



**SOUTHWESTERN  
INSTITUTE OF FORENSIC SCIENCES  
AT DALLAS  
5230 Medical Center Drive  
Dallas, Texas 75235**

Case No. 3020-86-1414

Name: GRAF, Joby Allen

Age: 9

Race: White

Sex: Male

Date of Death: August 26, 1986  
Time of Death: Approx. 5:00 P.M.

Date of Examination: September 11, 1986  
Time of Examination: 1:20 P.M.

Pronounced at: 505 Angelfire (backyard)  
Hewitt, McLennan County, Texas

**AUTOPSY REPORT:**

**ORGAN WEIGHTS:**

**EXTERNAL EXAMINATION:**

Brain 680 g  
Heart 125 g  
R. Lung 270 g  
L. Lung 270 g  
Liver 860 g  
Spleen 30 g  
R. Kidney 15 g  
L. Kidney 20 g

Clothing on body: None.

Accompanying the body:

1. A request for examination and autopsy from G. Patrick Murphy and an order for exhumation and autopsy from John Cabaniss, Justice of the Peace, Precinct 1, Place 1, McLennan County, Texas; a photocopy of authorization for exhumation and autopsy from Clare Graf, mother of the deceased; a release directed to the Oakwood Cemetery for release of the the body of Joby Graf, signed by John Cabaniss, Justice of the Peace; and a request for inquest, signed by Joseph D. Porter, Arson Investigator of the State Fire Marshal's Office, Region 1, Austin, Texas, and also signed by John Cabaniss.
2. Individuals accompanying the body and present during the examination include Joseph Porter from the State Fire Marshal's Office; Frank Latham and Rick Colwell of the Hewitt Police Department; and Wes and Tim Dixon from the Connally-Compton Funeral Home.
3. A white high pile, clothing covered casket containing a stuffed toy bear; a dried rose; a white blanket; a pillow; Free-safe granules, and a black disaster pouch containing the body.
4. Dallas County Medical Examiner case #3019-86 in a similar casket.
5. Autopsy specimens from Dr. Northcutt consisting of a plastic container marked "autopsy specimen OP86-29 Dr. Northcutt 8/27/86 Joby Graf," a slide tray containing six glass microscopic slides marked "OP86-29 one through six," and a copy of an autopsy report labeled "OP86-29 Joby Graf" signed by Allen D. Northcutt, M.D.
6. There is no jewelry.

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The body is that of a normally developed, normally nourished white male child which appears to be consistent with the recorded age of 9 years. The body is 57 inches (144.8 cm) long, approximately 97th percentile for age. The body weighs 68 pounds (30.8 kg), which is approximately the 58th percentile for age. Rigor mortis is replaced by a partially pugilistic pose. Livor mortis is not identified. The body is room temperature in the absence of refrigeration and the preservation is fair in the presence of embalming granules. Scalp hair and facial hair are absent. The eyes are absent. The facial features are distorted. The ears, nose and mouth are unremarkable. The jaws contain natural teeth in good repair. The neck, trunk and extremities have no distinguishing features. The genitalia are male. No scars are identified.

**EVIDENCE OF INJURY:**

1. Smoke inhalation. The body is covered by soot. Soot is noted in the nares and mouth. Internal examination reveals soot in the distal airways as well the larynx and trachea, preserved in the autopsy specimen container marked "OP86-29" for Joby Graf. Black to brown foreign material resembling soot is identified in the microscopic slide with this case number.
2. Thermal burns. Thermal burns involve approximately 90% of the total body surface area with extensive charring of the skin of the trunk, back, face, neck and extremities. There is a slight preservation of the skin on the right upper back, presacral area and there is some mummified skin on the feet. There are heat fractures of the skull with brain material flowing freely from the head. Heat fractures are also present on the left forearm and right hand. The bones of the right elbow, left knee and right ankle are exposed. The most extensive charring and exposure of the underlying tissue occurs on the head, lower arms, hands and the legs from just above the knees to the ankles. The skin on the back and over the buttocks is charred but better preserved. The internal organs show heat damage. The posterior portions of the pleural cavities are reddish-pink. The deep muscles of the leg are also reddish-pink.
3. No other injuries are identified.

