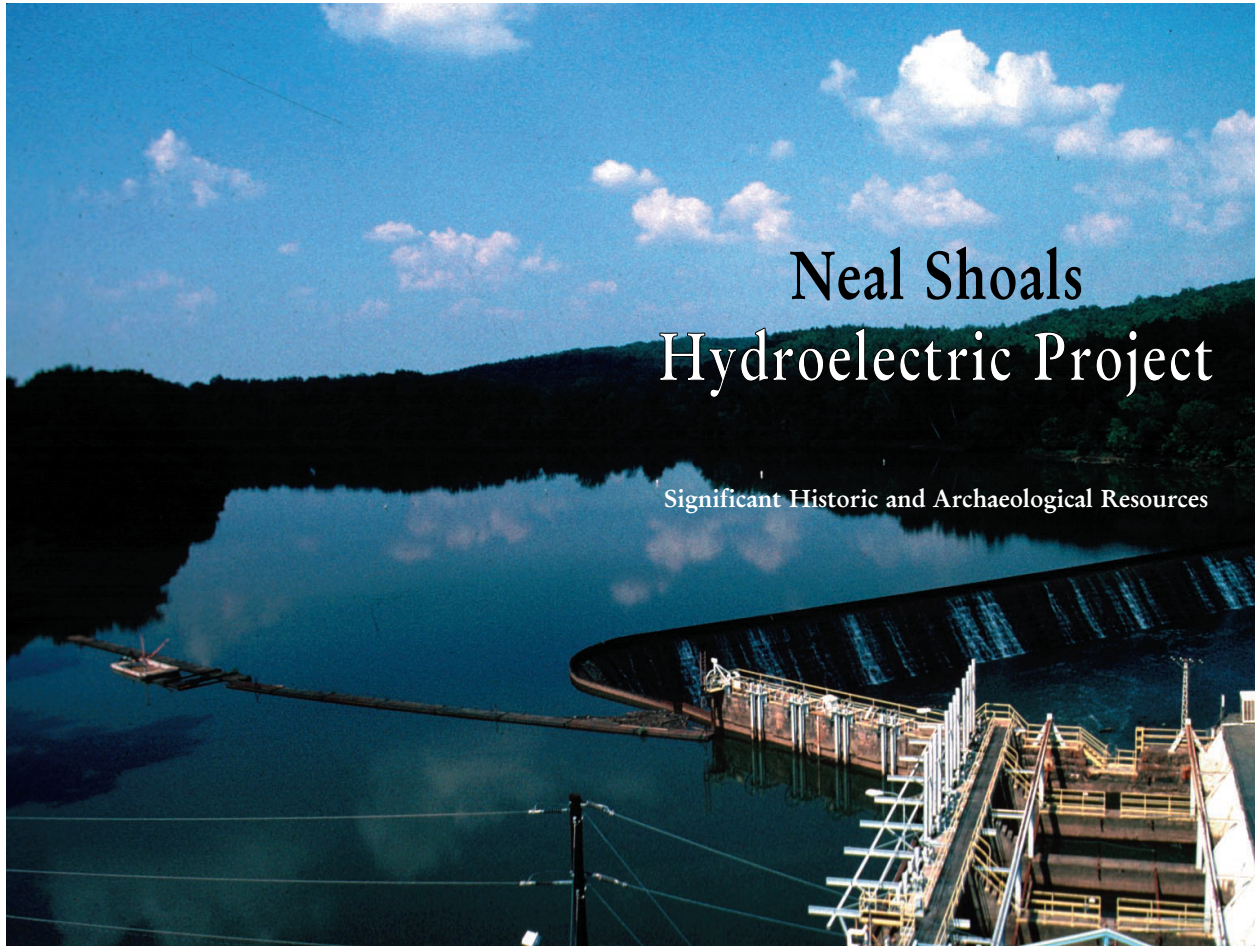


SIGNIFICANT HISTORIC AND ARCHEOLOGICAL RESOURCES NEAL SHOAL HYDROELECTRIC PROJECT



South Carolina Electric & Gas Company
111 Research Drive
Columbia, South Carolina 29203



