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A National Park Service Technical Bulletin

THREATS TO THE PARKS - FACT OR FICTION?

Harry W. Pfanz

A science fiction film entitled "Soylent Green" once predicted that overpopulation would destroy the earth's green spots, that there would be no more Smokies, Grand Tetons, or Everglades. Fact or fiction? One wonders after reading the National Park Service's 1980 State of the Parks report. The report synthesizes an earlier survey of 4,354 threats reported by park personnel or disclosed through scientific parks studies data. It itemizes such problems as increased boating on Glacier Bay (which may threaten the habitat of endangered humpback whales) the development of geothermal resources along Bandelier's western border, the intrusion of European boars in the Great Smokey Mountains, the overabundance of visitors at Petersburg, Shiloh, and other cultural parks... The list goes on. The report is a catalog of ailments which, for better or worse, have changed and will continue to change the face of numerous NPS holdings.

Yet despite the headlines, most of us in the Service know that the threats cited are not news. They represent conditions long a challenge to park managers and personnel. Their very presence underlines the changing com-



Cumberland Island structure illustrates the deterioration of wood, an internal problem resulting from lack of maintenance.

plexity of the park community. They resurface the old dilemma: can a cultural or natural resource be protected from the impact of time, and should it be so protected? This question, indeed, is a significant one, and should be considered when State of the Parks statistics are cited. Since numerous threats to the parks have not been fully documented, and since the ramifications of those that have been documented are not fully known, we must continue to treat each of them seriously, but without undue alarm for the durability of the resource.

Initiated as a request from the House Interior Parks Subcommittee, the initial research on the Threats to the Parks issue was handled by the NPS Office of Science and Technology. That office formulated a questionnaire, touching primarily on natural threats, which was distributed to park managers. Seven major threat categories were isolated: aesthetic degradation, air pollution, physical removal of resources, exotic encroachment, visitor physical impacts, water quality pollution and water quantity changes, and park operations. The primary results of the survey included such striking finds as

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HISTORICAL UTILITY LINES: A RESOURCE IN SEARCH OF CONSTITUENTS

Jackson W. Moore, Jr.

"In historic zones, utilities that were present during the historic period are historic resources and shall be governed by the same policies as for other historic resources."

--Proposed Guidelines for Private Utility Line Rights-of-Way Use Permits and Contracts. Denver Service Center, 1980.

With the decision to include utility lines as part of the historic scene, we concomitantly expand the scope of those parts of historic preservation and the "built environment" that are to be managed as cultural resources. Water mains or wooden tubes, and wrought and cast iron take their places beside box-wood groves and bois d'arc shelterbelts

as historic appendages to historic ranches, battlefields, and presidential homes/birthplaces.

The difference, for the time being, is that trees, grasses, cacti, etc. have active constituents outside of the historic preservation field. Once the decision is made to preserve natural resources of the historic scene, they are closely monitored by naturalists, landscape architects, and historic architects for starters.

There is no question but that utility lines are designed by professionals in accordance with the styles of the times and laid/installed by "craftsmen." They are artifacts which reflect both their culture and the historical state

of the art of their technology. They also have fabric that can be judged in terms of its condition and integrity.

The logical constituency of utility lines would include engineers, draftsmen and tradesmen, all of whom would represent various subfields and specialties. Should they, in fact, develop into such a constituency, the engineer would become analogous to the designer/builder, and the technician to the craftsman.

Most historical archeologists have observed (while preparing to destroy) substantial quantities of utility lines of every time period and local style. I experienced a fleeting awareness of

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THE PALEO INDIAN PERIOD IN NORTH AMERICA: NEW EVIDENCE FROM EASTERN NORTH AMERICA

Richard J. Dent
The Accokeek Foundation

Those whose file of National Geographic magazines reaches back to December 1955, have seen what they [Paleo Indians] are thought to have looked like....One double paged spread, in color, shows a statuesquely arranged, three-generation grouping of them, babe in-arms to do-tard, huddled together calf-deep in snow, clad in loose wraps of hide, and facing a rising blizzard against a background of blasted heath and imperturbable woolly mammoths.

Description in The American Dawn by
Louis Brennan

There has always been something intrinsically romantic about speculating on the lifeways of the first humans to enter the New World. Unfortunately, the romantic speculation such as that which the eminent archeologist, Louis Brennan, described for us above, sometimes finds itself metamorphosed into scientific fact. The unearthing of a fluted point, diagnostic of the Paleo Indian period in North American archeology, immediately stirs thoughts of a band of ice age hunters stalking one species or another of ubiquitous Pleistocene megafauna. In this short essay, however, we are going to return to the sobriety of hard evidence. We are going to examine how four painstaking years of excavation and countless hours of laboratory analyses at the Shawnee Minisink site in northeastern Pennsylvania have added a significant new dimension to our understanding of the initial inhabitants of the Americas. But first, a little background information is necessary.

For many years during archeology's infancy a few scientists daringly argued that descendants of present-day Native Americans had been in the New World since the termination of the ice age some 10,000 to 15,000 years ago. This postulated tenure was mostly based on similarities perceived between European Paleolithic implements and putative artifacts of similar age in North America as well as the supposed association between items of human manufacture and late Pleistocene geologic strata. No matter what the case, however, definite evidence for this great time depth could not be unequivocally demonstrated. The impasse was not breached until 1926 when J. D. Figgins discovered chipped stone projectile points literally embedded in bison bones at Folsom, New



Shawnee Minisink stratigraphy. Paleo Indian component is sealed in the undulating glacial loess soil deposit which forms the base of the above profile.

Mexico. Since we knew that this particular species of bison had gone extinct near the end of the Pleistocene, our acceptance of populations in the New World during the same period was now warranted.

Today we know much more about these first people to enter the New World. They had crossed a land bridge which became exposed between Siberia and Alaska when world-wide sea levels dropped in response to continental glaciers trapping significant amounts of the world's total water supply in their frozen masses. This causeway, known as the Bering Land Bridge, was traversable at least twice, the last period being around 12,000 years ago. After moving, probably unconsciously, into the Americas across this bridge, Paleo Indian groups then migrated down through an ice-free corridor, between the Laurentide ice pack to the northeast and the Cordilleran to the northwest, into more temperate areas of the North American continent and eventually into the southern latitudes of Central and South America. They carried with them a distinctive technology for extracting their subsistence from the environment. In this Paleo Indian tool kit a unique projectile point with large channel flakes removed from its basal portion leaving distinctive flutes is almost always present. It is these fluted points (they are made in a variety of different styles) which archeologists define as the hallmark of the Paleo Indian tradition in North America. Based on our present knowledge, this Paleo Indian period lasted from between 11,500 and 10,000 years ago.

