

**“WHEN I WAS A LAD, I SERVED A TERM ...”
MINOR ADVENTURES IN PLAINS ARCHEOLOGY IN THE 1950S AND 1960S**

Roger T. Grange, Jr.
Professor Emeritus, University of South Florida

The Kansas Anthropologist 18(1):1-20

Personal experiences in the upper Missouri and central Plains are described. The author worked with Carlyle S. Smith of the University of Kansas in 1951, 1952, 1953, and 1955 at sites in South Dakota. He directed excavations at various sites in Nebraska while on the staff of the Nebraska State Historical Society from 1955 to 1964.

My careers in anthropology and archeology began in 1949 and have continued beyond my formal retirement in 1994. I use the plural because at various times I have focused on four different areas of research interest and professional activities, although they have all been inter-related, overlapping and more or less continuous as well. One career has been in museology as a staff member in anthropology at the Field Museum in Chicago and in various roles from curator to museum director at the Nebraska State Historical Society (NSHS) in Lincoln. A second employment career was 30 years of teaching and academic administration at the University of South Florida where I served as a Professor, Department Chairman, and graduate program Archaeology Track Leader. My archeological research has encompassed two separate but parallel and overlapping tracks in Plains archeology and in historical archeology. Field expeditions have been enlivened by being robbed, flooded, hailed, burned, tornadoed, and bombed.

GETTING STARTED

As a child I found an arrowhead or two and had a modest diet of walking mummies in movies, but that was less exciting than seeing the real thing in museums. I grew up in Chicago and spent a lot of time in the Art Institute, the Museum of Science and Industry, and the Field Museum (then the Chicago Natural History Museum). I always thought museums were pretty neat places but never dreamed then that they would become a substantial part of my career.

I spent a year in general junior college courses and a lot of engineering, but my interests changed when I went to the College of the University of Chicago (UC) in 1945 during the Robert Maynard Hutchins era. I was drafted at the tag end of the war and spent a year in the Army, then returned to UC and graduated in 1948. In the later part of my undergraduate studies, I was into geology and would have continued there had

it not been for an elective course “Introduction to Anthropology.” All of the faculty participated in discussion lectures. Who would not have been inspired by a course taught by Robert Redfield, Sol Tax, Fred Eggan, Sherwood Washburn, Robert Braidwood, Kenneth Orr, Norman McQuown, and guests like Theodosius Dobzhansky? They all talked about the current hot stuff. For example, Washburn’s “new physical anthropology” was brand new, Braidwood was just back from Jarmo, and the invention of radiocarbon dating was announced in class. After that course there was never a question about a career in anthropology for me.

My first experience in archeological field work came when several graduate students asked for volunteers to help dig an Indian mound about to be destroyed in a park development. I had just been reading about Hopewell mounds and envisioned something of really impressive size. We walked out into a field and reached a point where everyone stopped and put down their tools. I hadn’t learned to shut up and observe at that point, so I asked, “Where is the mound?” “You’re standing on it” was the reply. Well, 4 inches wasn’t 40 feet, but it was OK with me. I found my first human burial that day—nicked it at nasion with a shovel, I am sorry to say, but then no one expected it to appear just barely below the surface.

In the summer of 1949, I went on the University of Chicago field school at Starved Rock State Park in Illinois. It was directed by Kenneth Orr with Robert Braidwood as a two-week substitute. Braidwood regaled us with stories of the hardships at Jarmo, such as being two weeks from a supply of sherry. The undergraduates worked on various excavation projects, directed by graduate students, including Mike Fowler, Bill Mayer-Oakes, and Elaine Bluhm (Herold). I worked for Elaine and thought it was normal for women to have careers in archeology. I found out otherwise and think I have done my bit to help change that in later years. Our field camp was shared by Dick

Hagen, who was excavating LaSalle's fort on Starved Rock, so I thought digging at Historic period sites was normal too, but it was some years before that became fully true.

During the summer of 1950, I volunteered to work at the Anthropology Department at the Field Museum. The following year I had a job as assistant in the department and continued at the museum until I completed my M.A. in 1952. Paul Martin, George Quimby, and Donald Collier taught several anthropology courses for the UC, so I went to class more or less on the job and ended up spending more time at the museum than on campus. *Indians Before Columbus* had just been published, and the new innovative style museum gallery of the same name had been so impressive that Mr. Stanley Field wanted all of the anthropology exhibits redone ASAP.

George Quimby was working on a series of new Plains ethnology exhibits, and my job was to find artifacts in the storerooms, remove specimens from exhibits, clean things, rearrange storage, and serve as a general dog's body. I got to play with the goodies from the Plains and all over the world as well. It was fabulous training. George found several original George Catlin paintings in one of the museum collection storerooms, and I assisted him in sorting them out. They were original Catlins, duplicates of others but done by Catlin, which we demonstrated because they were signed by the artist on the back of the frame. These were pre-Xerox days, so it was my task to trace the signatures to make it easier to compare them with other sources. I could almost forge Catlin's writing. This was my first personal experience with Plains ethnohistorical materials.

I had started an M.A. thesis at the University of Chicago, attempting an analysis of some uncatalogued materials from several cave sites in northern Mexico, but it proved impossible to correlate the incomplete field notes on provenience with the uncatalogued artifacts. Paul Martin, Chief Curator of Anthropology at the Field Museum, extricated me from that disaster and arranged for me to do the analysis of the wooden artifacts from Tularosa and Cordova caves, which he had just finished excavating. My M.A. thesis became a chapter in the site report. I contributed to some of the other chapters, and this was my first archeological publication (Martin, Rinaldo, Bluhm, Cutler, and Grange 1952).

TO THE PLAINS AT TALKING CROW

I had written a detailed paper on Plains archeology in a class taught by George Quimby and acquired an

interest in the area. I was looking for some archeological field work for the summer of 1951, and George arranged for me to go with Carlyle Smith (1992) to the Talking Crow site on the Creek Reservation at Fort Thompson, South Dakota. I had been through South Dakota once on a family vacation, but Talking Crow was my first real experience with the Plains, and it was far different from Chicago (Figure 1). I don't fully understand my own continuing fascination with the Plains. I was on Carlyle's crew in 1951 (the summer we had a flood and had to move specimens and gear to the top of a nearby hill for a couple of nights) and then was his Field Assistant in 1952, 1953, and 1955 at Talking Crow, Spain, and Two Teeth sites. This was my apprenticeship in archeological field work, and our friendship was life long. It was my honor to make the presentation of the Harrington Medal to Carlyle at the Society for Historical Archaeology meeting in 1990.

