

# FORENSIC ANTHROPOLOGY AND CRIMINAL INVESTIGATIONS

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# Forensic Anthropology



- ▣ What is Forensic Anthropology?
- ▣ What Kind of Training Does a Forensic Anthropologist Have?
- ▣ What are the Myths About Forensic Anthropology?
- ▣ What are the Goals of Forensic Anthropology?

## Mass Fatality Incidents



# Mass Disasters



# Forensic Anthropological Stages of Investigation

- ▣ Field Reconnaissance
- ▣ Laboratory Curation and Analysis

# Determination of Forensic Significance



# Processing

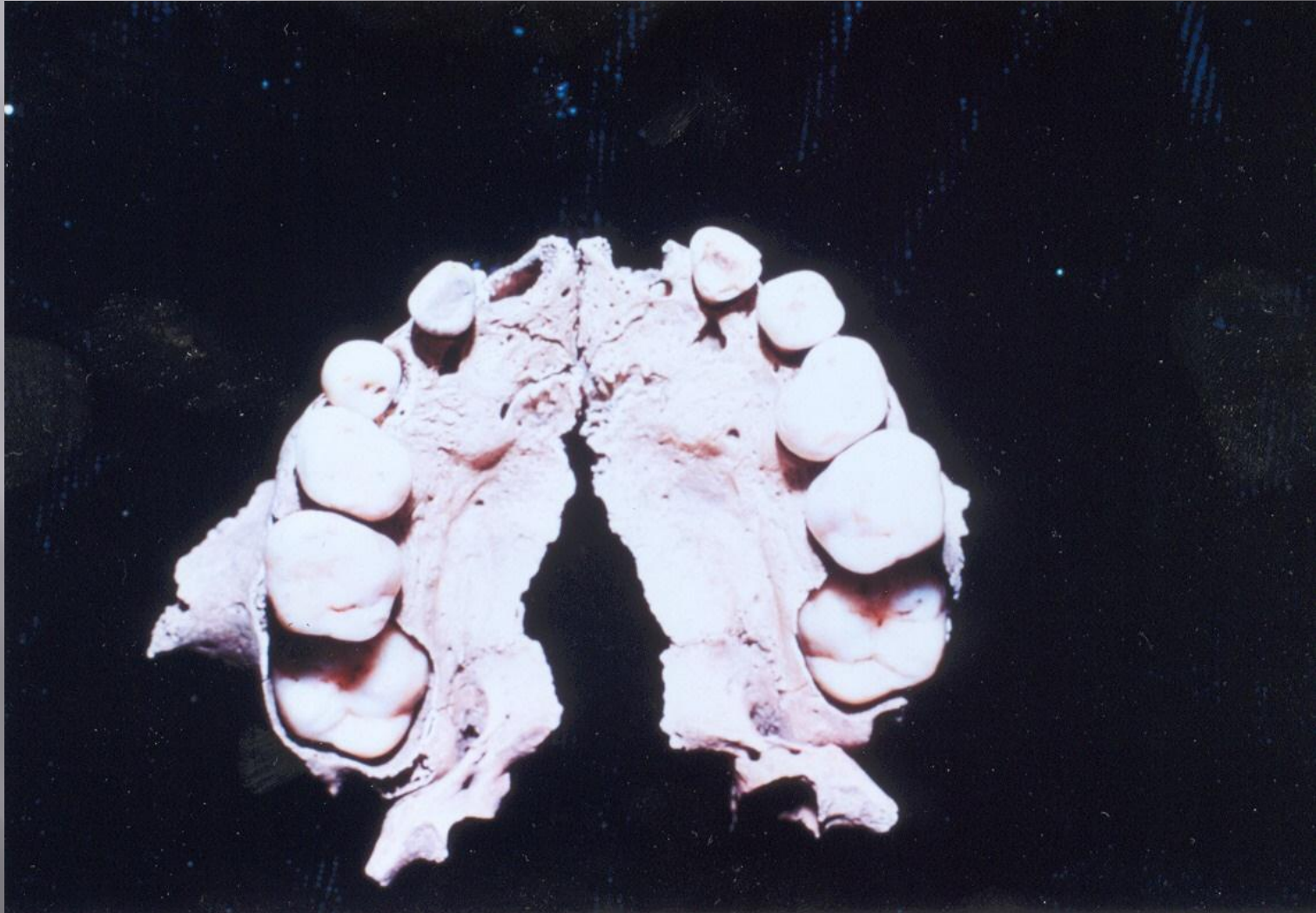




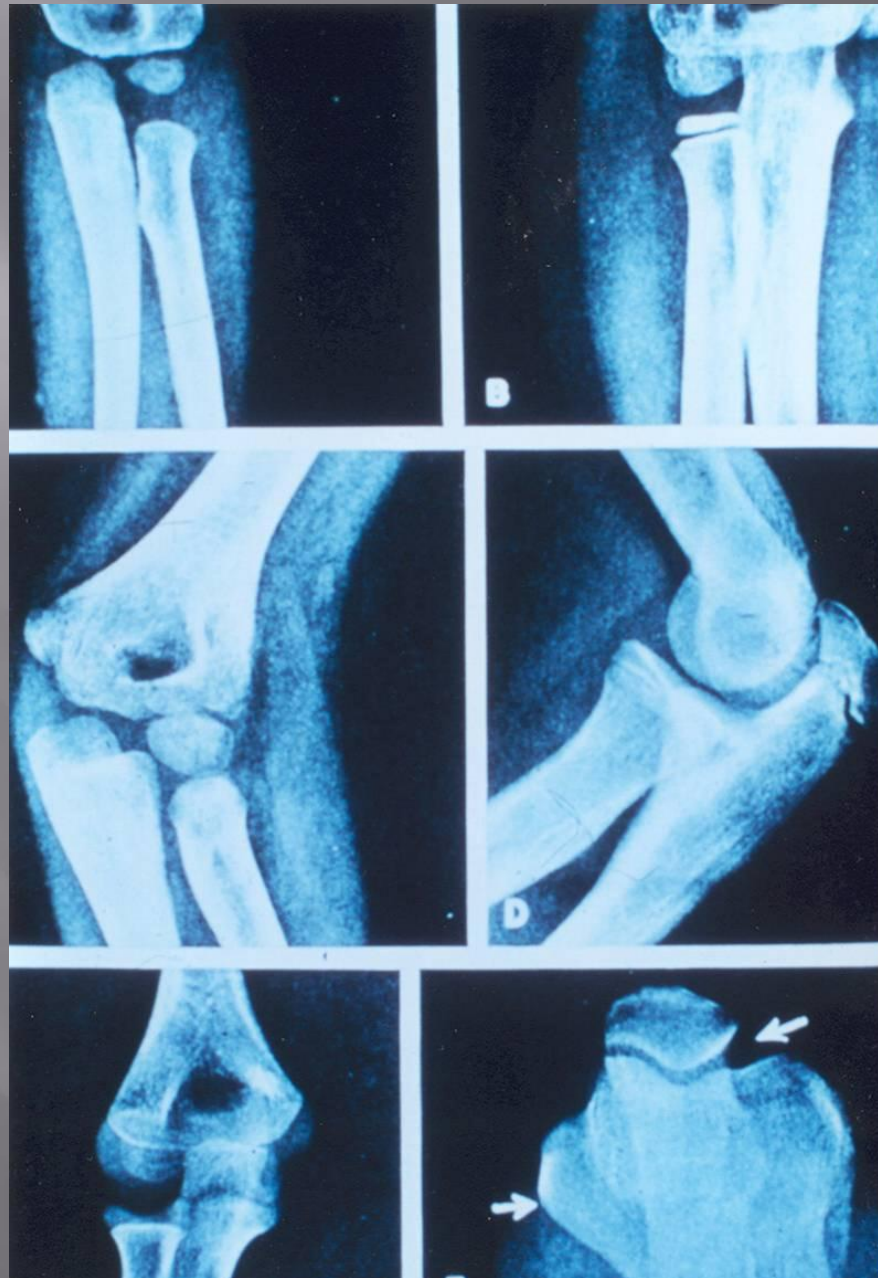
# Bone Inventory and MNI

# Biological Profile

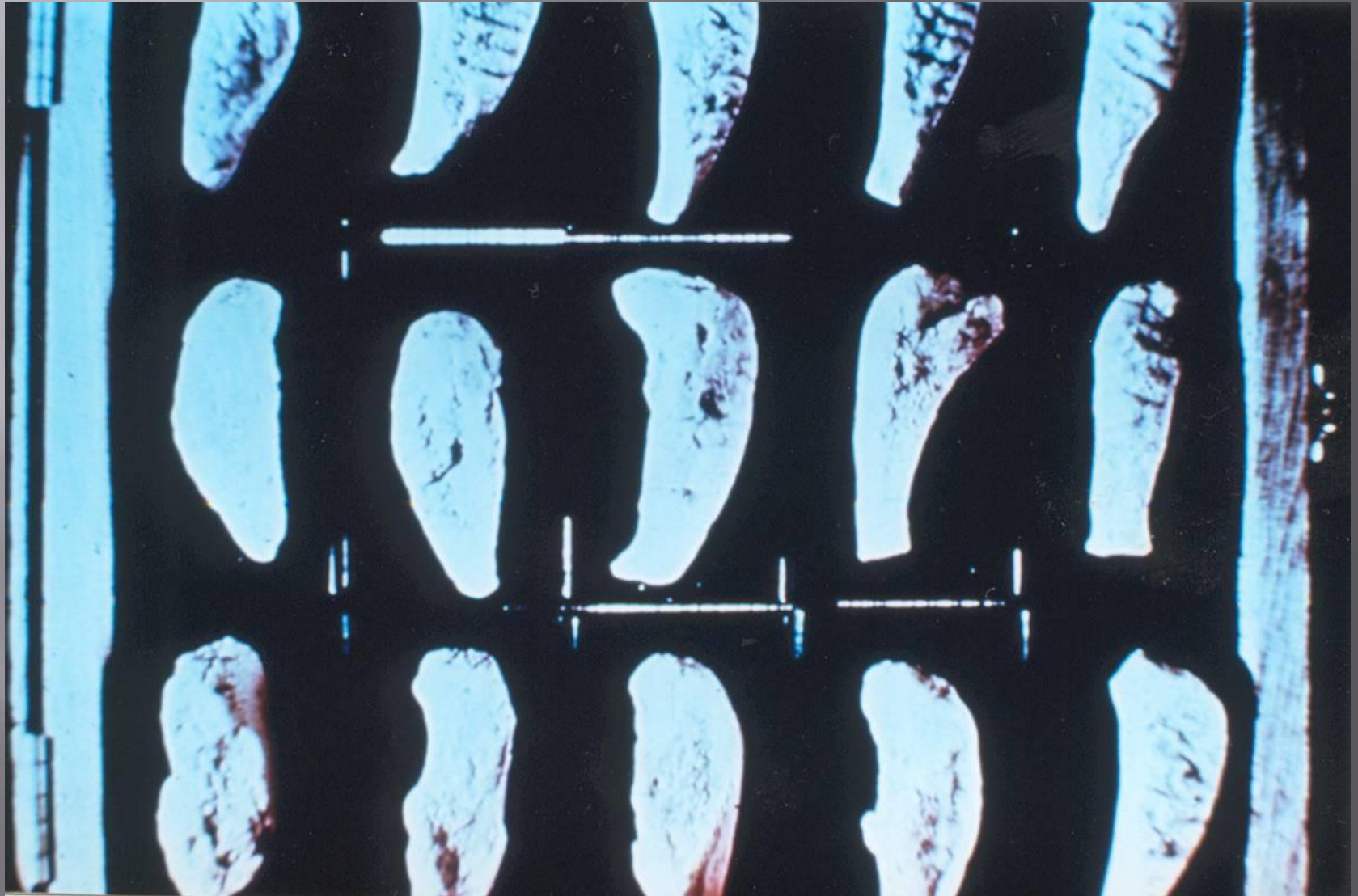
# Subadult Age: Dental



Subadult Age:  
Epiphyseal Fusion



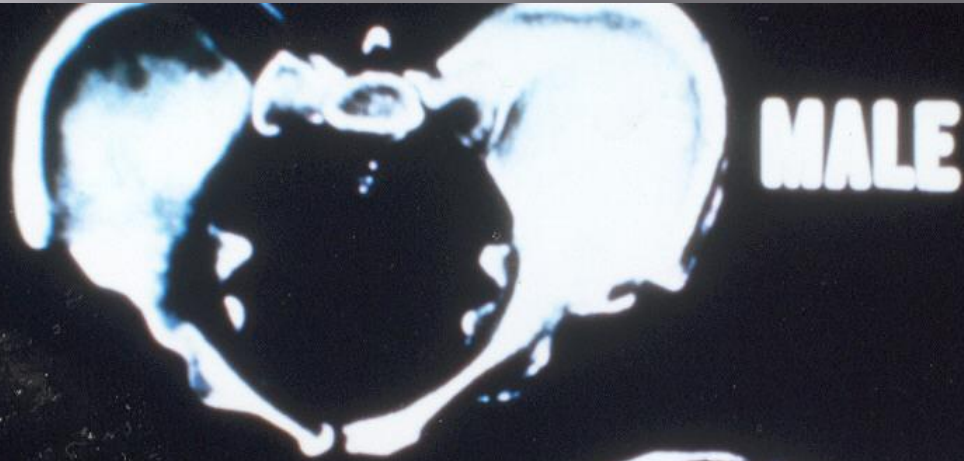
# Adult Age: Pubic Symphyses



# Adult Age: Osteon Counting



# Determination of Sex

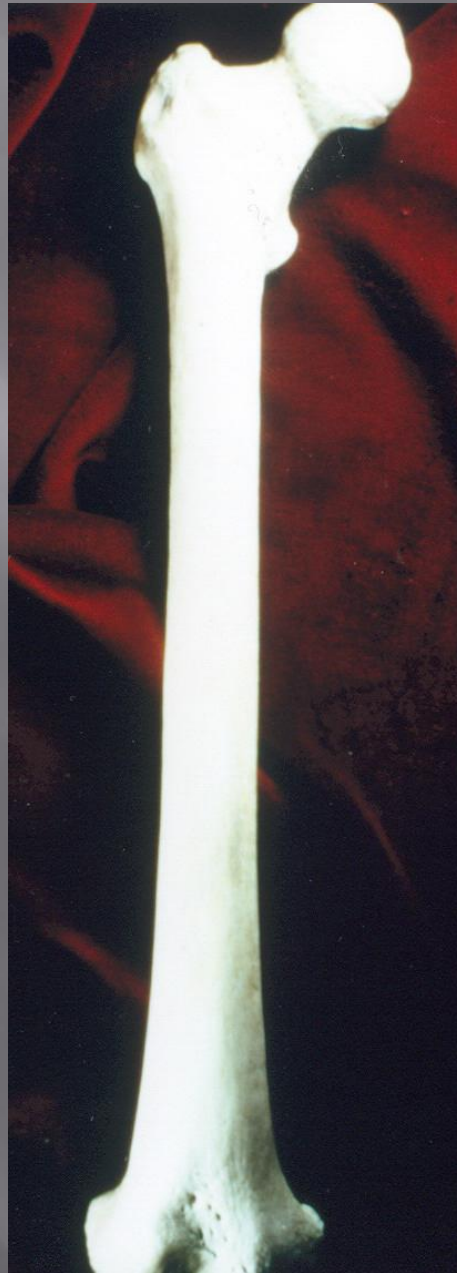


