



Fred Wendorf

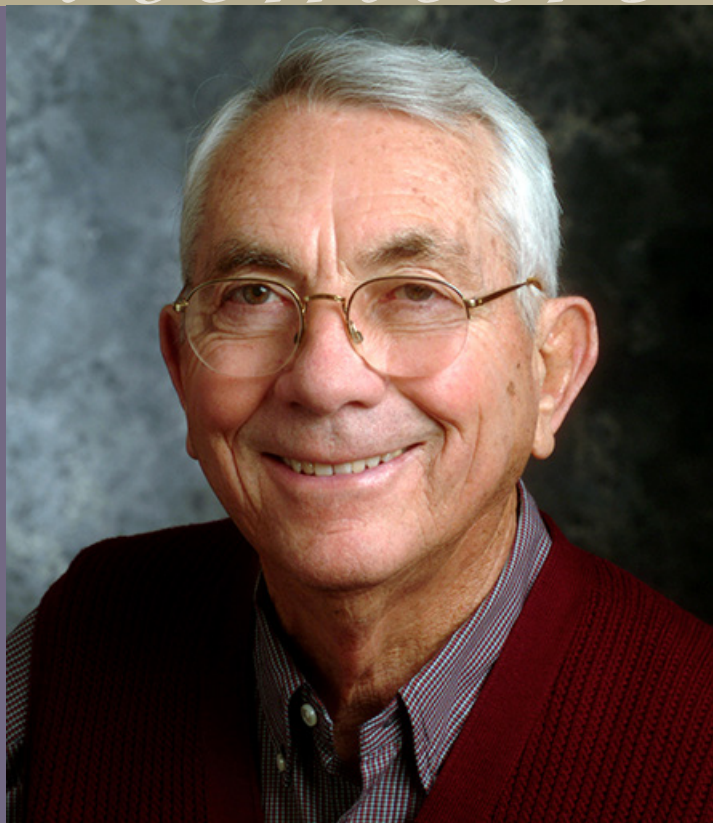
1924–2015

BIOGRAPHICAL

Memiors

*A Biographical Memoir by
Joyce Marcus
and Kent V. Flannery*

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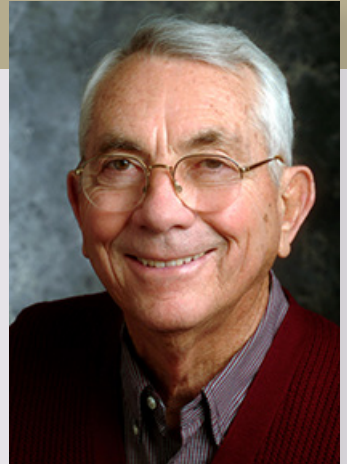
DENVER FRED WENDORF

July 31, 1924–July 15, 2015

Elected to the NAS, 1987

Denver Fred Wendorf was a modest and unassuming archaeologist who worked tirelessly to transform our knowledge of early humans, primarily in northeastern Africa. Few researchers in his field have had a chance to spend six decades excavating sites, and even fewer the self-discipline to publish virtually all their excavation results. Wendorf did both. Although the early part of his career focused on the American Southwest, his international acclaim came from the multidisciplinary excavations he conducted in Africa during more than 45 field seasons, the most enduring prehistoric expedition in the history of African archaeology.

Wendorf began his higher education in 1940 at the Texas Military College, transferring after two years to the University of Arizona. There, after a long interruption for combat service in World War II and recuperation from a severe war wound, he earned a B.A. in 1948. In 1953 he received a Ph.D. in anthropology from Harvard University while simultaneously undertaking the nation's first pipeline archaeological-salvage project. He then spent the next several years on various projects in the Southwest, before joining the faculty of Texas Tech University in 1956. In 1958 he returned to Santa Fe as associate director of the Museum of New Mexico. He was hired in 1964 to create an anthropology department at Southern Methodist University, where he remained for the rest of his career.



Photograph courtesy Southern Methodist University.

