USING FORENSIC ANTHROPOLOGY TO INVESTIGATE MASS GRAVES: COMPARATIVE CASE STUDIES FROM RWANDA AND GUATEMALA

Alexis L. VanBaarle

ABSTRACT

Excavation of mass graves can help in the aftermath of genocides by providing closure for surviving families and aiding in successful prosecution of criminals. In this article, I compare the methods used to investigate mass graves from cases in Rwanda and Guatemala. Anthropologists in Guatemala used excavations to provide closure for families who suffered through a 36-year governmental assault on the indigenous Mayan people. In contrast, Rwanda's genocide on ethnic Tutsi compelled the UN to form an investigative team to use evidence collected to prosecute those whom they deemed to have committed crimes against humanity. Comparing these two cases exemplifies how purpose affects exhumation, analysis, and resources; for example, Guatemalan investigators worked extensively with local peoples throughout investigations, while Rwandan investigators only used families to obtain legally defensible positive identification. In addition, I address some of the issues with excavation of mass graves, including resource deficits, DNA analysis, and commingled remains.

INTRODUCTION

Genocide is unfortunately not an uncommon topic in history, and numerous examples have been well documented. However, there is a lack of equal understanding of the investigations that follow, specifically pertaining to the excavation and study of mass graves. By examining the investigations and excavations that followed both the Rwandan and Guatemalan genocides, one can see how the team's main purpose and goals for investigation affect their relationships with surviving locals, how they use resources, and the differences in excavation and processing of graves. These two cases experienced similar genocidal causes but resulted in different leading investigative goals, making them excellent cases to cross-examine. In this article, first general background on of mass grave analysis will be explored, then case studies from Rwanda and Guatemala will be explored, and finally some ongoing obstacles facing investigators will be discussed.

DEFINITIONS

Anthropologists define mass graves as a single burial unit comprised of three of more victims who have died of extra-judicial, summary, or arbitrary executions (Koff, 2004). Essentially, this means that mass graves are filled with those who have been systematically killed by the government without any legal proceedings or trials. Although not limited to genocide, mass graves are highly associated with it, as will be examined in the following case studies.

The identification of the type of mass grave case is essential to the investigation process and often helps in defining a leading purpose. A closed case is one in which the team is presented with a known number of victims and possible names. The main goal of these cases is matching the names given to the remains, usually using biological profile (profiles of basic age, sex, and ancestry constructed by forensic anthropologists) comparisons and, if available, antemortem and postmortem record comparisons. An open case presents a much more difficult investigative process and is resource and time-consuming. The number and names of victims in the grave are unknown, requiring more pre-excavation, post-excavation, and identification analysis (Fowler & Thompson, 2015). Open cases are more difficult because the individuals are unknown, and the possibilities are vast.

PURPOSES FOR EXCAVATIONS

Excavation purposes often involve both cultural and legal reasoning. In medicolegal investigations, investigators' main purpose is to obtain legally defensible data to aid in the prosecution of those charged with committing crimes against humanity. The United Nations Office on Genocide Prevention and the Responsibility to Protect defines crimes against humanity as any attack "when committed as a part of a widespread or systematic attack directed against any civilian population, with the knowledge of the attack" (United Nations Office on Genocide Prevention and the Responsibility to Protect. n.d.). Medicolegal investigations are burdened with strict rules on excavations, because all artifacts collected from the graves are considered evidence and must be collected carefully so that they may be admissible in the court of law. The Rwandan investigations discussed later in the paper revolve around medicolegal purposes.

The cultural aspect of mass grave investigation focuses on the closure for surviving victims that often accompanies the repatriation of remains, as we see in the Guatemalan investigations. Repatriation, the return of remains and associated artifacts to a group, has cultural importance pertaining to the psychological healing of survivors among other things. Repatriation also allows survivors to provide a culturally preferred burial, which is often necessary to ensure the victim's continuation into the afterlife. However, repatriation is not possible without positive identification.

