## Boulder Jane Doe

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On April 8th, 1954, two college students hiking near Boulder, Colorado, discovered the nude body of a young woman along the edge of Boulder Creek, and notified the Boulder County Sheriff's Office. A pathologist later concluded that the victim had been alive when thrown down an almost 30 foot embankment into the canyon. She suffered a skull fracture and numerous broken bones, and when found, had been ravaged by animals. Due to exposure and animal action, no

identifying features except for

an appendectomy scar were discovered and she had no fillings in her teeth that might offer assistance for dental records at the time. No clothing, murder weapon, or other evidence was ever found.

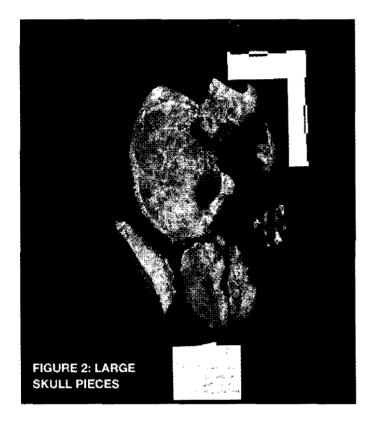
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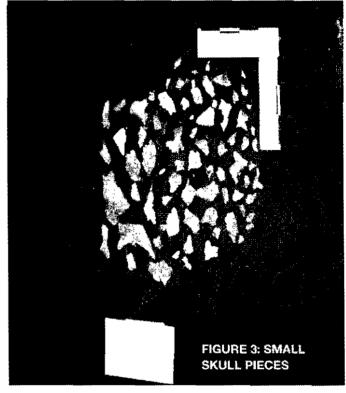
FIGURE 1

A coroner's inquest ultimately concluded the victim died "...from shock caused by severe beating by person or persons unknown, with felonious intent." When it was announced that "someone's daughter" would be buried in a pauper's grave, local townspeople, took up a collection to buy her a plot in Boulder's Columbia Cemetery. A monument company created a headstone to mark her final resting place while the casket was donated by a local mortuary (Figure 1). A Catholic Priest donated his time for the funeral service. For half a century, the murder victim was one of an unknown number of "John" and "Jane" Does whose cases have long gone unsolved.

In September 2003, Boulder area historian and concerned citizen Silvia Pettem approached the Boulder County Sheriff's Office with a question: Could modern technology be utilized to identify this long unknown victim and possibly a suspect? Pettern had spent a few years researching the case of the unknown crime victim, and brought with her what officials would later term "the lion's share of the initial documentation" that would ultimately provide law enforcement a firm basis for reopening the case. With a historian's perspective and knowledge of resources, Pettent's efforts essentially reconstructed the case for modern investigators since no original department records remained from this era. Such circumstances are not unusual in older unsolved homicides.

Pettem's "case file" illustrated the significant role that private citizens may play in re-visiting these cold cases, as she had gathered newspaper reports and other material addressing the initial finding of the body and subsequent investigation. Her efforts saved investigators hundreds of hours of work. In the course of her research, Pettem utilized original newspaper reports describing the 1954





location, and she subsequently re-located the original crime scene. The area was essentially unchanged since those events and offered modern investigators a first-hand look at the scene of the crime and terrain half a century before. This would come to play an important role as events unfolded later in the investigation.

original, non-forensically trained, pathologist was still alive and had retained a copy of his report. This was a beginning.

In many instances, law enforcement's initial response might be to decline further investigation due to a variety of factors. These might include: 1) the supposition that no records remain; 2) the assumption that the case is too

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News of the discovery and the lack of the victim's identity became a major story for regional media and the case received extensive coverage. In-depth reporting detailed the circumstances of the discovery and subsequent investigation by law enforcement. As cold case investigators often discover, the information revealed by news reports in decades past is frequently more detailed and revealing of day to day police investigative activities than today's coverage. This treatment is often invaluable to cold case investigations as it preserves the only written record.

