

CDMG HELPS FIND KIDNAPPER

The California Division of Mines and Geology provided significant geologic information to the Federal Bureau of Investigation that eventually played a part in the conviction of a kidnapper. This summary of the kidnapping case is based on information developed by the California Division of Mines and Geology and information given to the Division by the FBI at the time of the investigation. Other details of the case can be found in: Blank, Joseph P., 1971, "The Almost-Perfect Kidnapping": *Readers Digest*, vol. 98, no. 6, pp. 140-144.

THE CRIME

Kenneth J. Young, the son of the president of a Los Angeles savings and loan association, was kidnapped from his home in Beverly Hills, California, and held for \$250,000 ransom. The boy was 10 years old at the time of his abduction in 1967. The ransom was paid by the boy's father and the kidnapper escaped, even though a well-planned trap had been set to apprehend him by law enforcement officers. As later events revealed, the kidnapper possessed knowledge of police practices which assisted him in evading his would-be captors. However, the boy's father was able to note the license number of the kidnapper's car. The boy was released unharmed in nearby Santa Monica (figure 1).

THE EVIDENCE

The automobile used to pick-up the ransom was later found abandoned in the San Fernando Valley section of

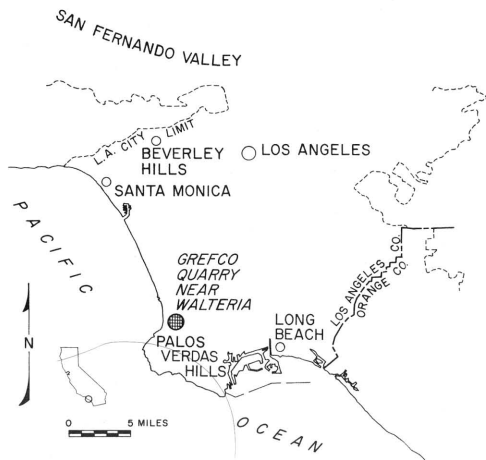


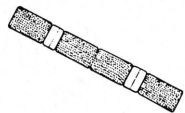
FIG. 1 LOCATION OF GREFCO QUARRY, SOUTHWESTERN LOS ANGELES COUNTY, CALIFORNIA

Los Angeles. It had been stolen just prior to the crime and significantly just after it had been through a commercial car wash where it was thoroughly cleaned inside and out. A routine examination of the vehicle by the FBI revealed a white footprint on the carpet in the back seat. The white powder forming the print was vacuumed up and sent to the FBI laboratory in Washington where it was identified as mainly diatomaceous earth or diatomite.

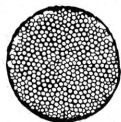
Diatomaceous earth consists almost wholly of minute particles of an inert form of silica. The particles are loosely packed, yielding a highly porous and permeable material which makes it an efficient medium for the rapid filtration of industrial solutions. Many hundreds of thousands of tons of marine diatomaceous earth, used in filters, is mined annually in California. Freshwater diatomaceous earth, which is used for other purposes, comes mainly from Nevada.

Diatomaceous earth is an accumulation of fossils. The fossils are mainly of diatoms, a class of plants that live in water; unlike most terrestrial plants, they are simple, one-celled forms of largely floating (plankton) organisms. Diatoms range in size from a few to a few hundred microns. The shape and ornamentation of the diatom shell, which is the most diverse imaginable, is the main basis for separating the many thousands of species known. Being aquatic, diatoms occur in waters throughout the world and have been found in the geologic record as far back as the Cretaceous Period. The chemical composition and temperature of natural water will commonly govern the distribution of the various diatom species. This provides the principal basis for dividing the diatoms into two main groups—marine diatoms, those that live in brackish and seawater, and freshwater diatoms, those that live in lakes and streams. It is because of the occurrence of certain diatoms, in either the marine or freshwater environment, that the white footprint became an important part of the evidence in the kidnapping case.

