

WITNESS AFTER DEATH

By DON STEWART



On June 25, 1876, Gen. George Armstrong Custer led 210 troopers of the 7th Cavalry on their last charge at the Battle of the Little Bighorn.

In 1984, Clyde Snow examined one soldier's skeleton and found he had been wounded in the shoulder by an arrow and stabbed in the chest before his skull was crushed by a club.

On February 7, 1979, a lonely 68-year-old widower, supposedly Swiss, drowned while on a beach outing near Sao Paulo, Brazil.

In June, Clyde Snow examined the man's skeleton and said the chances were 99 percent that the remains were those of Nazi war criminal Josef Mengele.

A doctor of anthropology, connoisseur of art and literature, friend to snakes and spiders and one of the premier forensic scientists in the world, Snow immersed himself in the Custer battle and the Mengele controversy with characteristic élan.

"I call my work 'osteobiography,'" said the slightly ruffled scientist. "There's a brief but very useful and informative biography of an individual contained within the skeleton if you know how to read it."

Whether probing a skeleton, relaxing with his small zoo of pets or conversing with fishermen, congressmen, soldiers or rural sheriffs, the University of Oklahoma adjunct professor of anthropology is a man possessed by curiosity. Friends say he is an absent-minded professor, a man so cerebral that he often is cheerfully unaware of his surroundings.

"To really know Clyde Snow," said State Medical Examiner Fred Jordan, who has joined Snow for several Caribbean fishing trips, "you have to see him traveling. He looks like he came out of a whirlwind. His glasses are down on the end of his nose; his coat is unbuttoned; his cigarette is hanging out of his mouth with a three-inch ash; and his shirt could be on fire, and he wouldn't know it."

There are other sides to 57-year-old Clyde Snow. He is a devoted reader of William Faulkner and John Donne, an art enthusiast and Gilbert and Sullivan aficionado.

His inquiring mind has taken him from a career as a physical anthropologist to a researcher for the Federal

Aviation Administration and the only full-time forensic anthropology consultant in the country. Along the way, he has supplied answers to some of the most famous murder cases, disasters and historic riddles of the past 100 or so years.

Snow did not set out to acquire such a reputation.

He was born in 1928 in Ralls, Texas, 28 flat and dusty miles east of Lubbock. After graduating from New Mexico Military Institute in Roswell, he became interested in the natural sciences and graduated with a bachelor of arts degree in biology from Eastern New Mexico University in Portales. He then got his master's degree in zoology from Texas Tech. In 1959, he joined the FAA's Civil Aeromedical Institute, the research center in Oklahoma City charged with investigating commercial airline crashes.

Snow had been in Oklahoma a month when he was introduced to forensic anthropology, the courtroom application of his science. "Some sheriff came in from Dustin, Oklahoma, with a skull," he recalled. "Then another agency brought in a skeleton. I had never done much work like that before, and I was really interested. The FAA figured it was a community service and gave me time to investigate. I started getting cases from out of state."

By the time he retired from the FAA in 1979, Snow had become an expert witness and consultant to a number of jurisdictions outside Oklahoma. His work with the FAA in Chicago impressed local officials, and he was retained as a consultant by Cook County.

