what is the process for identification and perhaps provide some more specific legislation where protocols are absent in one particular region or country.

It is also true that the aims of recovery and analysis may be different, some may want to record the trenches of the Western Front, or record a bunker from the Second World War, or even just locating the concentration camps of another conflict. The organisations involved may be universities if these are research investigations, commercial archaeological units or specific Human Rights´ organisations or government departments. Protocols will vary and if identification is a key strategy in the excavation of the remains, the information that may be useful for a possible identification commission has to be considered at the planning stage. Thus, some minimal standards are required.

2.4 Dissemination of data

There is indeed a wealth of data available, although sometimes restricted, in archives worldwide for a number of incidents, for example in the RAF Air Historical Branch (see Hadaway, 2021) or the records held by the ICRC (see Clegg, 2021).

The scenario may be that of a discovery of human remains due to roadworks in northern Europe, with artefacts dating to WWI, excavated by archaeologists undertaking the watching brief. What protocols are in place and who should the archaeologists inform? (see a good example for Belgium in De Decker, 2021). Moreover, what happens with the data from those archaeologists and even anthropologists once the analysis has finished? Should outreach be conducted if it is a soldier from the war or should this be part of a TV programme for instance?

Media is important to understand the efforts played by governments or other organisations, in conjunction with obtaining funding to be able to search for other missing persons from the war. Moreover, the media is useful in informing potential relatives to see if anyone in the public has lost a certain relative in a particular conflict in specific circumstances. For example, the UK Joint Casualty and Compassionate Centre (JCCC) historical team of six (see Bowers, 2021), provide press releases and social media announcements to a certain extent, along with TV programmes in order to contact possible relatives of an unidentified war casualty. Another example, if we take the work from the Spanish Civil War (see e.g. Herrasti *et al*., 2021 and bibliography therein), is to talk to relatives on a daily basis, whether at the foot of the mass grave, through tours of the search area, and showing them the artefacts through a series of lectures in the town hall.

Memorials and special exhibitions are also important for outreach. One example is the ´missing in Klessing´ exhibition in the local musem (Indra *et al*. 2020) and another is the ´Stories without history´ in Italy (see Gaudio *et al*.). Public opinion may prevent or be negative against the recovery and

analysis of human remains (see Gaudio *et al*., 2020), so there are still sensitivities that should be considered.

3.0 Final remarks

In cases such as these, whether humanitarian or forensic, communication with the family and managing their expectations has to be ongoing from the very beginning until the end. Sometimes, in police cases in the UK it may be the family liaison officer (FLO) or in Human Rights cases a psychologist or anthropologist who will maintain this open dialogue (Márquez-Grant *et al*., 2019b). It is important if families are visiting the grave or following the investigation that their expectations are managed, especially regarding identification, whilst also being realistic about the possibilities of successful identification. Remembrance, repatriation and reburial are also key issues. Casualties are often (re)buried near to where they fell, and with their comrades. Religious considerations are also taken into account and liaisons with families. A number of memorials, whether by the grave site, at the grave site, or elsewhere in towns in the form of monuments, names of streets and squares, etc. have been erected.

More recently, some organisations (e.g. Op Nightingale[1], Breaking Ground Heritage[2], American Veterans Archaeological Recovery[3]), have provided rehabilitation projects that focus on assisting with a transition to civilian life as a military veteran. These projects are meaningful because they help veterans to connect directly with some of the casualties they have encountered even if from distant conflicts (Current Archaeology, 2013; Andrews *et al*., 2019). Funding may be provided by donations, crowd sourcing (HILL80), or family associations. Usually, however, many are run by volunteers often in their spare time, with exceptions such as where systems are in place (e.g. Flanders in Belgium). Political parties may fund recoveries for a number of years but changes internally may also mean changes in funding . Of course, in archaeological rescue excavations, most legislations while following the Valetta convention will be covered by the developer, although the extent of the excavation and the post-excavation analysis may be limited. Yet, legislation is dynamic, and it can change as can the different policies. There is also the other side of the coin where if it is not necessary to excavate then there is no need to exhume, or where the public may prefer to leave the casualties where they rest rather than disturb them. In these cases, it may draw up an ethical dilemma where the public would rather have an investment of money in the living population.

Finally, research also has its value in searching, recovering and identifying victims from conflict, whether military or non-military. Justice by examining evidence at the deposition site as well as trauma to bone or soft tissue, may assist with evidence of torture, manner and cause of death. Thus, although the work is mainly undertaken by an experienced practitioner, it is essential to undertake research on biological profiling, trauma analysis, geophysical methods, and DNA in order to assist with identification, a dignified burial as well as closure for families.

Overall, a number of conclusions and points for contemplation can be drawn from the participants of the symposium on 13th March 2020 (See Márquez-Grant and Errickson, 2021) and from this Special Issue of *Forensic Science International* entitled: WWI and WWII: Legislation, Recovery, Identification and Burial of Human Remains:

I. In Europe, accidental finds or rescue excavations are most common for WWI, rather than planned search operations although there are exceptions. This is especially true in France (Verna, 2020) and Belgium (De Deckler, 2021). Additionally, there are a number of nations that do search for their fallen, such as Cyprus, Colombia, USA, and Australia. In many

[1] https://www.gov.uk/guidance/operation-nightingale

[2] https://breakinggroundheritage.org.uk

[3] https://americanveteransarchaeology.org

countries these discoveries are also regulated by Geneva and Valetta conventions, and other international law for more recent conflicts (see Clegg, 2021).