Contemporary archeology, however, is attempting to move beyond chronological

definition and sterile description of prehistoric culture into the dimension of understanding and explaining past lifeways. This pursuit of understanding moves us into a climate of uncertainty concerning the Paleo Indians. Archeologists have traditionally interpreted, based only on sites excavated in the Western United States, all Paleo Indian peoples as having been strictly hunters of now extinct Pleistocene megafauna such as the mastodon, mammoth, certain species of bison, etc. In other words, a model of Paleo Indian behavior inferred from excavations in the West has been constructed and applied to the interpretation of Paleo Indian sites in other regions, particularly in eastern North America. Evidence recently recovered and analyzed from the Shawnee Minisink site calls this practice into question.

The Shawnee Minisink site is located at the confluence of the Delaware River and Brodhead Creek some 3.5 km. northwest of the Delaware Water Gap. For those of you not familiar with the area, it lies in the Upper Delaware Valley of northeastern Pennsylvania which is flanked by the Kittatinny Mountains of the Appalachian Chain to the east and the Pocono Mountains, which form the escarpment of the Appalachian Plain, to the west. Excavations and surveys by the Upper Delaware Early Man Project recovered significant information about the Paleo Indians who once inhabited the valley. Most of these data were recovered from the Shawnee Minisink site where radiocarbon dates indicate occupation by these people around 10,600 years ago.

Excavation techniques at Shawnee Minisink were geared toward recovering every conceivable bit of information pos-



Paleo Indian fluted point recovered at the Shawnee Minisink site.



Fish bone and Hawthorn Plum seeds recovered from a hearth in the Paleo Indian zone at Shawnee Minisink.

sible. Every artifact, and there were over 55,000, was mapped in relation to its exact horizontal and vertical position relative to an established site datum point. Even after this location process, all soil matrix was sifted to recover any artifacts which might have missed the excavator's eye. Samples of soil from each excavation unit were also processed, via a water separation technique, to recover small-scale floral and faunal remains. Over 4,000 soil tests were also completed to extract important information concerning past environmental conditions at the site locality. The American University computer in Washington, D.C. was called upon to store, organize, statistically analyze, and eventually, retrieve all the data in the form of maps, artifact lists, diagrams, etc. Over 5,000 color, infra-red, and black-and-white photographs as well as voluminous field notes and drawings also reinforce these computerized records. In all, it is safe to state that no archeological site has ever been excavated with any more precision or care. One could literally reconstruct the site back in the ground if necessary.

From our excavations and analysis it appears that a small band of people camped along the banks of the Delaware River and Brodhead Creek some 10,600 years ago. From the artifacts and chip-
page it seems that these people were making various stone tools (predominantly scrapers and flake tools) out of local black chert to be, in turn, employed in the manufacture of other tools. These secondary tools, now gone because of the biodegradable materials used in their manufacture, were possibly projectiles of bone, antler, or wood. While these people were at the site, they ate fish from the river or creek

and also collected vegetal material such as hawthorn plums, hackberry, grape, blackberry, acalypha, and some chenopodium. Remains of all these faunal and floral resources were recovered during our excavations and are definitely associated with the Paleo Indian occupation. From the season when these vegetal resources would have become available, we can also infer that the period of occupation at the site was sometime during the late summer (perhaps late August or September).

Beyond these data, paleoenvironmental reconstruction of the entire upper Delaware Valley also tells us that a boreal forest consisting mainly of pine with intrusions of birch and oak along the water courses blanketed the region. Charcoal, analyzed from a hearth which once burnt at the Shawnee Minisink site, reflects this reconstruction in that it contained bits of white pine, willow, birch, and oak. Corresponding animal populations in the valley at this time included those species typical to the far North today, especially caribou. The megafauna which archeologists traditionally like to associate with Paleo Indians were gone from the valley.

In terms of climate, we can also give you a weather report for the Upper Delaware Valley 10,600 years ago. Based on our computer models, which deduce the relationship between modern climate and vegetation and then mathematically transfer this relationship to fossil pollen assemblages representing the vegetation of the past, the following picture emerges. The Paleo Indians at Shawnee Minisink experienced days in the late summer which averaged around 18 degrees centigrade (about 64 degrees Fahrenheit) with overcast skies preva-

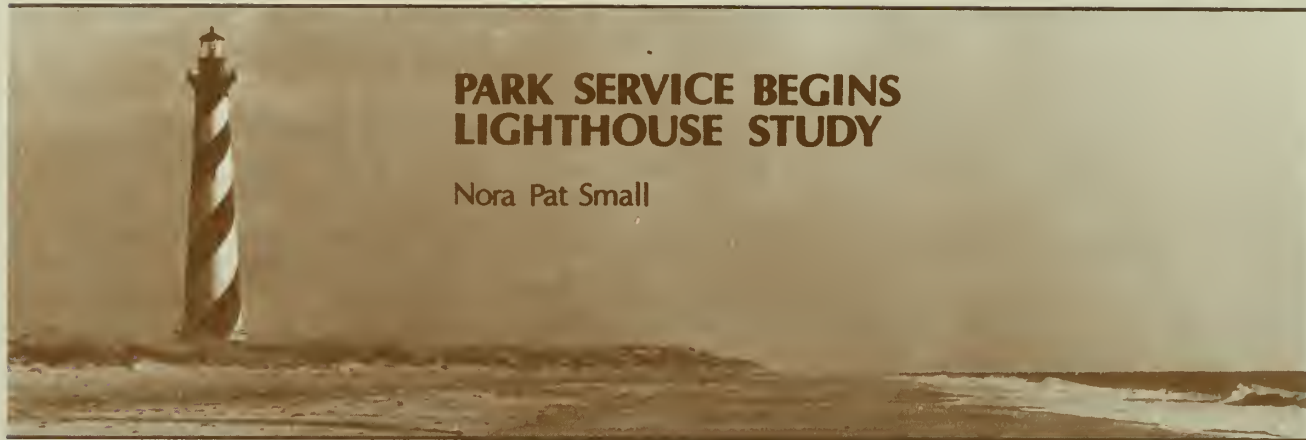
lent. The direction of the south-to-north prevailing wind is predicted in our models and is also betrayed by the pattern of artifacts around a hearth which once warmed the visitors at Shawnee Minisink. A scarcity of artifacts on the hearth's northern boundary while thousands exist in all other directions, indicates wind was carrying smoke and heat to that portion of the site and making it unpleasant. Precipitation rates during this period were also much higher than today. Snowfall accumulated during the winter at a rate of 160 cm. per year versus 120 cm. today and rainfall was almost twice that of today. Most of these climatic anomalies can be directly linked to the Wisconsin glacial ice mass which had once extended into the valley itself and was at this time migrating northward but still disturbing normal weather patterns significantly.