We camped adjacent to the site, which belonged to a Sioux man, Bill Voice, who was lots of fun and very helpful to us. He had a big Buick that he drove all over the plains, herding his cattle. We had several tents and a big fly tarp in front of the cook tent for shelter over our dining table (Figure 2). We built a Dakota-style sunshade, covered with branches and leaves as well (Figure 3). Our shower was a sun-heated 55-gallon drum up on a log tower (Figure 4). During construction Al Johnson managed to bury a hatchet in his knee and required a trip to the hospital in Chamberlain for repairs. The Indian boys on the crew named him Chops His Knee.

Carlyle's lifelong hobby was collecting and restoring firearms, and he always brought at least one to the field and gave the crew instructions and personal experience in firing flintlocks or other weapons. The only gun I ever owned was a Sharps carbine that I bought on the reservation. It was an authentic weapon from the Indian wars, and I later donated it to the NSHS when I was a curator on the staff. In later years Carlyle had a small cannon and could bracket logs floating in the Missouri River.

Bill Voice invited the crew up to his place for dinner one night. Those who went said the main course was a pretty good stew, although the flavor was a bit strong. Carlyle and I were always suspicious about the menu, but perhaps it was only coincidental that Bill's big yellow dog was never seen again.

Since we were on the reservation and there were several Indian boys on the crew, the field season had some elements of an ethnographic field trip. We went on a number of weekend trips, one to the Rosebud Reservation to see a big summer dance. It was



Figure 1. The author during his first season at the Talking Crow site in 1951.

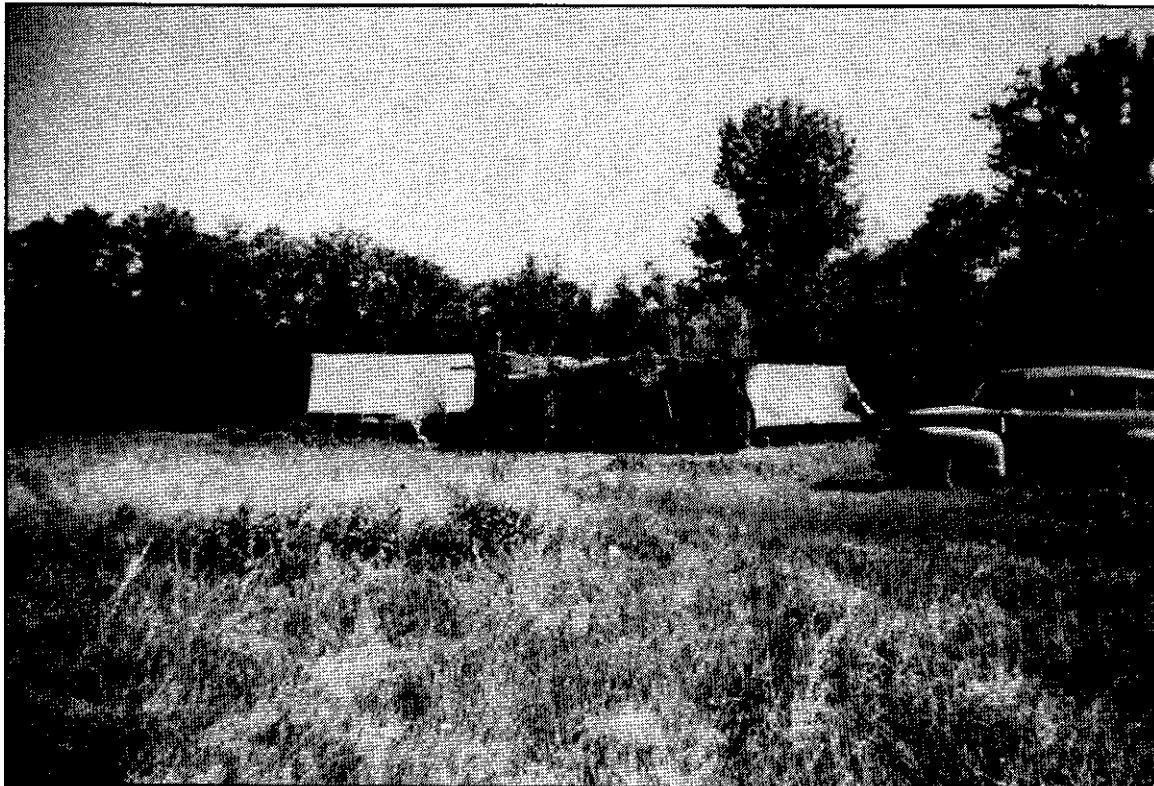


Figure 2. Field camp at the Talking Crow site in 1952.



Figure 3. A lazy Sunday at the Talking Crow site camp in 1951. Carlyle Smith is reading in center. Grange's "medicine bundle" hangs on the pole at left.



Figure 4. The shower at the Talking Crow site camp in 1952.

fascinating to me, since I had been working with Plains materials at the Museum and had never been on a reservation before.

There was always something to do. We worked in the field five days a week and spent Saturday morning in camp doing lab work in exchange for our transportation to Chamberlain for a weekly visit to Roger's Bar (its real name), shops etc. Among my amusements one summer was the creation of my personal medicine bundle. The "sacred" items in it included some mileage records Carlyle had lost; he had to arrange a ceremonial bundle opening at Roger's Bar to recover his documents.

Sundays were lazier days, although we often went out surveying for new sites or to visit other sites and excavations. One notable camp amusement was building a 1-inch to 1-foot scale model of House 8, which we were excavating at the time. It turned out to be a very instructive exercise; for example, some of the house posts in the original were at slightly irregular distance intervals around the perimeter of the house. Our efforts to find and cut lintels to fit led to an understanding that if one had a long lintel, it would have been far easier to place the support post to fit than to find or cut a lintel to fit. One might see this as early mini-experimental archeology. Carlyle really got into our house model project and photographed every stage of construction (Figure 5). Ultimately, we burned the model and excavated it. Carlyle wrote the whole project up, and it was eventually included in *The Archaeologist at Work* (Smith 1959).

Carlyle always brought his Bannerman's catalogue to the field. Bannerman's sold military surplus from the Revolutionary War onwards, and we conned all of the crew, including the Indian boys, into buying surplus Spanish American War pith helmets (Figure 6). As Field Assistant, I was allowed to wear mine with a decorative spike and had a yellow horsehair plume for really important events, like a Smithsonian inspection visit. A National Geographic Society party, traveling up the Missouri River doing a story on Lewis and Clark, stopped at the site. We are illustrated in all our helmeted glory in the June 1953 issue (Gray 1953).

Another memorable visit was a three- or four-day stop by a truckload of University of Kansas zoologists, trapping small rodents in an ecological study. They lived a lot rougher than we archeologists because they never set up a real camp with any facilities, and they didn't make much use of ours. They were skinning, cleaning, and taking intestinal samples from their quarry and thought nothing of just wiping their hands on their only pair of jeans before sitting down for lunch. They dried skulls strung on wires hanging over the truck engine block, and their favorite gig was

asking an unsuspecting filling station attendant to "check the oil, please."