# Determination of Sex, Ancestry

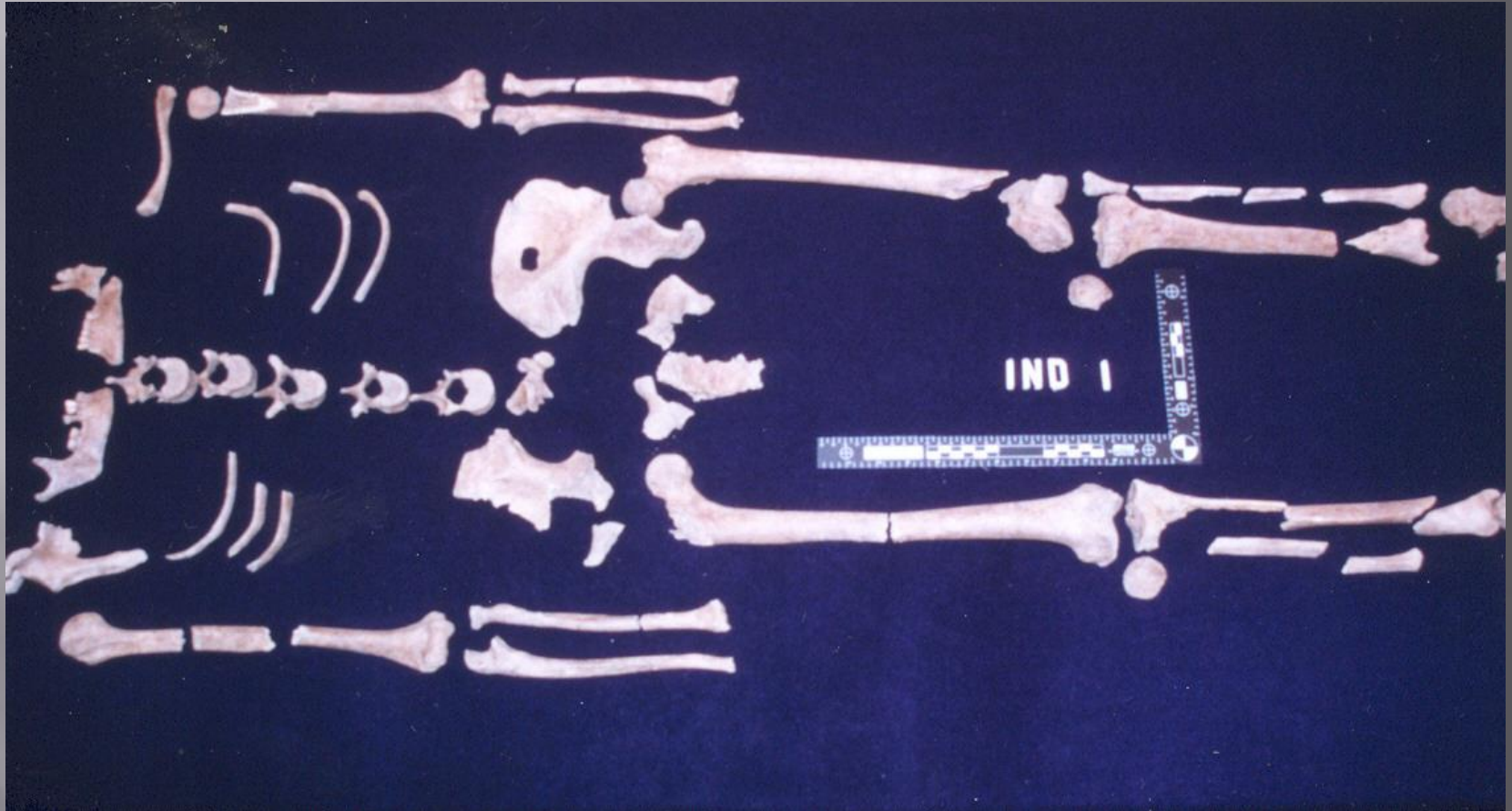




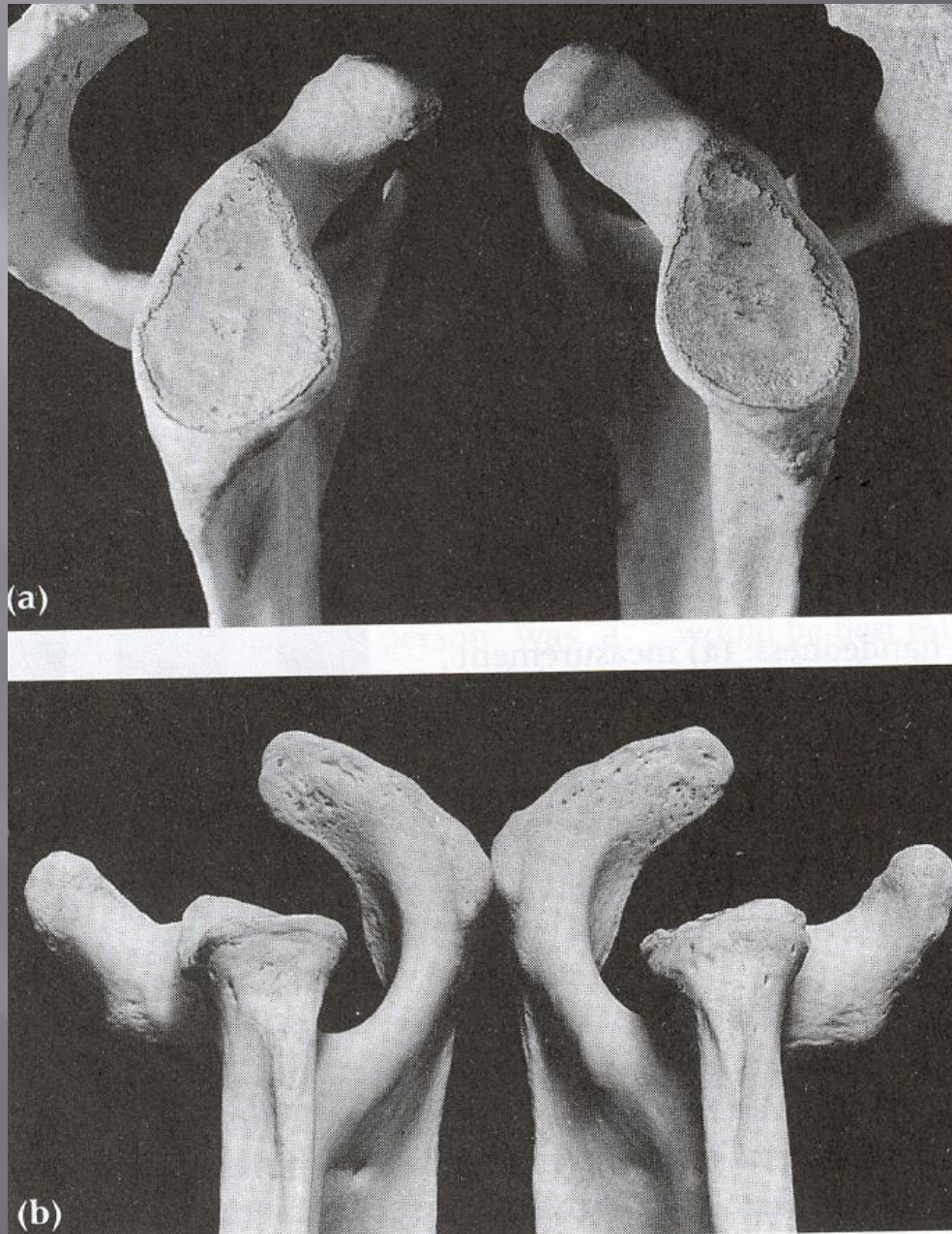
▣ Stature  
determination



# Body Weight



▣ Handed-  
ness



# Markers of Occupational Stress



# Individuation

# Requirements for Individuation

- ▣ A Suspected Identity
- ▣ Antemortem Records for the Suspected Identity, such as:
  - written documents
  - photographs
  - radiographs
  - memories of survivors