Fred Wendorf

By Joyce Marcus
and Kent V. Flannery

Denver Fred Wendorf, Jr.—Fred, to his many colleagues, students, and friends—was born on July 31, 1924, in Terrell, Texas, to Margaret Hall and Denver Fred Wendorf, Sr. His interest in archaeology began at the age of eight, when he found an arrowhead in a cotton field near his home. He soon learned that these fields were prime locales for collecting Native American artifacts, because they were plowed several times a year and after every rainfall more artifacts appeared on the surface. At age 12 Fred met an amateur archaeologist who advised him to plot all his arrowheads, scrapers, and other tools on a



Fred Wendorf, around 1944.

map. From that time onward Fred began numbering his sites, locating them on county soil maps, and placing his finds on site maps. He also began telling everyone that he was going to be an archaeologist.

Fred began his college education near home, at Texas Military College, whose tuition suited his modest means. After two years, his mother had saved enough money to send him to the University of Arizona. His education at Arizona was interrupted when he was ordered to report for active military duty in January 1943. After basic training he was selected to go to Infantry Officers' Candidate School. He was then sent to Camp Fannin near Tyler, Texas, to be an instructor. After a year of bayonet instruction, Fred applied to the Army Air Corps for flight training. He was sent to Sheppard Field near Wichita Falls, Texas, and then on to Fort Hays College in Kansas.

Fred's flight instruction, however, was halted when General H. A. Arnold sent a telegram to him (and 36,000 other former ground force soldiers) advising them that they were being sent back to the infantry. So many men had been killed and wounded at the Anzio and Monte Casino battles in Italy that ready replacements were in short supply. Although he wanted to be a pilot, Fred realized that he was needed as a foot soldier. In November 1944 he was commissioned a second lieutenant and assigned as a rifle platoon leader with the 86th Regiment of the 10th Mountain Division. On March 3, 1945, Fred was wounded while leading his platoon against the Nazis in the Apennine Mountains of northern Italy. His right arm was severely damaged and he was permanently out of the war, but he was determined, once his wounds were healed and he was back to civilian life, to overcome this limitation and become an archaeologist. He knew this would require toughness and hard work.

Fred was awarded the Purple Heart and Bronze Star and spent the next two years recovering in Army hospitals. One of the first things he did upon arriving at McClosky General Hospital in Temple, Texas, was to write a letter to House Speaker Sam Rayburn, who had once supported him as a candidate for West Point. Fred explained to Rayburn that he had been wounded and would not be able to pass the West Point physical. In response to Fred's letter, Rayburn told him to contact the Speaker if he needed anything. Fred wrote to say he wanted to study archaeology and asked Rayburn for some reading material from the Smithsonian. Fred thought he might receive three or four Smithsonian pamphlets, but a few weeks later a wooden crate arrived in his hospital room, overflowing with books on archaeology. These books were the beginning of Fred's professional library.



Fred Wendorf, 1944-1945, before leaving for Europe.

After Fred recovered sufficiently, he returned to the University of Arizona, where he finally earned his B.A. in anthropology in 1948. While at Arizona, Fred was able to participate in Emil Haury's 1947 Point of Pines field school on the San Carlos Apache Indian Reservation. Fred had actually been reluctant to sign up for the field school, saying, "I'm concerned that I won't be able to dig. How can I use a shovel and a big pick with one arm? I might just be in the way." Haury looked him in the eye for several seconds and said, "Why don't we find out? Go on and sign up for the field school, Fred. I expect you can do more than you think." Fred soon learned that despite his war injuries, he could dig with a pick and shovel.

Fred helped Haury excavate a 20-room pueblo and 12 semi-subterranean pit houses. He later said that the Point of Pines project gave him a chance to excavate whole rooms and to work alongside Haury and A. V. Kidder, two of the top American archaeologists of that era. By 1950 Fred's first book—*A Report on the Excavation of a Small Ruin near Point of Pines, East Central Arizona*—was published. In 1953 he went on to earn a Ph.D. in anthropology from Harvard University.