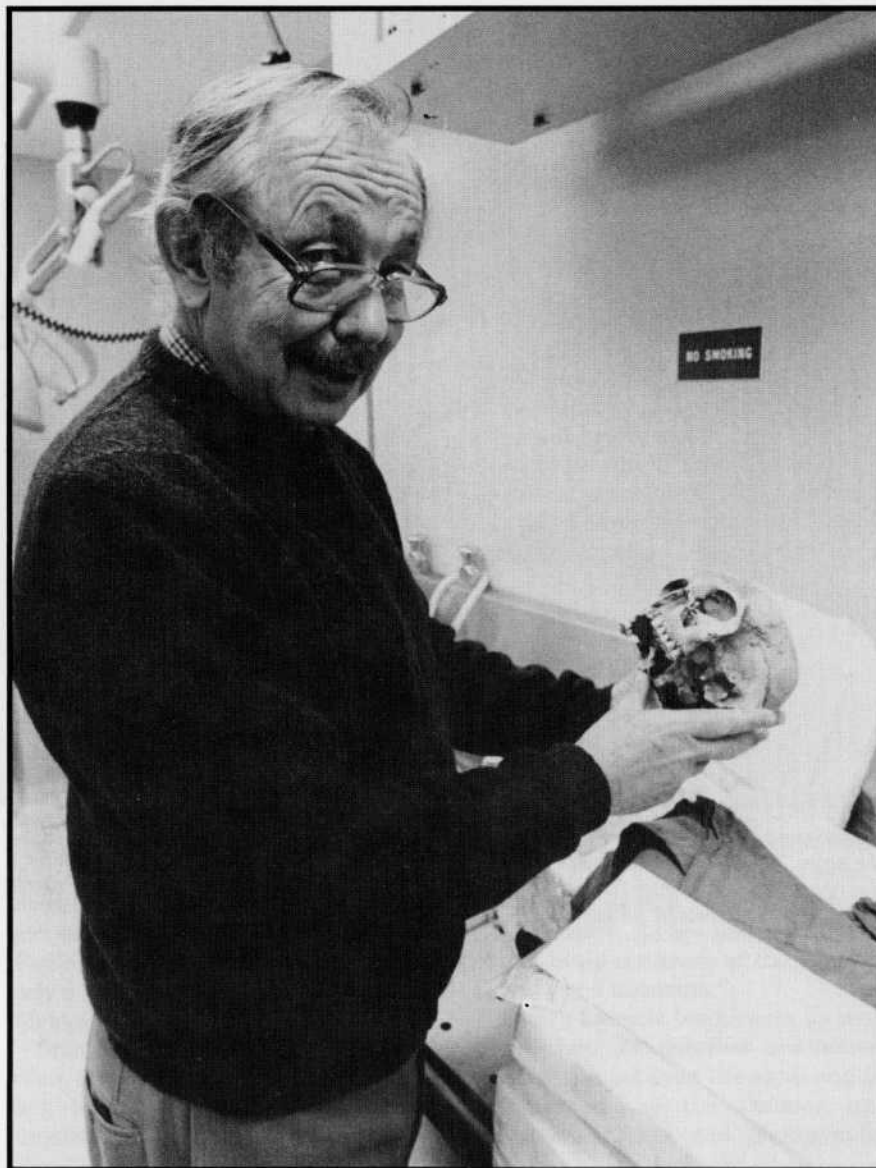
Snow said in addition to the Cook County cases, he decided he could handle those in Oklahoma that were