# Levels of Identification

- ▣ Tentative ID
- ▣ ID by Preponderance of Evidence
- ▣ ID by Exclusion
- ▣ Positive ID

Tentative ID

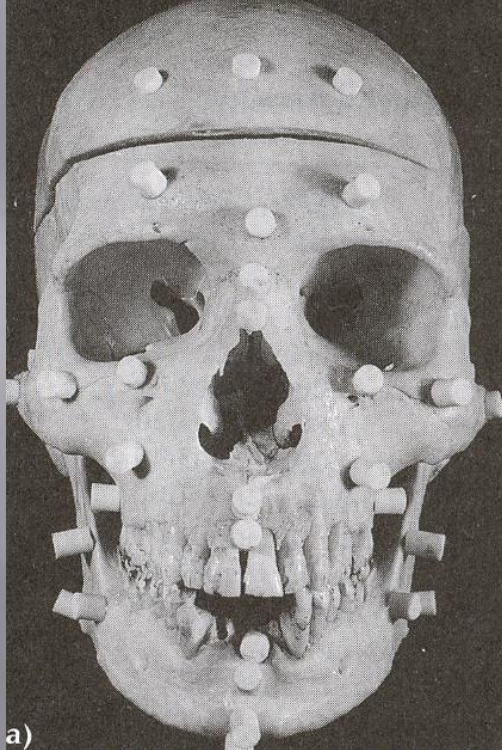




# ID by Preponderance of Evidence



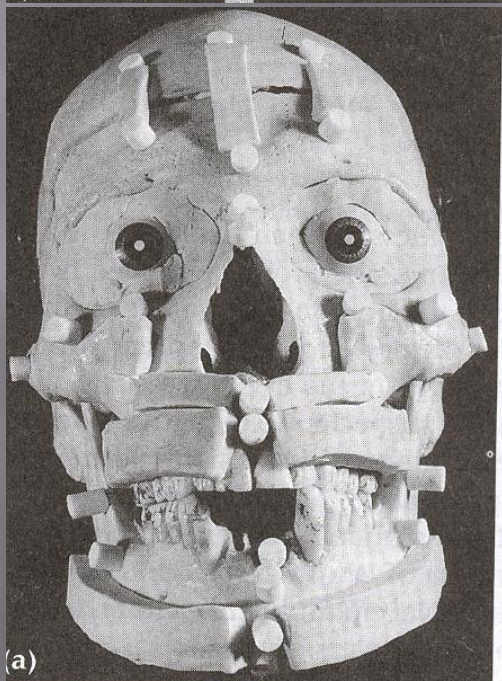




a)



b)



a)



b)



Fig. 7-3. A (above)—CARES reconstruction from skull of female next to actual photo, after identification was made; B (below)—CARES reconstruction from skull of unidentified female.

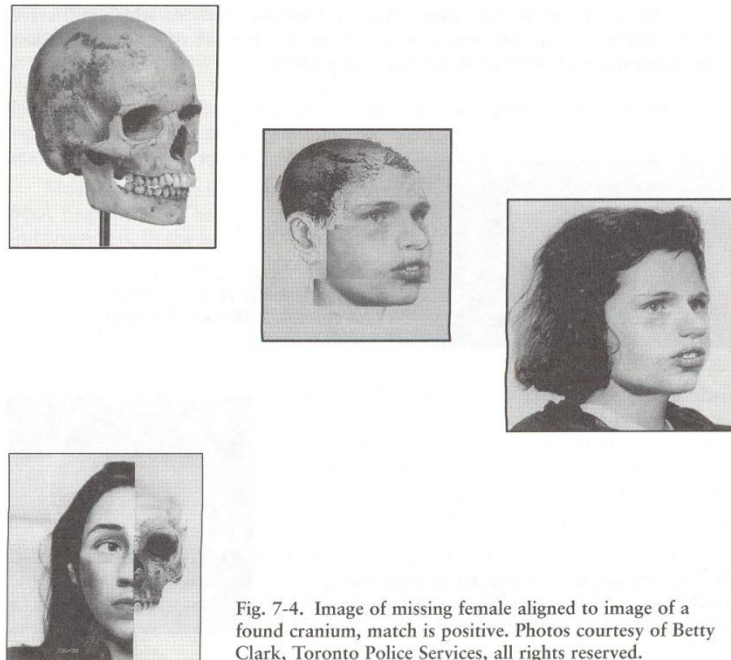


Fig. 7-4. Image of missing female aligned to image of a found cranium, match is positive. Photos courtesy of Betty Clark, Toronto Police Services, all rights reserved.

# ID BY EXCLUSION

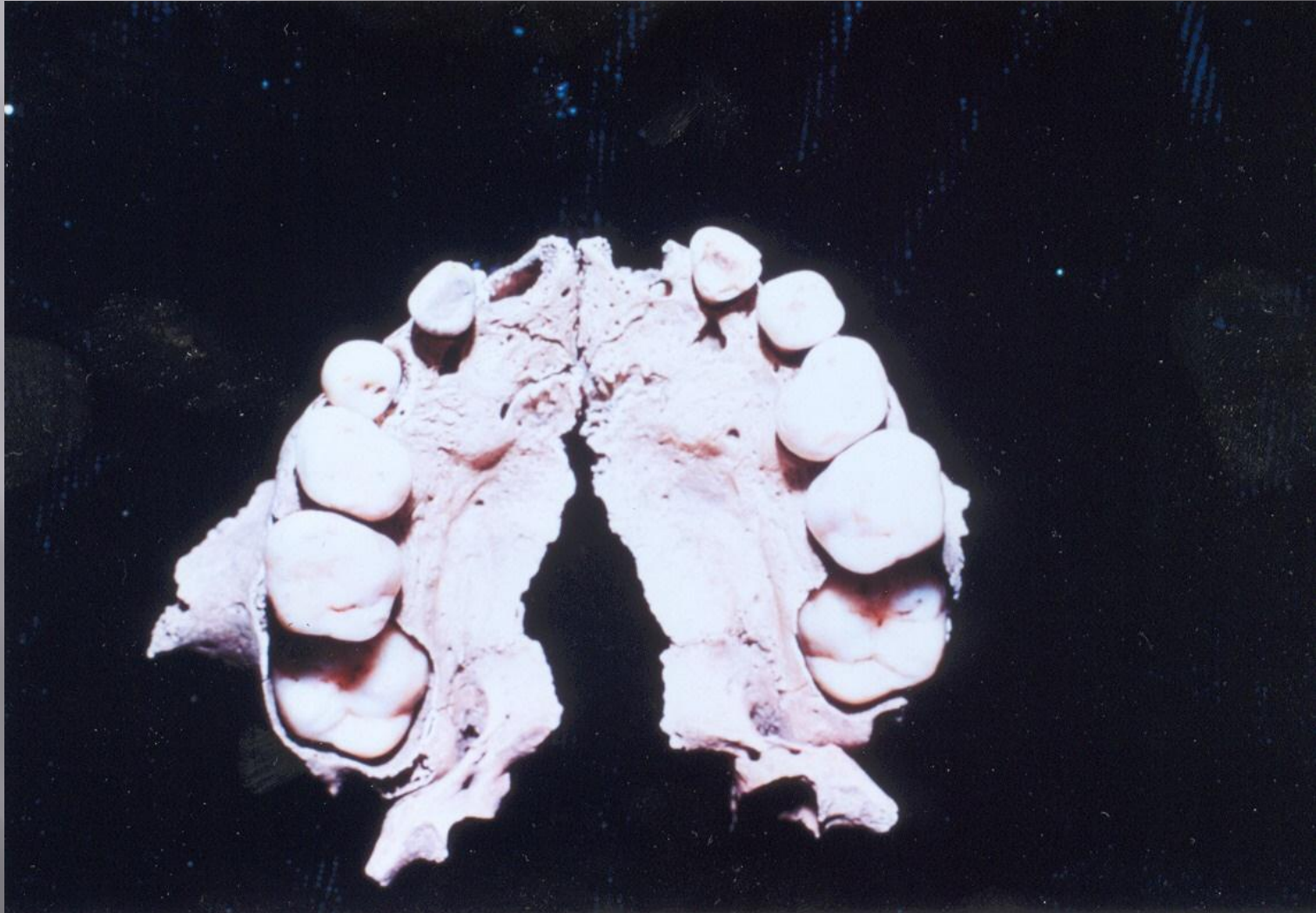
“Everybody else is accounted for”



