

## FORENSIC MONITORING PROJECT REPORT

Hrastova Glavica Cave Recovery  
State Commission on Missing Persons  
(7 through 16 December 1998)

### FINDINGS

Report by:  
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**ICMP**  
International Commission  
on Missing Persons

## HRASTOVA GLAVICA CAVE RECOVERY

### **Summary of Events**

From 7 through 16 December 1998 the State Commission on Missing Persons (Bosniak) conducted the recovery of 124 sets of remains from an underground cave 22 km northwest of Sanski Most, Bosna i Hercegovina. All except two of the individuals were either teen-aged or adult males who were believed to have been detained in Omarska in the summer of 1992; these men had last been seen on or about 23 August 1992, when their Bosnian Serb captors placed them on buses, ostensibly to move the detainees to a prisoner exchange point. The other two sets of remains had been in the cave before this incident, and may date to a World War II event. At the time of the recovery operation, the site was in Federation territory, and therefore the operation was regarded as an intra-entity project.

A PHR Forensic Monitor assisted in the recovery of the remains and in selected phases of the postmortem examination. Twenty-eight of the individuals had been identified as of this writing. Preliminary analysis indicated all individuals were males between 17 and 60 years of age; most had skeletal evidence of gunshot and/or blunt force trauma; and only a few had identification media in association. Abundant clothing was present, mostly of civilian style.

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### Participants and Observers

#### State Commission on Missing Persons (Bosniak)

BAJRAMOVIĆ Esad	Member, Bihać
DRAGANOVIĆ Kemal	Member, Sarajevo
GAFIĆ Muhamed	Commander, Ministarstvo Unutrašnjih Poslova (MUP), Sarajevo
KLONOWSKI Dr. Eva	Forensic Anthropologist, Iceland
MAŠOVIĆ Amor	President
MEŠIĆ-PAŠALIĆ Dr. Samira	Forensic Pathologist, Bihać
MUJKIĆ Muhamed	Member, Sarajevo
MUŠIĆ Abdulmedžid	Judge, Bihać
ODOBAŠIĆ Jasmin	Deputy President
RAKOČEVIĆ Dr. Miroslav	Forensic Pathologist, Bihać (postmortem examinations)
SARALIJIĆ Dr. Nermin	Resident Pathologist, Sarajevo (16 December and postmortem examinations)
TEKAČ Amir	Criminalistics Studies, Bihać
TURAN Jasmin	Crime Technician, Bihać

Several additional crime technicians and MUP (a special police unit) climbing/caving experts were also present.

#### Physicians for Human Rights (PHR)

HARRINGTON Dr. Richard	Forensic Monitor
KURET Željko	Translator (7 and 8 December only)
YORK Heather	Forensic Monitor (8 December only)

Peter Chilvers, Exhumations Officer for the Office of the High representative (OHR), visited the site and entered the cave on one occasion. The following were also present on occasion, but did not enter the cave: Kari Seppanen and Tariq Malik, investigators for the International Criminal Tribunal for the Former Yugoslavia (ICTY); International Police Task Force (IPTF) personnel; Stabilization Force (SFOR) personnel; family members; and media representatives. The site was guarded by Federation Army personnel.

### Site Description

The site consists of an underground cave approximately 22 km northwest of Sanski Most (grid coordinate: 33T XK 174 668, as determined using a Global Positioning System (GPS) unit; Map Name: Suhaca; Sheet: 2484 IV; Edition: 7-DMA; Series: M709; Horizontal Datum: WGS84; Scale: 1:50,000 (Figure 1)). The cave is in a forested area of small hills approximately 2 km west of the nearest road. The cave is completely subterranean, and its presence would only be noticed by detection of its small surface opening and the lengthy shaft into the ground.