Identification of remains is a means to achieve a goal. Identification is necessary for both medicolegal investigation and repatriation and can help in correcting historical records. As investigators unmask offences, truth is revealed to the international public. Violence against groups involved in the formation of mass graves is often hidden by the government that orchestrates it; therefore, physical and psychological damage endured by victims and survivors often goes unacknowledged by the government and global public. With the exposure, positive social change can be acquired for the marginalized group. The global public acknowledging the prosecution and marginalization by a state government against a group pressures the recovering government to begin taking steps to remove causes of alienation and to create better social and political conditions to ensure that crimes that break the international human rights laws do not continue or occur again (outline of obligations governments have to their people, set forth by the UN) (United Nations Human Rights, n.d.). This idea was dubbed "provention" by the Australian academic

John Burton, with the idea that prevention indicates the cease of an activity and provention indicates actively taking steps to change social and political climates so problems to not occur again (Maazzucelli & Heyden, 2015).

It is also important to note the example set by investigations and court proceedings. Many governmental figures such as judges had no say in "legal" operations during the times of violence in nations because they were largely overlooked by genocidal leaders. The legal systems of these nations are therefore weak due to the lack of use, and examples set forth from the exhumation process can contribute to strengthening the new political and judicial institutions after the violent time period.

THE EXCAVATION PROCESS

While the focus of this paper lies in the differences in how investigations pursue based on investigative purpose, it is important to recognize the fundamental similarities of all excavations. The goal of excavation of mass graves is to use controlled techniques to exhume remains and record their context (Haglund et al., 2001). Archaeologists, anthropologists, pathologists, and other specialists are involved to ensure the character of evidence is preserved. Each specialist brings his/her own training to aid in exhumation and achieve the goals of the investigation.

Historical Research

The first step in exhumation is historical research and investigation. This involves anthropologists collecting information from surviving witnesses and records pertaining to the events and victims. Information can also be collected from cemetery records, government and military prison records, and local records and is then used to develop strategies for excavation and a hypothesis for archaeological and analytic approaches to the case (Doretti & Snow, 2009).

Locating the Grave

Testimonies from surviving locals can give investigators a general location of the mass burial. Sometimes locals are involved in the burial of victims, and they therefore know the area where the bodies lie. Archaeological analysis is then used to determine the exact location and boundaries of the grave.

Archaeologists examine differences in vegetation and soil compaction and use microtopography, odor detection equipment, and aerial photography in their analysis (McGray, 2001). Once the boundaries of the scene are established, the archaeological team or individual sets up a topographic map, which is used to document all remains and artifacts found at the site. Today, electronic mapping systems are used, but occasionally more traditional methods are preferred. Mapping is important to establish the context of all items found during excavation (e.g., which pair of sandals are associated with which body).

Surface Skeletons

Before any soil is removed, anthropologists will search the area for any surface skeletons. In most cases concerning genocide, surface skeletons consist of victims who escaped murder in the original place of massacre but were found and killed; or locals who came to help but were caught and killed. Surface remains typically have a fast decomposition rate due to exposure to natural elements, often leaving skeletonized remains. Due to animal, human, or weather disturbances, surface remains can be disorganized or missing certain bones (Troutman et al., 2014). Remains are topographically marked by archaeologists and assigned a specimen number (typically each cranium is given a number since Homo sapiens only have one cranium).

Excavation

Once all surface skeletons have been discovered and logged, excavation of the grave begins. Trench-working is a favored excavation method because it allows anthropologists and archaeologists to work from the edge of the grave towards the center. It is important to note differing decomposition rates within the grave when doing this work. Remains on the edge of the grave and/or closer to the surface decompose faster and are more likely to be skeletonized compared to remains toward the middle. Remains located in the center of the mass are likely to have remaining soft tissue (Troutman et al., 2014), a job for the team's pathologist. Regardless of the method used to dig the grave, the purpose of all excavation is to expose the bodies in situ. In English, this means exposing the body "in place;" that is, while retaining its spatial orientation and context. All remains and artifacts are logged in the mapping system before being numbered, bagged, and sent to the analytical lab.

Lab Analysis

Once the remains enter the lab, X-rays are taken, and a postmortem biological profile is constructed. Biological profiles are created by forensic anthropologists through the analysis of both metric and non-metric variations. These profiles include age, sex, ancestry, stature (height), taphonomy (the study of changes to the body after death), trauma, and any other data that may help identify individuals. Pathologists perform autopsies on fleshed remains to determine the cause and manner of death. All information is logged in a file specific to each individual, usually marked with a case number.