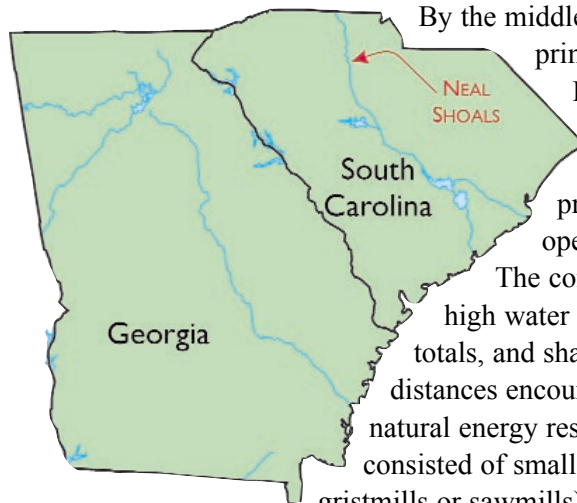
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INTRODUCTION: HYDROELECTRIC POWER AND NEAL SHOALS

The Neal Shoals Hydroelectric Project is situated in an area that has long been an important source of waterpower. Over the last 12,000 years the Broad River served as a major transportation route for Native Americans and European colonists, since it provided the easiest access inland from the Atlantic Ocean. Native Americans also set their campsites on uplands (or terraces) overlooking rivers and streams, or on floodplains. The waterways supplied many basic needs, including water for drinking, washing, and cooking. They also served as a magnet for many of the animals that Native Americans relied on for food.



The Neal Shoals Hydroelectric Facility.



By the middle of the eighteenth century, the primary energy demands on the Broad River had evolved from subsistence to manufacturing. During the Colonial period, the practice of using falling water to operate machinery was widespread. The combination of large rivers with high water volume, high annual rainfall totals, and sharp drops in elevation over short distances encouraged the development of this natural energy resource. Early industrial activity consisted of small, isolated mills (such as gristmills or sawmills) run by individual families.

The large-scale use of water to power industrial activities began in the 1820s. During this era, independent companies used waterpower in a complex system

of dams (to store or impound the water), canals (to direct the impounded water), and water wheels (to provide the energy to run the machines). The water wheels could only handle impoundments with a water height of 15 to 17 feet—these were characterized as having a low head. The subsequent invention of devices such as impulse wheels and turbines made it possible to use higher heads and resulted in an increase in the amount of power generated. These developments set the groundwork for the hydroelectric industry.

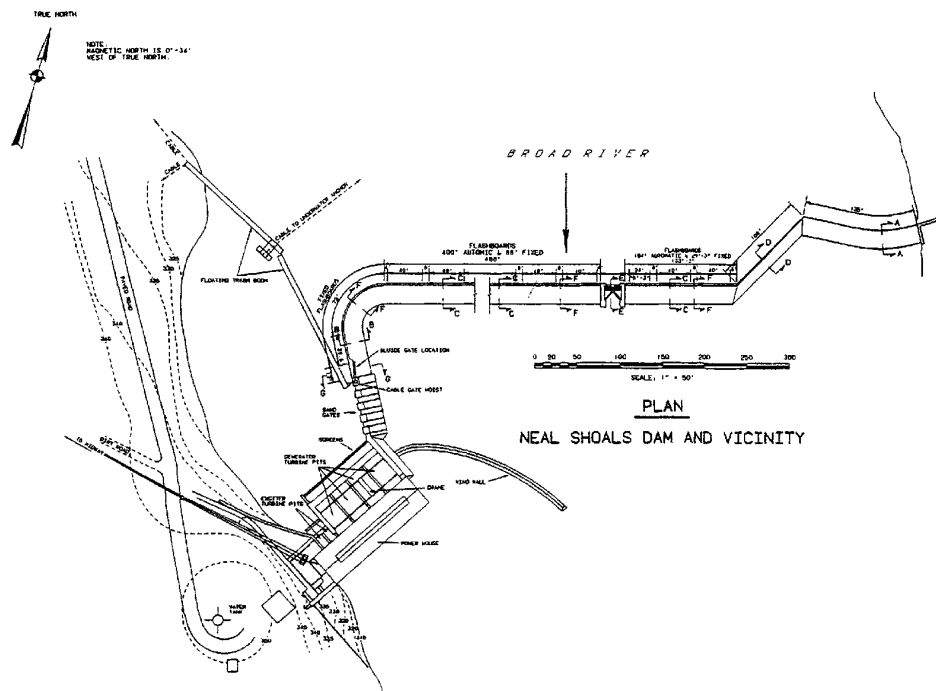
Waterpower was first harnessed to generate electricity in the late 1800s. Hydroelectricity aided industrial development by supplying electric current to textile factories, railroads, wood pulp and paper processing factories, and mining operations. By the beginning of the twentieth century, hydroelectric facilities were generating power to run trolleys and illuminate street lights, and to supply electricity for stores and houses. From the 1930s through World War II, hydroelectric plants provided most of the electricity generated in the Southeast. By 1940 over one-third of all electrical power generated in the United States came from hydroelectric facilities.