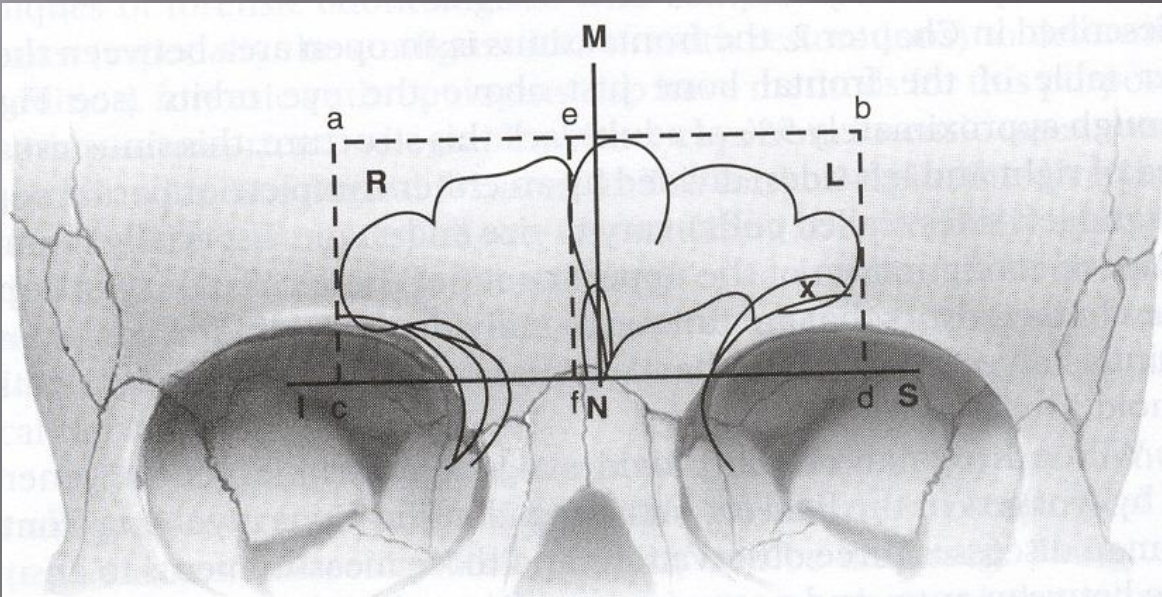
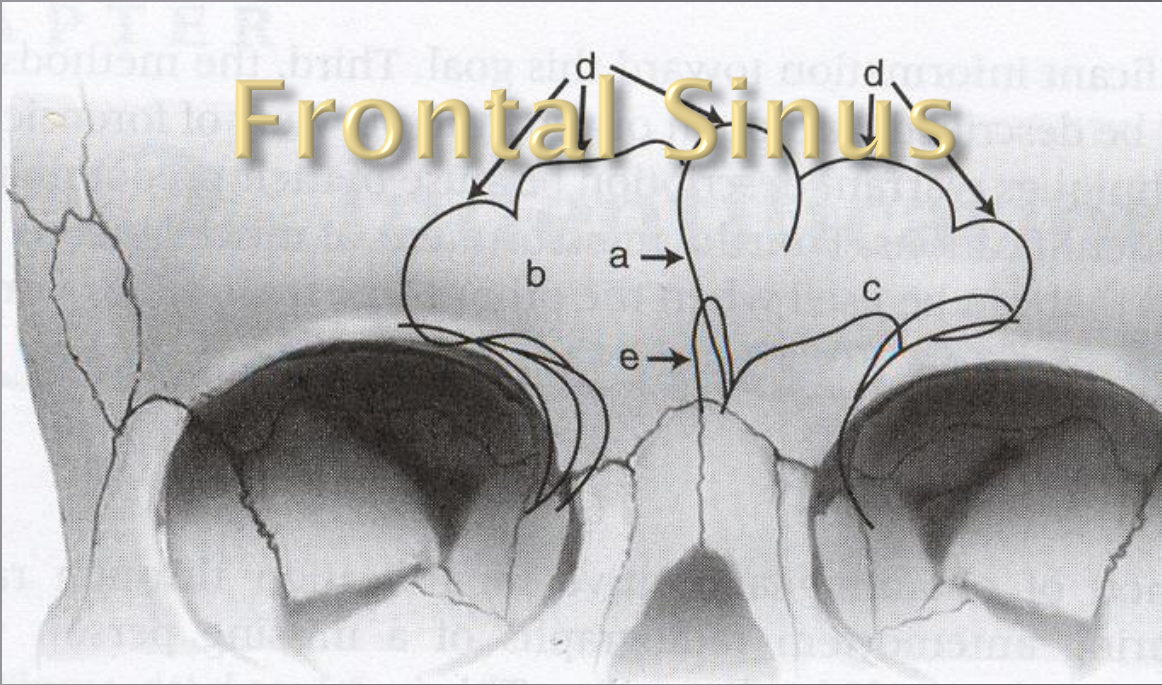