referred to the Oklahoma state medical examiner.

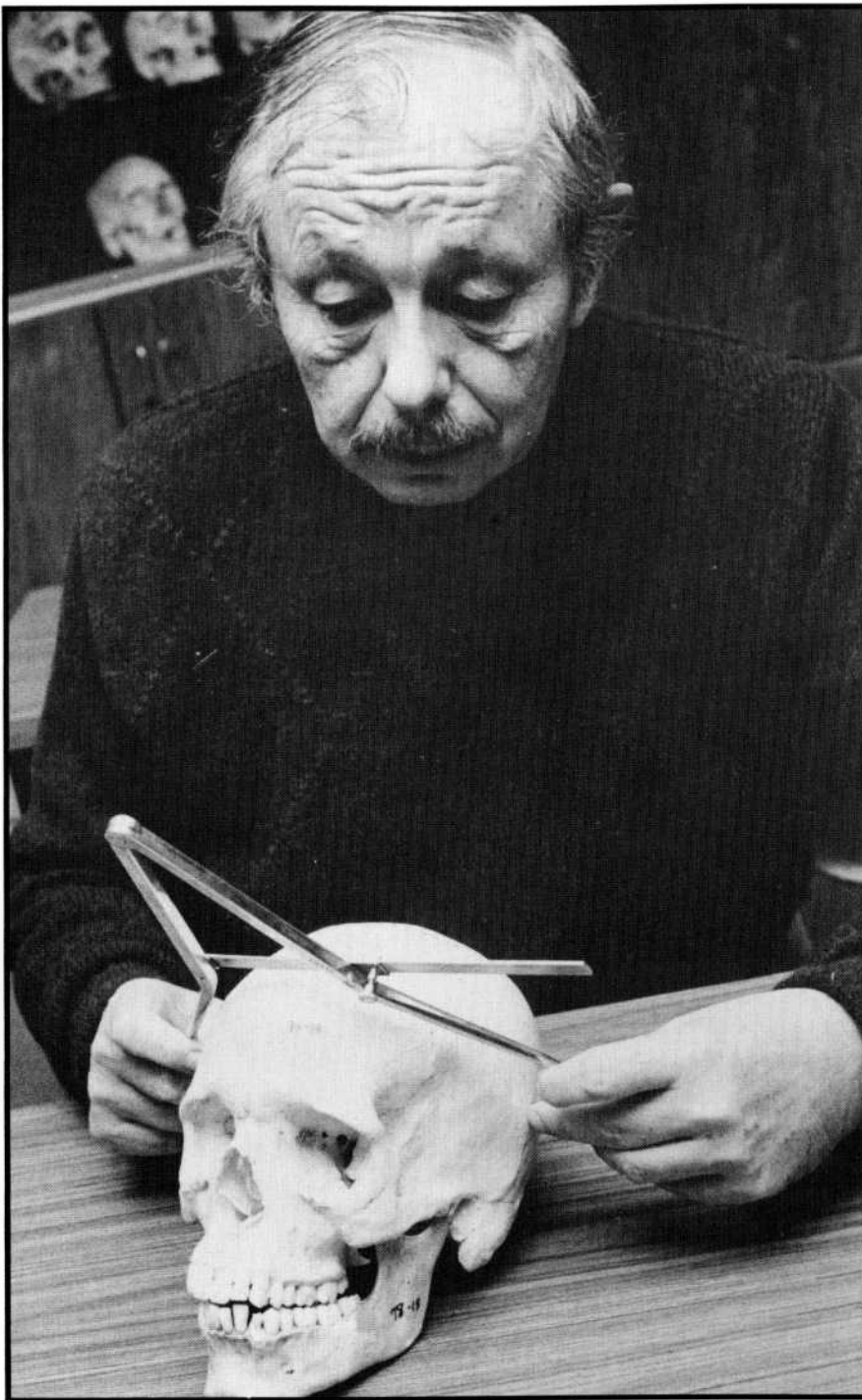
"Beyond that I take cases from wherever they come," he said.