The Neal Shoals facility is one of six reservoirs on the main stem of the Broad River. Three dams are located upstream of Neal Shoals: Gaston Shoals, 99 Islands, and Lockhart. Gaston Shoals and 99 Islands are owned by the Duke Power Company. Lockhart is the closest dam upstream of Neal Shoals, located roughly 10 miles to the north and owned by the Lockhart Power Company. Downstream of Neal Shoals are the Parr Hydroelectric Project (located about 30 miles downstream) and Columbia Hydroelectric Project (located about 60 miles downstream), owned by South Carolina Electric & Gas (SCE&G). Although originally constructed solely to generate electricity, the Neal Shoals facility today functions also as a re-regulating plant to mitigate the downstream effects of the discharges from the Lockhart Dam. Normal daily fluctuations in the water level of the Neal Shoals reservoir are between three and five feet. The Neal Shoals plant, as completed in 1905, continues to provide a yearly average of 24.6 gigawatt-hours of electricity.

NEAL SHOALS AND CULTURAL RESOURCE MANAGEMENT

The Neal Shoals dam creates a 10-mile impoundment area along the Broad River. This impoundment consists of approximately 575 acres, with the dam

and generating plant located about 10 miles south of the town of Lockhart. This area is part of a region known as the Broad River Valley, and is situated on the Fall Line, or in the Fall Zone, area of South Carolina. The Fall Zone runs across the state, dividing the Piedmont and Coastal Plain physiographic provinces, and is the first location inland from the Atlantic Ocean where rock rapids occur in river channels.



In 1996 the Federal Energy Regulatory Commission (FERC) issued a new license to SCE&G for continued operation of the Neal Shoals Hydroelectric Project. As part of the relicensing process, FERC required SCE&G to identify and evaluate all historic properties within the Neal Shoals project area for eligibility for inclusion in the National Register of Historic Places.

While several laws relating to archaeological remains and architectural properties existed before 1960, it was the 1966 National Historic Preservation Act (NHPA) that greatly expanded the federal role in historic preservation. The law provided for a variety of governmental preservation functions, including the establishment of the National Register of Historic Places. The NHPA

created the Advisory Council on Historic Preservation (Council) and State Historic Preservation Officers (SHPOs). The act also set up a process requiring federal agencies to consider what effects their actions would have on historic properties. A historic property is "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register [of Historic Places]" (36 CFR 800.16[1]).

The NHPA requires federal agencies to balance historic preservation with other public interests. Section 106 of the act is the driving force for most of the federal historic preservation program. It initiated a systematic review process for dealing with historic properties within a federal agency's limit of authority. Most federal agency actions, including those such as issuing operating licenses, are subject to this review process.

In 1991 a professional historian prepared a report about the historical importance of the Neal Shoals hydroelectric plant and dam. From 1991 to 1995 professional archaeologists conducted investigations in both the upland and floodplain portions of the Neal Shoals project area, using a phased approach. The first phase of investigation was designed to define areas disturbed by the plant operation and to locate archaeological sites. The second phase of investigation was a more intensive study to evaluate whether any of the identified archaeological sites were eligible for the National Register of Historic Places.

When an archaeological site is identified, it is given a site number, for example, 38UN48. The first number (38) represents the numerical designation for the state of South Carolina, the two letters (UN) stand for Union County, and the last number (48) indicates that this is the forty-eighth archaeological site recorded in Union County. The two-letter designation for Chester



Archaeologists at work.