Concluding, we must now assess the data from the Upper Delaware Valley in terms of archeology's preconceived theory of Paleo Indian lifeways. Shawnee Minisink represents one of a few select sites from this period with secure radio carbon dates and is the only Paleo Indian site in the region where information on subsistence practices has been recovered. At the very least, the research undertaken at this site informs us that all Paleo Indian groups were not solely engaged in the hunting of mastodons, mammoths, and other species of Pleistocene megafauna. On a more abstract level, these new data should also once again underline the inherent dangers in recognizing a pattern in the archeological record of one region in North America and then expecting it to be applicable continent-wide. It is true that for many years our knowledge of Paleo Indian peoples came from the only known sites of that period which were located in the western United States. However, so much significant new data, such as that from Shawnee Minisink, is today appearing from the eastern United States that one wonders if it is not a case of the western tail wagging the eastern dog.

CEM

Acknowledgments: The entire Upper Delaware Valley Early Man Project was sponsored by the National Geographic Society and the National Science Foundation. Principal investigator was Charles W. McNett of the American University. The author would like to express his gratitude to the American University, Department of Anthropology and the Accokeek Foundation for making this particular research possible. He would also like to acknowledge the contributions of his colleagues, Dr. June Evans, Dr. Barbara McMillan, Dr. Russell Handsman, and Ms. Sydne Marshall. All statements made in this article are, of course, the responsibility of the author.

Richard J. Dent is currently Research Archeologist with the National Colonial Farm of the Accokeek Foundation. His principal research interest focuses on the prehistory and history of eastern North America. Dent participated in the Upper Delaware Valley Early Man Project for three years and directed the excavation team at the Shawnee Minisink site in 1977.



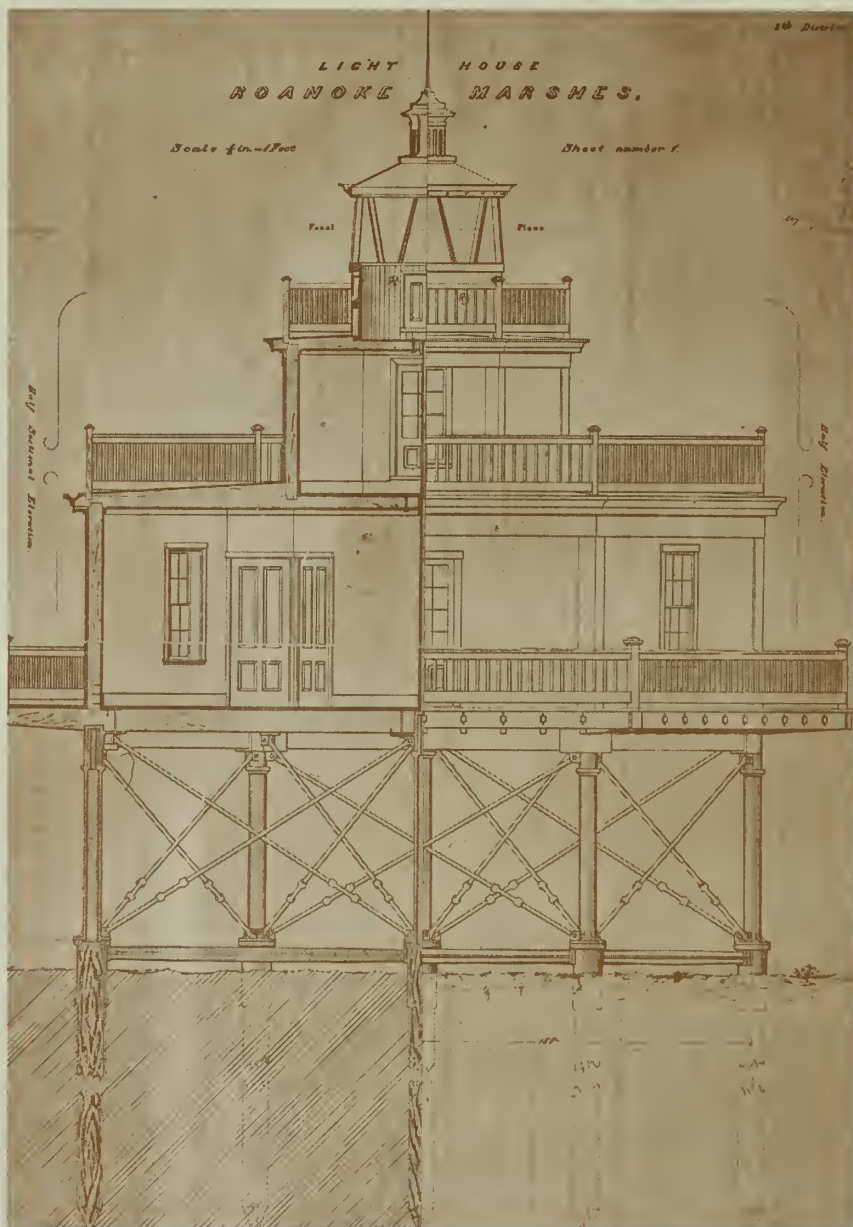
PARK SERVICE BEGINS LIGHTHOUSE STUDY

Nora Pat Small

The blast of a fog horn piercing through dank, off-shore mist, or the nautical exploits of that legendary horse with the light around its neck that delivered up seamen into the hands of pirates along the North Carolina Coast, these images are enough to make any researcher's heart pump faster. A certain degree of romanticism has always infused historical research into those numerous and varied structures known as lighthouses. No matter how utilitarian their structure and whether they sit in the middle of a swamp or high and dry on the top of some craggy overlook, they continue to evoke images of pulse-stopping adventure, even among the most staid researchers. For this reason, the story of American lighthouses has most frequently been told from the historical or legendary viewpoint. Seldom has anyone attempted to classify lighthouses as a building type.

