



Physical Anthropology Section – 2010

H27 Mama Mia! Murder and Disposal of a Corpse in a Pizza Oven

William C. Rodriguez III, PhD, Armed Forces Medical Examiner's Office, 1413 Research Boulevard, Building 102, Rockville, MD 20850*

The goal of this presentation is to provide the attendee with a case example involving the dismemberment and burning of the remains of an adult male in a commercial pizza oven. As a result of the remains being burnt to a near carbonized state, determination of personal identification and cause of death were found to be somewhat problematic. As a result of the condition of the remains, forensic anthropologists were consulted so as to assist not only in the identification but to make determinations as to the temperatures required to render the remains in their burnt state. Forensic anthropological methodology, utilized in this case will be presented to the attendee to demonstrate its importance in the investigation of fire death and disposal of human remains by fire.

This presentation will impact the forensic science community by greatly assisting the attendee with forensic anthropological concepts and techniques which can be applied to a variety of cases involving the burning of human remains.

In cases involving homicide, the body of the victim is often burned as a means of hiding the crime and eradicating features of personal identification. Various methods of disposing of a corpse by burning have been reported, including burning of the deceased in a house, car, fireplace, or in a fire pit or fire barrel. The degree of body cremation is dependent on a number of factors ranging from the type of heat source, temperature, time, and position of the body within the heat source. This case involves a unique case of body cremation in which the deceased was cut up into several portions and placed on aluminum pizza trays in a 600 degree fahrenheit commercial pizza oven. In August of 1993 in the city of Surrey British Columbia, a fire was reported at the "pizza king" a local pizzeria. Local fire fighters responded to the scene and quickly extinguished the fire which was observed roaring from the large pizza oven in the back of the restaurant. Inspection of the oven to determine the cause of the fire, revealed the badly burnt skeletal remains of a human body. Police were summoned to the ghastly scene only to discover additional evidence of a brutal murder. A search at the rear of the restaurant led to the recovery of a large plastic trash bag containing clothing items of the deceased which were stained with blood. A total of four large pizza pans were recovered from the oven, each holding multiple burnt skeletal elements. Additional burnt human remains located on the floor of the oven were also recovered.

Examination of the remains at the coroner's facility revealed that the body had been cut into the following segments: head, arms plus upper thorax to the bottom of the rib cage, remaining thorax, spine and pelvic girdle, the left leg, and right leg. Anthropological analysis of the remains found them to represent that of a senior adult male. Identification of the deceased was later established via odontological comparisons as that of a recent immigrant from India. The antemortem height and weight of the deceased was reported to be approximately 65 inches and 130 pounds respectively. The temperature conditions in the pizza oven not only reduced the corpse to cremains, but were great enough to produce partial melting of the heavy aluminum pizza trays. One of the key questions concerning the investigation of the murder was the time and temperature required to reduce the human remains to their present burnt state. Data utilized to interpret the cremation of the remains included information on the construction and operation of the gas fueled oven, maximum obtainable temperature, and coloration and density changes observed in the cremains. The cremation findings will be presented along with other details regarding the murder investigation.

Cremains, Forensic Anthropology, Homicide