County is CS. Sometimes archaeological sites are given a name, such as the Stallings Island Site or the Ed Marshall Site, which often refer to nearby watercourses or other prominent identifying features, or the name of the property owner.

NEAL SHOALS PREHISTORIC SITES

The archaeological investigations at Neal Shoals recorded information from 19 prehistoric sites in floodplain and upland areas of the Broad River watershed. This portion of the river is an ecologically diverse territory, which would have made it attractive to prehistoric people. The rocks and shoals found in the area would have created a natural ford for crossing the river.



*Site 38UN185, Miscellaneous
Projectile Points.*

Archaeologists divide South Carolina's cultural history into five periods: Paleoindian, Archaic, Woodland, Mississippian, and Early Historic (which includes the Contact period). The Archaic and Woodland periods are further divided into Early, Middle, and Late subperiods. These divisions suggest the

changes that took place in prehistoric Native American technology (such as those associated with tool manufacture and types of tools used) and changes in social organization or how groups of people organized themselves during a particular time (for example, evolving from small bands of roaming or nomadic hunters to a relatively sedentary way of life in large permanent villages). These changes can be related to the changing natural environment of the southeastern United States since the end of the last glaciation, which has been dated to approximately 14,000 years ago.

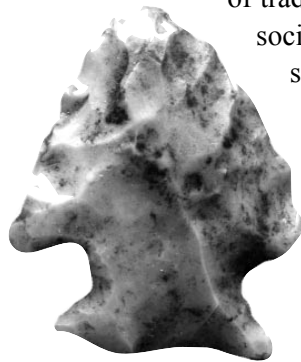
Archaeologists use a timeline to order information about prehistoric people. When new information is revealed, refinements are made to the classification scheme. The discussion below outlines the prehistoric periods and the distinguishing traits of each period, as well as the number of sites identified from each period found during the Neal Shoals investigations. Sometimes an individual site will have more than one component (an occupation during a discrete, specific time period).

Paleoindian Period (10,000 to 8000 BC)

Paleoindians represent the first known human populations to occupy the region. These populations were organized into small nomadic or seminomadic bands, which subsisted on generalized hunting and the collection of wild foods. Large animals (such as bison, camelids, and mastodon) would have formed part of their diet, although smaller animals such as deer, elk, and moose were probably also hunted. Tools of the period, which provide evidence of the importance of hunting among Paleoindians, include projectile points (arrowheads or spearpoints), knives, scrapers, and graters. The characteristic artifact of this period is the fluted projectile point. One site was identified as having a Paleoindian component.

Early Archaic Period (8000 to 7000 BC)

As the southeastern climate became warmer, Archaic peoples developed a diversified diet focusing on seasonal hunting, fishing, and collecting of wild plant foods. As a result there was population growth and a gradual development



Early Archaic Projectile Point.

of trade and exchange networks and more complex societies. Native Americans still lived in nomadic or seminomadic bands; the number and types of sites suggest an increase in population. Tools made during this period came from several different kinds of stone, and in more elaborate forms. An identifying characteristic of the Early Archaic is the hunting of smaller animals. Diagnostic artifact types of the period include several styles of notched projectile points and a type of side-notched tool called an Edgefield scraper. Four sites showed evidence of an Early Archaic component.

Middle Archaic Period (7000 to 3000 BC)

Native populations continued to increase during the Middle Archaic period. They began to make stemmed projectile points, and most of their stone tools were made of quartz. Fewer types of lithic raw material were used to make tools, and locally available quartz was the most commonly chosen variety. Middle Archaic populations expanded their settlement ranges, but within specific regions, and exploited more diverse natural resources. It is during this period that differences in artifacts are first noticed between sites located in

Piedmont and Coastal Plain physiographic areas. These differences reflect that separate groups lived in each region and/or that access to specific types of resources was controlled. Three sites have a Middle Archaic component.