II. Human remains from conflict zones may be found in clandestine mass graves, individual graves with a tombstone, aircrash sites, prisoner of war cemeteries, hospital cemeteries, in natural cavities such as caves or other structures such as wells. In terms of scientific analysis, commingling seems to be a common problem and a challenging one too.

III. There should be an increased effort to educate and promote public awareness on whom to contact upon discovering (historical) war casualties. In every country there is an individual, a society, a non-governmental organisation, government department, or an international team, who works to account for the missing and disappeared. Sometimes, organisations may be ´neutral´ for some conflicts, such as the ICRC. In other cases, they are tripartite entities, such as Cyprus (UN, Turkey, Greece).

IV. Not all countries may be active in the search for conflict casualties, sometimes due to the huge losses, but others will aim to recover and identify a specific number a year.

V. This work does not just start and end with the deceased. There are concerns for the living and their wellbeing also. Therefore, there are outreach programmes that support these individuals, as well as groups who liaise with families.

VI. Military burials are usually with full military honours even if the individual has not been named (unidentified).

VII. There is perhaps the need for all conflict casualty data to be centralised. Although a difficult task, it may benefit collaboration and increase in positive identification. However, thoughts on data protection and ethics should be included within this discussion. Similarly, databases for relative's DNA may be urgent as some relatives may become more difficult to trace due to the aging population. For example, a case from the Netherlands involved the exhumation of a relative (mother) to identify her son who had died 60 years previously (Jonker, 2018).

VIII. The cases presented show how trained multidisciplinary teams in every investigation are essential. The work should be undertaken by experts, in particular (forensic) archaeologists. Yet, there is a need for forensic anthropological collaboration for identification of these casualties. Most investigations now comprise a team of historians, archaeologists, anthropologists, geneticists as well as staff in charge of identification, repatriation and reburial. There should also be consideration of crime scene investigation principles. Therefore, ensuring more rigid forensic protocols may be appropriate. This is certainly a consideration when presentation in court may be likely.

IX. Legislation can be complex, with some nations still lacking legal framework and care for the dead. Therefore, judicial timeframes can cause problems as a number of governments (and embassies (Defence Attachés)) may be involved. This process depends on what country the remains are found.

X. Do the remains fall under an archaeological timeframe and therefore archaeological legislation, under a forensic or judicial framework, or neither of these, but under some form of legislation? In some countries historical war casualties fall under an archaeological framework (such as the Ministry of Culture), in others a forensic and legal framework. Knowledge is needed of the legislation and process associated with acquiring excavation permits. There are different authorities and different policies according to regions within the same state, this can make an excavation complex. Communication between nations, organisations and participants has to remain open and improve. This may help access data that was previously unknown to some nations.

XI. On more recent conflicts, although there may be the potential for justice, most are humanitarian missions aimed at identifying the individuals rather than to determine the cause and manner of death.

XII. There is a need for guidelines in some countries, or a common guideline to be implemented by different nations. If protocols do not exist, perhaps a nation should look to create one.

Similarly, provision of education and training should be provided to nations where there are high volumes of war dead but where no infrastructure, expertise, etc. is available. Continually improving best practice and the methodological approach both nationally and internationally. It should be noted that standards should not be overly difficult to follow, however whether everybody applies the standards may be more challenging.

XIII. There are many challenges that may hinder an investigation, including political instability, public opinion, opposition from some relatives (and not others), access, funding, type of incident, prior looting, agricultural damage, poor recovery and handling, permits around the management of explosives, lack of reference DNA, poor preservation, lack of archives.

XIV. Funding can be challenging. Perhaps forming international teams to obtain funding may be more beneficial in the long term.

XV. A common goal of recovery should be to work in the best way possible. Therefore, maximising the information which will help with identification, reburial and closure for the relatives. High ethical standards are always necessary. There appear to be differences in terms of international treatment of the dead and ethical protocols/standards. All work should be accomplished with an ethical mind frame. This relates to all processes from the name of the deceased, images of the deceased, to dissemination of information etc. (e.g. see Squires *et al*., 2019). It should be considered that this work is a moral obligation to the dead. A moral obligation with no time limits, where relatives may still be alive, where the Geneva convention[4] should be followed, where everyone is entitled to a name on a headstone and their responsibility towards their war dead (Petrig, 2009).

XVI. Acknowledging the scale of the work to be undertaken, number of deceased, logistical challenges, and resources available to carry out the investigation. These points should be addressed before any work is undertaken.

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Fig 1 . Exhumed Tribute; brought to light.

Cast Bronze Carnations.

Using materials often associated with rituals of condolence, remembrance, and memorial, 'Exhumed Tribute; brought to light' is part of an ongoing research process exploring themes of conflict, consequences, and the need for remembrance. Artistic representation by Valerie Scott ©





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