Fred Wendorf, early salvage archaeology, New Mexico, early 1950s.

In the early 1950s Fred directed the nation's first pipeline salvage project. It involved archaeological sites in the path of a natural gas pipeline that was scheduled to go from Farmington in northwest New Mexico to southern California, a distance of approximately 500 miles.

In 1956 Fred helped the Laboratory of Anthropology and the Museum of Northern Arizona publish *Pipeline Archaeology*, a must read for anyone who wants to know the history of salvage archaeology in the United States. He also pioneered major archaeological salvage projects on the highways of New Mexico and contributed to the wording of new federal highway legislation that required archaeological sites to be recorded and excavated before highway construction projects could be progress through the sites. Signed into law by President Eisenhower, the bill was an important advance for the preservation of Native American history.



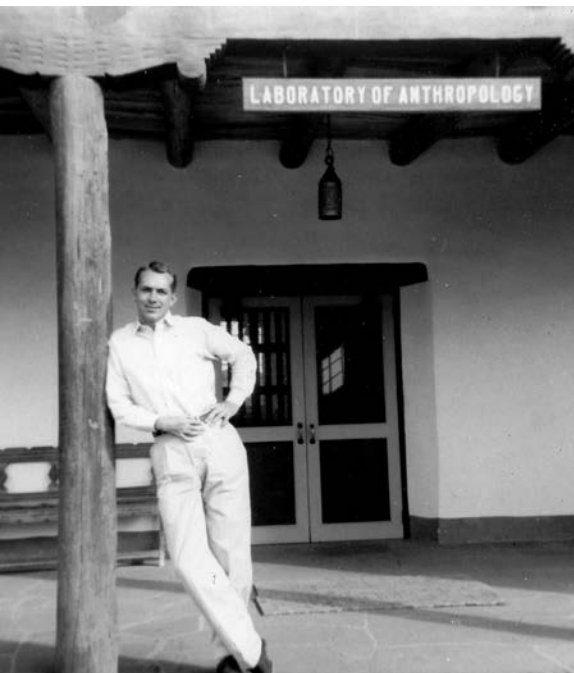
Dr. Fred Wendorf, Rep. John Dempsey, Dr. Wayne Grover, and Rep. George Mahon. US Senate, 1958.

According to Fred, one of the most intellectually challenging studies he did while at the Museum of New Mexico was his 1954 excavation of “Midland Man,” in the sand hills near Midland, Texas. It was an archaeological milestone, achieved when he was just 29 years old. Midland “Man” (whom Fred nicknamed “Midland Minnie”) turned out to be a Final Pleistocene woman, some 11,000 years old. Today an official Texas State Historical Marker, posted outside the Midland County courthouse, describes the discovery and its significance.

In the mid-1950s Fred received the first of what would be several dozen National Science Foundation research grants, this one for a study of the late glacial archaeology and paleoecology of the High Plains of west Texas and eastern New Mexico. It was an important interdisciplinary project that brought together American and European scientists; such interdisciplinary work was to become a feature of Fred’s later work in Africa.

While working as an archaeologist for the Museum of New Mexico in 1956, Fred was asked to locate Cantonment Burgwin—a pre-Civil War encampment of the U.S. First Dragoons—near Taos. He not only found the buried ruins of the fort, but also supervised its painstaking excavation and reconstruction so it could serve as an academic campus. He also began extensive excavations at Pot Creek Pueblo, the ancestral home of both Picuris and Taos Pueblos. The Pot Creek Pueblo excavation led to the establishment of the Fort Burgwin Research Center.

In 1956 Fred joined the faculty at Texas Tech University and held the first summer field school at Fort Burgwin. In 1958 he returned to Santa Fe as associate director of the Museum of New Mexico.



Left: at Laboratory of Anthropology, Santa Fe, New Mexico, 1960.

Above: Fred Wendorf with Jim Hester, 1960.

