Osteological proofs of torture and cruelty: forensic findings form a secret cemetery in Tirana, Albania

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Abstract
Two decades after the fall of the communism in Albania, documenting the human rights violations and proving torture and cruelties suffered from ex-politically persecuted and dissidents of the regime, is still a societal priority. Due to several reasons, the judicial way toward redressing the historical injustices has been slowed down. This is mainly because of the lack of proper documentation of torture, mass executions and extrajudicial ill-treatment. Several governmental and civil society organizations have tried to define the issue, but perpetrators have rarely, if ever, been brought to court. Secret cemeteries and mass graves have recently been found in different zones of Albania, and victims exhumed; thus proofs of torture and ill-treatments are being made widely known, potentially creating the necessary legal conditions for punishing the perpetrators and for identifying victims. In the present paper, authors describe osteological forensic findings from Linza secret cemetery in Tirana, where several ante mortem fractures prove the severe and cruel ill-treatment the victims suffered before the execution that was usually by bullet shot in the posterior region of the skull.

Keywords: Secret cemetery, mass graves, identification, human rights violations, torture, communism.

Introduction
Identification of human remains in mass graves is a very important step toward documenting human rights violations and giving back to families the human remains of victims, that are considered, until exhumed, as lost or disappeared, mainly due to extrajudicial executions. The importance of redressing the injustices and bringing to justice perpetrators, who will therefore lose their impunity, cannot be underemphasized even for very remote crimes. For example, the identification process of human skeletal remains exhumed from mass graves has taken place in Spain, more than 50 years after the Spanish Civil War.\(^1\)

In addition, mass grave excavations have gradually become an integral and very important part in the preparation of judicial files, and in accomplishing the hard task of defending them before the courts. Thus, general opinion regarding the uncontestable crimes perpetrated during the Nazi regime, or during numerous communist dictatorships, would have been judicially insufficient for condemning responsible executioners, unless pictures, photos and documentation

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of suffering had been available. Availability of proof of torture and cruelty several years or decades after their perpetration can be scarce, and memories of survivors, in written or in verbal forms, rarely will suffice for a court to pronounce unappealable verdicts. Although excavating mass graves serves primarily for the identification process and for helping relatives to find remnants of lost persons, ensuring evidence from mass grave excavations is becoming a successful way to get war criminals convicted, like in Guatemala (Dos Erres Case) and in Bosnia (Krstić case, Srebrenica massacre).

Even though, politically the communist regime in Albania has been widely and almost unanimously condemned, perpetrators of crimes, such as of torture in its different forms, mainly enacted from officials of secret services of the totalitarian state, never served any sentence that explicitly redressed the wrongdoings of the past. Inability to uncover the smoking gun in alleged crimes and political assassinations was not because of the lack of political will, but rather because of the lack of professionalism in gathering evidence and in conducting judicial maneuvers. Even official data of missing persons and of imprisoned or executed victims (both judicially and extrajudicially) are full of gaps, and non-governmental organizations generally offer different figures while engaged in advocacy for the politically persecuted families. There is discrepancy in the data in recent publications; thus the total figure of executed persons during the communist regime is considered to be 4,548 individuals from one source and 6,007 individuals according to another source. The figures of imprisoned and internally displaced persons differ even more. A thorough description of methods of torture and periods of political persecution in Albania is available in English as well.

Apart from discrepancies in the published figures, communism in Albania has perpetrated panoply of human rights violations, partially documented and partially not, among which mass murder and politicide are the most important and severe. In defining the term politicide, Rummel included the premeditated killing or murder of any person or people by a government for political purposes. Mass murders were common in Albania in the period immediately after WWII, especially during punishing expeditions in Northern areas of the country and neighboring ex-Yugoslavia where the anticommunist resistance was fierce and prolonged. Mass graves and secret cemeteries are not intended only for the idea of punishing expeditions, but also because for the Albanian secret police and law enforcement agencies of the communist period, the option of not returning corpses of executed persons to the respective families was widely practiced.