It was an exciting day when Ralph Solecki's (1994) plane buzzed us when making his air photo flight to Talking Crow. Other visitors were frequent, as there was a lot of weekend travel by all of the River Basin Surveys field parties. It was an essential part of doing archeology during a period when each new site revealed a new culture, new pottery types, and new architectural features. Listening in on the discussions of these issues among Robert Cummings, Bob Newman, Marvin (Gus) Kivett, Carlyle Smith, G. Hubert Smith, Waldo Wedel, Wes Hurt, Alan Woolworth, and Don Lehmer, singly or in groups, was a major part of my education in Plains archeology (Figures 7-9). Woolworth and G. H. Smith were working on historic sites, such as Smith's Like-A-Fishhook Village, and in later years Gus excavated Fort Atkinson. These represent an often forgotten Plains phase in the early development of historic sites work. One time so many of the field parties ended up in the Silver Spur Bar in Pierre, South Dakota, at the same time that we called it the "Accidental Plains Conference." It came to be an intentional annual event in mid-field season.

George Metcalf was a particularly enjoyable visitor. George was the quintessential modern mountain man, displaced a century and a half too late. He slept on the ground with his blankets wrapped in a piece of greasy waterproofed canvas and entertained with his vast repertoire of funny and rude songs.

Carlyle was the one of the few archeologists in the Missouri basin who included wives or, rarer still, women on his field crew, so we always provided superior sanitary facilities. During our travels we compared fixtures with those at other field camps, and I remember one site where Wedel's outhouse was memorable. There was no roof and only two vertical poles supporting a sheet of canvas as a privacy screen on the camp side. The remainder consisted of a slit trench and a nearly stable plank seat, supported by two posts. It was a bit precarious but afforded a most magnificent view of the Missouri River valley.

Gus and Carolyn Kivett were camped a few miles from Talking Crow, digging the Crow Creek site. With its long rectangular houses it was quite different from Talking Crow. We tried to teach Kivett's toddler Ron to say, "Nebraska is a good state, but Kansas is better," but he wouldn't do it. Gus had a tractor and scoop pan for removing the overburden from the deeply buried houses, a mechanized version of the WPA mule and pan that he and A. T. Hill used in Nebraska. Other River Basin Surveys parties were using drag lines, road patrols, and a host of other power machines, sweet-



Figure 5. The model earth lodge, getting the Cecil B. DeMille treatment at the Talking Crow site in 1952. Carlyle Smith is kneeling at the model; on-lookers are Randy Weeks at far left, Karl Heider with the white helmet, and Franklin Fenenga and Ray Wood at center.



Figure 6. Excavating House 8 (the original of the model) in 1952 with crew members in Spanish-American War pith helmets. At left the author wears the helmet with the spike.



Figure 7. Field conference at Waldo Wedel's dig at 39St1 in 1951. From left to right are two unknown boys, Don Lehmer, Waldo Wedel, Carlyle Smith, an unknown man, Douglas Jordan, and another unknown man.



Figure 8. Field conference in 1952. From left to right are Carlyle Smith, Franklin Fenenga, and Ray Wood.



Figure 9. Carlyle Smith and Don Lehmer discussing the nuances of Talking Crow and Stanley wares. Al Johnson looks on.

talked from the dam construction companies. These were the projects in which the application of power equipment became an established part of the archeologist's tool kit.

At Talking Crow we used only muscle power. One year Carlyle planned the excavations to cross section the entire site and excavated two long trenches, one 400 feet long and the other at right angles over 200 feet long. Both were designed to avoid the obvious surface depressions, marking house locations, so as to sample the activity areas outside of the houses. At one end of the 400-foot trench, I discovered three house floors in stratigraphic sequence, and we had to move the biggest dirt pile on the site to expose the location. It was, as usual, near the end of the field season, so I really had to push the crew to get it done. They presented me a bull whip with commemorative silver ID on the handle, and this was long before Indiana Jones. Such clear stratification was extremely important in understanding the site and proved to be especially significant at Talking Crow because the earliest structure was a square Central Plains-style house rather than the round houses of later periods at the site (Smith 1977).

The excavations were done using arbitrary excavation levels for removing sod and cross sectioning deep features, like the fortification ditch, and stratigraphically defined excavation for units, such as house floors, storage pits, post molds. The search for

stratified features was constant, and they often appeared during excavation. For example, the post pattern of one house appeared to be oval, and we first thought it might be a new house type but soon demonstrated that it was two overlapping stratified structures. These provided data for the framework for seriation of a series of sites in the area (Smith 1963), a significant goal when establishing culture history and chronology, which was one of the major problems in the area.

Remote sensing during the period was relatively primitive. Air photos were the primary tool available and earth lodge villages showed up well on such pictures. This, coupled with a settlement pattern model that identified terraces above the river valley and below the surrounding high plains as primary village locations, served quite well. It was often more difficult to figure out how to get to a potential terrace site than it was to predict site locations. Local informants were also vital.

Remote sensing on site was largely a matter of the archeologists' experience in visual detection of house rings, cache pit depressions, fortification ditches, and mounds along with associated surface finds. One mound at Talking Crow had been unobserved until the last of the four seasons at the site, when I was running from one end of the site to the other several times a day to supervise the crew and began a new shortcut route. After a few days of this, I realized there was a barely

perceptible low mound that we hadn't seen. It proved to be an especially rich refuse midden.

Another example of "primitive remote sensing" was in a house where we thought we had finished excavation of the floor. I was cleaning up postmolds in preparation for final photography when I noticed an area where flies congregated repeatedly. At that point there was no visible stain or feature on the floor, but a bit more troweling revealed the mouth of a storage pit—still attracting flies! Carlyle assigned me the task of excavating the pit, and it proved to be a large bell-shaped cache. It was still full of surprises for there was the mouth of a second pit in the bottom. This proved to be another large bell-shaped cache, and the total depth of the double pit feature was 13 feet. It was very cool inside the pit, making it a pleasant place to work. I had to have an assistant with a rope and bucket to remove dirt and me. I could only get out unaided when Thane Robinson would throw a handful of dirt on me and yell, "Cave in," at which times I set an unequalled vertical leap record.

During this period all of the Plains field parties used some version of the extension ladder method to get vertical photos of house floors and other site features (Figure 10). Two holes were dug to stabilize the bottom rails of the ladder, which was held up vertically with three guy ropes tied from the top to substantial iron fence stakes. Our rule was, "If you climb it, you tie it." We frequently went up the ladder during excavation to search for post patterns and features not readily visible from the house floor level. A ladder, placed in the right relationship to the excavated house at the right time of day to control shadows, provided excellent near vertical pictures of the large houses. It was my job to take a lot of these photos, and I usually went up the ladder one handed with two or three 35-mm cameras around my neck and a Speed Graphic in the other hand. Imagine the thrill I experienced one day when the top rung of the aluminum ladder came out in my climbing hand! I was saved by a clutch clutch.

