



# Exhumation



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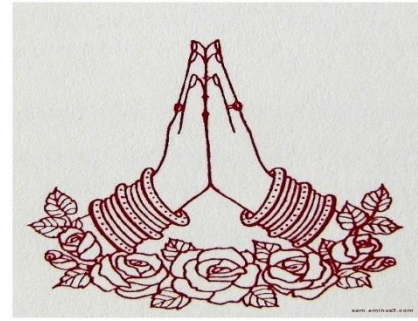
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# Acknowledgment



**Organizing Committee,  
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# Introduction

- In medicolegal practices, decomposed, mutilated or skeletonised bodies are received for autopsy.
- In case of mass disaster, the anthropologist is sought in identification, if the remains are skeletonised.
- Badly burnt or largely destroyed.



# Forensic Anthropology

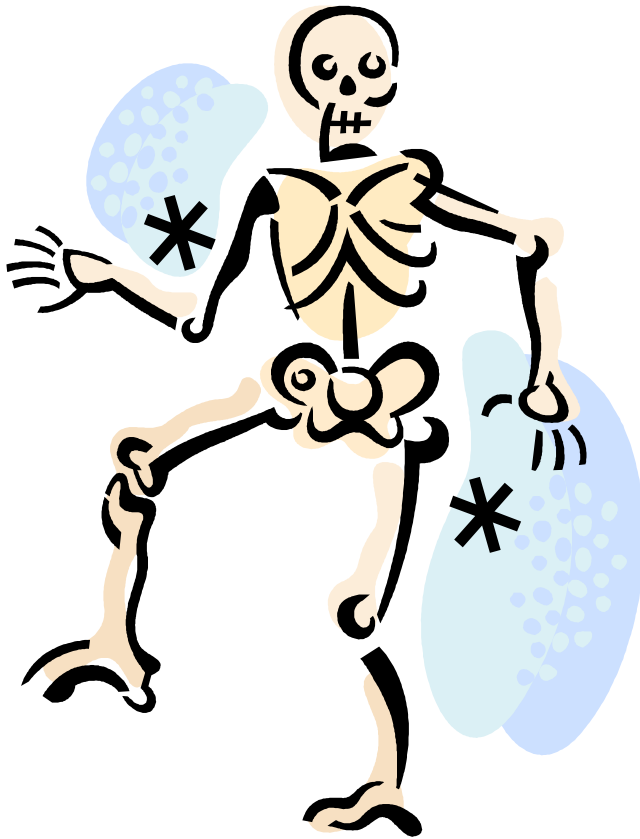
is branch of physical anthropology which for forensic purposes deals with the identification and analysis of skeletonised remains known to be or suspected of being human.

Bones are found disposed off in jungle, in the open, in the ditches or rubbish dumps etc., or may be found while digging foundations for **mass disasters**, where many persons die in the same area at the same time from fire, air crashes or in **mass burials**

The help of anthropologist is sought in identification if the remains are skeletonised.



# Do Bones Speak?



“There is a brief but very informative biography of an individual contained within the skeleton, if you know how to read it...”

*Clyde Snow,  
Forensic Anthropologist*

# Recent News of Exhumation case of historical persons

- *Yasser Arafat Ex-palestenian leader,  
( Died in Nov. 2004)*

*To ascertain the cause of death  
(was he poisoned by Polonium 210)?*

- *Turgut Ozal, Ex-president of Turkey  
( Died in 1993)*

*To rule out suspected poisoning.*

# Exhumation worth or not?

- **Asked by the authorities, lawyers or relatives about its usefulness.**

**It is difficult to generalize.**

- **Much will depend upon the condition of the body which in turn depends on actual environment of the place of burial.**
- **Heavy metals (As) in buried body may be detected after many years.**

# **Exhumation worth or not?**

- However even negative information gained at exhumation may be of considerable legal value.**
- But it is distressful thing to the relatives.**



# Exhumation worth or not?



# What is Exhumation ?

- **Exhumation is the lawful digging out/ retrieval of a previously buried dead body for postmortem examination.**
- ***Exhumation ( Ex & Humation )* -from the ground**
- **Rarity in our country- cremation practices of Hindu**
- **Muslim- wrapped in clothing layers & buried**
- **Christian - Coffin**

# Types of Exhumation

□ A legal retrieval of a body buried in a legitimate procedure in graveyard or cemetery

(Shopian Case-J&K, Godhra-Gujrat)

□ Recovery of a clandestinely buried victim of suspicious death from the scene of crime.