Identification

Identification of individuals can be a daunting task. Factors such as large numbers of victims and lack of records often play into how efficiently investigators can identify remains. One method of identification is by using a comparison of antemortem with postmortem records. The antemortem profile comes from the biological profile, injury history, dental/medical records, and oral histories of a known individual collected during historical research. These are compared to the biological profile constructed by the anthropologists and X-rays taken of remains, and if records are consistent, a presumptive identification is established, which can later be confirmed with DNA analysis (Fowler & Thompson, 2015). This method of profile comparison is considered a traditional identification method because it entails the most basic techniques and simplest technologies.

However, sometimes adequate medical records and biological profiles (e.g., found on identification cards like drivers' licenses) are not available. For the sake of both the case studies examined in this paper, traditional record comparison was unavailable because the targeted groups lacked medical records. Therefore, investigators in both Rwanda and Guatemala rely on local survivors to help identify remains based on associated clothing and biological profiles. Specifics of these methods will be discussed in the case studies.

Artifact Analysis

Associated artifacts collected near remains are also analyzed. Items such as clothing, personal documents, and other personal effects like toys and jewelry

can be used to identify remains. Any material not associated with a single body is recorded on the excavation map and assigned a separate number as if it were a body (Haglund et al., 2001).

RWANDA-A CASE STUDY

History

The historical ethnic division and conflict between the Tutsi and Hutu Rwandans helped fuel the Rwandan Genocide. Before colonial occupation, the Tutsi Rwandans were rulers and held elite positions in society, while the Hutu Rwandans were subjects and peasants. Ethnic stratification crystalized when Belgian colonialization in 1916 ruled indirectly over the kingdoms. The Belgians bestowed new power and wealth to the Tutsi elite.

In 1934, the government began requiring all persons to carry an identification card with the specification of the individual's ethno-racial classification. ID cards allowed government officials and neighbors to easily identify which ethnoracial group an individual belonged to, and subsequently, how to treat them.

However, a small group of elite Hutus rose to power, and declared that ethnic stratification was a consequence of Caucasian invasion. They proclaimed that colonizers pitted Africans against each other to make them weaker and gain control easily, and since the Belgians had left in 1945 there was no need for the Tutsi to exclusively hold all power. Soon afterward, violence broke out.

Two parties were created on behalf of both the Tutsi and Hutu. An assault on newly elected Hutu President Grégoire Kayibanda (who helped Rwanda gain national independence from Belgium in 1962) led to the death of 1,000 Tutsi and to 10,000 Tutsi fleeing Rwanda. The two ethnic and political groups went back and forth for many years—Tutsi leading political assaults, Tutsi dying, and Tutsi fleeing—until April 6, 1994 when Hutu President Habyarimana's aircraft was shot down by a surface-to-air missile, killing everyone on board. Because the Hutu believed the Tutsi were responsible for the assassination, Tutsi men, women, and children were gathered in public places and at roadblocks to be massacred with machetes, hoes, spears, hammers, and nailed clubs. Villagers reported their Tutsi neighbors to the officials, and IDs were checked at roadblocks (Eltringham, 2014).

Investigation by the United Nations

In 1994 the United Nations International Criminal Tribunal for Rwanda sent investigators to the country to locate the graves, exhume remains, and investigate the death of around 937,000 people. The goal for the investigation was to use the evidence excavated in a court of law against those already indicted by the tribunal on charges of crimes against humanity. The evidence would provide proof of crimes and corroborate surviving witness testimonies (Koff, 2004). Medicolegal motivation was prioritized over repatriation of remains to families.

Effects of Medicolegal Investigation

Medicolegal investigators must adhere to strict guidelines to ensure that the integrity of the evidence is upheld for the court because all field notes, photographs, and artifact logs are court-admissible documents. Numbering systems for remains and logging guidelines are modeled after the U.S. rules of evidence and the United Nations guidelines to ensure satisfactory documentation.

This can limit investigators on what they report since they must remain within the confines of the evidence at hand. For example, in the Church of Kibuye 5,000 Rwandans were slaughtered by armed neighbors and government officials. Anthropologists analyzing the trauma patterns found sharp force trauma on the distal posterior surface of the tibia (shin bone), equal smoothness and size of blunt force trauma on both adult and child skulls (indicating the same force used on adults was used on children), and no defensive wounds on the remains (Koff, 2004). Pattern observations were documented in reports; however, discussion of the significance of wounds was left out because it is not the job of the anthropologist to ponder the motives of the perpetrators. It would be up to the prosecution to present to the court that no defense wounds were found because victims knew their fate and believed it was useless to defend themselves and that the use of equal force on children and adults could only be done by one who lacks compassion or empathy. They would have to illustrate the sharp force trauma found on the tibia was caused by soldiers slashing the Achilles tendons of any survivors to leave them immobile and helpless. While the prosecution can ask the anthropologists what they believe occurred, they still only report on information within their fields of expertise. The investigators are there to work as scientists, requiring them to present only the information of the remains.