The entrance is a small (approximately 1 m diameter), rock-lined, circular hole that extends approximately 10 m down before opening up into the wider cave chamber. The upper part of the chamber floor is 17 m deep and the lower part is an additional 3 m deep, the cave floor sloping down from northeast to southwest. This chamber, ranging from approximately 5 to 7

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m in diameter, is the middle of three chambers that were noted during a brief inspection (no effort being made to explore the north and southwest chambers).

### Site History

According to Bosniak Commission members, several thousand detainees were held in a prison camp in the town of Omarska, approximately 35 km northeast of the cave, in the summer of 1992. The detainees were mostly Bosniak residents of nearby towns who were "arrested" by ethnic Serb military forces that controlled the area at that time. Over the course of the summer, hundreds of the detainees were killed or transported to other camps. On 23 August 1992, perhaps several hundred of the detainees were taken from the Omarska camp by bus ostensibly for the purpose of prisoner exchange. Most of these individuals have not been seen again, and were believed to have been killed by their captors.

The background of the two individuals who had been placed in the cave prior to 1992 is not known. Local belief is that these remains may represent two of three men who had disappeared in the area during World War II.

### Recovery Process and Condition of Remains

Mine assessment was conducted by local de-mining experts following the site "pre-visit" (reconnaissance) in late November 1998. Caving/climbing experts from a Sarajevo-based special police unit, led by Major Muhamed Gafić, inspected the cave for rock stability and built a rope-and-ladder system for cave access. A wooden hut was built over the cave entrance, with support beams and an anchored winch in place to raise remains in body bags from the cave.

The bodies had apparently been dropped into the cave, the result being a haphazard piling of bodies two to three deep. Many had apparently rolled to the bottom of the sloping cave floor as they hit the top of the pile when dropped; over time, as the remains decomposed, some skeletal elements--notably crania--appeared to have rolled to the bottom as well. As the pile of bodies decomposed and compressed under its own weight, modest separation of body parts and commingling with adjacent remains occurred. The result was that most remains were sufficiently articulated so that individual sets of remains could be recognized, but significant disassociation of many bones rendered most sets of remains incomplete. Many of the remains were still inside well-preserved clothing.

The cave was divided into eight sectors (A through H; see site sketch). The recovery process consisted of forensic experts delineating individual sets of remains and directing their removal. Each individual (or substantial portion thereof) was given a unique number; 144 numbers were ultimately assigned, although it was known that many numbers would be eliminated during the postmortem examination when a numbered lower portion would be re-associated with the numbered upper portion of the same individual. All remains were photographed *in situ*, and surrounding soil was examined for artifacts, such as identification cards, bullet casings, and ligatures. Remains were placed in marked body bags, raised out of the cave, and transferred to a nearby facility for examination. Isolated bones that could not be associated with an individual were marked as to sector and/or probable individual, and then placed in marked body bags.

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Most of the remains and clothing on the surface were clean or slightly muddy. Bones of the individuals underneath were pressed into the damp, brownish clay that covered the cave floor. The dark-stained clay's depth was approximately 5 to 20 cm thick; underneath was a lighter (yellowish-brown) sterile clay layer of undetermined depth. The rock content of the clay was high. Skeletal elements of two individuals were underneath rockfall and clay which had been deposited prior to the deposition of the other individuals in the cave.