(Nithari-Noida?)

□ Many a times the police may recover the buried body from the site on the statement of the accused or witness without the permission of the magistrate

□ Cases of Second Autopsy- controversial  
Sheena Bora Case



## Legal Authorization

- **Sec 176 (3) Cr.P.C.**
- **A written order from a First Class Magistrate/Executive Magistrate**



# Time limit for Exhumation

- **France – 10 years**
- **Scotland-20 years**
- **Germany – 30 years**
- **England & USA-No time limit**

**India- No time limit**

**Nepal-???**



# Reasons for Exhumation

## 1. Criminal cases

- incomplete or improper injury analysis
- incomplete toxicological analysis
- trace evidence overlooked or missed

## 2. Civil cases –

- personal injuries for insurance
- litigation for negligence (RSA, industrial)
- exchange of corpse

**Disputed identity or**

**Incorrect identification**





# Reasons for Exhumation

**3. Historical cases** – Japanese exhumed the remains of the World War II soldiers from war cemetery in Guwahati, Assam to carry back to their country.

**4. Academic purpose** – Study of disease pattern, nutritional pattern, study of Egyptian mummies.



# Exhumation Team

- 1. Magistrate**
- 2. Police Officers**
- 3. Forensic Medicine Experts-board**
- 4. Forensic Scientists (Anthropologist/animator  
Odontologist/ serologist/fingerprint expert /  
botanist/entomologist/geotaphonomists)**
- 5. Few relatives for identifying**
- 6. Cemetery staff and the digging persons**

**Avoid unauthorized and unwanted persons**





# **Roles and Responsibilities**

## **Excavation Coordinator**

- **Logbook /site diary**
- **Evidence log, Inventory**
- **Labelling evidence bags**
- **Photographs**
- **Description of human remains recovered**
- **Mapping, Drawing, Sketching**
- **Digging, Exposing, Cleaning**
- **Lifting remains**
- **Storing remains**

# Team Members





# Explain, Counsel- humane approach





# Respect Social & Religious customs

- **Muslim cemetery rules**
- **Christian cemetery rules**
- **Other faiths**
- **It is a distressful event to the relatives**



# See the Rules & Follow them



04/27/2013

# **First Steps**

- **Clarify roles and responsibilities**
- **Cordon off the area**
- **Document untouched site**
- **Delineate area for excavation**

# Procedure & Precautions

- Cemetery In-charge
- Legal heir & relatives who attended funeral proceedings
- Take everyone into confidence & explain the procedure (magistrate & police)  
**Impending Law & order situation**
- Area should be cordoned off
- Tarpaulin tent may be erected
- Early morning- at the time of sunrise
- Stand opposite to direction of wind



# Outer view -location





**Exact location**



# Steps in the Exhumation

- **Document untouched site**
- **Clear vegetation**
- **Remove topsoil**
- **Expose grave outlines**
- **Remove grave fill**
- **Expose the remains & related evidences**
- **Document/Mapping/Photograph**





# Site of Exhumation

- **Careful cleaning of the soil from the body surface necessary to expose the clothing and detect any abnormalities which can be recorded at this stage before things are altered, e.g. Foreign material in the mouth, ligature in the neck.**
- **Suspected poisoning – preserve soil samples from beneath, side, above the body and at a distance from it (control).**



# Care taker of Cemetery starting





# Helper from Cemetery digging



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# Top layer of soil removed Exposure of grave



# **Examination of the Exhumed body at the burial site**

- **Coffin lid (Christians) should be removed and contents again identified if possible by the relatives and the cemetery authorities.**
- **Suspected poison – preserve sample of the shroud, trimming from the coffin, loose material or biological fluids, clothes.**



# Gradual removal of covering/lid





# Underneath body visible



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# Take measurements of grave & slowly lift the body



# **Autopsy of the Exhumed body at the mortuary**

- **A full body X- ray may be done, especially in suspected injury and firearm cases.**
- **Undress the body and conduct a full autopsy as far as the condition of the body allows.**
- **Preserve all relevant samples.**
- **Putrefaction, adipocere & mummification complicates the examination**
- **Sometimes all three may be present in the body.**