As part of the requirements of the medicolegal investigation, all occurrences on the scene are the responsibility of the team leader, and in Rwanda, most scenes employed UN soldiers to prevent disturbances and protect the investigative teams (Koff, 2004). Consequently, individuals on the scene must be approved by the tribunal, and any issues must be reported to ensure the safety of the evidence. If a piece of evidence is found tampered with or ill-logged, all evidence from the site is at risk of being deemed inadequate in the court of law, making the time and resources devoted to excavation useless

The relationships, or lack thereof, that investigators built with the locals is directly affected by the burden of medicolegal requirement for positive identification using DNA. Investigators relied on families and locals to recognize clothing, associated artifacts, and biological profiles to obtain a presumptive identification. A Clothing Day was orchestrated at each grave site to display artifacts taken from the grave in hopes someone would recognize an item (Koff, 2004).

When a presumptive identification was acquired for a case, DNA was taken from the families to positively associate the identification. Essentially, the families were used as DNA donors so that the investigators could prove systematic killing and present the evidence in court. There are some issues with reliance on DNA analysis, but these will be explored later.

GUATEMALA-A CASE STUDY

History

Ethnic conflict has plagued the Guatemalan Mayans since the "discovery" of the Americas by colonizers. With the colonizers' invasion came the idea of ethnic superiority, and over the centuries Mayan people were considered "others" in their own land and consequently treated as such. In 1960 Dictator General José Efraín Ríos Montt orchestrated a 36-year long armed conflict against the indigenous Mayan people. Close to 200,000 were killed and tens of thousands were "forcibly disappeared." Mayan men, women, and children were targeted, with one in every eight killings being a child, in an attempt by the Guatemalan government to wipe out the next rebel generation (Gambardella 2008).

Investigation by Guatemalan Human Rights Groups

The Guatemalan government did not acknowledge its crimes against the Mayan people, so to help with the healing process of survivors and correct historical records, Guatemalan human rights groups invited the American Association for the Advancement of Science to excavate mass graves. The main purpose for the investigation was to repatriate remains in attempt to help survivors heal and gain closure, making this a cultural investigation. Correcting the historical records was a secondary goal, and medicolegal prosecution was merely a side benefit.

Because of the religious traditions and rituals surrounding the dead, returning remains to the surviving was crucial to the human rights groups and believed to be the next step in helping with the healing process. The Mayans believe that without proper rituals their loved ones cannot properly pass into the afterlife and therefore cannot be at peace (Mazzucelli & Heyden, 2015).

Correcting records like death certificates was also considered important. Many of the disappeared who had been dead for many years remained alive in the governmental records, leaving widows who could not remarry and children who could not inherit property or wealth from their deceased parents. Without death certificates, there was no accurate count for all who had been murdered. Identifying and legally pronouncing dead the tens of thousands who had been "disappeared" would be another small brick on the road to healing, helping Mayans legally be able to begin moving on, a cultural imperative.

Effects of a Cultural Investigation

The biggest difference between investigations in Rwanda and Guatemala is how investigators worked with the families. In Guatemala, locals came to surround the grave sites every day, bringing pictures, clothing, and anything else that could be used to help identify remains (Gambardella, 2008).

Women would bring clothing they had made to compare the stitching patterns to the clothing of the deceased in graves. Mayan women stitch their family's clothing by hand, and each has developed her own stitching patterns, lending to the identification process (Gambardella 2008). The locals played a vital role in identification since no antemortem records were available and most of the victims were not legally dead. For the investigative team and human rights groups, it was important to involve locals because the pain they endured for so long was out of their control. To be able to allow them some control in

the affairs of their own people could help healing.

Many Mayans were employed in the excavations and some scholars were taken in to be trained in forensic anthropology. They were brought on to help dig and work in the labs, which equipped the Mayans with new skills that could be later used to obtain employment while having some control over their situation (Gambardella, 2008). The Guatemalan investigative teams could not have had the flexibility to involve the locals and families in the excavation and investigation had they been burdened with medicolegal obligations at the forefront.