ARIZONA

After completing my M.A. at the University of Chicago in 1952, I went to the University of Arizona to earn my Ph.D. I continued to work in the Plains (an oddity at the University of Arizona) in the summer field season as Carlyle's assistant. At Arizona my major professor was Emil Haury. One spring vacation he took a group of graduate students back to the Naco Mammoth site. Our job was to extend the excavations in search of charcoal samples for dating. Doc Haury had arranged for a county power shovel to remove the



Figure 10. Carlyle Smith half way up the ladder at the Talking Crow site in 1951.

overburden from the site, and then we had to dig through a layer of caliche so hard that a pick would bounce and barely dent it. We were working up slope in search of the hearth at the butchering site and picked tiny fragments of charcoal from the occupation surface. We didn't reach the hearth but did recover more of the mammoth and enough charcoal for ¹⁴C dating. We camped at the site in the open and ate dinner on the Mexican side of the border town where Doc Haury could feed us for less. The sleeping bags iced up at night, but we went to sleep warmed by a swig from a bottle of Tequila passed around by Julio Cesar Cubillios.

Television was newly introduced in Tucson, and the national program from the University of Pennsylvania Museum, "What in the World," was very popular. The local station needed hometown programming and did a spinoff with the Arizona State Museum called "What Is It?" Weekly, Doc Haury would take four graduate students to the studio and bring out artifacts, selected from the museum

collections in real secret. Our only clue was a cryptic one like, "The topic tonight will be Treasures from the Earth." We went on live and made some mistakes but got most of them right. It was fun being recognized as a TV star in local stores! It was good training for me; later at the NSHS in Lincoln, I was on the weekly museum TV program periodically, and at Fort Robinson I had a weekly radio program on KCSR about local history and archeology.

BACK TO THE PLAINS: THE SPAIN SITE

Summers I went back to the Plains to work for Carlyle, and in 1953 we began excavation on a site that turned out to be a historic period log cabin. We finished that site quickly and shifted to the Spain site, which was located by talking to Abraham Spain, who reported a "pottery factory" on his land. The site was unusual because it was a winter village, located on a sheltered lower terrace. There were several houses and a refuse midden, which was the "pottery factory." The deposits were so thick with sherds that it was impossible to force a shovel through the matrix in some areas (Figure 11). The excavation of the Spain site was especially important to me because there I met Jane Randolph Whitner, who became my wife.

The season at the Spain site was one that found the University of Kansas field party housed in fine style in an abandoned farm, scheduled to be flooded in the reservoir but not yet demolished. Carlyle and his family had rooms in the house as did the female members of the expedition. I bunked on the porch, and the rest of the male crew slept in the barn. The guest quarters were a cot set up on a non-functional bathtub in the house. The star attraction that season was our shower. We had hot running water rather than the usual 55-gallon sun-heated drum. We diverted a stream from a small natural hot spring to a flume, projecting over a cutbank, put down some planks for a floor, and erected a canvas privacy screen. It was an absolute luxury to have as much hot water as you wanted instead of competing for lukewarm, then cold, water from the shower barrel. Camp that year was such an improvement over our usual tent accommodations that we were prompted to put up a sign over the farm entrance gate, which said "It Costs No More To Go First Class" (Figure 12).

After that field season I stayed on at the University of Kansas in Carlyle's lab for a few weeks, doing the analysis and writing the description of the artifacts. My efforts ended up in our joint report, which was my first publication in Plains archeology (Smith and Grange 1958).

I finished my Ph.D. course work in 1954 and went back to Chicago to work as an Assistant in Anthropology at the Field Museum. My primary task was the organization of a gigantic new storage room for Pacific materials. The facility was created by taking one basement exhibition gallery out of service. We lived in poverty while I finished some of my Arizona Ph.D. requirements in absentia.

I went back to the Plains as Carlyle's assistant again to excavate the Two Teeth site in 1955. That year we were housed in the Fort Thompson school in a real building. Gus Kivett was still excavating nearby, which was fortunate for me because he was looking to fill a new staff position, and I was hired by the NSHS as curator of the newly established Fort Robinson Museum.

FORT ROBINSON, NEBRASKA

We moved to Lincoln, and I spent the first winter doing research on Fort Robinson. Gus Kivett, Museum Director, and the whole staff worked on the project. I designed special exhibit cases and planned most of the exhibits for the fort museum. Gus had introduced the new style of museum exhibits in the museum in Lincoln, a style which largely emanated from the innovative "Indians Before Columbus" displays that Martin, Quimby, and Collier had introduced at the Field Museum. I began to really appreciate the value of my training there.

The Fort Robinson Museum was the first branch museum established by the NSHS. It was 550 miles away from Lincoln—about the same distance as Chicago! The exhibits we developed began with Plains environment, included western Nebraska archeology, a big series on Plains Indian ethnology, and the remainder on the Indian Wars and Fort Robinson.

Ray Price and Iris Daugherty were the museum artists in Lincoln, and we made a great team. All of the displays were built in the lab that first winter, and then Ray and I took them out to Fort Robinson to complete installation of specimens. The exhibit cases were manufactured in Lincoln in the State Prison and trucked out to the fort near Crawford in western Nebraska. When they arrived, we discovered that we had forgotten one critical height measurement—we couldn't get the larger cases up the stairway. Oops! Luckily at the fort there was an old army crane, which was used primarily at a USDA Beef Cattle Research Station, so we were able to remove a window and hoist the cases upstairs. That was the only hitch we encountered.



Figure 11. The author and Carlyle Smith at the Spain site in 1953. More funny hats are in view, this time a British 8th Army Desert Corps and Carlyle's Afrika Korps.



Figure 12. Jane Whitner and the author at the Spain site in 1953 under the famous camp sign.

Jane and I moved into the house that came with the job, an officers quarters built in 1909. It was a gigantic three-story brick building with lots and lots of room for our total possessions of about six pieces of furniture. When our side of the duplex had been renovated, the architect advised oil heat to replace the inoperable coal stoker. We didn't pay rent, but we did have to buy our own fuel oil. In January, when it was 30 degrees below zero for most of the month, we went through over 1,000 gallons of oil and more than our pay in 30 days. We paid an oil bill all year long.

Fortunately, we didn't spend every winter there, because the museum was closed for the season. We moved back to Lincoln one year and went on leave another winter to go back to Tucson, so I could prepare for and take my final Ph.D. exams.

The USDA Beef Cattle Research Station was constantly modifying facilities at Fort Robinson. One day I heard the roar of bulldozers and rushed out to see that they were modifying the Soldier Creek channel, so that cattle could be driven under the highway bridge. I managed to get a couple of days to carry out a salvage excavation of the first hospital at Camp Robinson in 1874. It was a small dugout in the bank of Soldier Creek. The medicine bottles and other materials were quickly incorporated into a new museum exhibit.