**Positive ID**

# Dental IDs

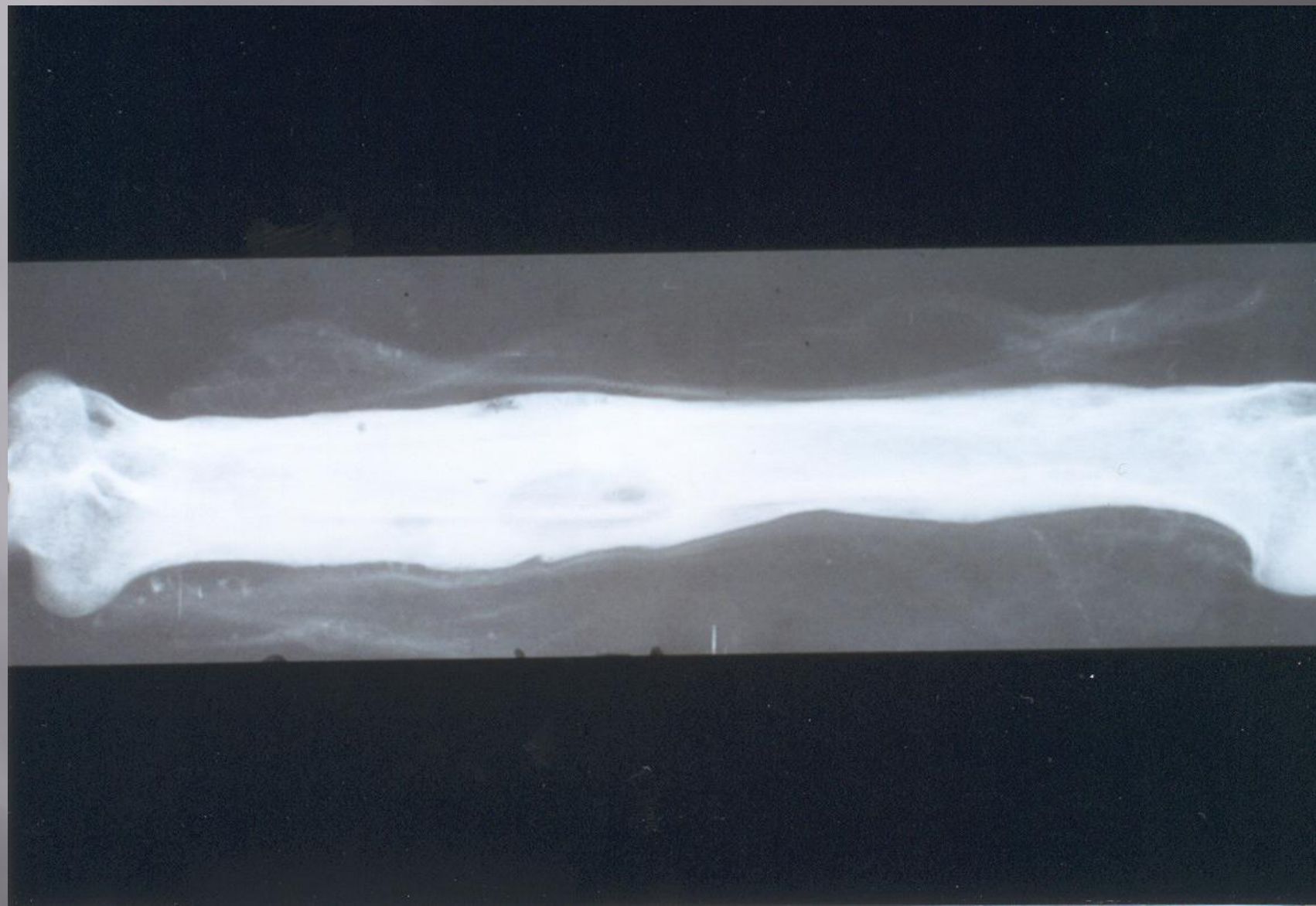


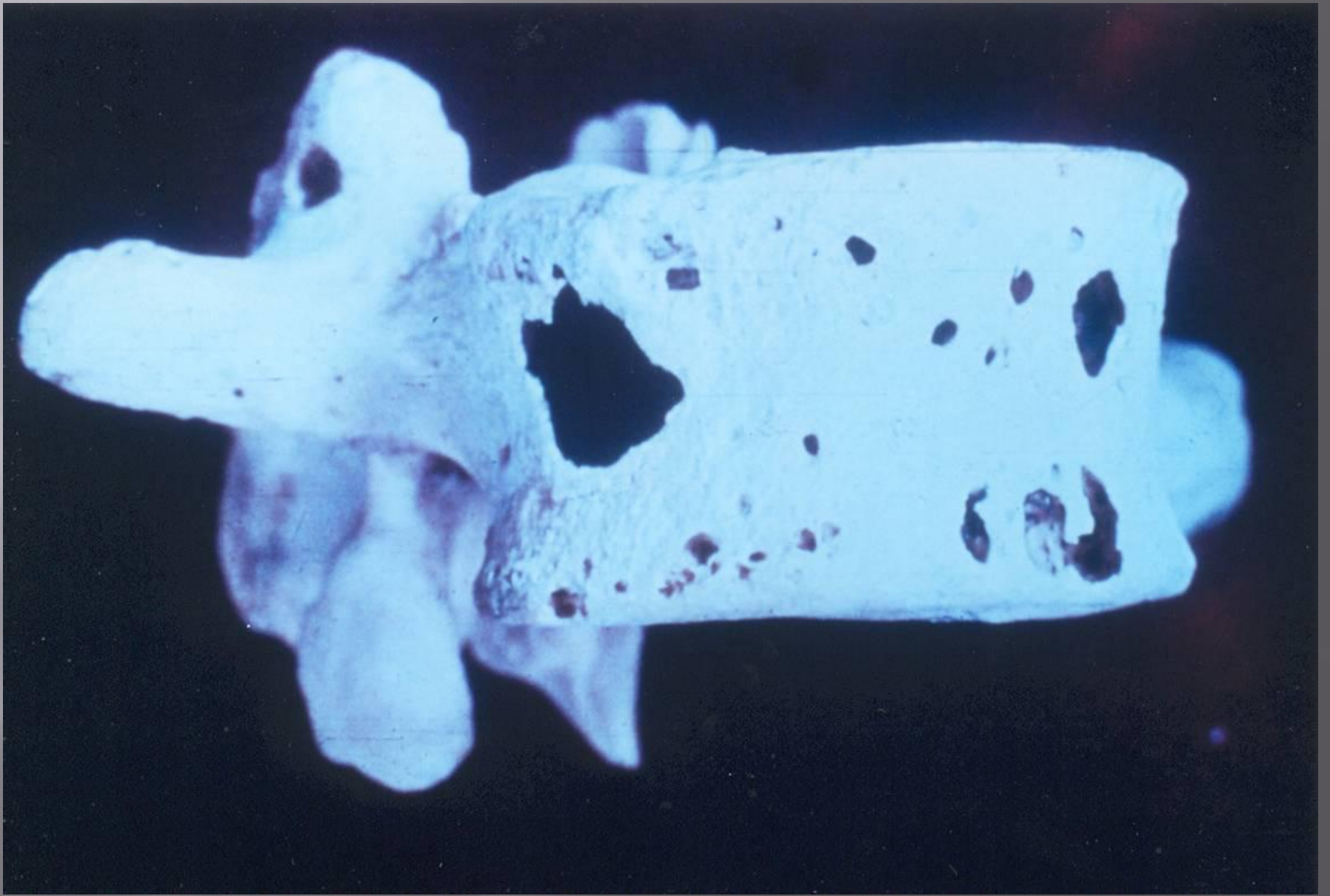
# Frontal Sinus

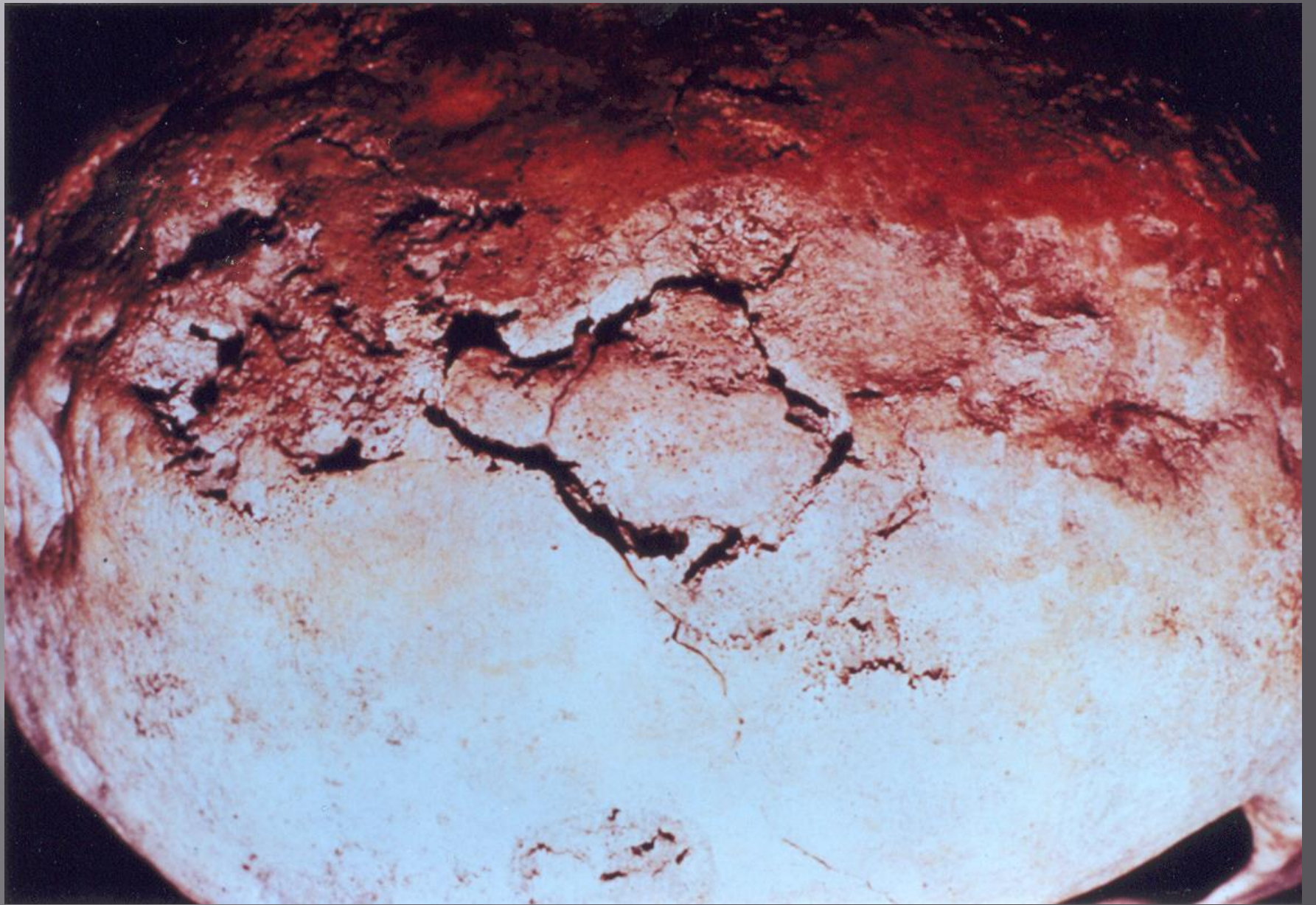


# Antemortem Pathologies





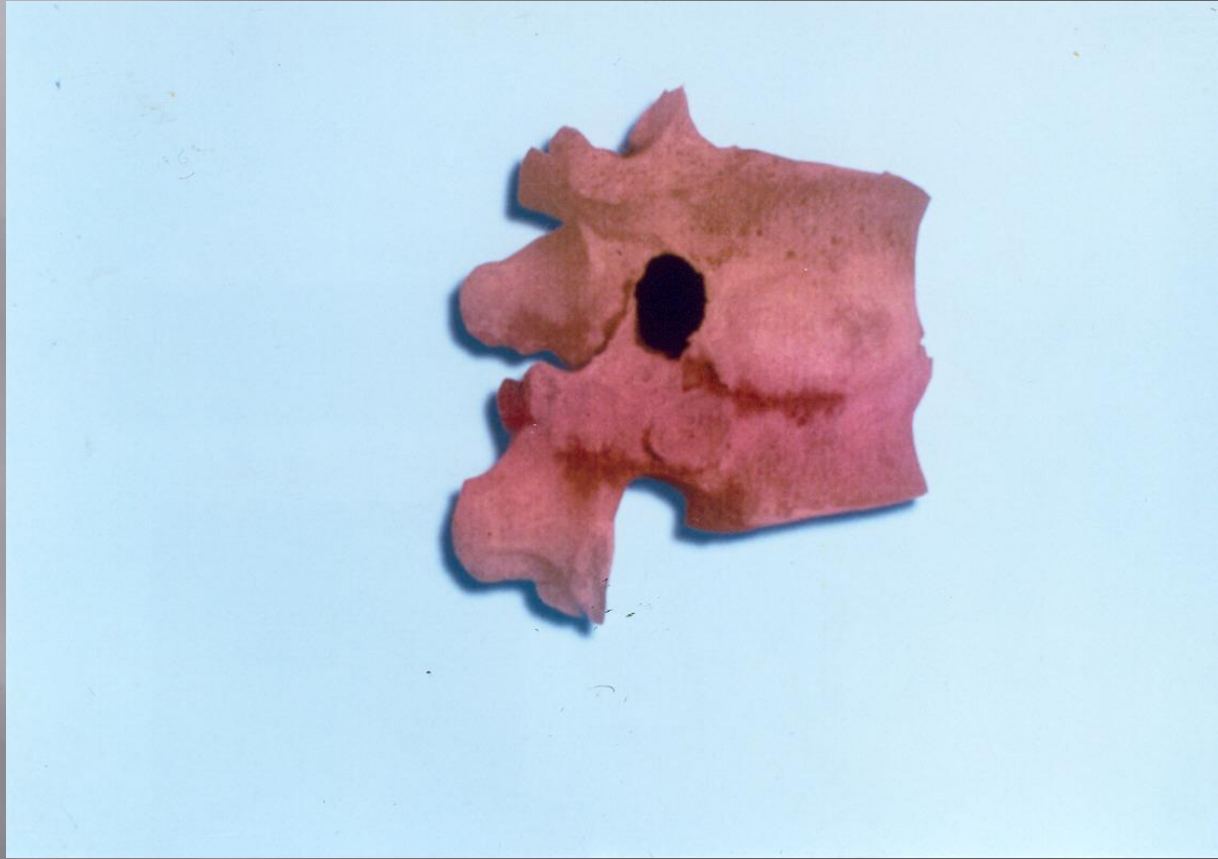