All too often a structure classified as a lighthouse receives no more exact grouping than just that -- lighthouse. It is categorized with structures that certainly function as lighthouses but have no more resemblance to each other than pepper to salt. Present research being undertaken by the National Park Service is attempting to separate and appropriately categorize the unique differences between structures in this large grouping of Park Service properties. With any study of a structural grouping, the researcher must examine each building in relationship to every other building of that same general type in order to place it in its proper perspective. Too frequently, this sort of work goes unformatted and is repeated for similar structures unnecessarily. The Park Service hopes that by creating a series of building type studies and by making these available to researchers, much of the repetitive legwork will be avoided.

Lighthouse types can be distinguished by the foundation construction and by their superstructures. The first is determined by the terrain, the second



by necessity and tradition. Frequently foundations can consist of cut-stone, a metal caisson, screw-piles, or even the keeper's dwelling. The variety is extraordinary. A marshy environment might require screw-piles, as opposed to the stone foundations of the tall, shoreline structures. The superstructure can be an octagonal frame tower, a cylindrical masonry tower, a metal skeleton-frame tower, or any of a number of other combinations of materials and building styles.

Many of these variations in lighthouse types are linked to significant advances which permitted lighthouse engineers to construct on sites that had hitherto resisted all efforts to be lighted. New building techniques also permitted

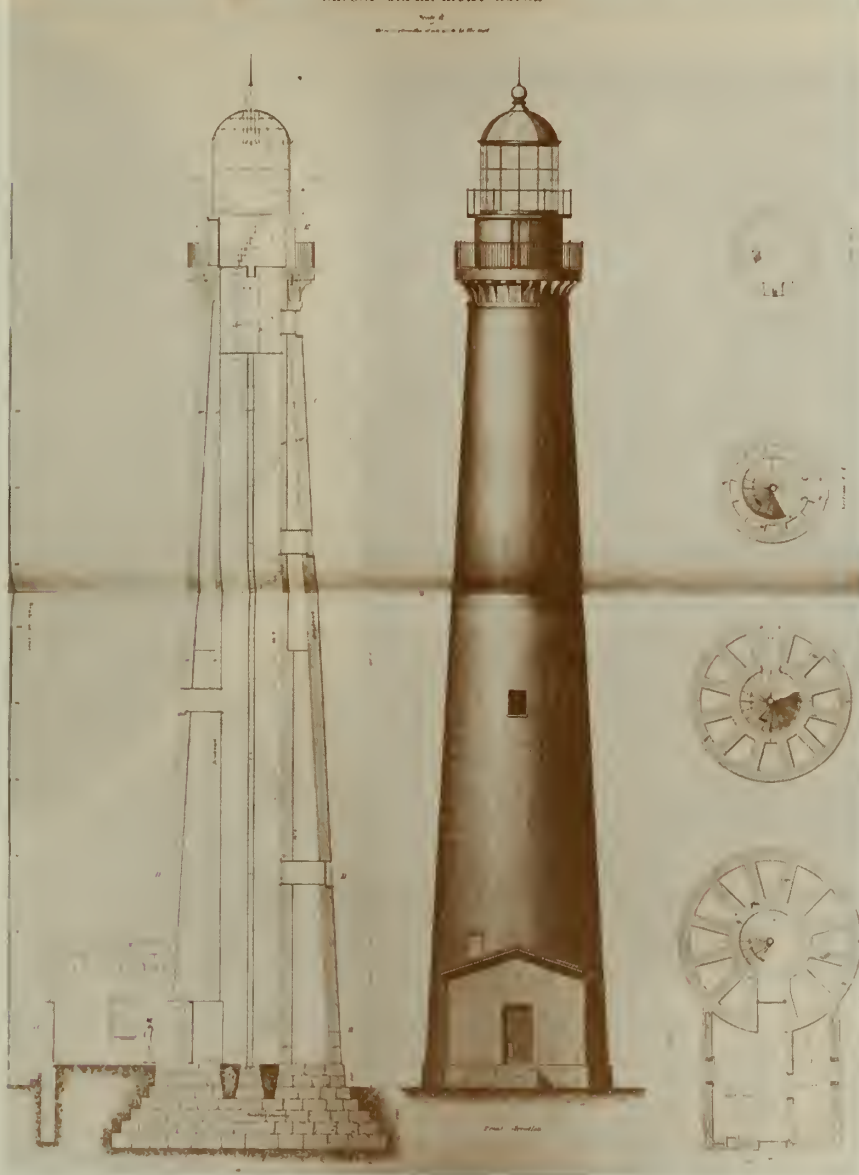
the construction of towers which could withstand gales and wave action for years. In studying lighthouses as a building type, one must understand the implications of building in stone rather than iron, for example, or sinking a caisson using a new technique, then building a superstructure on top of it.

Initial research indicates no neat chronological evolution in the construction of lighthouse types. In 1756 John Smeaton erected the most successful wave-swept lighthouse ever built, on Eddystone Rock off the English coast. Not until 1855 was his design employed at Minot's Ledge in the United States, and that was only after a skeleton frame structure of

wrought-iron was swept clean from the rock in a storm. Various materials suit various lighthouse conditions best, so it is not surprising to find contemporaneous dwellings surmounted by towers of frame, masonry, and iron-plate.

The National Park Service owns a good cross-section of U.S. lighthouse types, ranging from some of the earliest and most traditional forms, such as the Sandy Hook lighthouse, to the much later and rather diminutive light at the end of Derby Wharf in Salem. There are free-standing metal skeleton-frame structures, plus iron-plate towers built atop fort bastions. Each of these various types will be studied and categorized according to age,

SECOND ORDER LIGHT HOUSE



(Above) Jones Point Lighthouse, on the Potomac River at Alexandria, Va. The tower unit is mounted on the house, with access by the keeper from inside the building.

(Left) Standard design for a second order coastal lighthouse. The drawing as presented served only as a guide. Not all lighthouses followed it exactly.

(Far Left) Diagram of Roanoke Marshes Harbor Light, replaced in 1877 by a screw pile foundation. Roanoke Marshes was a fourth order lighthouse, with the brightest being of the first order.

building materials, and construction methods employed for the tower as well as for the foundation. The specific location of the structure will also be noted.

The categories will be designed so that the characteristics of any given lighthouse can be compared to those of any other lighthouse with ease. As such, this catalogue will serve as a trial for further studies on lighthouses. More importantly perhaps, it will also guide future Park Service acquisitions. Used as a planning tool, it can reveal what lighthouse types are not currently represented, and, thus, which purchases would contribute most to the Park Service properties.

CEM

Nora Pat Small is a summer intern with Cultural Resources, WASO. She is attending the University of Virginia where she is studying for the masters degree in architectural history/ preservation.