Late Archaic Period (3000 to 1000 BC)

The Late Archaic period is distinguished by increasing population, group size, complexity of social organization, and sedentism, and shows the first evidence of tribal organization, claims to particular territory by groups, long-distance trade networks, and ceremonial human burial practices. Late Archaic people lived in large residential sites and in smaller dispersed campsites, depending on the season of the year. The first evidence of structures appears at sites, and aquatic resources made up a significant proportion of the diet. Native Americans were using grasses, chenopodium, sumpweed, squash, gourds, and sunflowers by 2500 BC, which suggests the beginning of horticulture. However, domestic crops did not compose a major part of the diet for another 2,000 years. Diagnostic artifacts of this period include broad-bladed stemmed bifaces (tools with stone chipped away on both sides), fiber-tempered pottery, and soapstone slabs. Grooved groundstone axes and grinding basins are also common. Geographic differences continue, and are most evident in the area of cooking technology. People living in the Piedmont and Fall Zone favored soapstone for cooking, while those on the Coastal Plain preferred fiber-tempered pottery. The investigations identified three sites with a Late Archaic component.

Woodland Period (1000 BC to AD 1000)

Beginning in the Woodland period, populations continued a mixed hunting and gathering subsistence strategy. Late in the period, semipermanent to permanent



Complicated Stamped Sherds.

villages were established in riverine settings. The use of ceramic pottery became widespread for storage and cooking. Archaeologists use different ceramic varieties to divide the Woodland period into three subperiods: Early Woodland (1000 BC to AD 1), Middle Woodland (AD 1 to AD 500), and Late Woodland (AD 500 to 1000).

Additional traits distinguish the Early Woodland from the Late Archaic: ceramic pottery replaced soapstone vessels; small-stemmed and large triangular projectile points (indicating the introduction of bow and arrow technology) were used, soapstone pipes, bar gorgets, mortars, and manos occur; and shellfish, while still forming part of the diet, was not used in as great quantity as during the Late Archaic. The major change in social organization was the appearance of small village sites. Two sites were identified with an Early Woodland component, while three contain a Middle Woodland component and three a Late Woodland component.

Mississippian Period (AD 1000 to 1540)

The Mississippian period represents the high point for Native American population and society. Classic Mississippian period sites show evidence of large villages situated on floodplains, as well as earthen mound centers where chieftdom leaders lived, evidence of social classes, and an economy based on agriculture. Their distinctive ceramics are embellished with elaborate decorative motifs and rim treatments. Mississippian culture represents the foundation for protohistoric Cherokee groups met by European explorers and traders during the mid-sixteenth century. Nine sites were identified with a Mississippian component.



Site 38UN185, Decorated Sherds.

Early Historic Period (AD 1540 to 1730)

This period extends chronologically from the Mississippian, through initial contact between Native Americans and Europeans, up to the Colonial Period. Two distinctive language groups lived in the upper part of South Carolina, the Siouan-speaking Catawba to the east and the Iroquoian-speaking Cherokee to the west. Archaeological evidence suggests that the Cherokee (and likely the Catawba) represented a continuation of previous Native American groups. Settlement location, architecture, and projectile point and ceramic styles are similar to the immediate preceding period. However, distinctive pottery types are evident that date sites to between AD 1450 and 1650. Post-1650 sites have similar artifact assemblages that also include European trade goods.

Acculturation became further evident in the 1700s with a change in overall Cherokee settlement patterns from nucleated towns to loosely clustered dwellings in a linear plan; by the early 1800s, the decentralization had reached the point where isolated farmsteads were typical.

After 1650 the Cherokee became increasingly dependent on the European trade economy and involved in Euro-American society. The establishment of Charles Town in 1670 as the first permanent British settlement in South Carolina marked the beginning of regular Cherokee-European relationships. The trade commodity that brought about this interaction was deerskins. By 1715 the Cherokee had shifted their economic pursuits to concentrate solely on the skin trade. Ultimately, however, such frequent contact exposed both tribes to European disease and warfare. Most notably, a smallpox epidemic in 1738 or 1739 killed more than half of both the Catawba and Cherokee nations. European disease may have resulted in the loss of local communities or caused entire villages to be abandoned. However, the Cherokee were not completely wiped out of South Carolina in the early eighteenth century. Destruction of the principal Lower Cherokee towns (villages located in South Carolina) in 1776 and 1781 forced the Cherokee to sign several treaties deeding territory to the British provincial government of South Carolina. In addition, the new American government signed a treaty in 1785 that caused the Cherokee to relinquish all land claims east of the Blue Ridge mountains.