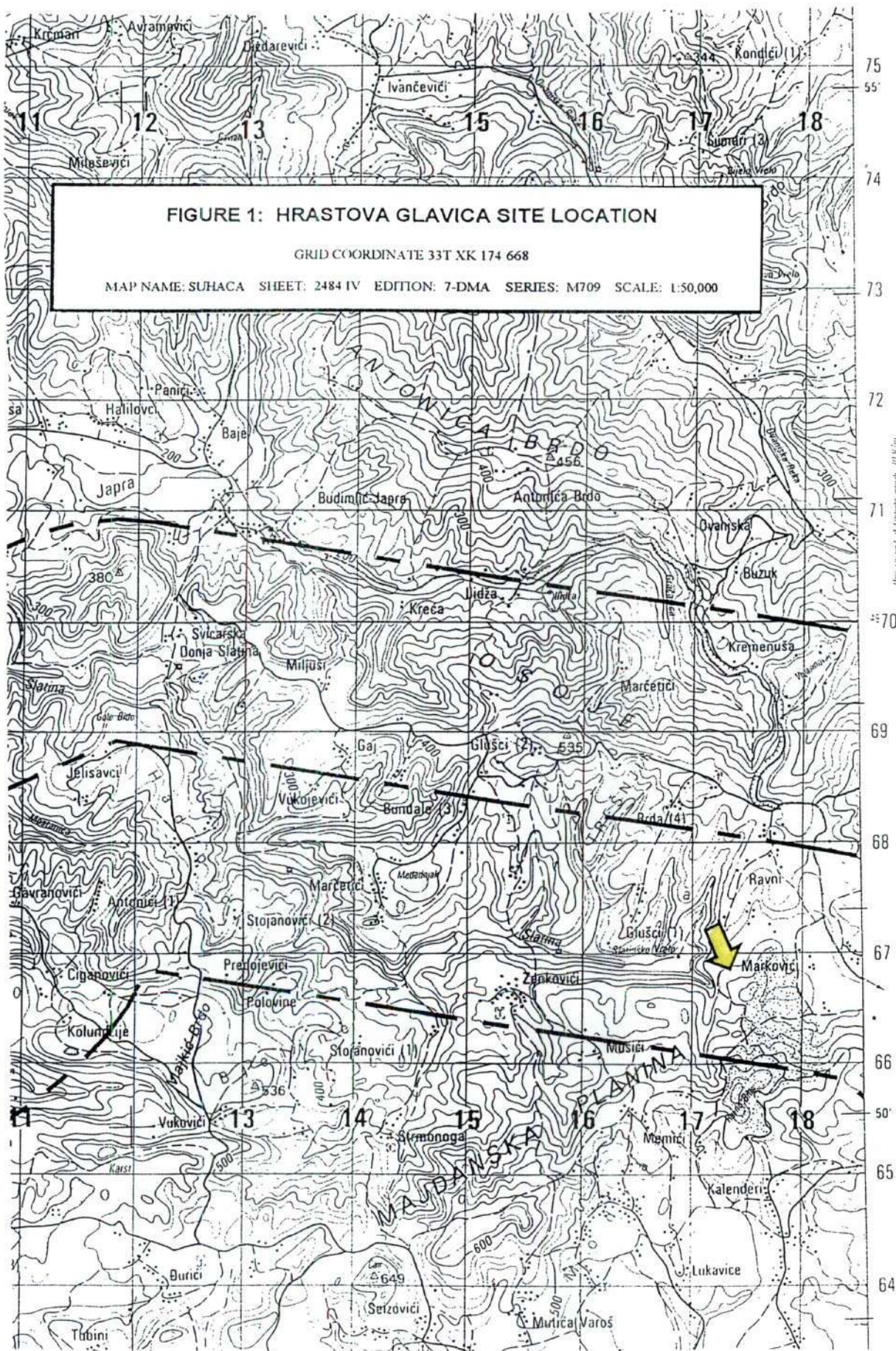
### **Postmortem Examination Findings**

An examination facility was set up in an empty warehouse/factory on the outskirts of Sanski Most. Dr. Eva Klonowski and Dr. Nermin Saraljić were responsible for the sorting of skeletal remains and determination of age, sex, and stature. Dr. Harrington was present for, and assisted in, part of the process. Dr. Rakočević and Dr. Mešić-Pašalić were responsible for legal determination of cause and manner of death.