PERHAPS as many as 100 million Americans today are related to those late 19th- and 20th-century pioneers who looked to America as a land of opportunity and freedom. Ellis Island was the gateway to that freedom.

The immigration station on Ellis Island in New York Harbor opened on New Year's Day, 1892, equipped to handle 10,000 immigrants a day. That first station was destroyed by fire June 14, 1897, and all immigration records of the Port of New York for the years 1885-1890 were lost. Construction on the present station began immediately and was completed in December 1900, in time for the peak years of immigration, 1903-1914.

In the upset of World War I and the years following, Congress took action to stem the tide of the great Atlantic migration. Immigration was limited to 357,000 people per year and quotas were set for each country equal to three percent of the number from that country residing in the United States in 1910. In 1924, quotas were further restricted to two percent of national residents as recorded in the 1890 census. During the 1930's, Ellis Island became a refuge for immigrants from Nazi Germany, and after World War II, the Island served mainly as a port of debarkation for subversive aliens. In 1954, the Ellis Island station was closed to immigration, and one year later, it was

ELLIS I

RESTORAT

Professor



1



2



3

- 1 Immigrant family posing for photograph by Terence V. Powderly, second Commissioner General of Immigration, appointed by President McKinley.
- 2 One of the many boats docking at Ellis. Photo taken from a glass plate negative, thus the sharpness of detail.
- 3 Workers in Ellis Island kitchen, December 18, 1901. Six persons were aliens who were detained. The others are regular employees.

LAND.

PROJECT

C. Bolino

declared "surplus property." In the next decade the station fell into ruin. President Johnson designated it a national monument, but a Congressional plan which included a 130-foot hollow tower containing the names of all the immigrants, was abandoned soon after.

The Ellis Island Restoration Commission was originally established as a Bicentennial project for the State of New Jersey. Plans called for opening the Island to tourism beginning in 1976. Congress initially appropriated \$6 million for this purpose, then, in 1978, it authorized another \$24 million.

The plans for restoration of Ellis

Island in keeping with its status as a national monument, call for the development of a center for immigration studies, and the establishment of a museum. The museum would be located in the Great Hall, where immigrants were originally processed. In addition, multi-cultural (ethnic) rooms in the old lounges on Islands 2 and 3 would contain maps, flags, books, pamphlets, articles, histories and microfilm of each cultural group. The research center would be housed in the old isolation wards. The Commission intends also to establish the Ellis Island Historical Foundation to make grants to scholars for immigration research.

See ELLIS ISLAND, page 10



4



6



5

- 4 Family of immigrants, each tagged with an identification number.
- 5 The 'Thomas C. Millard', one of the boats used to ferry immigrants from Ellis Island to the mainland.
- 6 Ellis Island dining area. Note familiar faces from the kitchen photograph.

NAVAJO INDIAN IRRIGATION PROJECT

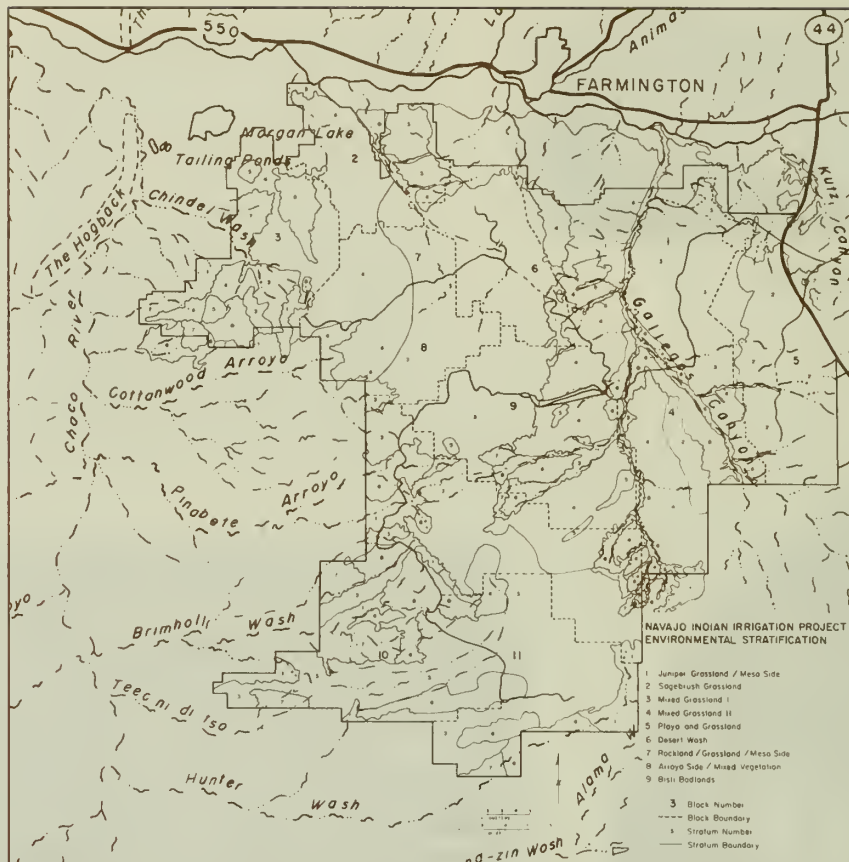
Dwight L. Drager

The Remote Sensing Division of the Southwest Cultural Resources Center recently completed a Remote Sensing assessment of the 271,810-acre Navajo Indian Irrigation Project (NIIP) in New Mexico's San Juan County. The irrigation program has been undergoing development for the last four years.*

The size of the NIIP reserve has made more remote sensing techniques economically feasible for survey investigations than traditional survey techniques. Basing much of their work on Landsat satellite imagery, Rosalie Fanale and Art Ireland, under the direction of Dwight Drager, prepared NIIP maps showing the distribution of various environmental characteristics. Maps of soils, geology, precipitation, and vegetation were all made and compared with maps of known archeological site locations.

Originally divided into eleven administrative blocks, the NIIP had surveyed five of the eleven before the Remote Sensing Division entered the Project. The Division used this initial information to project expected site frequencies into the remaining blocks. Three separate projections were made, based on soils, geology, and vegetation.

Field survey work has now begun on the remaining blocks. Information obtained will be used to modify the projections on yet unsurveyed blocks in an attempt to anticipate site dis-



This map, prepared from LANDSAT imagery, helped to determine archeological site projections made by the Remote Sensing Division.

tributions within the area. Preliminary indications suggest that when sufficient sample size is available, projections accurately allow for future site planning.