In 1964 Southern Methodist University recruited Fred to establish an Anthropology Department for them, and this department is now one of SMU's strongest. In addition to his teaching responsibilities, Fred continued his activities at the Fort Burgwin Research Center, which merged with SMU in 1968. SMU had begun acquiring the Fort Burgwin property in 1964 and added facilities to accommodate students for summer classes beginning in 1973. The facility gradually grew to become SMU-in-Taos, which now includes 423 acres and 33 buildings nestled in New Mexico's Carson National Forest.

In addition to his fieldwork in the American Southwest, Fred was involved in the preservation and excavation of historical shipwrecks. His investigation of a Spanish wreck off the Texas coast led to the Abandoned Shipwreck Act of 1987, an important law protecting historical shipwrecks in U.S. waters. Blending public activities with scientific investigations, Fred was a committed advocate for the preservation of archaeological sites for future generations.



Fred Wendorf at Jebel Sahaba in Nubia, 1963.

Going international

In the fall of 1961 Fred read that hundreds of Egyptian and Nubian archaeological sites were threatened by Egypt's decision to build a dam on the Nile River. Priceless monuments, including Rameses and Nefertari's statues at Abu Simbel, would go under water after the construction of the Aswan High Dam. The United Nations Educational, Scientific and Cultural Organization (UNESCO) launched an international salvage operation to save the region's archaeological heritage. James Hester of the Museum of New Mexico, who had also read the article, suggested that he and Fred get involved.

In November 1961 Fred called J. O. Brew of Harvard, who was co-chair of the UNESCO commission organizing the Nubian salvage operation. Brew told Fred to write two proposals, one for Egypt and the other for Sudan. Brew failed to tell Fred that two other archaeologists had recently completed a houseboat-based survey between Aswan and Wadi Halfa and submitted a report to UNESCO saying that they had not found a single site; they recommended that no funds be allocated to excavate sites in the reservoir area.

As Fred said, “Going to Nubia was perhaps the riskiest decision I had made since I’d volunteered for combat with the 10th Mountain Division. If I got a big grant and we found no sites, my reputation would be ruined.” Happily, he ended up finding hundreds of sites from the Lower, Middle, and Upper Paleolithic, including archaeological assemblages so diverse that he believed he could link them to different social and ethnic groups—a radical idea at that time.

As Fred said, “Going to Nubia was perhaps the riskiest decision I had made since I’d volunteered for combat with the 10th Mountain Division. If I got a big grant and we found no sites, my reputation would be ruined.”

Once he had been funded, Fred invited scientists from England, France, Belgium, Poland, and Egypt to participate in the rescue of the monuments that would disappear with the completion of the Aswan Dam. Fred’s multinational research team became the Combined Prehistoric Expedition, which he directed along with his colleague Romuald Schild, a professor in the Institute of Archaeology and Ethnology at the Polish Academy of Sciences. Fred and Schild came to refer to each other as “brothers.”

Fred’s Nubian Campaign made possible the discovery of hundreds of prehistoric sites along both sides of the Nile, between Tushka in Upper Egypt and the Second Cataract of the Nile in the Sudan. The work in Upper and Lower Egypt, the Western Desert, the Sinai, Sudan, and Ethiopia, done under the leadership of Fred and Schild, became the most enduring prehistoric expedition in the history of African archaeology, covering in its field work and subsequent publications almost the entire chronological expanse of prehistory from the Early Stone Age to the late predynastic and Bronze Age times. This research produced more than 30 books, including Fred’s autobiography, *Desert Days: My Life as a Field Archaeologist* (2008).

Breakthroughs in Egypt and the Sudan

There is no space in an essay like this one to cover all of the ways Fred’s research changed our thinking. His work at Bir Tarfawi and Bir Sahara, 300 miles west of the Nile, showed us the incredibly rich fauna that Mousterian—a Middle Paleolithic stone tool industry—hunters pursued in the Middle Stone Age Sahara. His work at Wadi Kubbaniya enriched our understanding of ecological niche construction by Late Stone Age foragers. Fred found that cattle could have been domestic in the Nile Valley 3000 years earlier than expected, and that their herders were erecting stone monuments at ritual centers like Nabta Playa, 60 miles west of the Nile. He found that sorghum may have been cultivated



Fred Wendorf at Abu Simbel.