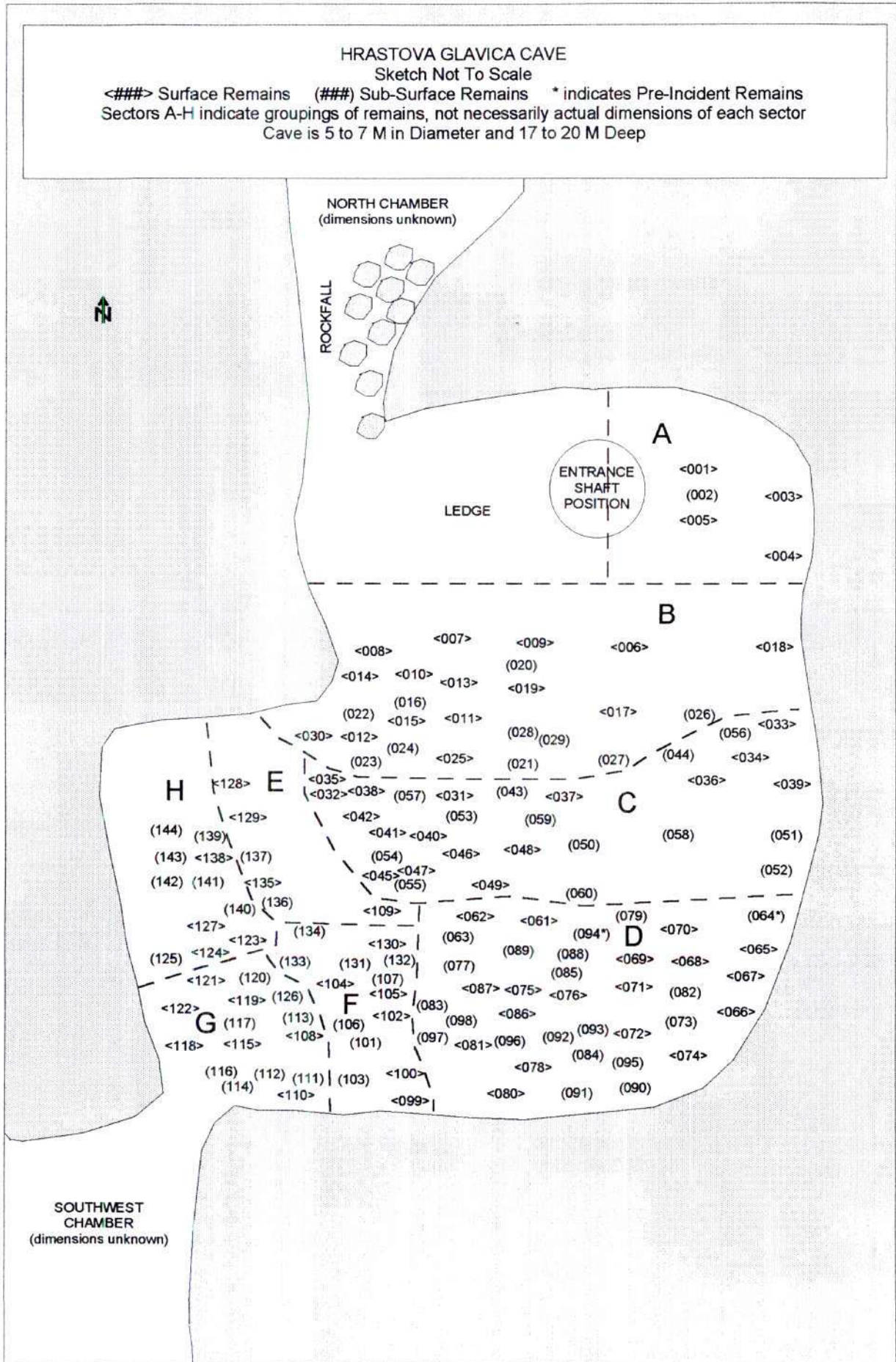
The skeletal remains were first cleaned and then laid out on the floor of the facility. Associated clothing was also cleaned and placed next to the remains. Each set of remains was in turn placed on an examination table in anatomical position, examined, and then returned to the floor. Standard procedures were used in the examination.