His first major case as a consultant was identifying 273 people who died in the 1979 Chicago crash of an American Airlines DC-10. It took Snow and his colleagues four weeks to assemble 10,000 to 12,000 body parts and identify the victims. In 1980, Snow was called back to Chicago to assist the Cook County medical examiner in the identification of 29 bodies Chicago

Forensic anthropologist Clyde Snow has found that the most reliable testimony in cases of violent death comes from the victims themselves.

The skull yields many answers to questions of identity and causes of death, whether in highly publicized cases such as Joseph Mengele (on opposite page) or in the quiet of the state medical examiner's laboratory in Oklahoma (below).





Snow pays special attention to the skull and pelvis. "The skull is especially helpful," he says, "because the teeth are there. Also, throughout life, the skull is target for a lot of trauma. You may find evidence of old skull fractures, and the cause of death very often is directed at the skull."

police found buried under the house of convicted multiple murderer John Wayne Gacy.

Last year, Snow assisted in perhaps his toughest homicide investigation. Joyce Klindt, the wife of a prominent Iowa chiropractor, disappeared on a stormy winter night in 1983. Klindt was seen boating on the Mississippi River during the storm. Mrs. Klindt's body never was found. Several days after she disappeared, however, police recovered a woman's pelvis and part of a thigh bone from the icy river.

A call went out to Oklahoma City.

"The pelvis was clearly that of a female, and the muscle attachments were well-developed, as though she had been doing a lot of sit-up exercises," Snow said. "As it turned out, Joyce Klindt was concerned about her weight and had been enrolled in a local gym or spa for about a year."

Snow found the pelvis was from a woman of comparable height, weight and age as Mrs. Klindt. Tissue samples were analyzed by a Dallas lab, and the blood type was found to be consistent with other members of Mrs. Klindt's family.

An Iowa jury convicted Klindt of first-degree murder.

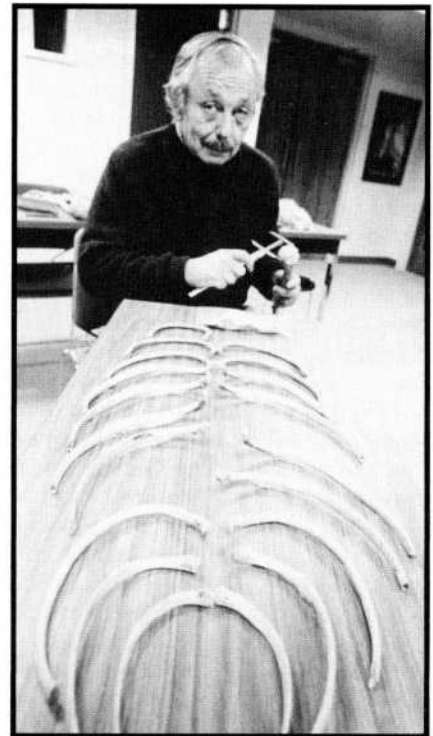
The case is a benchmark in forensic science but routine stuff for Snow, said medical examiner Jordan. "He's so methodical. Everything he can prove, he does six or seven ways. When he's involved in a problem, time is meaningless. He has incredible powers of concentration. He's just off in his own world."

