



### **G94 Telluric Movements of Death: The Cemetery of Gargano's Mafia Inside the Ravine of Zazzano (Foggia, Italy)**

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The goal of this presentation is to offer a multidisciplinary approach in forensic investigation that presents identification of victims as belonging to victims of local criminal organization. Skeletal remains of four different cadavers were recovered in a ravine, a surprising movie of this recovery completes the peculiarity of the case.

This presentation will impact the forensic science community by discussing how skeletal remains recovery requires a multidisciplinary approach in forensic activity, and identification of missing represents the principal aim.

The Gargano, also known as Spur of Italy is a subregion of Italy which coincides with the headland stretching in the North of Puglia and corresponds to the East of the Province of Foggia. It is entirely surrounded by the Adriatic Sea except in the West, bordering the Tavoliere. The frequent and constant carsic erosions in this area produced cavities that, in time, due to telluric movements created grottoes, dolins, and ravines hundreds meters underground. A ravine is a small valley—almost like a canyon but narrower—which is often the product of stream cutting erosion. Ravines are typically classified as larger in scale than gullies, although smaller than valleys. A ravine is generally a slope landform of relatively steep (cross-sectional) sides, on the order of twenty to seventy percent in gradient. Ravines may or may not have active streams flowing along the down slope channel which originally formed them; moreover, often they are characterized by intermittent streams, since their geographic scale may not be sufficiently large to support a perennial watercourse. The ravine of Zazzano is located on the Gargano area. The ravine is a 30 meter large ravine, 107 meters deep underground which was used in the past as abusive rubbish dump. Old and wrecked cars were also put down the ravines, stacking on each other in column. During a cleaning operation, local authorities, a team of speleologists found human skeletal remains and activities were interrupted. A prosecutor was immediately alerted and forensic pathologists were called for scene investigation, skeletal remains recovery, and identification. In a wrecked car, one completely skeletonized cadaver was found with its clothes; a reddish rope still tied to the arms bones and the head found inside a plastic bag. A second completely skeletonized cadaver was found later in another wrecked car some meters down the previous one. Bones of a third cadaver were recovered on the ground of the ravine, partially covered by mud. The cadaver lying in a prone position; head, thorax, and upper arms were found inside a jute bag, a reddish rope still tied lower arms. A fourth cadaver, completely buried under the mud was found, lying in supine position; the head was found inside a plastic bag. Recovery activities were completed in three days. A video recording of recovery was performed and is presented. Local authorities identified the owners of recovered wrecked cars. Forensic activities involved radiological investigation by means of standard approach and total body multislice TC scan contributing in determining causes of death: suffocation, gunshot wounds and efforts of mutilation, variously combined. Anthropological investigation determined sex and race of skeletons; dental records and dental casts were performed by forensic odontologists. DNA profile has been developed for identification. At the end of forensic examination all the fourth cadavers were identified as

belonging to men suddenly missed in the nineties, suspected as victims of the local criminal organization. The gravine is now famous with the name of cemetery of the Gargano's mafia.

**Skeletal Remains, Ravine, Homicide**