As of this writing, the final postmortem examination results have not been forwarded to PHR. Preliminary analysis indicated that 124 males between the approximate ages of 17 and 60, mostly dressed in civilian attire, were in the cave. Skeletal trauma was widely evident, and included gunshot wounds and blunt force trauma. Identification media included two bank cards. Twenty-eight individuals had been identified by mid-March of 1999. The two individuals reportedly from a World War II incident (one approximately 18 years old, the other over age 40) have not been identified.

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Photo 1. View of hut built over cave entrance.



Photo 2. Caving/climbing expert (left) adjusts Heather York's harness.



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Photo 3.

Caving/climbing expert is first to descend into cave each day.



Photo 4.

View down entrance shaft.

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Photo 5. Inside cave: ledge on the north end, human remains on slope foreground.



Photo 6. Dr. Klonowski (left) and Dr. Harrington in cave.

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Photo 7. View to bottom (south end) of cave (Sector G furthest from camera).



Photo 8. Remains #1 and #2.

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Photo 9. Remains #11 (note drop-off to left).



Photo 10. Unassociated remains recovered from Sector B.

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Photo 11. Remains #34.



Photo 12. Remains #47 (see Photograph 16 for close-up of gunshot wound to cranium).

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Photo 13. Remains #122 (See Photograph 17 for close-up of ligature being pointed to)



Photo 14. Remains #139.

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Photo 15. Remains #141.



Photo 16. Gunshot wound to Remains #47 cranium.

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Photo 17. Wire ligature around forearm of Remains #122.



Photo 18. Bank card with name association, found in Sector A



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Photo 19. Workers removing one of last sets of remains.



Photo 20. Remains arranged in makeshift morgue on outskirts of Sanski Most.

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Photo 21.

View of some of remains already examined and laid out for inspection by family members.



Photo 22.

Remains #64 and #94, both predating the 1992 incident.

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Photo 23. Example of skeletal remains in anatomical position on examination table (Remains #100).



Photo 24. Dr. Klonowski (left) and Dr. Saraljić conducting anthropological analysis.

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Photo 25. Dr. Rakočević (right) conducting official autopsy.



Photo 26. Example of gunshot wound to cranium (Remains #48).

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Photo 27. Bullet lodged in vertebra from Remains #103.

## **PHYSICIANS FOR HUMAN RIGHTS**

Physicians for Human Rights (PHR) mobilizes the health professions and enlists public support to protect and promote the human rights of all people.

PHR believes that human rights are essential preconditions for the health and well-being of all members of the human family.

We use medical and scientific methods to investigate and expose violations of human rights worldwide.

We work to stop violations of human rights.

We demand the perpetrators of human rights violations be held accountable for their actions under international law.

Since its founding in 1986, PHR has carried out forensic investigations, including exhumations and autopsies, of alleged torture and extrajudicial executions in Afghanistan, Brazil, Israel, the former Czechoslovakia, Guatemala, Honduras, El Salvador, Iraqi Kurdistan, Kuwait, Mexico, Panama, Somalia, and Thailand. PHR has also devoted considerable energy and resources, under the auspices of its Chicago-based International Forensic Program, to assist the International Criminal Tribunal for the former Yugoslavia (and its predecessor the U.N. War Crimes Commission) and the International Criminal Tribunal for Rwanda, to collect evidence of genocide in those nations.

The President is Charles Clements, M.D., M.P.H., the Vice President is Carola Eisenberg, M.D., the Executive Director is Leonard Rubenstein, J.D., the Deputy Director is Susannah Sirkin, the Advocacy Director is Holly Burkhalter, the Senior Program Associate is Richard Sollom, the Director of Communications is Barbara Ayotte, the Campaign and Education Coordinator is Gina Cummings, the Membership Development Coordinator is Steve Brown. William H. Haglund, Ph.D., is Director of PHR's International Forensic Program. Vince Iacopino, M.D., Ph.D., is Senior Medical Consultant. The director of Bosnia Projects is Laurie Vollen, M.D., M.P.H.