Snow's world, said his wife, Jerry, is not the neat, ordered existence normally attributed to scientists.

"He's interested in everything; he loves art and literature; he's a birdwatcher; he's really keen on history; he's a dog lover and is very interested in snakes," she said. "I look on him as a Renaissance man."

Testifying to the man's diverse interests, the couple's Norman household harbors three dogs (including "The Moose," a 100-pound Weimaraner who shares their bedroom), snakes and a tarantula. Mrs. Snow said the menagerie may be expanded any time a neighbor finds an interesting animal.

"I've learned that snakes are not terrible creatures," she said, "but my



An Egyptologist commissioned Snow and colleagues Joe Young and Betty Gatliff to recreate a scientifically accurate bust of King Tutankhamen by working from X-rays of the mummy to obtain sufficient measurements to reconstruct the skull.

After removal of the soft tissues to make precise measurements, Snow systematically inspects the skeleton.

mother frequently asks what's here before she will visit."

"The thing about Clyde," Jordan said, "is that he fits into any environment. I've seen him lost in conversation with fishermen and soldiers and the provosts of universities. He's equally at home on the plains of west Texas or testifying before Congress; he's exactly the same guy, no different whatsoever."

Snow's affable nature often prevents him from saying no to people who ask for his help, Mrs. Snow said.

One such case was a request by the National Park Service. The agency last year approved the first archaeological excavation of the Custer battlefield in southeastern Montana. The dig turned up a partial skeleton and scattered uniform buttons, bullets, shell casings and bones. Park Service officials asked Snow to look over the artifacts and skeleton to see if they could provide any information about the battle.

Examining the partial skeleton and its position among the bullets and arrowheads, Snow said it was evident the battle was brief and furious. Deep cut marks on the breast and shoulder bones and a fragmented skull told

Snow that the trooper had been winged by an arrow in the left shoulder and hacked by a knife in his chest before his skull was bashed in.

"I went up there for a few days in May to look at the battlefield site," he said, thoughtfully smoking one of his ever-present Camels. "Recently, they found a more complete skeleton, which I haven't had a chance to examine."

The Mengele case took Snow to South America. For nearly 40 years,

old former Nazi doctor. The team found the bones of the right arm were 3 to 4 millimeters longer than those of the left arm. That and beveling of the joint on the right side indicated the man was right-handed, as was Mengele, Snow said.

Dental records from 1938 matched those of the skull. The German Army records also established that Mengele had a diastema, a gap between his two upper front teeth.

Could the Mengele death have been a hoax? Could he have found an exact double? Snow went beyond any reasonable scientific doubt. "Mengele would have spent the rest of his life looking for someone that close."

Nazi hunters searched for Mengele, the green-eyed doctor known at the Auschwitz concentration camp as "the Angel of Death." When a skeleton was exhumed from a cemetery south of Sao Paulo June 6, Brazilian authorities asked Snow to help verify it as Mengele's.

Snow and the American forensic team found the skeleton was male and had height and age characteristics consistent with those of the 68-year-

"We found only three natural teeth, and of those, all three had been filled," Snow said. "A diastema occurs in only about five percent of the population . . . We took X-rays and found from the internal structure of the jaw that there was a diastema."

Snow's forensic team came up with more than 24 detailed anatomical similarities between the skull and facial features of the skeleton and Mengele's X-rays and photographs.

A VICTIM'S STORY

The clincher was finding a healed fracture on the skeleton's right hip. Records indicated Mengele broke his right hip in a motorcycle accident in 1943.

"You reach a point where you can say you are beyond a reasonable scientific doubt," Snow said, addressing the theory that Mengele planted the body as a diversion. "When you talk in terms of a hoax, you operate out of a hypothesis that Mengele found a double.