The NSHS had control of the site of the Red Cloud Indian Agency at the fort. I spent one winter working on document research and then, with one digger, did sufficient excavation to identify key points and depressions on the site, so they could be marked for interpretation. I did a lot of research on the buildings and history of Fort Robinson as well, and these projects sparked my interest in historical archeology.

I worked with local people, especially Howard Dodd, who took me to record various prehistoric sites in the badlands area north of Fort Robinson (Grange 1964b, 1964c). Together we found the site of the last battle between Fort Robinson soldiers and the Cheyenne in the Cheyenne outbreak (Grange 1964a), using my data from the historical documents and Howard's knowledge of the Pine Ridge. The curatorial work at Fort Robinson included considerable historical research (Grange 1958b, 1963b), as well as museology (Grange 1956, 1958a).

I was promoted to curator of anthropology, moved to the main museum in Lincoln, and plunged back into salvage archeology in the Red Willow Reservoir.

RED WILLOW RESERVOIR

During the 1962 season in the Red Willow Reservoir, there was a terrible hail storm with the proverbial grapefruit-sized hail. The storm actually

stripped off the siding and demolished some buildings in the area. Our camp survived, but our personal car (the first brand new car my wife and I had owned) lost its windows and acquired a dimpled surface. It was too dented to repair, so we took the insurance money and learned to love the texture.

The Red Willow Reservoir near McCook, Nebraska, was a two-season project, but both were short in time and crew size. A River Basin Surveys project had been done and found some significant sites. When construction of the dam was scheduled, the NSHS got a contract to carry out salvage excavations. Gus Kivett was busy with museum administration, so I, as curator of anthropology, was to do the field work. Gus and I went out for a brief planning look at the situation that I would be facing. We determined that the most critical site was Spring Creek (25Ft31) on the terrace that would be the primary borrow pit for the earth fill dam. Our testing revealed excellent stratification at the site, with a Dismal River period occupation being the most recent and an underlying Upper Republican component. We also noted a deeply buried stained layer, which we thought was probably an early occupation, but didn't find any associated artifacts.

The plan was to start salvage work on that terrace before borrow pit operations began. However, a relatively mild winter allowed construction schedules to be advanced, and when I arrived on the site the following spring, both the Dismal River and Upper Republican occupation layers had been removed. I questioned the engineers and earthmoving equipment operators, who reported repeatedly finding "underground ovens." They had just exposed one; it was a hearth pit with associated bone (Figure 13). I was able to arrange for an area of the site to be bypassed in the borrow pit operation, and a D-21 operator made some passes over the site to expose a 50 x 50-foot area of the occupation zone. We left a thin cushion over it as protection. We began to recover Logan Creek points and other Plains Archaic materials, and this made the site very important. Our permission to dig in the midst of the dam excavations was on a day-to-day basis, but we managed to get a month to excavate this site before we were forced to move. We started in a depressed area, and the huge D-21 earthmovers ripped by periodically, coming close to the edge of our dig; at that point we were 10 feet below the equipment. They always seemed to shift gears, take a nasty skid, and laugh a lot just as they went past. Gradually they tore away the terrace until we were at their level, then we became an island above the field of work, and eventually we had to quit digging.



Figure 13. Spring Creek site (25Ft31) in 1961. The author and Jim O'Connell check out a fireplace exposed by borrow pit operations.

I only had 5 high school-age crew members, including Jim O'Connell, who was about 14 at the time. Jim was with me for years and is a well known archeologist. It was very hot that summer, some days up to 112 degrees, and I had the crew take periodic breaks in the only shade available—they rolled under the truck. We got a lot done on the site, but spot observations indicated that it once extended over nearly the entire terrace and had been an exceptionally large occupation area. The ^{14}C date of this site (5680 ± 160 B.P.; 3730 B.C. No.M-1364) fell within the altithermal and was an addition to knowledge about the Plains Archaic (Grange 1980).

The Spring Creek site was of major importance because the Archaic Period wasn't represented elsewhere in the reservoir. Digging 25Ft31 for a month meant that we had to sacrifice a number of other sites that we expected to excavate during the salvage operation. We were only able to excavate one Upper Republican house at 25Ft32 (Figure 14). The normal plan was to lay out cross trenches to locate the central fireplace and house wall edges. There were no visible surface contours at 25Ft32, so I used a few wattle and daub fragments to go on. The crew members were amazed when the fireplace appeared in the dead center square. I confess I did not explain that luck is a technical term in archeology.

We were also expected to complete the intensive survey of the reservoir, and our only choice was to do

that after regular work hours or on weekend days. We went back for a second field season at Red Willow, excavated at several Upper Republican and Woodland sites, and surveyed the irrigation canal system. We dug one Woodland site as the reservoir waters lapped at the edges; some excavation units were taken away over night. We also had to have a bad weather site, since a rain would turn all of the local dirt track roads into such slippery loess mud that they were truly impassable. We excavated a Woodland village near our field camp on such days. It was outside the reservoir in an area scheduled for post-construction facilities. It was a fascinating site with houses and burials in house floors, and we had so much bad weather that we did a substantial amount of work (Grange 1980).

My wife Jane worked hard dealing with three children, doing the shopping and cooking for the whole crew, helping on survey, and making sure everything went well (Figure 15). One day when we returned from a mission, we found that a transient had robbed the camp, making off with a suitcase, clothes, and food.

The flooding of the reservoir drove wildlife into the surrounding area, and we had a lot of big (4+ feet) rattlesnakes in camp. We found one dangling over the baby's playpen one day. The crew usually skinned the snakes they killed for hat bands and tried rattler steak; once a season proved to be enough—at least with our recipe.