**EVIDENCE OF MEDICAL ATTENTION:**

1. No evidence of resuscitation is identified.
2. A previous autopsy has been performed, including the chest and abdomen. The sections are reviewed and contain no abnormalities other than the above noted injuries. The granular preservation material is present and pungent to irritating. It has partially preserved most of the organs replaced in the cavities.

**INTERNAL EXAMINATION:**

**HEAD:** Other than the previously described injuries, the skull and head are unremarkable. The brain is softened but otherwise unremarkable.

**NECK:** Described under Injuries.

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SEROUS CAVITIES: Other than the previously described findings, the cavities have been opened during the previously autopsy and the organs were replaced.

CARDIOVASCULAR SYSTEM: The heart is fixed in a collapsed state. It is tan-brown and otherwise unremarkable. The distal aorta contains no fatty streaks and is unremarkable.

RESPIRATORY SYSTEM: Part of the lung tissue is partially fixed and retains a dark red congested blood, as well as focal areas of soot in the distal airways. The lungs are otherwise unremarkable.

GASTROINTESTINALS: No stomach or pancreas are identified. The remainder of the gastrointestinal tract is collapsed and unremarkable. The appendix is not identified at the time of this autopsy; however, sections of the appendix are included in the set of autopsy slides accompanying the body.

HEPATOBIILIARY SYSTEM: The liver is brown and otherwise unremarkable. The gallbladder is empty.

LYMPHORETICULAR: An autolyzed spleen is present.

URINARY: Two autolyzed kidneys are located within the body cavity. No gross abnormalities are identified.

ENDOCRINE: A brown thyroid gland is present and unremarkable.

MUSCULOSKELETAL SYSTEM: Other than the injuries described, no pre-existing disease or injuries are identified.

#### MICROSCOPIC:

Examination of the six slides labeled "0P86-29" shows:

Brain (Cerebral Cortex): Unremarkable.

Heart: Unremarkable.

Trachea: Brown/black material in the lumen near the mucosa.

Lungs (4): Brown/black material in the bronchioles. Congestion. Edema.

Liver: Unremarkable.

Spleen: Slightly congested.

Thymus: Unremarkable.

Kidneys (2): Slightly congested.

Esophagus: Unremarkable.

Appendix: Unremarkable.

Pancreas (2): Autolysis.

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Examination of three glass microscopic slides from material submitted at the time of this autopsy showed:

Heart: Slight autolysis, otherwise unremarkable.

Lungs (3): Marked autolysis with heavy deposits of dark brown foreign material.

Liver: Slight autolysis, otherwise unremarkable.

COPY

**TOXICOLOGY:**

Spleen: An Screen - negative.  
Alkaline Screen - negative.  
Volatiles - negative.

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FINDINGS:

1. Smoke inhalation with:
  - a. Soot on surface of body, nose and mouth.
  - b. Soot in larynx, trachea and distal airways.
2. Thermal burns involving head, trunk and extremities with:
  - a. Modified pugilistic pose and more extensive burns on the front of the body and extremities with preservation on the back and the buttocks.
3. Previous autopsy.
4. Mild to moderate postmortem decomposition with partial preservation by granular embalming material.

CONCLUSION:

It is our opinion that Joby Allen Graf, a 9-year-old white male child, died as a result of smoke inhalation and thermal burns. He was positively identified by comparison of postmortem x-rays and premortem dental x-rays obtained from Steven Cutbirth, D.D.S., 1613 Lake Success, Waco, Texas. By history the fire in which he died was of incendiary origin. Postmortem toxicology on the spleen was negative for drugs and alcohol.

MANNER OF DEATH: Homicide.

COPY

*Edward M. Kilbane*  
Edward M. Kilbane, M.D.  
Associate Pathologist

*James Weiner*  
James Weiner, M.D.  
Medical Examiner

*M.G.F. Gilliland*  
M.G.F. Gilliland, M.D.  
Medical Examiner

*P.E. Besant-Matthews*  
P.E. Besant-Matthews, M.D.  
Deputy Chief Medical Examiner

*Charles S. Petty*  
Charles S. Petty, M.D.  
Chief Medical Examiner

TOXICOLOGY: See page 4.

Protocol typed by: Shirley Evans.