"The first thing he would have had to do was find somebody in the same age range, who spoke German, who was close to him in stature, who had a diastema, whose dental X-rays resembled his own, who was right-handed, whose skull exactly matched his face and who had broken his right hip. Mengele would have spent the rest of his life looking for somebody that close."

With all skeletons, Snow said he follows the same routine. "If there are any soft tissues, you have to examine the skin very thoroughly to see if there are tatoos, scars or marks that might indicate the cause of death."

Soaking the bones in a hydrogen peroxide solution removes soft tissues from the bones, he said, so precise measurements can be made. The chemical also deodorizes the bones if the body is badly decomposed. He then systematically inspects the entire skeleton, paying special attention to the skull and pelvis.

"The skull is helpful because the teeth are there," he said. "Also, throughout life, the skull is target for a lot of trauma. You may find evidence of old skull fractures, and the cause of death very often is directed at the skull."

By examining the pelvis, Snow is able to tell sex, age, and, if female, whether the woman has had children.

"It's all there in the bones," he said.

Ever the perfectionist and professional at work, Snow often may seem preoccupied at home, his wife said. "This is a man who stands in the middle of the room, and asks where his socks are when they've been in the same drawer for 10 years."

This is also a man who can examine the bones of Custer's men and determine how they were wounded and killed in a battle 109 years ago.



**They said she died
in an armed encounter.
Oklahoma's Clyde Snow
knew better.**

In April, Dr. Clyde C. Snow stood in a darkened courtroom in Buenos Aires to give expert testimony before Argentina's Supreme Military Tribunal. The room was packed with a rapt audience of lawyers, military officers, journalists and spectators. On trial were the former commanders of the Argentine Army, Air Force and Navy who had ruled the country from 1976 to 1983. They were accused of ordering the deaths of more than 10,000 Argentiniens.

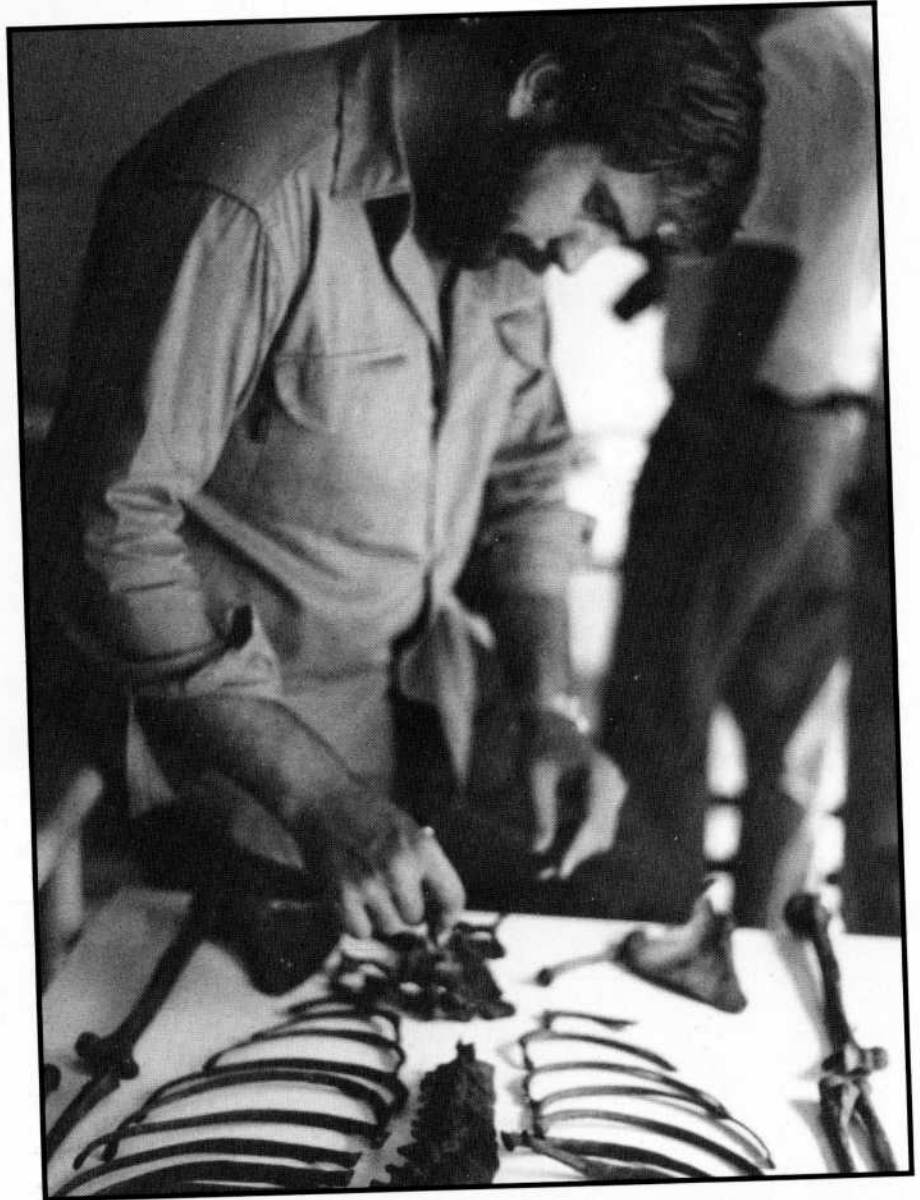
A small minority of the victims had been left-wing terrorists responsible for a number of bombings, kidnappings and political assassinations before the military junta had taken power. Most, however, were ordinary citizens who, for one reason or another, were accused of harboring ideas on running the country which differed from those of the generals. They included journalists, lawyers, trade unionists, university professors and, especially, students.