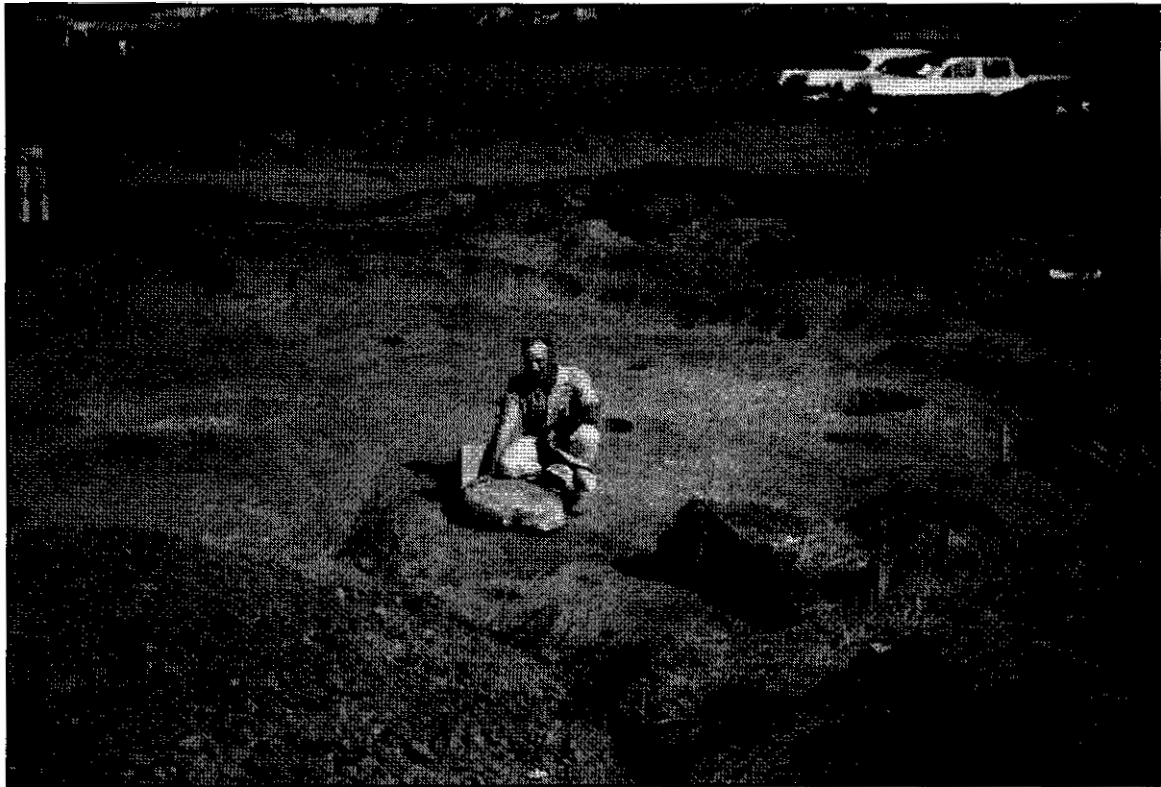


Figure 14. The author with a milling stone in the Upper Republican house at 25Ft32 in 1961.



Figure 15. The Spring Creek site (25Ft31) in 1961. Jim O'Connell is at left, Jane and Randy Grange are arriving with lunch, other Grange children, Roger III and Kathy, are at upper right.

We were usually 20 to 40 miles from potable water, and frequent runs to town to fill milk cans and jerry cans were necessary. We poured a bit of Clorox in to keep the cans sweet. Sometimes we had local water but couldn't use it. The first season in the Red Willow we had a small condemned house in addition to our trailer and tents for the crew. There was an outhouse on a rise directly above the well. It was like the model for the "how NOT to do it" illustration in my grade school health text. The former owners of the house had moved to McCook but hated city water, so while we went to town to get our water, they drove out to the field camp to get theirs!

Another season we were nearly burned out. We had a 6 x 6 x 6-foot garbage pit and used a bit of kerosene to burn the trash before we covered it each day. One crew member missed the pit when he dumped the garbage and then burned it right there on the surface at the edge of the pit—a not too brilliant move, considering the wind. The grass fire that ensued threatened our whole camp for a few minutes before we got it under control.

HISTORICAL ARCHEOLOGY: FORT KEARNY

The efforts of the NSHS in the early days of historical archeology aren't well known. Gus Kivett worked for several years at Fort Atkinson, which is now reconstructed as a state park. In 1960 and 1961 I excavated at Fort Kearny on the Oregon Trail as a NSHS project for the Park and Game Commission.

Excavations by an architect several years earlier had cut a series of cross trenches through the officers quarters, unfortunately obliterating most of the only building for which photos were available. Our goal was to test other areas of the site to clear them for park facilities buildings, as well as to examine the Civil War fortification and a few other features for the Nebraska Park and Game Commission (Grange 1963a). Today the park is well developed and has a museum, which includes a display on the field work that contains my picture, completing a cycle from curator to specimen!

We camped in the state park, which was then virtually undeveloped. One night we had a major line storm with torrential rain and high winds. It leveled all of the tents in camp, because the sandy soil of the Platte Valley didn't provide much stability for tent stakes and corner posts. We worked all day rebuilding camp, replacing broken 2 x 4 ridge poles, and putting in longer tent stakes. Exhausted, we sat down to dinner and had just finished eating when one of the crew said, "Hey, look at the funny cloud over there!" It was another line storm, and 15 minutes later camp was

flattened again. This time a tiny twister had taken the top out of a tree and dropped two large limbs, one on each side of our brand new International carryall truck. Fortunately the branches missed the truck, only stripping off the extended side-view mirrors. We rebuilt camp again with even more heavy fence posts and guy ropes and escaped further storms that season. We were thankful that no one was injured in the adventure.

THE PAWNEE

The collections of the NSHS included a large quantity of materials from WPA excavations, including a lot of materials from the significant Pawnee sites. Little or nothing had been published about these sites, so I began my Ph.D. dissertation research—a ceramic analysis that Gus Kivett and I envisioned as the beginning of a long-term effort to deal with this backlog. The research wasn't funded as an "on the job" project, and we didn't have enough lab space at the museum to accommodate the project, so I worked at home at night. We were renting a small house in Lincoln, and I had to work in the basement, which wasn't heated. It also leaked, so I wore galoshes and a heavy coat, sitting there classifying sherds in the cold with water running up to my ankles.

I used ceramic seriation to arrange in temporal order the historic and protohistoric Pawnee sites in different localities. These could be linked to the four major Pawnee bands in the Historic period, thereby tracing the development of the bands back into protohistoric times (Grange 1968). In my study of the ceramics, I found solid evidence of the presence of Central Plains style cord-roughened pottery, similar to the Anoka Focus and other Upper Republican materials, as part of the Pawnee ceramic tradition in the earliest Lower Loup components. This was important because it was an element of the missing link between the protohistoric Pawnee and late prehistoric Central Plains Upper Republican cultures. Few if any of my colleagues accepted this evidence, and it is still a matter under some question.

LOGAN CREEK

In 1963 I was working at the Logan Creek site near Oakland, Nebraska (Figure 16). Lyle Stone was my field assistant that year. The Logan Creek site had been discovered by Gus Kivett, when he was inspecting the railroad cut exposure. He had carried out excavations at the site earlier, and I continued the project. Our camp was on the terrace in which the stratified occupational layers were buried. The railroad



Figure 16. Gus Kivett shooting an 8-mm movie at the Logan Creek site in 1963.

tracks curved as the line approached the railroad cut, and at night the train headlight would shine through our trailer, as the engine made the bend and entered the cut. It was a frequent reminder of the then popular song about "the railroad track ran through the middle of the house." Each morning just about dawn the early train went through, and the engineer always gave us a big wake-up whistle. At least everyone got up on time.