**Description of the secret cemetery at Linza, Tirana**

Linza is a small place several kilometers from Tirana, east of the capital and at the foot of the mountain Dajti, which forms the natural eastern boundary of the city. The finding of a secret cemetery was not merely coincidental, since inhabitants of the zone were aware for years that certain hidden areas of a bushy and hilly zone were used for burying individuals executed from communist secret police. Relatives of the executed persons were digging the ground trying to find remains of their lost beloved ones, and in February, 2010, human skeletons were located; the fact received wide media coverage and public interest. Experts from the Tirana Prosecution Office and from the Institute of Legal Medicine were called to the premises only after the diggings of the relatives gave
the first results, thus the process of exhumation was not professionally organized, as described in the Minnesota Protocol.9 The crime scene examination took place thereafter, while the exhumed remains were already transferred to Tirana. The identifying team acknowledged the presence of a secret cemetery, since 13 skeletons had been found, buried in several pits, distancing five meters from each other. The area could be reached only by foot; four-wheel machines were able to stand by in a distance of 150 meters. The pathway was blocked to common people until 1990, since it was considered through appropriate signs a “military area”.

The exhumed skeletons were examined only after they were sent to the Institute of Forensic Medicine in Tirana. In the latter a thorough osteological study was performed. The main feature, common to all skeletons, was the fact that all victims (100%) had perimortal lesions in the skull; bullet-shoot wounds in the skull or fractures caused by the blunt force trauma. i.e. characteristics of mass killings which are also reported in other mass grave exhumations, such as the Tuskulénai case in Lithuania.10 All skeleton remains, during the exhumation and during forensic-anthropological evaluation in the laboratory, were photographed and stored into a WORM medium, as has been suggested.11

Results
The totals of thirteen plastic bags containing human remains were examined by the forensic experts in Tirana. Bones and clothes were found together with the plants and soil from the area. Clothes were preserved for the forthcoming identification process.

In general, the skeletal remains, both cranial and non-cranial elements, were in a poor to moderate preservation condition. There was no soft tissue present. Some bones were characterized by surface erosion and postmortem fractures. Some of the bones were missing and some of them were completely fragmented to such a degree that examination was impossible. Some parts of the pelvis were missing, making it difficult to determine sex. General condition of the bones indicates the taphonomic changes that the skeleton underwent during burial. From thirteen skulls, most of them were fragmented with a few bones available for reconstruction and further analysis.

From all thirteen skeletons, one was considered to be female; the study of pelvis and cranium indicated that the other skeletons were males apart from one where sex determination was inconclusive. Stature was estimated through formulas based on the maximum length of femur, according to a method which has been suggested by several authors. The method has been validated recently in a Portuguese sample.14-16 When a femur was totally fragmented or missing, fragments of the latter bone were used in accordance with other recommendations;17 otherwise humerus was used for this purpose. The state of bone maturation and the scoring of epiphyseal activity were used to determine the skeletons’ age, according to well-known methods.18 All the standard method of aging, sexing, measurements, stature and dental recording were applied here, according to methods suggested from...
several authors. A multivariate approach was used to calibrate the results. Some findings from the thirteen skeletons (estimated age; estimated stature length and gender) are summarized in Table 1.

The vertebrae were in moderate condition in some skeletons, while some of them were missing. Most of the ribs were fragmentary. Some of the long bones were well preserved, making it possible to take some of the measurements. Most of the teeth and hand and foot phalanges were missing. A detailed inventory of the bones was done and archived for further study.

Signs of trauma could be found in most of the skull bones. The common pattern of the bullet wound in the skull was found in most skeletons. The recollected remains of one of the skeletons is presented in Photo 1 (page 204); other reconstructions were made in seven cases, when the bone preservation permitted it. In other cases the study was made upon partially reconstructed skeletons.

All victims unequivocally had bullet hole mortal wounds with the entrance hole in the posterior skull zones (occipital bone); different ante mortem signs of cruel torture were evident. Signs of trauma could be found in most of the bones. The common pattern of the bullet wound in the skull was found in the skeletons, but the incompleteness of the cranial bones in some cases made it difficult to determine the trajectory of the bullet. Moreover, bone weathering and other post-mortem changes gave an unusual pattern of the bullet holes.

When possible, cranial vaults were reconstructed and CT-scan images were obtained. Photo 2 (page 204) represents a reconstruction of an exit bullet wound, from one of the craniums.