Snow's testimony, complete with slides of bones and skeletons, would be different from the lectures the University of Oklahoma adjunct professor of anthropology usually delivers. He remembers his presentation to the court as if it were yesterday.

"Liliana del Carmen Pereyra," he announced. A picture of a shattered skull with a gaping hole in the right temple flashed upon the screen.

Liliana del Carmen Pereyra was one of Argentina's "desaparecidos" — one of those who simply disappeared while in military or police custody. A 21-year-old bank clerk, Liliana was about five months pregnant when she vanished from the city of Mar de Plata, approximately 150 miles from Buenos Aires. She was last seen walking home from work on October 6, 1976, when a military "death squad" snatched her off the street. Nearly a year later, her family was notified that she had been killed in an "armed encounter" with the military. According to the authorities, she met her death as part of a heavily-armed gang of subversives who were wiped out in an attack on an Argentine Air Force installation.

Snow knew differently. During the blistering months (in Argentina) of February and March, he and a volun-



One of the Argentine archaeology students Snow trained to work on the case of the desaparecidos carefully arranges the remains of Liliana Pereyra.

ter team of archaeology students had unearthed Liliana's skeleton, along with those of many other desaparecidos.

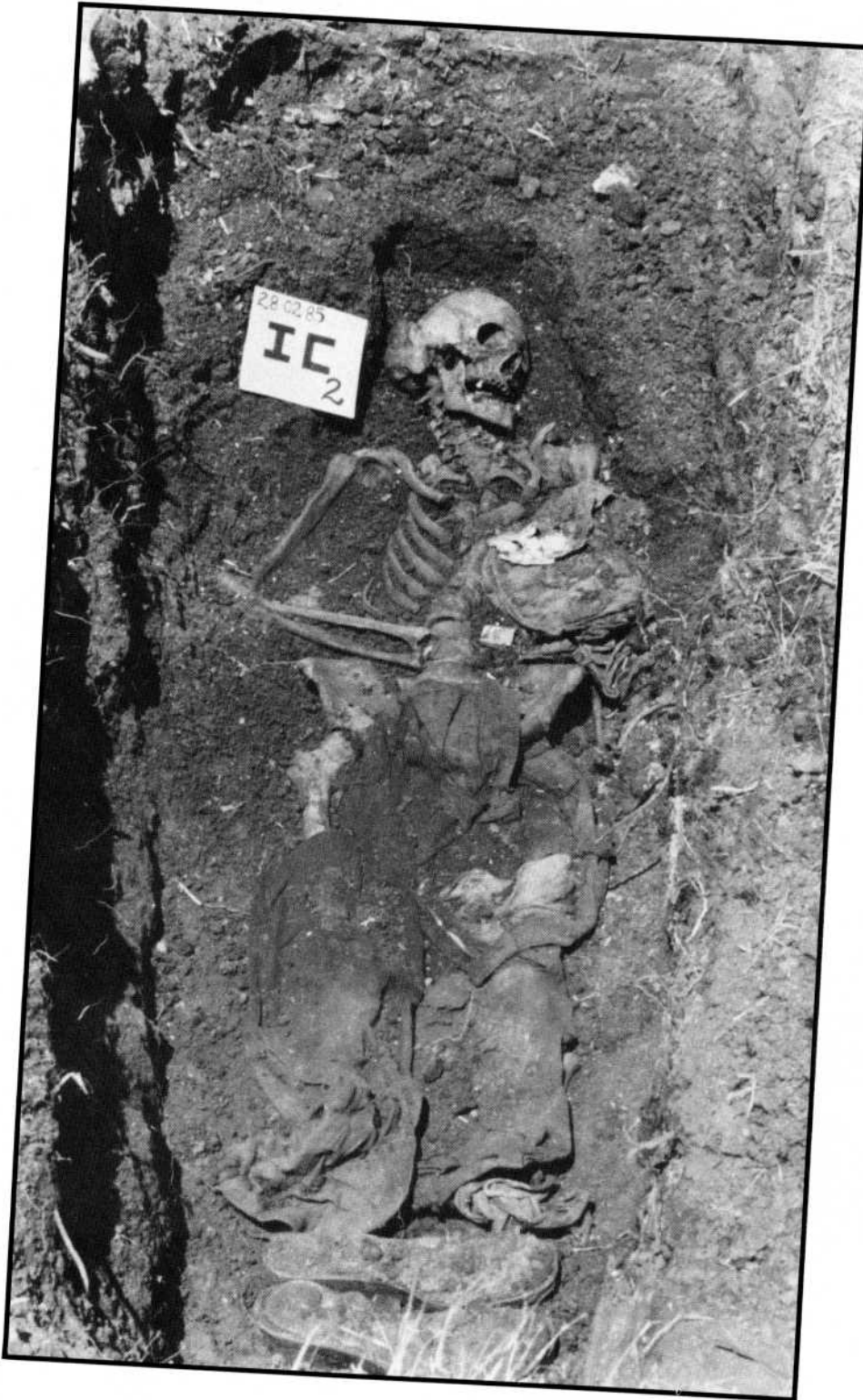
Using techniques he honed over 30 years as an anthropologist, Snow was about to challenge the military's story. In his soft Texas drawl, Snow explained that Liliana Pereyra's skeleton had been exhumed from one of hundreds of paupers' graves into which the Argentine military dumped its victims.

The grave had been unmarked,

Snow said, the woman identified on the death certificate as "NN" (no name). Snow told the court that her remains had been identified through dental records supplied by relatives.

On the death certificate, which was signed by an Argentine doctor, Liliana Pereyra's death was listed as caused by gunshot wounds received in "an armed encounter." Snow held up a skull. Above the right ear was a three-inch diameter hole.

"Victims are the best witnesses to homicides," he said. "We removed



The remains of Liliana Pereyra are shown as they were uncovered by Snow's team of student volunteers in one of the hundreds of paupers' graves where victims of the Argentine dictatorship were dumped by their military executioners.

seven buckshot pellets from this skull. They were fired from a shotgun at a range of about one meter."

He paused and looked over his black rimmed glasses at the distinguished gathering. "That's tough to do in an armed encounter, unless only one side is armed."

The Argentine National Commission on Disappeared Persons was getting a look at one victim of what Snow terms a "mini-Holocaust." To date, Argentine authorities and human rights groups have documented more than 9,000 cases of Argentines who disappeared while in police or military custody. Estimates of the total number of desaparecidos ("the disappeared") run as high as 30,000.

"They were mostly males," Snow said. "Usually, they were picked up at home. Sometimes they took the person; sometimes they took whole families, blindfolded, and put them in the trunk of a car and took them to one of 361 secret detention centers which were used during this period.

"There, at provincial police stations or military reservations, they were held, interrogated and tortured from several days to several months. The majority were eventually killed by the military intelligence units of all three services (Army, Navy and Air Force)."

Complicating the task of determining how many died were methods the Argentine Air Force and Navy used to dispose of bodies besides burial in provincial cemeteries or mass graves. According to the Argentine commission, the Air Force loaded prisoners in planes and dumped them in the ocean. The Navy disposed of corpses in a crematorium it operated in Buenos Aires.

After the killings stopped, government exhumations were crude. Bulldozers were used, destroying or losing bones, teeth and bullets. Snow and others called for a moratorium on the digging.