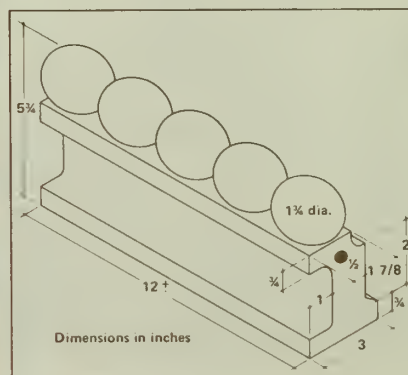
*The National Environmental Policy Act (NEPA) and Executive Order 11593 direct that all land-disturbing activities must include complete surveys of all archeological resources.

WANTED: DATA ON TERRA COTTA LAWN BORDER UNITS

An alignment of terra cotta border units was recently recorded in one of the units of Golden Gate NRA, San Francisco, which was the former estate of Adolph Sutro, one-time mayor and civic leader. Although most of the Victorian era structures and features of Mr. Sutro's estate are now gone, some lawn statuary, urns, and other items remain. We have recently located a 37 foot - alignment of terra cotta units along a roadway edge which dates to about 1890. The units are about 12 inches long and 5 3/4 inches high, with five decorative balls along a top edge. In cross-section, they appear much like a railroad rail. A short hole at either end may have been for a fastener or for the escape of gases and heat during firing. They are slightly glazed or vitrified and are dark brown or black without other colors. Although we assume local manufacture, we would like comparative information on other lawn or road bor-

der units of terra cotta. Please contact: Roger E. Kelly, Regional Archeologist, Western Region, 450 Golden Gate Avenue, San Francisco, CA 94102 (FTS

556-6983 or 556-9343) or James Delgado, Cooperative Student (History), Golden Gate NRA, Bldg. 201 Fort Mason, San Francisco, CA 94123 (FTS 556-9504).



THREATS, from page 1

the following: 1) 75% of all reported threats were classified as inadequately documented by either private or government research; 2) better than 50% of all reported threats were attributed to sources or activities located external to the parks; 3) internal threats to the parks were most often associated with heavy visitor use, park utility access corridors, vehicle noise, soil erosion, and exotic plant and animal intrusions; and 4) 60% of all parks reported appreciable threats to their scenic resources.

One oversight of the survey was the absence of a well-defined category for threats to cultural resource-related parks. To remedy this, a second questionnaire will shortly be distributed to park managers. It will cover historical, architectural, and archeological/anthropological resources and, like the previous questionnaire, will document the occurrence of external as well as internal threats. It will also request information on changing urban patterns, political pressures, ground and atmospheric threats, private exploitation, and employee commitment to the protection of cultural resources. In conjunction with the first survey, the results of this second survey should provide a more fully rounded picture of exactly what park managers are up against.

The State of the Parks report also underlined an important deficiency in most park management plans -- the absence of quantifiable research. A

startling 75% of the threats reported were unverified by documentation. The real bottom line about the report is that it is a place to start understanding. "It gives us a basis for really doing it right for a change," says Dave Dame, Chief, Interpretation, WASO.

As "a place to start understanding" the report is of unquestionable value to the National Park Service. It justifies an increased research program. It encourages the growth of a sympathetic hearing within the park community for the role of research. It provides a rationale for confronting current false concepts of park management. According to the 1980 report, a large percentage of park problems arise out of employee ignorance. Findings indicate park employees simply do not understand precisely what they are protecting. Recognition that employees are not always well informed is the first step. The second is to remedy the situation -- both through training programs and through increased sensitivity to the preservation needs of the cultural and natural park community.

The report itself makes some basic observations and comes to some necessary conclusions. It terms an inventory of NPS resources essential to the management of those same resources, and states that we must accumulate baseline data about them. It states that we must pay greater heed to the external threats than we have in the past, and prepare ourselves to quantify and document all threats. It concludes that we must increase our resource management capability if we are to fulfill the Service's mandate. These conclusions are apt, though not surprising.

Cultural resource managers have already

taken some steps. We have developed the List of Classified Structures, as well as a bibliography of Service studies. A Cultural Sites Inventory and a computerized National Catalog of Museum Artifacts is being developed. Nevertheless, there is still much to do before we have our house in order.

While the Service cannot deal unilaterally with many of the threats, particularly those of external origin, it can counter most of those that arise within parks and areas adjacent to park boundaries. Cooperation with local governments can sometimes obtain needed zoning and boundary protection, and buffer zones can be developed through fee land acquisition programs. Ignorance of effective management policies can be ameliorated to some extent through proper training in NPS management policies and guidelines.

The 1980 Report to Congress represents a system-wide appraisal of NPS resources. By its nature, the report implies a price for our enjoyment of the parks. Visitors must understand they pay a price which is far greater than the occasional entrance fee to certain parks. They pay in the decline of certain forms of vegetation, in the destruction of certain scenic views, in overcrowded conditions. Time does not stand still, neither within a park nor outside its boundaries.

For the parks, the future is not necessarily bright, but then neither is it bleak. The direction it takes merely requires hard work. And to succeed, it has to be directed by fact, rather than fortified by emotion. The State of the Parks Report has made us more aware. Now we must decide how best to use our new awareness. CMA

UTILITY LINES, from page 1

this while engaged in archeological explorations at Franklin Court, at Independence NHP, during 1961. Bruce Powell and I encountered a very complex array of utilities beneath Orianna Street's Belgian block paving: wood, steel, wrought and cast iron, lead, and ceramic conduits for water, gas, electricity, both abandoned and "live."

After we accidentally cut off our own water, the City of Philadelphia appointed a supervisory technician to monitor and consult with us. Somewhat bellicose, what he lacked in courage he made up for with an extensive knowledge of utilities. Initially totally indifferent toward the "dead" and obsolete utility lines, he gradually succumbed to curiosity as we dug deeper. When

we cleaned off a straight wall profile some 10 feet high, presenting a mosaic of cross-sectioned utilities of various periods, he was hooked. He did some research and invited specialist technicians from City Hall. One of these fairly swooned when we uncovered a primitive gutter drop-inlet at a lower level, and narrower, curb of Orianna Street. I have long forgotten the slang term by which he identified drop-inlets of the late 19th century, but we were as delighted with the date (which I have also forgotten) as he was to see one.

For the nonce a small constituency for utilities existed. We duly recorded the various utilities with scale drawings, photographs, and narratives, and left them to be destroyed by the course of subsequent events.