Fred Wendorf in Egypt.



Romuald Schild, Fred Wendorf,
Rushdi Said

Photos from the Combined Prehistoric Expedition.



Wendorf with Romuald Schild (NAS Foreign Associate from Poland) at Nabta Playa.

in the Sahara by 7000 B.C., and that pottery was made in the Sahara several thousand years earlier than previously thought. Let us look briefly at two of Fred's greatest discoveries.

Just north of Aswan 24,500-20,000 years ago, a dry canyon known as the Wadi Kubbania entered the Nile from the west. From June to September the flooding Nile backed up into the canyon's lower course, submerging all but its tallest sand dunes. This flooding created a rich localized environment where catfish and tilapia gathered and water-loving plants like sedges and rushes grew abundantly. Researchers have theorized that such was the clamor of spawning catfish that their mouth-and-tail slapping could be heard hundreds of yards away. That sound is probably what attracted groups of Stone Age foragers to Wadi Kubbania. As the flood water receded, tilapia could be caught by hand in spawning holes, and catfish could be brought to the surface by driving oxygen from the water with kicks and splashes. The quantity of fish caught would have been too many to eat at one time. Fred found more than 130,000 catfish bones at one camp, along with evidence that the heads of the fish had been removed and the bodies smoked or dried to be eaten later.

Fred also showed that these early foragers exploited dense mats of a sedge called purple nut-grass, and thousands of club-rushes. The sedge mats were 10 feet wide, and every 10-square-foot section produced an incredible 21,200 tubers. The foragers harvested thousands of nut-grass tubers with digging sticks and complemented them with the tubers and roasted nutlets of club-rush. The plant collectors at Wadi Kubbania had learned that during October and November the nut-grass tubers were small and tender; by February and March they had grown larger, harder, and filled with bitter alkaloids. Even these mature tubers, however, could be rendered edible by grinding them on stones and roasting them. Like smoked fish, the sedge and rush tubers could be stored, and they were high in carbohydrates.

Wadi Kubbaniya became a rich target for foragers, who had developed techniques of drying, smoking, grinding, roasting and storing, allowing them to stretch the Nile's temporary abundance into months of food. These people had also discovered that the greater the numbers of mature nut-grass tubers they harvested, the more densely the new ones grew back next year—an early case of environmental engineering or ecological niche construction.

Judged by the skeleton of a young man buried at Wadi Kubbaniya, these fish-and-tuber collectors were anatomically modern, resembling today's Nubians and Sudanese. The youth had an asymmetrically developed right arm, suggesting that he had been a strong right-handed spear thrower. A chip of flint from a past wound was imbedded in his shoulder, and a healed fracture of his forearm revealed that he had once used it to ward off a blow. His death came as the result of a spear-sized projectile that had left two flint barbs between his ribs and lumbar vertebrae.

Archaeology thus gives us two insights into our ancestors of that era. Wadi Kubbaniya shows them to have been keen observers of nature with the foresight to modify their environment. The spear wounds in the Wadi Kubbaniya youth show us something else: even as our ancestors improved their foraging skills, there were times when contact among neighbors resulted in homicide. This insight was reinforced by Fred's work at Jebel Sahaba.

Jebel Sahaba

Our oldest evidence for ambush raiding or group violence comes from the site of Jebel Sahaba, located on a sandstone mesa to the east of the Nile. At the base of the mesa Fred found a Late Paleolithic cemetery. This was another area where foragers relied heavily on seasonally flooded embayments, places where catfish and tilapia gathered and dense mats of purple nut-grass grew.



Wendorf (at right) with Herb Mosca at Kharga Oasis.