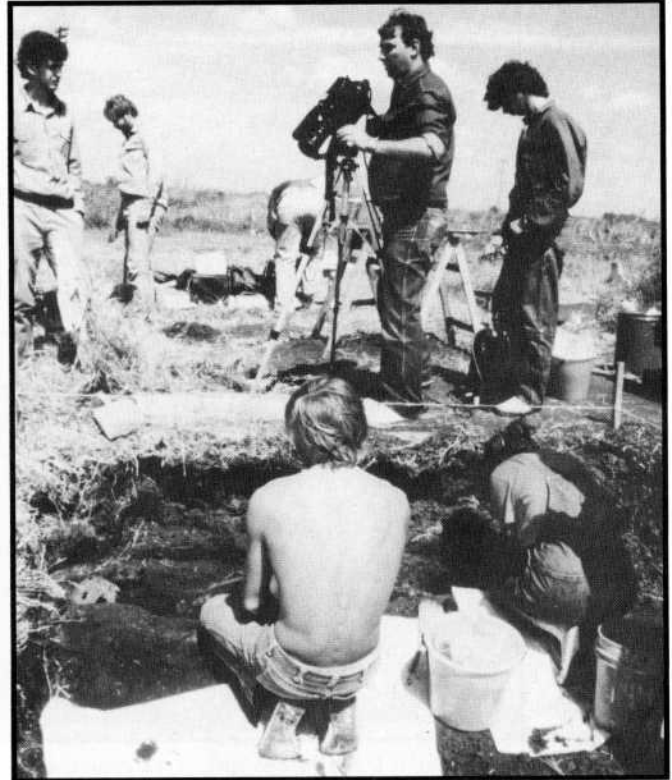
Snow formed a team of University of Buenos Aires archaeology students. They went back to the grave sites, using the same careful recovery techniques as archaeologists.

"It was a real high-tech operation. We had about \$25 in shovels, brushes and buckets."

Snow taught the team to start dig-



The gaping hole above the right ear of Liliana's skull was made by a shotgun blast at pointblank range, disproving the "armed encounter" explanation of her death.



Throughout the blistering Argentine summer, Snow taught his student crew to apply careful archaeological techniques to the exhumation of the *desaparecidos*' graves.

ging at the foot of graves. "The first three or four feet will not contain anything of value," he said, and can be stripped away rapidly once the foot bones are located.

Then Snow taught them to divide graves into zones or quadrants. As each shovelful of dirt was taken from a zone, it was screened and put into a color-coded bucket.

Once the skeleton was uncovered, each bone was tagged and carefully removed from the grave. Bullets, strands of hair and clothing, which could help identify the skeleton, were collected, and their position in the grave was noted. In the first 10 exhumations conducted by his team, Snow told the court, a total of 35 bullets, bullet fragments or shotgun pellets were recovered — nine in one skeleton.

"Typically, what we found was a single gunshot wound to the base of the skull," Snow said. "We saw it over and over and over again."

At the morgue, Snow showed the students how to reassemble the skeleton

and to place the bullets where they were found so the direction and distance of the fatal shots could be determined. By studying the beveling of the edges of the bullet holes, forensic scientists can learn where the bullets entered and exited the body, Snow said.

Then each detail of the skeleton was catalogued: estimated age, height, weight and sex of the deceased, whether they were right- or left-handed and evidence of any old injuries or diseases.

Liliana Pereyra was one of the female skeletons his team exhumed. From his examination of scarring along the sacroiliac and pubic bones, he found that some of the women gave birth before they died. Witnesses confirmed the women were held in military hospitals, sometimes chained and blindfolded during labor, after which mother and child were taken away by authorities.

Snow said he was not able to find any of the babies' skeletons. Argentine officials testified the military operated


a black market in which infants of *desaparecidos* were distributed among military families wanting children.

Snow advanced the next slide, and the picture of the young woman with dark eyes, shy smile and shoulder-length chestnut hair appeared again on the screen.

"Liliana Pereyra," Snow said. "She was a clerk in a bank. She might have been politically active or known somebody who was."

He turned off the slide projector. The lights came on. Judges and government officials stared at a blank screen. The courtroom was silent.

Liliana Pereyra no longer was a paper person. She was a pretty, dark-haired young Argentine girl who worked in a bank. Somebody had put a shotgun to her head and killed her.

Snow's job was over. It was up to somebody else to determine who had pulled the trigger. 

The preceding was adapted from articles written by Don Stewart for *The Tulsa Tribune*.