



D28 Forensic Art: Another Piece of the Identification Puzzle — A Case of Homicide in Mammoth Lakes, California

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After attending this presentation, attendees will understand two different aspects of forensic art, the forensic composite and three dimensional skull reconstruction as well as their role in the identification process of an actual criminal investigation. The presentation will show how forensic art, along with mDNA and isotope analysis, was used to gain information about the victim.

This presentation will impact the forensic science community by raising awareness about forensic art and the role it plays in the identification process.

Popular culture often refers to composite drawings as images of criminals, which is another aspect of forensic art; however, this aspect of forensic art delivers the image of the victim. This presentation includes a timeline for this case and shows the detective's integration of other forensic science disciplines in order to get this victim identified – the first step to solving this crime. By reaching out and tapping into all of these forensic resources, the detective's due diligence paid off.

Composite sketches are done when a forensic artist sits with a witness to the event and creates a drawing of the witness' memory. In this case, the witnesses were employees at the Mammoth Lakes Visitor's Center and had contact with the victim before her death, the previous autumn. Once discovery of the skeleton was made, in the early spring and the case distributed to the local media, these witnesses came forward with the incident they remembered. The Los Angeles County Sheriff's Department forensic artist was contacted to do the composite drawing. She drove up to Mammoth Lakes from Southern California. These witnesses met with her and described the woman they recalled. While each witness met separately with the artist through the process, one final drawing of the victim was completed.

Betty Pat Gatliff, of the Skullpture Lab, was contacted and asked to do the three-dimensional skull reconstruction for this case. The victim's skull was sent to her office in Norman, Oklahoma.

The practice of restoring facial features from a human skull was first used over a hundred years ago. At that time, its purpose was to identify remains of famous historical figures. Betty Pat Gatliff, a medical illustrator, developed forensic facial reconstruction in the United States of America in the 1960s.

Three dimensional reconstruction is done by marking tissue depths, according to a tissue thickness measurement chart, onto a skull or a cast of the skull and then fleshing the face out with clay. There are also formulas for the size and shape of the lips and length of the nose. The European method of facial reconstruction is by creating the musculature of the face before fleshing it out, while still matching to tissue depth markers.

This case example shows the consistency of the image of the unidentified woman from the two forensic art techniques. These techniques, created by the two different artists at two different times, in different parts of the country, demonstrate the strength of forensic art as a discipline. Through the forensic composite, the witnesses speak and give their description. With the three dimensional skull reconstruction, the skull speaks and corroborates that description.

Forensic art, isotope analysis, and mDNA made it possible to get this victim's physical features, country and town of origin, and finally a name, Barbara. While this case is still an open investigation, the detective, through forensic science, developed more information about his victim than other traditional and earlier methods of investigation could have given him.

Forensic Art, Skull Reconstruction, Criminal Investigation