SCARIFIED SKIN  
MUSCLE AND BONE EVIDENCE

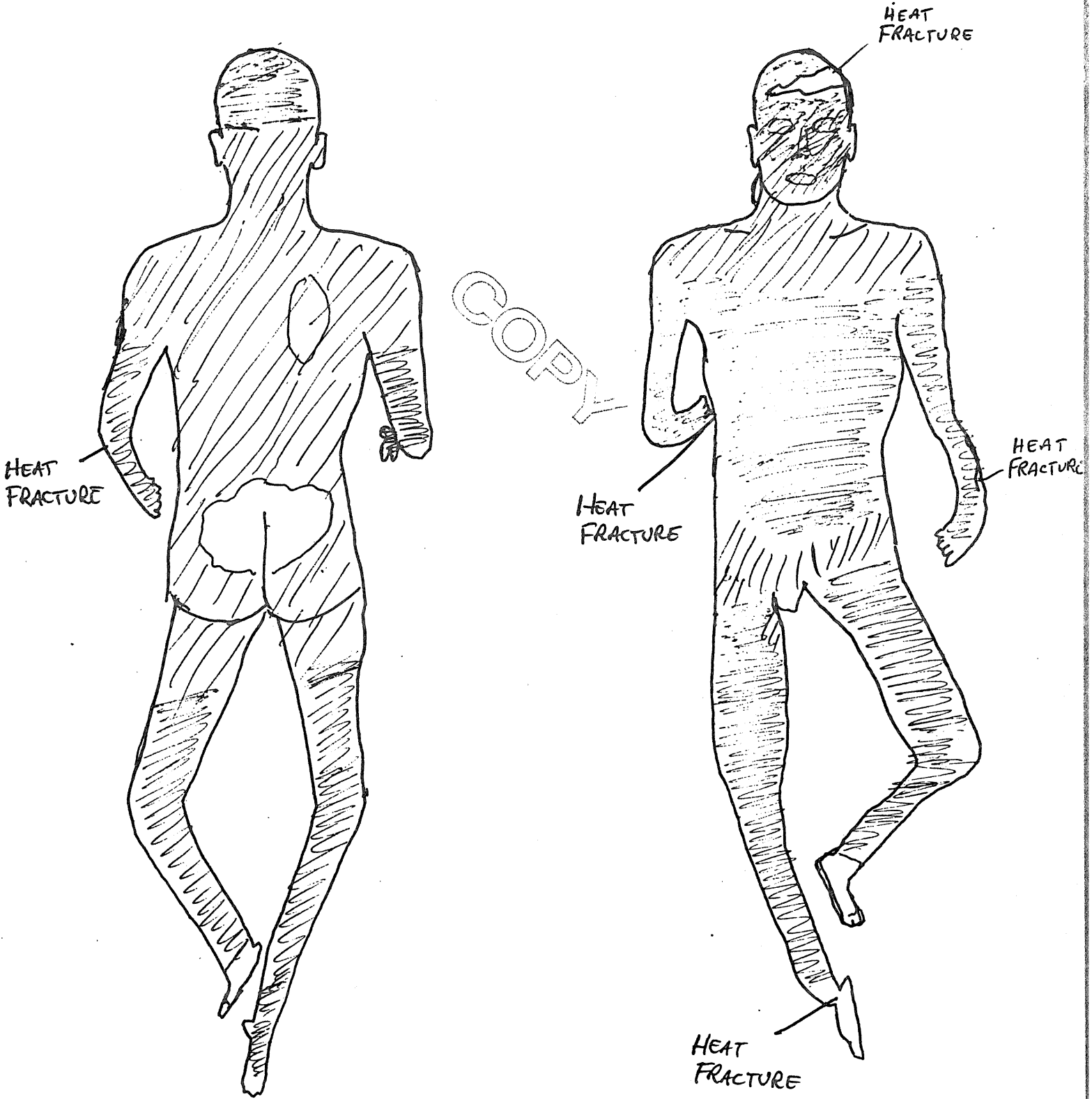
*OK*

GRAF, JOBY

# 3020-86

9/11/86

AGE: 9



- UNINVOLVED SKIN
- SOOT AND BLACKENED SKIN
- MUSCLE AND BONE EXPOSED

*JK*