There are comparable utilitarian his-

toric resources (if we have really decided that this is what they are) in urban parks throughout the system, as well as in non-Service historic districts across the land. Some of the first brick-vault sewers still exist which replaced the garderobe's limitations and permitted the skyscraper and the concentrations of population that they made possible.

Some utility lines have always found champions (despite being utilitarian) but usually as adjuncts. Adjuncts, after all, are what utilities--all kinds--are. But so is the derrick, the rail, and the bridge, and by extension, the tanker. Utility lines, illustrative of technology, will be viable historical resources only if, and for as long as, they have a caring constituency.

But who cares? CMA

The research efforts are concentrated in two areas: oral histories and documents, the oral history phase being the most critical, considering the age of the survivors. We have uncovered 36 projects to date that may have Ellis Island components.

In the document search, we have located the papers of certain Commissioners (for example, the Powderly, Corsi, Williams, and Caminetti papers). Beyond this, there are voluminous records of correspondence and other immigration materials in the National Archives, the Smithsonian Institution and the Library of Congress in Washington, D.C. Still

other documents are scattered over the United States.

We are also accepting donations of books, pamphlets, brochures, passports, photographs, or other memorabilia about Ellis Island. These are being stored temporarily in the Ellis Island Room at the Catholic University of America until restoration of the Island is completed. If you have an interest in this or any other phase of our work, please contact the Commission at Catholic University, Cardinal Station, Box 1314, Washington, D.C. 20064 or call 202/635-5236. Your help will be appreciated.

Through an agreement with the U.S. Department of the Interior, the Ellis Island Restoration Commission has been

designated as the chief private agent of public involvement in the restoration of the Island. When President Carter signed the new authorization bill, the National Park Service created a "planning team" to draft a master plan for the Island.

As Vice President for Research for the Committee, I am assisting the National Park Service in its planning activities. I have proposed that we collect copies of all documents and materials that originated on the Island, including personal papers of the Commissioners-General of Immigration, the Commissioners of the Port of New York, the inspectors, the lawyers, the Surgeons-General and the staffs of the immigrant aid societies.

CRM

Letters to the Editor

"Reconstruction--Expensive, Life-Size Toys?"

In view of the concept so forcefully stated in the article, "Reconstructions --Expensive, Life-size Toys?," pages 6-8, Vol. 2, No. 4, December, 1979, CRM Bulletin, that it is not possible to improve a historic site by means of a reconstruction, some of us here at the foot of the Rockies wonder if it has become suddenly fashionable to improve on the documents of history. We refer to the last sentence in the article which infers that the mission of the National Park Service as stated in the Organic Act was "to preserve nationally significant cultural resources." Our copy of the "Act to establish a National Park Service, and for other purposes, August 25, 1916, (39 STAT.535)," reads that "The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

"Conserve" implies wise use, and is consistent with the singular purpose of the National Park Service as set forth by Congress. Substituting the term "preserve" for "conserve" artificially creates two conflicting purposes. Carrying out the purpose of the Service is a difficult task. Let's not make it impossible, rather, let's preserve the integrity and purity of the Act of August 25, 1916.

Rodd L. Wheaton
The Ad Hoc Committee for Appropriate Reconstructions, c/o The Rocky Mountain Region
Fort Union Reconstruction Analysis Team

Richard Sellars and Dwight Pitcaithley's article in the December, 1979, issue entitled "Reconstructions--Expensive, Life-size Toys?" is a blanket condemnation which I believe is unwarranted. Surely there are instances where reconstructions are desirable and justifiable.

The authors' arguments, it seems to me, betray a misunderstanding about the role of the National Park Service and of what constitutes cultural resources. Sellars and Pitcaithley argue that:

1. The 1916 Organic Act mandates the Service to preserve cultural resources. It also tells us why we are doing this, namely, for public enjoyment. This is the old discussion about reconciling the two directives in the Organic Act which, I suppose, has been going on since 1916. At any rate, since line items for reconstruction projects have appeared in our appropriations, I think we are legal.

2. Reconstructions lack historic integrity. "Historic integrity" is a relative quality. Some properties have more than others, but only rarely could one state that a resource possesses it totally or lacks it totally. One could argue that a well reconstructed building has as much historic integrity as the site of a vanished building.

3. Reconstructions impair nationally significant resources and destroy original historic fabric. The remnants of foundations of individual buildings at Fort Vancouver, Fort Frederica, or

Jamestown are not nationally significant of themselves. They are components of a complex of resources which are significant collectively due to their association with whatever historic events occurred. I am always puzzled by the elevation of "historic fabric" to the status of the True Cross.

The authors' assertion that National Park Service management lacks a strong commitment to cultural resources is silly. Of course we don't get as much money or staff as we would like. Nobody else does either.

4. Reconstructions absorb funds which could better be used to preserve authentic resources. This assumes that these funds would automatically become available for preservation. Of course they would not. The funds would be put back into the pot and would be disbursed to those who did the best job of selling their program or project.

5. Reconstruction is passee and panders to "... children of all ages who have forgotten how to read..." This argument reflects an elitist attitude which is, unfortunately, all too widespread. We are not in business to please ourselves or, solely, other preservationists. Our client is the public, many of whom are children and a few of whom, indeed, don't read. We have not been asked to elevate their tastes. No, I'm not advocating that we follow the example of Knott's Berry Farm. There is a middle ground.

Articles such as this clearly belong on the editorial page. Why not start one in the Bulletin? It might serve to stimulate some worthwhile interchanges. Sellars and Pitcaithley certainly got my attention.

Charles F. Bohannon
Regional Archeologist
Pacific Northwest

I would like to take this opportunity to support the conclusions of the article by Dr. Richard Sellars and Dwight Pitcaithley in the December 1979 issue of the Bulletin entitled "Reconstructions--Expensive, Life-size Toys?" I believe that the issues concerning reconstructions are clear when we examine the legislation that defines the preservation mission of the NPS.

The experience of the American Government in historic preservation derives in the first instance from the Antiquities Act of 1906. According to this act the government was committed to a program of preservation that included the following:

"That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof, parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected."

The Antiquities Act put the United States in the business of historic preservation and the conservation of natural resources. In order to qualify as a national monument a section of land must possess something of archeological, historical or scientific value. From the application of this act came many of the national park monuments that presently make up the National Park System. The Antiquities Act makes no mention of reconstructions. It is concerned with the preservation and conservation of objects of genuine historic antiquity.

The 1916 Organic Act creating the National Park Service is likewise very specific in regard to the role and mission of the National Park Service. According to the 1916 Act the purpose of the National Park Service is to:

"...promote and regulate the use of Federal Areas known as National parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.