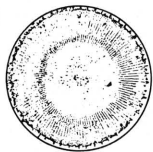
The California Division of Mines and Geology determined that the sample was comprised mainly of marine diatoms, but also contained a few freshwater diatoms as well—an occurrence not known in nature and, therefore, an artificial mixture. The freshwater diatoms were comprised of fossil species and a few questionable modern species. Because there are thousands of species of diatoms known, the random mixing of several different marine and freshwater forms represented by the white footprint, was almost as unique as a fingerprint would be in connecting a suspect with a crime. The marine diatoms, which were represented in the sample mainly by the genus *Coscinodiscus* (see figure 2), were believed to have come from the Monterey Formation of Miocene age, a sequence of rocks that are widely distributed in south and central coastal California. The freshwater species in the sample were of the genera *Melosira*, *Stephanodiscus*, and *Cocconeis*, (figure 2) which are common to numerous inland deposits in California, Oregon, Nevada and elsewhere.



MELOSIRA SP. (F)



COSCINODISCUS SP. (M)



STEPHANODISCUS SP. (F)



COCONEIS SP. (F)

(TAKEN FROM VARIOUS STANDARD REFS.)

FIG. 2 TYPICAL MARINE (M) AND FRESHWATER (F) DIATOMS OF THE GENERA FOUND IN THE YOUNG CASE.

The wide geographical separation of marine deposits from freshwater deposits, makes it unlikely that anyone could readily pick-up material on his shoes from one type deposit and then many miles away contaminate it by walking through the other type of deposit.

The evidence suggested numerous other possibilities of which the following appeared to be most probable: 1) Water for domestic use is commonly filtered by diatomaceous earth. Generally the filter is made of diatomaceous earth of the fossil marine type. The most common type of filter system widely accessible to the public is that used to filter swimming pools. Modern diatoms growing in swimming pool water, along with other impurities, would eventually be collected by the filter and thus an unnatural mixture of freshwater and marine diatoms would occur. A swimming pool maintenance man or a homeowner, at the time when he was changing the filter, could accidentally have stepped into the mixture and then into the automobile. This explanation did not readily account for the presence of the fossil freshwater diatoms, although it did not preclude contamination from a nearby source. 2) Freshwater and marine diatomaceous earth from separate damaged containers could have been accidentally mixed on the floor of a warehouse where both types were stored. A workman in the warehouse could then have carried the mixture out on his shoes and to the car.

As it turned out, the second interpretation was the more nearly correct one, but it was not without some incredible variations.

For several months the FBI continued its investigation which included checking on persons known to work or deal in diatomaceous earth products. Little progress was made until Ronald Lee Miller, a former Internal Revenue Service intelligence agent was linked to an armed robbery. His accomplice, Eugene Patterson, who was apprehended in the robbery, revealed that Miller planned that and other robberies, and later Patterson implicated him in the kidnapping. Patterson told of how they drove in a government car to a quarry a few days prior to the kidnapping where the victim was to be held. During the kidnapping Patterson acted as a lookout, but was otherwise not involved.

During the early part of the investigation, samples from the white footprint were sent to the late G Dallas Hanna, paleontologist and leading authority on diatoms at the California Academy of Sciences, and to Mrs. Dallas Sidlow, diatomist and specialist in the commercial properties of diatomaceous earth at the Grefco Corporation, a commercial producer of diatomaceous earth in California. These specialists contributed significant information to the case.

Mrs. Sidlow explained that the Grefco Company quarried diatomaceous earth from a deposit at Walteria, in the Palos Verdes hills section of southwestern Los Angeles County prior to moving its operations elsewhere. For a considerable time after mining was suspended, but not at the time of the kidnapping, the company maintained a testing laboratory adjacent to the open pit which had been developed in the marine diatomaceous earth of the Monterey Formation. From time to time, freshwater diatomaceous earth was shipped from Grefco's Oregon and Nevada deposits to Walteria for testing. The freshwater material was stored in piles on the floor of the old quarry bringing both freshwater and marine diatomaceous earth closely together. One year, during a rainstorm, the freshwater material was intimately mixed with that of the marine material when a pond formed on the quarry floor. Subsequently, a thin layer of unique white diatomaceous mud was deposited. The modern freshwater diatoms noted in the sample given to the Division probably grew in the short lived pond waters along with a suspension of their fossil counterparts.

Dr. Hanna established that the diatomaceous earth found on the government car used by Miller for the earlier inspection trip of the quarry matched that on the quarry floor and that of the footprint. With this evidence the FBI was able to show that Miller had been at the quarry just prior to the kidnapping—the place where the boy was held.

THE TRIAL

The case against Miller was based on several kinds of evidence. The white footprint, however, was one important source of evidence for which Miller had no defense. He was sentenced to life in prison. The ransom was never recovered. . . .George B. Cleveland ☞