Wendorf circa 1970.

Some 17,000 years ago several different groups of foragers occupied that stretch of the Nile. Each of these groups could be distinguished by its style of stone tools. A cemetery at Jebel Sahaba contained 58 skeletons—47 adults (20 men, 20 women, and 7 of indeterminate sex) and 11 infants and children. Fred found clear evidence that at least half, and perhaps all, had died violently. One hundred sixteen flint artifacts, the majority of them parts of spears or arrows, had entered the bodies of these people; in some cases, they remained embedded in the skeleton. Some victims had literally been riddled with arrows, while others had old, healed wounds suggesting a history of violent attacks and injuries. Included were defensive fractures of the forearm, broken collarbones, and an arrow point in one man's hip. Examples of overkill were frequent. A middle-aged man had been hit with 19 flints; projectiles were found in the top of his pelvis, his forearm, his lower leg, his rib cage, and the base of his neck. One young woman had been hit with 21 flints; three of these were probably the barbs of a spear that

penetrated her face and reached the base of her skull. Nor were children spared. Two youngsters interred together had flints in their neck vertebrae, each probably representing a coup de grace.

Fred suspected that two factors led to a history of ambushes at Jebel Sahaba. First, the Nile embayments of that era would have been rich but circumscribed environments surrounded by barren desert. Second, there were several groups of people competing for the fish and nut-grass of each embayment, apparently ready to defend them with violence if necessary. Ambushes of this kind are too small-scale to be considered war, but they could be nasty and once begun they could turn into blood feuds that lasted for years. And such group violence is typical of societies that have developed social segments larger than the extended family (for example, clans or ancestor-based descent groups). Thus Jebel Sahaba may show that such societies existed 17,000 years ago.

Fred is survived by his wife, Christy Bednar; sisters Mildred DiMaggio and Mary Ann Stripling; daughters Gail Wendorf, Cindy Ruiz, and Kelly Wendorf, and sons Carl, Michael, and Scott, as well as stepdaughters Kathy Gallagher and Heather Nelson and stepson Sean Gallagher, and 13 grandchildren.



Wendorf at the Fred Wendorf Pottery Collection at the British Museum.

Awards

Fred's contributions to the understanding of early humans in both the New World and Africa have been recognized with numerous awards. The one that he held most dear was his election to the National Academy of Sciences in 1987. He also received a medal in 1974 from the Supreme Council of Antiquities of Egypt. In 1988 he was awarded the Distinguished Service Medal for Conservation Service from the U.S. Department of the Interior. In 1996 the University of Pennsylvania presented him with the Lucy Wharton Drexel Medal for Archaeological Achievement. In 1997 he received the Egyptian Geological Survey Award for his study of the geology and prehistory of Egypt. SMU conferred an honorary Doctor of Science degree upon Fred in 2003, in recognition of his lifetime of scientific achievement. In 2012 Fred was elected to the Polish Academy of Arts and Sciences.

To make both his field notes and his six million artifacts available to future generations, Wendorf, in 2001, donated his Egyptian and Sudanese collections to the British



Wendorf at the Fred Wendorf Information Commons, on the SMU-in-Taos campus.

Museum. Many items from the collection are on permanent display in the Early Egypt Gallery.

In 2004 the Fred Wendorf Information Commons, a state-of-the-art computer facility and library, was dedicated on the SMU-in-Taos campus. Said university president R. Gerald Turner:

Fred Wendorf had a global impact on the field of archaeology and an extraordinary impact on [SMU], the University where he served for four decades. We are indebted to Fred for bringing his expertise to SMU in 1964 to establish the University's Anthropology Department and for the international significance of his ongoing archaeological research in regions ranging from the American Southwest to northeast Africa. We also are grateful to Fred for his vision and personal involvement in the University's acquisition of the Fort Burgwin property and the development there of SMU-in-Taos, a unique campus offering students opportunities for study and research enhanced by the region's distinctive mix of cultures and rich natural resources.

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