Once again the Congress was very specific in what was to be required of the newly created National Park Service. The mandate of the agency was to conserve the scenery and the historic and natural objects therein and to leave these resources unimpaired for the enjoyment of future generations. Nowhere in the Organic Act is there a mandate to recreate vanished historic structures.

In 1935 with the passage of the Historic Sites Act, the Congress of the United States again stated its views in regards to the role of the National Park Service in the growing area of government involvement in the historic preservation movement. According to the 1935 Act:

"That it is hereby declared that it is a national policy to preserve for public use historic sites, buildings and objects of national significance for the inspiration and benefit of the people of the United States."

The act continues with the additional statement that the National Park Service will:

"Develop an educational program and service for the purpose of making available to the public facts and information pertaining to American historic and archeologic sites, buildings, and properties of national significance. Reasonable charges may be made for the dissemination of any such facts or information."

The language and intention of the Historic Sites Act is in keeping with the principles first enunciated in the Antiquities Act of 1906 and the National Park Service Organic Act of 1916. The purpose of the National Park Service is the preservation of genuine historic objects of national significance for the inspiration and benefit of the American people. To accomplish this end, the National Park Service is given the additional responsibility to develop an education program that will make available information concerning the historic objects. The National Park Service is mandated by law to interpret the historic resources to the American public. The word reconstruction can be found nowhere in the Historic Sites Act. It is simply not there. The act is concerned with the preservation of objects of genuine historic antiquity and not the reconstruction of buildings or objects that have long since disappeared.

The problems posed by the reconstructions of historic buildings present an interesting situation for the National Park Service. If reconstructions are accepted as necessary, then is not history a commodity that can be manufactured like any other commodity? What is the purpose of our historical parks? Are they to be theme parks depicting

this generation's image of the past, or are they to be parks which contain and reflect the genuine remains of the historic era they are designed to depict? I think we would all agree that historic sites and parks are important source materials just as valuable and useful as the documentary evidence of the historic period they depict. Just as the historian would not think to recreate a historic document and fill in the gaps with conjecture where our knowledge was thin, so the historic preservationist must not recreate something that never was--a reconstruction. I believe that the article by Richard Sellars and Dwight Pitcaithley emphasized a very useful point that we should all remember. We cannot "improve" a historic site through the introduction of non-historic elements. To do so runs counter to the historic preservation mission of the National Park Service.

Harry Butowsky
Historian, WASO

"Locking Up Historic Structures in the National Register", CRM BULLETIN, Vol. 2, No. 4

The implication that a park as an entity should go directly to the Advisory Council is misleading. Normally a project affecting a cultural resource, whether originated by the park, Regional Office, or Denver Service Center, is submitted by the Regional Director to the appropriate State Historic Preservation Office for concurrence and then to the Advisory Council allowing for the continuity of one office to deal with Section 106 compliance. Any note of Report of Survey procedures is also overlooked.

Basically, the article is too simplistic, though it certainly was warranted. The regret is, it will be difficult to provide circulation with the printed misconception that a park should deal directly with the Advisory Council.

Rodd L. Wheaton
The Ad Hoc Committee for Appropriate Reconstructions, c/o The Rocky Mountain Region
Fort Union Reconstruction Analysis Team

Native American Issue

This letter is in regard to the Federal Government's policy direction regarding graves and human skeletal materials located on public and Indian lands relative to authorized scholarly studies.

The study of human skeletal remains contributes much to our understanding of preexisting populations. Informa-

See LETTERS, page 12

tion can be derived from skeletal remains regarding interpopulation relationships, tribal origins, health, nutrition and environmental adaptation. Much of my own work concerns the demographic parameters of prehistoric groups as determined from human skeletal material. The information I have been able to obtain about the demographic structure of an earlier population, its mortality rates, fertility and sex ratio, indicated how well that population was adapted to its cultural and physical environment. Knowledge of these factors helps explain why a particular population existed as it did, why it grew in size or declined towards extinction, even why certain cultural practices may have developed and continued. The study of human skeletal remains allows us to examine the developmental trends in human life spans and mortality. A more complete understanding of the past gained from such studies are essential to understanding the underlying causes of modern population change and population trends.

The information which can be gained is not only important in historical viewpoint but is often relevant to modern populations including American Indians. For example, skeletal samples can be used to trace population movements and to trace population origins. Several articles published in physical anthropology and archaeology journals concern this topic. This information is important to Indians as far as tracing their background and could even be useful in establishing direct ties to areas of land over which ownership is questioned.

As another example, it is well known that certain types of cancer are more common in and around the Tennessee River Valley. We study the skeletal

remains of prehistoric populations of this area to determine whether they show the same types of cancer. In this way, such studies are relevant to the health of modern populations since questions can be answered regarding the antiquity of this disease and its causes. Are the causative factors involved due to recent environmental changes or of longstanding origin? Only by studying skeletal remains can we answer such questions.

Skeletal material recovered from archaeological sites is washed, preserved and carefully stored for present and future study. It is not tossed casually into boxes. Human bones are handled with respect and scientific care.

The material is retained in institutional repositories such as museums and universities. As part of our country's heritage, the skeletal material must be preserved for the benefits of all people that accrue from proper scientific reservoirs, or urban expansion. Its protection in perpetuity is insured under present curatorial practices. Preservation is especially important because science is advancing rapidly. The types of information which can be obtained from the study of bones is increasing. If we did not have skeletal collections recovered over the years, we would have to accept the inaccurate and at times even racist interpretations made by early observers. For example, around 1900 it was commonly thought that ancient Indian mounds could not possibly have been built by ancestors of modern Indians but by some earlier, more advanced Mound Builder race. Only after examination of skeletal remains was this error acknowledged.

American Indian skeletons are not the only ones being preserved in museums and universities located in the United States. Other population samples are

also represented as is shown in a recent inventory:

El-Najjar
1977

The Distribution of Human Skeletal Material in the Continental United States. American Journal of Physical Anthropology. Vol. 46, pp. 507-512.

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CORRECTION

Your attention is called to the December 1979, Vol. 2, No. 4 issue of the CRM BULLETIN. In the article entitled "Reconstructions -- Expensive, Life-Size Toys?", Dr. Richard Sellars' name unfortunately was misspelled. Dr. Sellars is currently the Chief of the Southwest Cultural Resources Center. Formerly Regional Historian, he has a Ph.D. in American History. Dwight Pitcaithley is Regional Historian for the North Atlantic Region. He too has a Ph.D. in American History.

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