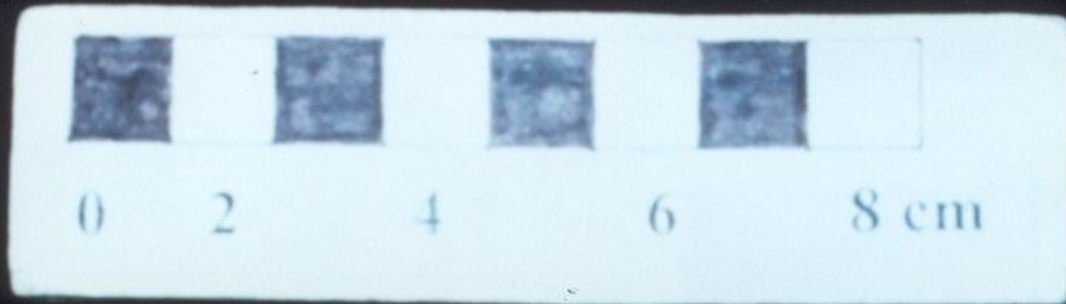






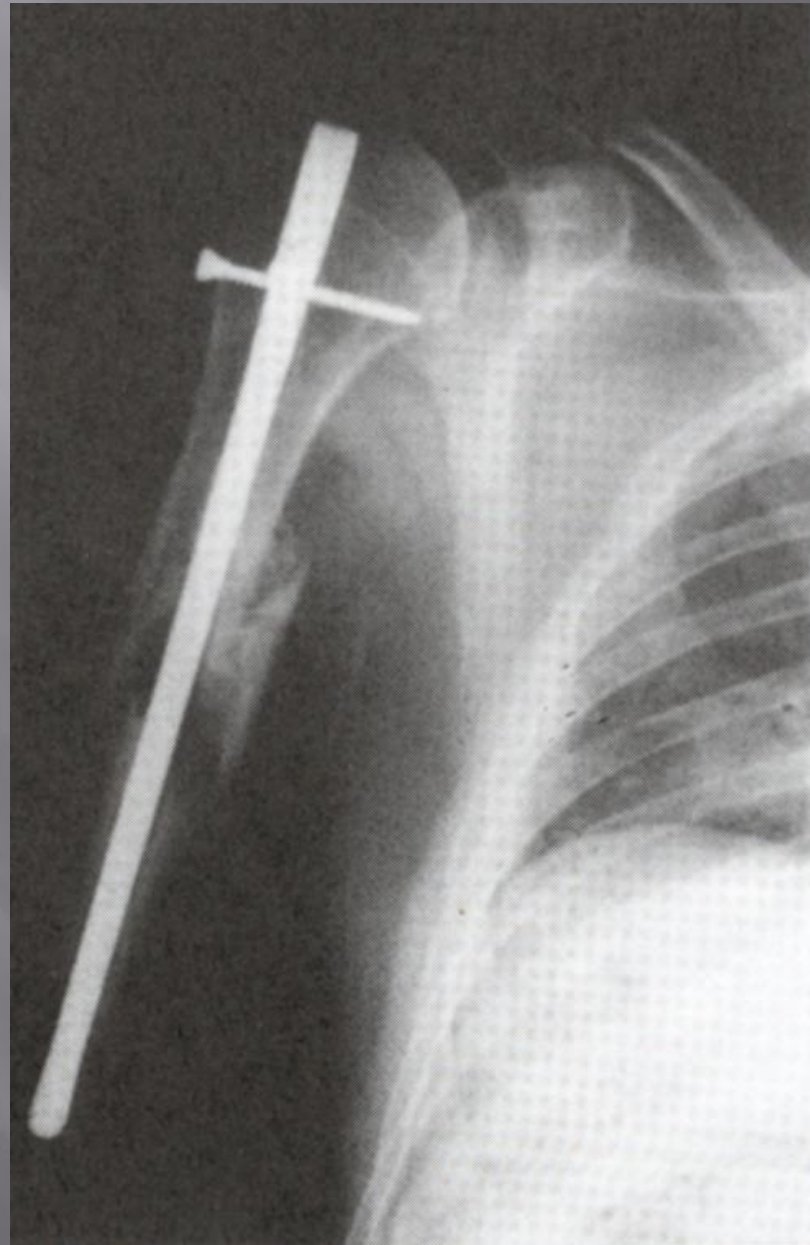




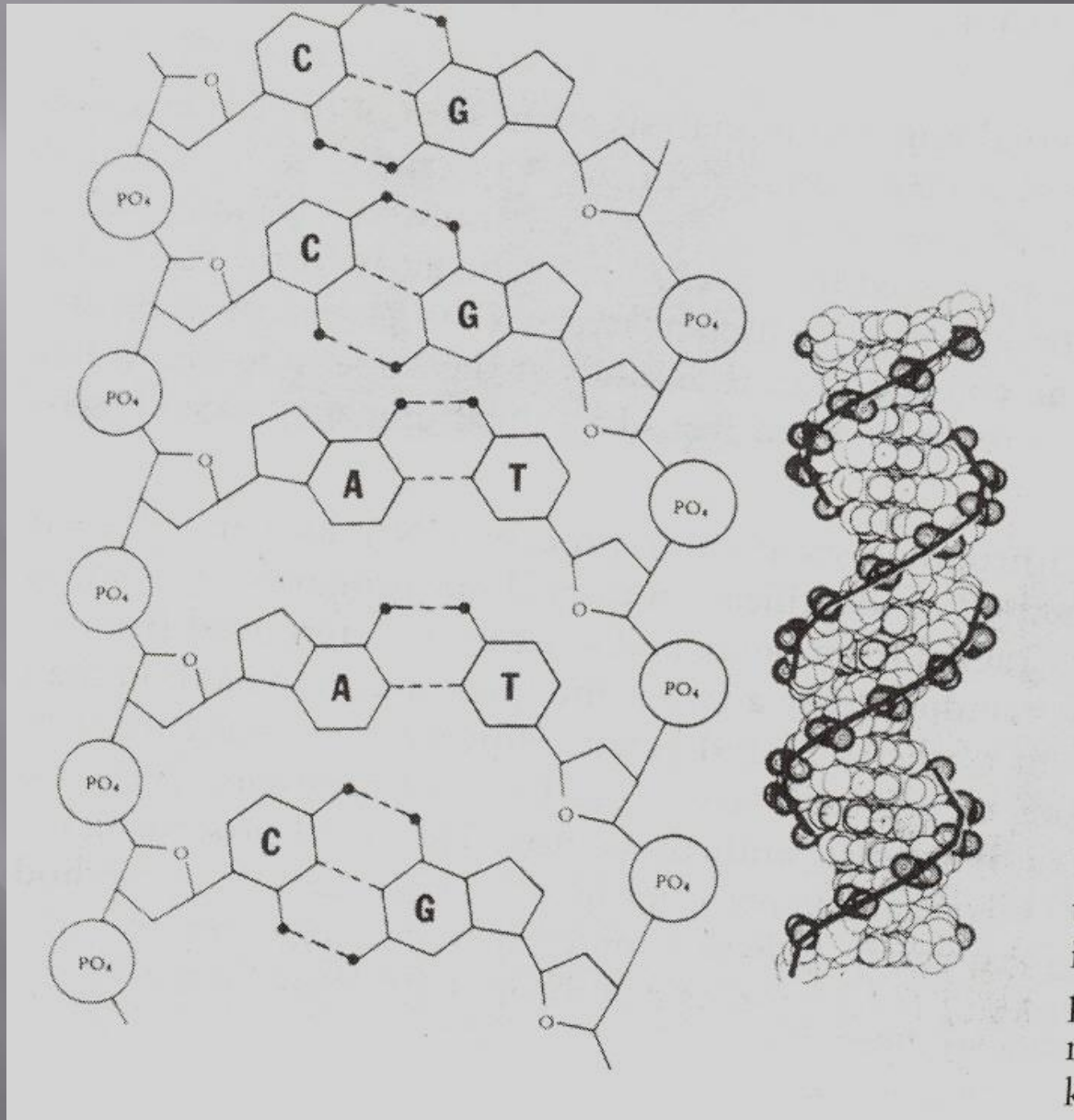








# ▣ DNA



i  
E  
r  
k



# CASE STUDIES





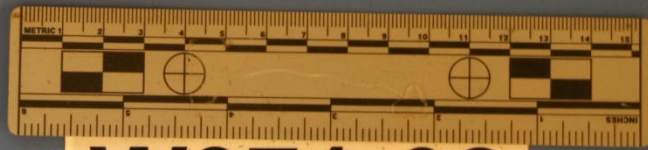