**Time since death- >6 months**  
**Mummified body- facial features**  
**preserved**



# Rule out Traumatic Injuries

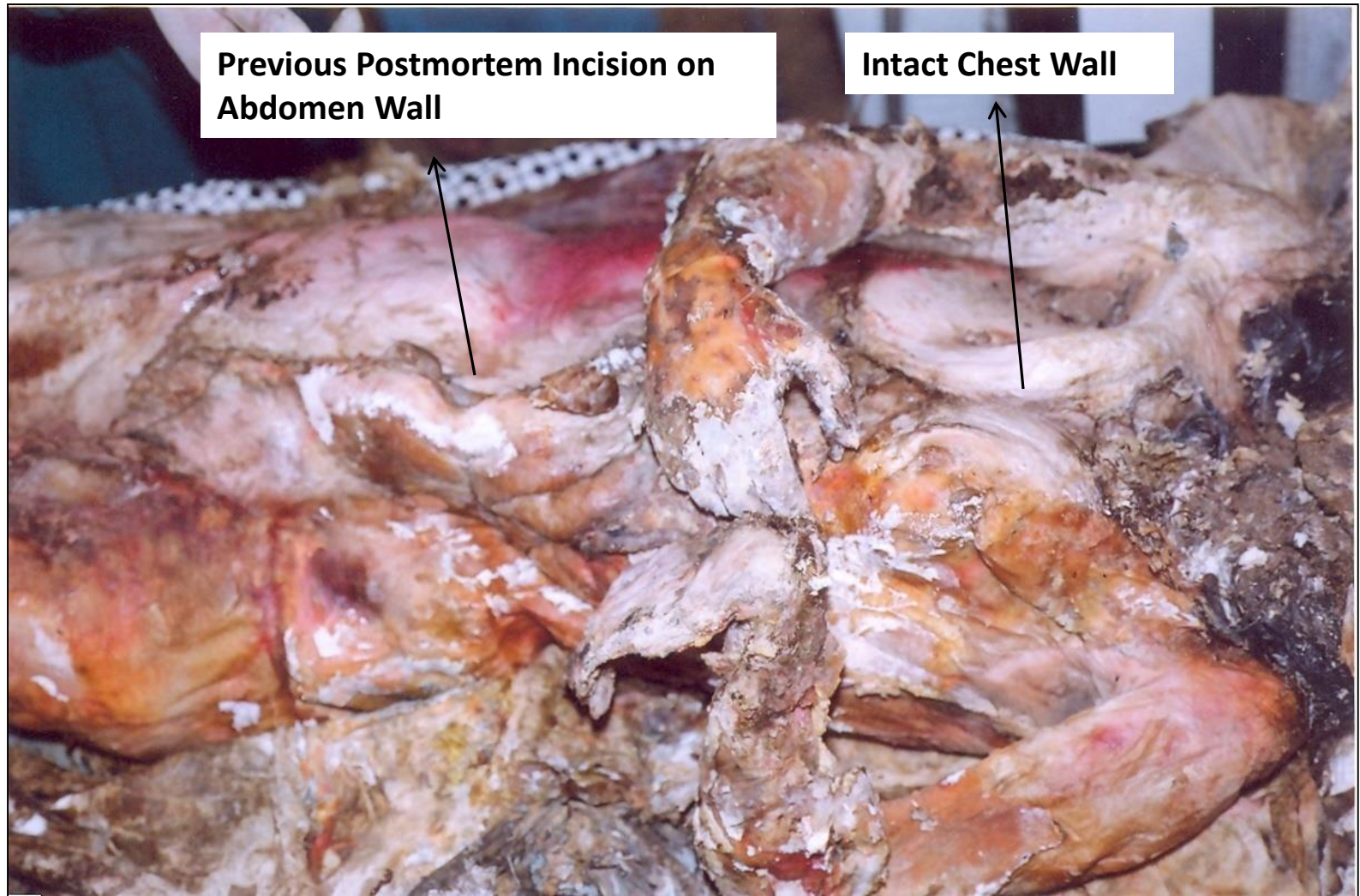




# Exhumation artifacts (caution) ?

- **Fungal growth common at body orifices, eyes, sites of open injuries**
- **Underlying skin may be discoloured**
- **Rule out embalming artifacts if +**
- **Rule out resuscitative artifacts**
- **If its 2<sup>nd</sup> autopsy then.....**