The crew went to town to swim when they could. We had a tall, incredibly handsome godlike Hawaiian on the crew, who was exceptionally popular with local girls, and this fostered a strong rivalry between the crew and the local boys. One night there were sounds coming from the railroad cut. The crew members headed down to see what was happening just as a bomb went off. It seemed to rain dirt and debris for hours, but fortunately no one was injured. As it turned out, one of the town boys had gotten into the local fireworks supply and made a bottle bomb as a joke. It rattled the windows in Oakland several miles away and shut down the Burlington Railroad until the track could be inspected. The railroad officials were not amused, and I had to testify in a court hearing.

Archeological field work was my summer occupation, and in the winter the focus was on museum exhibits. As curator of the Fort Robinson Museum and later as curator of anthropology at the NSHS museum

in Lincoln, I put into practice what I had learned about museum exhibits at the Field Museum and the Arizona State Museum and from Gus Kivett at the NSHS. We did various museum seasonal exhibits and an annual elaborate show at the Nebraska State Fair. We also worked with the Lincoln Junior League in restoring William Jennings Bryan's home in Lincoln. Stratification of wall paint and some good photographs and the collections in the NSHS museum were all used in the project.

My Ph.D. was awarded in 1962, and I began a part-time moonlight job teaching an archeology course at the University of Nebraska. When Gus Kivett was appointed as director of the NSHS, I was promoted to museum director, and others began to do the archeological field work. I left Nebraska in 1964 for the University of South Florida (USF) in Tampa to take up a new career as a professor. I was the only anthropologist teaching in the anthropology program and was appointed chairman to establish the Anthropology Department, which grew as rapidly as I could hire additional faculty. I managed to include a small teaching exhibit gallery in the departmental facilities planned for a new building. It isn't a proper museum (although that is what it is often called), but it allowed me to offer a course in museum methods on a regular basis until my retirement.

THE PLAINS CONTINUED AT THE UNIVERSITY OF SOUTH FLORIDA

University faculty on academic year appointments are like migratory seasonal workers. My historical archeology experience, based on two Nebraska sites with "fort" in their names, led to summer contract projects with Parks Canada at Castle Hill in Placentia, Newfoundland, and Fort Lennox at Ste. Paul Ile-aux-Noix, Quebec, from 1965 to 1968. Historical archeology continued as my major research focus and summer field work for the Mackinac Island State Park Commission at Fort Michilimackinac in 1978, 1979, and 1983 (with Don Heldman) and Fort Mackinac on Mackinac Island in 1980, 1981, 1982, 1986, 1995, and 1996. I won't discuss these further in this paper.

I never lost my interest in Plains archeology. One element of method developed in historic sites archeology was ceramic formula dating, and I believe I was the first to apply this technique of seriation and dating to prehistoric materials in a paper, "Pawnee Potsherds Revisited" (Grange 1974, 1984). Carlyle Smith and I had often talked about a joint paper synthesizing Arikara archeology, but we never got around to the project. I made an effort in that direction, applying ceramic formula dating to Arikara prehistory, in a paper presented in a symposium honoring Carlyle after his retirement (Grange 1981).

In 1976 Waldo Wedel organized a symposium on Pawnee archeology at the U. S. National Museum, and I was honored to be invited to participate. Later we presented revised versions of our papers at the Plains Conference in Denver, and they were published in a special number of *Nebraska History*. I reviewed Pawnee archeology and included a study of Lower Loup social organization, based on ceramic design element associations in house contexts (Grange 1979).

I made a mini-return to more active Plains archeology in 1985, when the NSHS Foundation supported a small grant to begin working on the backlog of Pawnee sites. We selected the Hill site (25Wt1) or Pike-Pawnee Village as the initial target. Jane and I spent a month in Lincoln, working on the artifacts recovered by A. T. Hill and the 1941 WPA excavation of the site. This site, visited by Zebulon Pike in 1806, is an ideal one in which the continuum between prehistoric and historic period cultures and archeology can be examined.

Then in 1987 the NSHS Foundation funded a small USF field school at the site (Figure 17). We worked on determining limits of the occupation, assessing site damage by the agriculture lease used to support acquisition of the site, getting a personal understanding of the village stratigraphy, and applying water screening recovery techniques to find seed beads in the village area, where only one or two had been recovered in the past (Grange 1987, 1989, 1991).



Figure 17. Shade break at the Pike-Pawnee Village (Hill site, 25Wt1) during the University of South Florida field school in 1987. From left to right are Judith Illyes, Patricia Carrender, Sandra McCue, and the author.

The Pike-Pawnee Village project was slowed during the enactment and implementation of the Nebraska legislation that led to the reburial of much of the material from this and the other Pawnee sites.

THE NEW AND THE OLD

Comparing Plains archeology of the 1950s with the present would reveal a great many differences. I will mention only a few of the more obvious items.

During the Missouri River salvage efforts, contractors and Smithsonian field parties were there to excavate as much of as many sites as possible as quickly as possible. We relied upon the sharp eyes of the excavators to spot pottery, stone tools, bones, and other artifacts. Crew members used shovels more than trowels, breaking up and inspecting the shovels of dirt before throwing them onto the dirt pile. Screening was usually confined to special features. We must have missed a great many tiny artifacts and smaller faunal and floral specimens, because water screening and flotation hadn't been added to the archeological tool kit. Those time-consuming methods would have limited the amount of work accomplished, and only a small fraction of the cultural resources could be investigated as it was.

House floors were cleaned off with sharpened shovels rather than trowels. When spading off the sod layer above an earth lodge floor, we were expected to throw, not carry or barrow, the spoil onto the dirt pile 20 feet or more away. The use of power equipment was relatively new. Although WPA crews in the Plains had used mule-drawn scoop pans, the regular use of heavy power equipment was a salvage archeology innovation that later spread to non-salvage field projects within the Plains and far beyond.

The analysis of archeological data has also changed a great deal since those days, both in method and theory. For example, we always measured and quantified the "waste flakes" and reported these data as evidence of flintknapping, but nothing like the detailed lithic analysis involving edge angles was common, if it existed at all, during the early River Basin Surveys days.

Data analysis was in transition from the presence and absence tables used in early McKern classification of components into foci and aspects to quantified tabulations. Conversion of the numerical counts to percentages for comparative purposes and for relative chronological seriation was state of the art, and Al Spaulding's demonstration of the application of then esoteric statistics, such as Chi square, to archeological data was the mind-boggling, cutting edge, hot stuff. We more often used pencil and paper than calculators,

and slide rules were for adepts. The edge-punched card and needle sort method was pretty slick and could be run up at home with file cards, a hand punch, and a bit of a coathanger. These seem primitive methods today.