DNA analysis is another factor that largely differs between legal investigations and cultural investigations. Because Guatemalan excavations were largely funded by Guatemalan human rights groups and DNA analysis is costly, DNA analysis was not required or used often (Doretti & Snow, 2009). After a presumptive identification was made, the family was asked if they wanted DNA testing done, however most declined because of the year long wait and wished instead to properly bury their presumptive family member immediately in a dedicated memorial.

OBSTACLES FACED BY INVESTIGATORS

DNA Analysis

As discussed in the Guatemalan case study, DNA is costly and time consuming. While advancements in technology are allowing DNA analysis to be more accessible to smaller investigations or those with little funding, getting resources for DNA analysis continues to be an obstacle for investigators.

DNA analysis also requires DNA to be taken from relatives to compare to the victim's DNA. However, in cases like those of Rwanda and Guatemala involving genocide, soldiers have annihilated entire villages, and with them entire families, leaving no relatives to provide comparative DNA samples. In open cases, there is no way for investigators to know if an entire family is hidden in masses of remains (Fowler & Thompson, 2015). If remains have been exposed to the elements for too long, nuclear DNA will begin to break down. Without nuclear DNA that can be compared to any relative (maternal and paternal), investigators are forced to use mitochondrial DNA. Mitochondrial DNA can only be compared to that of a maternal relative because it is only passed down via the mother; and if the likelihood of finding a relative to compare nuclear DNA is difficult, finding mitochondrial DNA comparisons is significantly more difficult.

Safety Concerns

If too little time has elapsed between the genocides and the excavation, there can be conflict between forensic investigators and governments, as exemplified in both cases. Government officials who were in power during genocides are often still alive and sometimes in office, and it is obvious that they do not wish investigators to dig up their crimes. Rwandan excavation sites were always surrounded by UN soldiers because of the threat of military violence towards the investigative team (Koff, 2004). Guatemalan investigative teams received death threats from government officials who felt threatened by the evidence being compiled during excavation (Gambardella, 2008).

If governments are publicly believed to have committed heinous crimes against their own people, yet refuse to admit it, some anthropologists may be disinclined to join excavations for fear of their own lives. Nobody would be more adversely affected than the victims of the government if the crimes are not exposed. One way to combat this issue is to tie excavations to large nations and organizations. Guatemalan human rights groups bonded their investigation to the United States of America and brought in American investigators, therefore ideas of violence against the excavation team appeared less appealing to the Guatemalan government officials.

Magnitude of Remains

The quantity of remains can be an entire complication on its own. With single mass graves consisting of 500 bodies and tens of thousands of victims throughout the entire country, identification processes can be difficult. Time and resources are huge issues for this vast endeavor (Gibbons 1992).

Many children were also killed in both Rwanda and Guatemala, taking on a different manifestation of difficulties in identification. Sexing is difficult for children since they have not fully developed the sexual dimorphic traits of their elder counter parts (Doretti & Snow, 2009). For these small victims, associated clothing and personal effects are heavily relied on for identification, and when unavailable, identification is even more difficult.

Commingling

The phenomenon of commingling occurs when bones are shifted from their anatomical position and jumbled up so that they cannot be clearly associated

with an individual (Fowler & Thompson, 2001). Commingling can result naturally from flooding and animal disturbance, or unnaturally by human intervention after burial, secondary burials (the transfer of remains to a different grave site, a tactic often used by governments to cover up their crimes), and damage by large machinery during excavation.

Commingling presents a difficulty when identifying individuals because remains must first be sorted; for this process, scientists have developed a few methods of sorting bones to their individuals. X-ray fluorescence is a machine used by scientists to determine the bone density of a skull and then compare it to other long bones. If the bone densities of a skull and a long bone match, then they are from the same individual (Fowler and Thompson, 2015).

CONCLUSION

Since I began interning with the Dallas County Office of the Medical Examiner in January 2019, I have observed how essential the work of forensic anthropologists is in my own community. Some bodies remain unidentified for years because of the effects of poverty, citizenship status, or other factors caused by government policies and structural inequalities. While our main purpose for investigation resides on the medicolegal side with the evidence used to achieve a form of justice against perpetrators by allowing the silenced to speak through their remains, our work and that of other forensic anthropologists also brings closure for the victims' families. If forensic anthropology and its investigations are essential to a community like that of Dallas, it must be crucial to those who have suffered the violence of genocide.