The earliest mention of the Catawba in written documents was made by Spanish explorers of the mid-sixteenth century. A member of the Juan Pardo expedition recorded a number of names of villages and peoples of the area as the Spanish traveled up the Edisto and Santee river complexes. "Katapa" or "Kataba" and "Yssa" or "Esaw" are among the names easily recognized as designating Catawba peoples. It is likely that the Catawba were a loosely associated confederation of villages speaking related dialects of language or languages distantly related to Siouan. There were also speakers of Algonquian, Iroquoian, Yuchee, and Muskogean languages living in the area, with whom they had contact. John Lawson who visited them in 1701 wrote the most complete early description of the Catawba. Lawson also left us the only known sample of Woccon, a Siouan language closely related to Catawba, in the form of a word list of 150 words. According to Hudson, the early Catawba occupied an area where two cultural traditions met—that of the tribes of the Piedmont and that of the chiefdoms of the lowlands. Their mode of subsistence was

typical of the Piedmont area. They farmed beans, corn, and squash; gathered nuts, berries, and tubers; fished; and hunted bear, deer, elk, pigeons, turkey, and other large and small game.

The Catawba were known as warriors and, except during the Yamassee War of 1715, were allies of the British, against both the Spanish and the French. They also feuded with and made retaliatory attacks against the Cherokee and the Shawnee, Delaware, and Iroquois to the north. Situated at the intersection of trade routes, they occupied a prominent position as middlemen in the trade with the British, mostly for furs, for which both Virginia and South Carolina competed. In the end, most of the Catawba's dealings were with the South Carolina government, which also needed them as a buffer politically and militarily. The Catawba nation was never entirely removed from South Carolina, and a Catawba reservation still exists in York County.

The most dramatic change to the Native American material culture occurred during this period, when European trade goods, such as metal tools, glass beads, muskets, and gunpowder, were introduced. The Native Americans preferred these new items over those produced by their own technology, and became dependent on European firearms and ammunition for hunting and warfare. No sites were identified with an Early Historic component.

THE SITES

Six of the 19 prehistoric archaeological sites in the Neal Shoals project area on which archaeologists conducted intensive excavations were determined eligible for the National Register of Historic Places. Four of these sites are located on federal property and two sites are on private land. None of the locations on private property can be visited without permission from the landowner. A brief summary of the information gained from each of these sites follows.

Site 38CS112

Professional archaeologists have conducted only limited investigations at this campsite. The site contains Late Archaic and Late Woodland components. Rock shoals are located immediately adjacent to the site, providing an unusually rich environmental setting for a living area. Archaeologists believe that the area was used to gather food items (from land and water) and rocks from which to make

tools. Unfortunately, much of the site has been damaged by looters. Piles of fire-cracked rock on the ground indicate that prehistoric features have been destroyed by these people in their quest for artifacts.

Site 38CS167

A second site on the Chester County side of the Broad River is adjacent to another series of rock shoals. This site is a short-term (temporary) resource procurement and lithic processing encampment that was identified during the Neal Shoals archaeological investigations.

Archaeologists found seven types of lithic raw material represented in the debitage

(the waste material left over from manufacturing or resharpening stone tools) collected. The lithic varieties included quartz, rhyolite, chert, jasper, argillite, quartzite, and slate. Eleven pottery sherds were also unearthed, but only one could be identified. This sherd dates either generally to the Woodland period or to the Mississippian period. Site 38CS167 is a significant location because almost half of its artifacts, including one Early Archaic and two late Paleoindian projectile points, came from undisturbed soil. Undisturbed deposits from this early period of North American prehistory are rare, so the presence of such a deposit enhances this site's importance.



Site 38CS167, Hardaway Projectile Points.