The early use of computers by William Longacre in the Southwest and James Deetz in the Plains involved the specialist computer wizards but opened the way to far more sophisticated multi-variate studies. My Plains mentor, Carlyle Smith (1992:68), was never entirely comfortable with these new techniques. I was self taught as mainframe and later desktop computing became possible at USF, but I always felt myself behind the curve of new technology and methods. I envy archeologists just starting out now with automatic transits, GPS, and other wonders.

There is a huge backlog of unreported archeological data. Only portions of the wealth of data excavated from Pawnee sites in Nebraska by the WPA projects have ever been published. The WPA (before my day) focused on labor intensive aspects of archeology, excavation and artifact processing, but not on publication and was terminated by World War II. After the war Plains archeology was aimed at the River Basin Surveys salvage program in which I began my own career in the Plains. Between the dam construction time schedules, funding cutbacks and shortages, once again the focus was on getting material from the ground, and reports were often delayed or provided in unpublished formats.

The river basin salvage pressures were quickly replaced by those of the highway salvage programs. At the NSHS we added a highway salvage archeologist to the staff. Initially there was so much field work that there was little time to convert the project manuscript reports to published format, although this was accomplished later. Soon after that the current period of cultural resource management and contract archeology began. This has increased administrative archeology and supports a lot of archeological work, but it has also produced a vast gray literature of unpublished reports.

Throughout my career the selection of sites and research problems was driven more by the need to rescue (to use the better British term) data rather than by archeological questions. Some archeological research questions do get addressed along the way, but there is a vast backlog of data yet to be utilized. More recently the state and federal NAGPRA legislation has brought another controlling perspective into operation, and some archeological collections have been reburied without complete analysis. Once again archeologists need to adapt their research to an entirely different set of external pressures.

When I was a student, archeologists in training acquired a good background in relevant ethnography. We struggled to get as many of the course offerings as possible, but this has changed. I find that many graduate students in archeology are poorly prepared. Some have never had a formal ethnology course like Indians of North America! A few others have had a course about modern American Indian problems, which included an introductory section on ethnography/ethnohistory. When I first taught at USF, students paid tuition by the term and could take courses up to a reasonable limit. Then the legislature changed the system, and tuition has since been charged by the credit hour. Students were transformed instantly from maximum course takers to minimum consumers, and it has become increasingly difficult to increase academic program requirements. All this was perhaps good for the University budget but not good for maximum training of students.

In 1994, after 30 years of service, I retired from the University of South Florida and moved to New Smyrna Beach, Florida. I have a number of ongoing research projects, and when I am not surfing, I continue my research and data analysis on the Pawnee materials from the Plains and continue USF archeological field schools and research at Fort Mackinac.

REFERENCES CITED

- Grange, Roger T., Jr.
 1956 A Report on the Fort Robinson Museum. *Clearinghouse for Western Museums Newsletter* 201.
- 1958a The Average Visitor at the Fort Robinson Museum. *Clearinghouse for Western Museums Newsletter*, New Series, 3-4: 26-27.
- 1958b Fort Robinson, Outpost on the Plains. *Nebraska History* 39(3):191-240. Reprinted as a separate monograph in 1958, revised edition in 1965, 4th revised printing in 1978. Nebraska State Historical Society, Lincoln.
- 1963a Digging at Fort Kearny. *Nebraska History* 44(2):101-121.
- 1963b The Garnier Oglala Winter Count. *Plains Anthropologist* 8(20):74-79.
- 1964a Treating the Wounded at Fort Robinson. *Nebraska History* 45(3):273-294.
- 1964b A Clovis Point From Nebraska. *Plains Anthropologist* 9(23):64.
- 1964c A Cache of Scrapers Near Crow Butte, Nebraska. *Plains Anthropologist* 9(25): 197-201.
- 1968 *Pawnee and Lower Loup Pottery*. Publications in Anthropology No. 3. Nebraska State Historical Society, Lincoln.
- 1974 Pawnee Potsherds Revisited: Formula Dating of a Non-European Ceramic Tradition. *Conference for Historic Sites Archaeology Papers 1972* Vol. 7, Pt. 4: 318-336. The Conference on Historic Site Archaeology, The Institute of Archaeology and Anthropology, The University of South Carolina, Columbia, South Carolina.
- 1979 An Archaeological View of Pawnee Origins. *Nebraska History* 60(2):134-160.
- 1980 *Salvage Archaeology in the Red Willow Reservoir, Nebraska*. Publications in Anthropology No. 9. Nebraska State Historical Society, Lincoln.
- 1981 New Advances in Archaeological Methods. Ceramic Formula Dating of the Arikara. In *Method and Theory in Plains Archaeology*, edited by Alfred E. Johnson and Larry A. Zimmerman, pp. 31-55. Special Publication No. 8. South Dakota Archaeological Society, Vermillion.
- 1984 Dating Pawnee Sites by the Ceramic Formula Method. *World Archaeology* 15(3): 274-293.
- 1987 Excavations at the Pike-Pawnee Village Site (25Wt1), Nebraska: A Preliminary Report, No. 1. Ms. on file, Nebraska State Historical Society, Lincoln.
- 1989 The Functions of European Artifacts in Pawnee Culture: Evidence from the Pike-Pawnee Village, Nebraska. Progress Report No. 2. Ms on file, Nebraska State Historical Society, Lincoln.
- 1991 Preliminary Report Number 3: Pike-Pawnee Village Project. An Analysis of the Impact of Euro-American Culture on the Pawnee: An

- Archaeological View of Three Hundred Years of Contact and Change. Submitted to Nebraska State Historical Society Foundation, Lincoln.
- Gray, Ralph
 1953 Following the Trail of Lewis and Clark. *National Geographic Magazine* 103(6).
- Martin, Paul, John Rinaldo, Elaine Bluhm, Hugh Cutler, and Roger T. Grange, Jr.
 1952 Mogollon Cultural Continuity and Change. *Fieldiana* 40. Chicago Natural History Museum.
- Solecki, Ralph
 1994 Reminiscences of Plains Archaeology, Pre and Post World War II. *The Kansas Anthropologist* 15 (2):1-16.
- Smith, Carlyle S.
 1959 Reconstructing a Plains Indian Earth Lodge. In *The Archaeologist at Work*, edited by Robert F. Heizer, pp. 131-133. Harper and Brothers, New York.
- 1977 *The Talking Crow Site*. Publications in Anthropology No. 9. University of Kansas, Lawrence.
- 1992 Carlyle S. Smith KU Years: 1947-1980. *The Kansas Anthropologist* 13(1&2):58-72.
- Smith, Carlyle S., and Roger T. Grange, Jr.
 1958 The Spain Site (39LM301), a Winter Village in Fort Randall Reservoir, South Dakota. In *River Basin Surveys Papers*, edited by Frank H. H. Roberts, No. 11, pp. 79-128. Bulletin No. 169, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.