Although there may be obstacles that forensic investigators face during the excavation process, the importance of exhumation and identification is immeasurable. Many may not see the significance of excavations because it can be masked in the multitude of challenges and politics, but we must not overlook the victims as their governments have done. Both the Guatemalan and Rwandan governments made it a mission to silence those concealed in the graves and those still surviving. Excavation frees some silenced voices and unmasks the pain that has quietly consumed many others.

Mass casualty is not a new thing to humanity, and these cases are not the last we will encounter. It is important to recognize the differences in excavation purposes and how they affect the surviving locals, resources, and investigative processes so that we can better determine which avenue to choose for future investigations.

ACKNOWLEDGMENTS

I wrote this paper initially for Dr. Dave Aftandilian's Osteology class at TCU, which not only solidified my interest in forensic anthropology but also equipped me with essential knowledge going into the field. I want to thank him for mentoring me throughout the journey I have had with this research. I presented this research in TCU's AddRan Festival and could not have achieved anything without his guidance and support. Dr. Miguel Leatham, director of the anthropology program at TCU, has also been a contributing factor to this paper. His support during the AddRan Festival was crucial to my confidence during my presentations, and his support thereafter has been essential to the paper's development. Dr. Christian Crowder, the resident forensic anthropologist at the Dallas County Office of the Medical Examiner, has mentored me and provided me with more than just an opportunity to learn. Working with him in the lab has reinforced my interests and given me more possibilities to grow than I could have imagined possible. He also helped me with this paper and supported me during its presentation. Lastly, I want to thank my family for their hard work and long-lasting encouragement.

REFERENCES

- Doretti, M., & Snow, C. (2009). Forensic Anthropology and Human Rights: The Argentine Experience. In *Human Evidence: Case Studies in Forensic Anthropology* (pp. 303-320). NJ: Prentice Hall.
- Eltringham, N. (2014). Display, concealment and 'culture': The disposal of bodies in the 1994 Rwandan genocide. In Dreyfus J. & Anstett É (Eds.), *Human Remains and Mass Violence: Methodological Approaches* (pp. 161-180). Manchester: Manchester University Press. http://www.jstor.org/stable/j.cttlwn0rw2.13
- Fowler, G., & Thompson, T. (2015). A mere technical exercise?: Challenges and technological solutions to the identification of individuals in mass grave scenarios in the modern context. In Anstett É & Dreyfus J. (Eds.), *Human Remains and Identification: Mass Violence, Genocide, and the 'Forensic Turn*' (pp. 117-141). Manchester: Manchester University Press. http://www.jstor.org/stable/j.cttlwn0s24.12
- Gambardella, S., Sinclair, M., & Schatzki, N. (Directors). (2008) *Mass Graves of Guatemala* [Motion Picture] United States: New Dominion Pictures.
- Gibbons, A. (1992). Scientists Search for "The Disappeared" in Guatemala. *Science*, 257(5069), 479-479. http://www.jstor.org/stable/2877747
- Haglund, W., Connor, M., & Scott, D. (2001). The Archaeology of Contemporary Mass Graves. *Historical Archaeology, 35*(1), 57-69. http://www.jstor.org/stable/25616893
- Koff, C. (2004). The bone woman: A forensic anthropologist's search for the truth in the mass graves of Rwanda, Bosnia, and Kosovo. New York:

 Random House
- Mazzucelli, C. G., & Heyden, D. (2015). Unearthing Truth: Forensic Anthropology, Translocal Memory, and "Provention" in Guatemala. *Politics and Governance*, *3*(3), 42. doi:10.17645/pag.v3i3.451

- McGray, D. (2001). Unearthing Grave Offenses. *Foreign Policy*, (126), 86-87. doi:10.2307/3183268
- Troutman, L., Moffatt, C., & Simmons, T. (2014). A Preliminary Examination of Differential Decomposition Patterns in Mass Graves. *Journal of Forensic Sciences*, 59(3), 621-626. Doi:10.1111/1556-4029.12388
- United Nations Office on Genocide Prevention and the Responsibility to Protect. (n.d.). Retrieved from https://www.un.org/en/genocideprevention/crimes-against-humanity.shtml