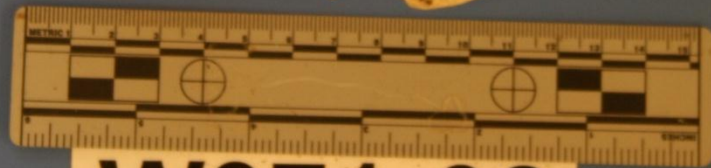


W371-08

Phalanx & Metatarsal



**W371-08**



**W371-08**

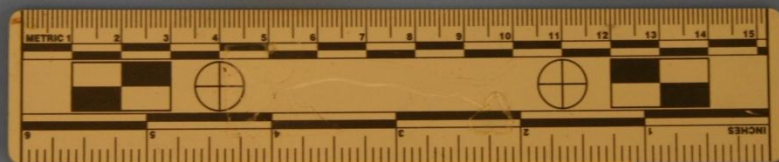




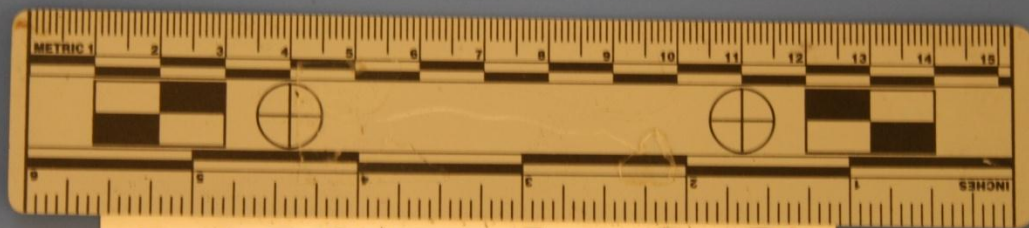
**W371-08**



**W371-08**



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