### Table 1. Characteristics of thirteen skeletons.

<table>
<thead>
<tr>
<th>Case</th>
<th>Age (yrs)</th>
<th>Gender</th>
<th>Stature (m)</th>
<th>Bone(s) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25-35</td>
<td>M</td>
<td>1.65</td>
<td>Left femur</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
<td>M</td>
<td>1.7</td>
<td>Femurs</td>
</tr>
<tr>
<td>3</td>
<td>NI*</td>
<td>NI*</td>
<td>NI*</td>
<td>Femurs diaphysis degraded</td>
</tr>
<tr>
<td>4</td>
<td>20-30</td>
<td>F</td>
<td>1.55</td>
<td>Right femur</td>
</tr>
<tr>
<td>5</td>
<td>35-45</td>
<td>M</td>
<td>1.7</td>
<td>Right femur</td>
</tr>
<tr>
<td>6</td>
<td>25-35</td>
<td>M</td>
<td>1.78</td>
<td>Right humerus</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
<td>M</td>
<td>1.65</td>
<td>Right femur</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
<td>M</td>
<td>NI*</td>
<td>Skull</td>
</tr>
<tr>
<td>9</td>
<td>30-40</td>
<td>M</td>
<td>NI*</td>
<td>Skull</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>M</td>
<td>1.75</td>
<td>Femurs</td>
</tr>
<tr>
<td>11</td>
<td>40-50</td>
<td>M</td>
<td>1.65</td>
<td>Right femur</td>
</tr>
<tr>
<td>12</td>
<td>30-40</td>
<td>M</td>
<td>1.6</td>
<td>Right femur</td>
</tr>
<tr>
<td>13</td>
<td>30-35</td>
<td>M</td>
<td>1.6</td>
<td>Left femur</td>
</tr>
</tbody>
</table>

*NI= non identifiable

**Illustrative photos from three skeletons**

Hereafter we describe three cases, which were considered most illustrative by the forensic team, more in depth (i.e. numbers 1, 2 and 11 from table 1).

### First case details

Photo 3 (page 205) shows the entrance hole of the bullet on the occipital bone. The photo on the left shows the pseudo outward beveling on the external surface of the occipital bone while the picture on the right shows the beveling of the bone on the internal surface of the occipital bone. The manner of death is homicide.

### Second case details

Photo 4 (page 205) shows a bullet wound in the skull. Right image, down, shows the entrance hole of the bullet on the occipital bone followed by the corresponding fractures of the skull. The lesion on the frontal bone (left picture, up), shows the unusual bullet hole,
with the pseudo beveling of the bone on the internal surface created by the weathering of the bone. Right image, up, shows the possible bullet trajectory on the skull.

However, we believe that the lesion on the frontal bone can be an entrance hole for a second bullet. According to an eye witness, some victims were executed with one bullet on the back of the head followed by the other shot on the frontal part of the head, after the victim would be lying on the ground. The manner of death is homicide. The cause of death is the intracranial hemorrhage due to the severe injuries on the head, related to firearms.

Eleventh case details
Photo 5 (page 206) shows the perimortal fractures on the skull. The upper images show the fracture on the occipital bone and the images below show fractures on the left temporal and parietal bone. The lesions indicate the fractures caused by the blunt force trauma. The pathway of the fracture shows that the lesion on the back of the head was prior to the lesion on the temporal and parietal bone.

Photo 6 (page 206) is showing a CT reconstruction of the same skull, with the comminute fracture (exit wound) in the upper part of the image, and the entrance bullet wound (right linea nuchae) in the lower part of image.

According to the witness’ data, some of the victims were executed by young and inexperienced soldiers. In these cases the soldier could miss the target by not shooting on the head but somewhere else in the body. In cases where this happened the experienced executioner would interfere with the back of the firearm. We believe this case is one of those. The manner of death is homicide.

The same case shows more perimortal trauma lesions, such as the fracture of the right radius and ulna (Photo 7, 8, page 207).