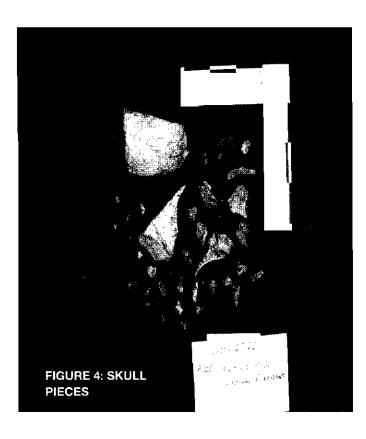
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old to offer a potential for resolution; or 3) that while tragic, the optimal utilization of department resources suggests that further investigation be declined. This decision faced Boulder County Sheriff Joe Pelle. In the spirit of creative leadership, Sheriff Pelle agreed to reopen the investigation and to provide investigative resources and expertise if Pettern could raise funds to cover anticipated technical expenses such as exhumation, DNA analysis, and potential facial re-construction. She agreed to do so, and began a Jane Doe fund through the Boulder Historical Society.

During this quest, she contacted the U.S. Department of Justice to inquire if they could

help fund the investigation. This agency has recognized the Vidocq Society as a cold case resource and Pettern was referred to this organization. On February 4, 2004, the sheriff announced that his office was reopening the case. On this same day, Pettern launched a World Wide Web site to further gather support and information and provide investigative assistance.

The Vidocq Society's offer of pro bono assistance was accepted by the local law enforcement agency. Technical assistance in the fields of forensic anthropology and pathology was provided by Vidocq Society members, including Dr. Richard Froede. Based upon Petrem's research, Boulder County sheriff's detective Steve Ainsworth was quickly able to conduct further investigation. Ultimately, he obtained a search warrant to exhume the remains and four months later, heginning on June 8, 2004, the remains of Boulder June Doc were exhumed for forensic analysis. The coffin had collapsed, however, a condition not infrequently encountered during cold case exhumations. Over a two day period, forensic anthropologists meticulously uncovered the remains as the event was filmed by a camera crew from "America's Most Wanted" (Figures 2-4).



The victim's skull was fragmented due to the collapse of the coffin, and was reassembled by another society member while Dr. Froede conducted a secondary autopsy. In the meantime, Sheriff's Lieutenant Phil West and Detective Steve Ainsworth, assisted by Pettem and a team of historical researchers, sorted through all the information they could find on missing young women from the early 1950's.

The reconstructed skull and a leg bone were sent to Dr. Todd Fenton at the Anthropology Laboratory at Michigan State University. This laboratory specializes in identification of human remains and possesses extensive forensic imaging capability. Using photo superimposition techniques, two women missing during the approximate time period were ultimately excluded from further consideration. A portion of the remains was also forwarded to Mitotyping Technologies in State College, Pennsylvania, for a mitochondrial DNA profile. This private laboratory is used extensively by law enforcement nationwide. A full profile was obtained from a single tooth, and is available for eventual comparison to mitochondrial DNA from possible maternal relatives.

The reconstructed skull was subsequently

forwarded to forensic sculptor and cofounder of the Vidocq Society Frank Bender to flesh out the victim's facial features. Bender has been highly successful in reconstructing features of unidentified deceased persons or age enhancing fugitives for law enforcement agencies. His works have appeared on "America's Most Wanted" and on June 13th, 2005, the Boulder County Sheriff's Office and Frank Bender unveiled his reconstructed likeness of "Boulder Jane Doe" (Figure 5). Local and national news media gave the case widespread publicity. The case was subsequently broadcast on "America's Most Wanted" on July 8, 2006, generating new leads.

While continuing to search for the victim's identity, Pettem and the sheriff's officials investigated the possibility that then-Denver resident and future serial killer Harvey Glatman may have been Jane Doe's murderer. Crime scene photographs mysteriously surfaced at the newspaper office where Pettem worked, and ligature marks on the victim's wrist were similar to those on Glatman's later victims.

Pettein's research team narrowed a list of

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FIGURE 5: BUST OF "BOULDER JANE DOE"

missing women that had been compiled from various sources in the time period prior to the finding of Jane Doe's body. Included among these was a Denver area elevator operator recently separated from her husband. Her paper trail had gone cold thirteen days before Jane Doe's body was found. In 2007, sheriff's officials sent her only known photograph to Dr. Fenton. The victim's facial reconstruction was so close that Dr. Fenton could not exclude this missing person as being Jane Doe. In September, 2008, the victim's carefully labeled remains were reburied in her former plot in Columbia Cemetery. A grave once again marked by the small headstone that still identifies her as "Jane Doe."★