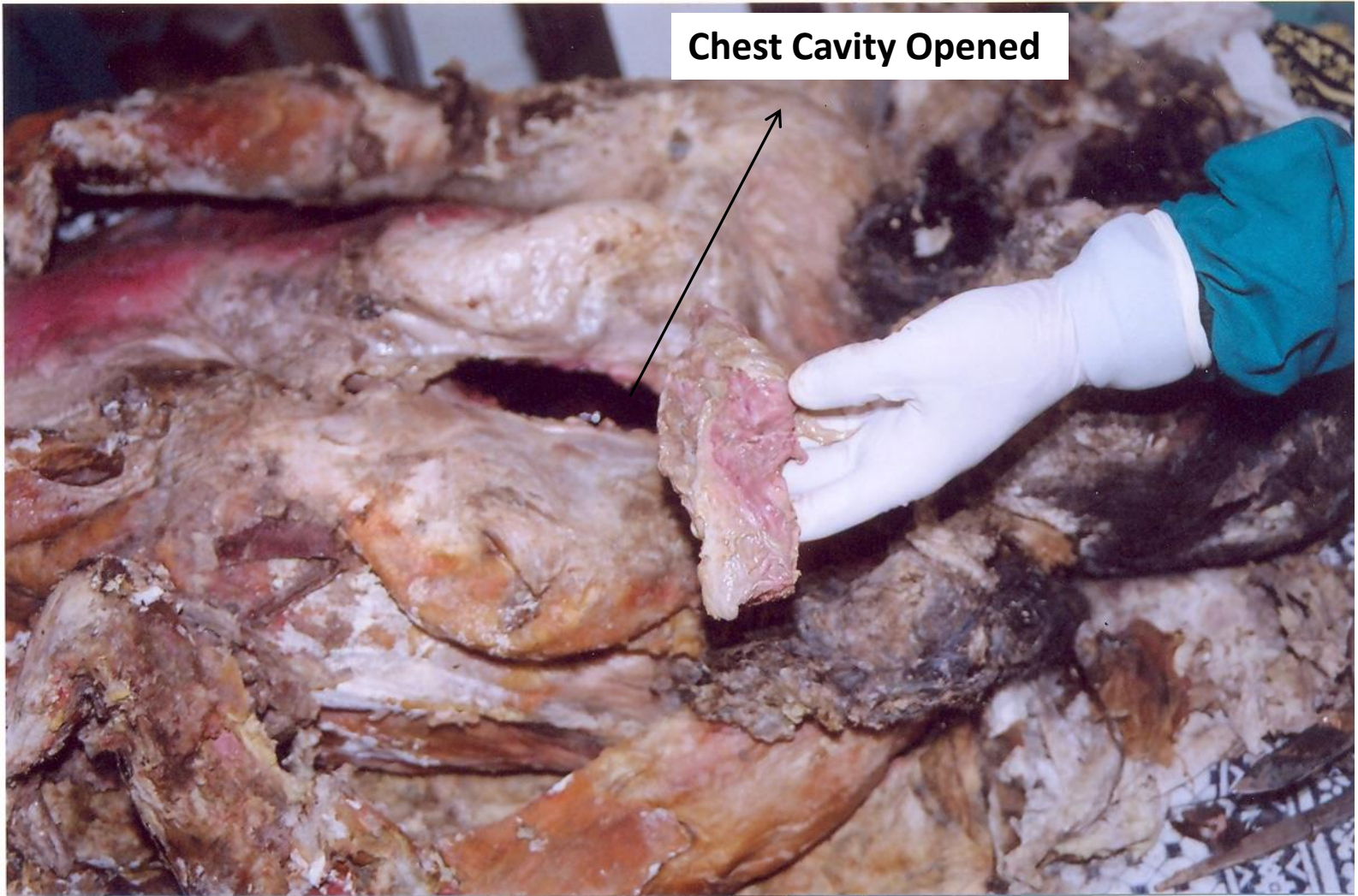


**Previous Postmortem Incision on  
Abdomen Wall**

**Intact Chest Wall**



**Chest Cavity Opened**







# Organs turned into fibrous mass





# **Exhumation artifacts (caution) ?**

- **Body may be exposed to the contaminants of the soil and the draining water**
- **In case of chronic As poisoning, hair and nails will have higher concentration than the soil.**





# Photography and Videography

- **Usually done by the police**
- **Full photography and videography must be done from identification of the grave to the findings during the autopsy**
- **Preferably should be done by a forensic photographer.**



**Thanks for pt. listening**  
**any query/commn**  
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