Discussion
Identifying victims of secret cemeteries and mass graves is directly related to several factors, whose nature is not merely technical. Thus, in the Linza secret cemetery near Tirana, the experts concluded that the executions and burials should have taken place at least 20 years before the uncovering of the skeletons. However, connecting precisely the executions with a certain date and period, and with the official data of the events, proves to be an extremely difficult duty, especially when archives are incomplete, or even when executions are extrajudicial and therefore not registered at all. The identification process was mired in serious difficulties, mainly because of the fact that victims buried in Linza were obviously coming from different pre-detention facilities, and registers are full of omissions. In cases of extrajudicial executions, the entire process often went completely unregistered on purpose.

In fact, secret cemeteries and mass graves, according to several Albanian sources, are numerous and scattered over the country, dating back since the first months after WWII, i.e. immediately after the communists took power in Albania. Punishing campaigns in the northern areas started to be perpetrated. Obviously, the majority of the authors reporting the existence of such secret cemeteries and mass graves are ex-politically persecuted individuals. However, their memoires need to be officially validated before being used for judicial purposes aiming at bringing perpetrators to justice. The declared figures of the killings rarely coincide because archival data suffer from wide omissions and inconsistencies. For example, it can be easily realized from photo 9 how difficult it might be to connect events with memoires and findings, such as to correspond names with the skeletons uncovered in mass graves, when the technical quality of the registration process from the police or
law enforcement agencies of the period was the poorest one can imagine. This illustrative example is a mere written-paper of a pocket agenda, where the prosecuting official of the communist regime registered the executed persons, their provenance and, in other cases, the nature of their condemnation when it was not a capital one. Apart from such deliberately poor methods of registration, archives might also have been widely manipulated and important data have been omitted. This is a phenomenon also encountered in other ex-communist Eastern European countries, where the secret police has perpetrated crimes similar to those described in Albania.

When working with secret cemeteries and mass graves, certain guidelines and standardized working procedures are an indispensable condition. The Minnesota protocol aimed to treat the issue exhaustively, thus creating a supportive tool for all forensic teams working in the field. However, difficulties encountered are enormous when working in similar settings, not only from the political points of view, but also related to technical and logistic issues and support. The limitations of the present work are intrinsic to its pioneer nature and pilot form, but gaps in documentation process have also been emphasized elsewhere as a problem. Documentation per se is an initial form of starting a long and difficult process of redressing injustices of the past, and of course will help to abolish or at least to restrict impunity.

All skeletons found in Linza, Tirana, are still under process of identification and for these purposes the bone samples were taken to perform a DNA analysis. The importance of such an analysis in the process of identification is widely accepted and actually is uncontestable not only in technical forums, but from other organizations that are dealing with the delicate process of victim identifications. As said, the lack of archival data, and the absence of a DNA bank from relatives of victims executed during the communist regime in Albania, are both important hindering factors toward a prompt identification of the victims. Even recently, authors have tried to find a way out for identifying people in the absence of DNA data. Nevertheless, the fractured bones and the ante mortem

Photo 9: The horrific fate of the condemned was expressed not only through physical ill-treatment and unlawful executions, but as well in how data of judicial procedures were registered. In this official hand-written paper several prisoners are named. The column no. 11 explains their fate; ‘vdekje’ means ‘dead’; numerical figures show the respective prison sentences in years (thus 25 vj. means 25 years of prison; Column 11, Row 3). [The photo is illustrative and the list is actually not presumed to correspond with the skeletons of the Linza secret cemetery discussed herein].
nature of the findings in the skeleton of Linza secret cemetery is a forensic osteological proof of cruelty and ill-treatment of the executed victims, mainly young adult males (12 out of 13), executed more than twenty years before, during the communist period.

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References
11. Özkalipi O, Volpellier M. Photographic documentation, a practical guide for non professional forensic photography. Torture 2010;20:45-52.
Photo 1: A whole skeleton reconstructed.

Photo 2: CT-scan reconstruction of the trajectory and bullet exit wound.
Photo 3: Case 1.

Photo 4: Case 2.
Photo 5: Case 11.

Photo 6: CT reconstruction of the skull depicted in photo 5.
Photo 7: Signs of perimortal trauma in the right radius and ulna.

Photo 8: CT reconstruction of the radius as depicted in photo 7.