Site 38CS224

Archaeological fieldwork associated with the Neal Shoals facility revealed the site had short-term occupations during the Early Woodland, Middle Woodland, and Mississippian periods. Logging and erosion have disturbed portions of the site, but most of it retains intact archaeological deposits. Among the artifacts recovered was a utilized flake, which is called an expedient stone tool. This type of tool is made when a flake is struck from a stone core or biface and is used for an immediate purpose, such as cutting and scraping tasks. Once the task is completed, the tool is thrown away. Another interesting find was two freehand cores. These cores are blocks or cobbles that have had flakes removed in multiple directions by holding the core in one hand and striking it with a hammerstone held in the other. Utilized flakes are created by this procedure.

Site 38UN185

Artifacts from the Early Archaic through Mississippian period have been retrieved from Site 38UN185. The site appears to represent a village or hamlet during the Woodland and/or Mississippian period occupations. Extensive archaeological subsurface testing was done as part of the Neal Shoals fieldwork.

Despite disturbance to the site from activities related to the power plant's operation, logging, and erosion, nearly one-third of the prehistoric artifacts were unearthed from intact soil deposits. Though no features were identified, over 9,000 artifacts were found. The most abundant material is lithic debitage and pottery sherds. More than 1,200 of the sherds could be classified to a specific pottery type. Projectile points and point fragments, lithic tools, cores, retouched flakes, utilized flakes, steatite bowl fragments, and a spool-shaped clay bead (possibly an ear spool) were also recovered during the investigation.



Site 38UN185, Savannah River Projectile Points.



Site 38UN185, Check Stamped Sherds.



*Site 38UN185, Spool-Shaped Ceramic Bead,
Possible Earspool.*

Archaeologists studied the distribution of artifacts across the site to identify areas of activity that could relate to specific occupations. While the discovery of Early Archaic through Mississippian period projectile points, Early

Woodland to Mississippian pottery, and Late Archaic steatite bowls suggests the presence of various components, assessments regarding site function during these periods were not possible. Although modern operations have caused some destruction of the prehistoric deposits, the range of activities exhibited at the site and the presence of faunal remains suggest that Site 38UN185 could yield additional information regarding patterns of land use and subsistence, pottery production and use, as well as lithic procurement and processing strategies. Similarly, this site has the potential to contribute to the study of regional predictive models because it contains intact deposits and dates over a long time span. The site is on SCE&G property and is not accessible to the general public.



Site 38UN185, Simple Stamped Sherds.

Site 38UN186

This revisited, short-term (temporary) resource procurement and lithic processing encampment was occupied during the Early Archaic through Late Archaic periods. In addition, the presence of some pottery sherds at the site suggests Woodland- or Mississippian-era people also used the campsite. Most of the artifacts were found in soils that logging or plowing had disturbed, but many artifacts were recovered from undisturbed portions of the site, including two areas with a high density of material. This is important to archaeologists because a concentrated scatter of artifacts (especially lithic material) within intact soil deposits is rare in the region. Future researchers could use the database collected to conduct more in-depth analyses on site functions and/or tool production activities. The types of artifacts, including lithic tools and steatite fragments, uncovered at this site are identical to those at Site 38UN185. The site is on SCE&G property and is not accessible to the general public.

Site 38UN374

This site is unusual because it is a short-term resource procurement and lithic processing campsite located in a small rock overhang. It is also atypical because pottery sherds compose 70 percent of the total artifacts recovered; normally lithic artifacts (especially debitage) form the majority of an artifact assemblage. Site 38UN374 was identified during the Neal Shoals archaeological investigations, and is important to archaeologists because it contains a moderate-quantity pottery and lithic scatter in undisturbed soils that offers the potential to conduct in-depth analyses on site functions and/or tool production activities. Another contributing factor to the significance of the site is the presence of artifacts from just one cultural (Mississippian) period. The recovery of fire-cracked rocks indicates that the site was occupied for some length of time. Typically studied Mississippian period sites consist of mound centers, villages, and isolated hamlets. The discovery of a rock overhang used for shelter has begun to fill an information void on small sites during this period. Archaeologists have long noted that Mississippian settlement reconstructions do not accurately reflect all kinds of sites that were used, because most researchers do not include smaller sites in analysis.

HISTORIC PERIOD CULTURAL RESOURCES AT NEAL SHOALS

Archaeologists have found only four sites at Neal Shoals that contain material dating from historic periods (Colonial period to present). This is chiefly because the Neal Shoals area has never had a very large population. Any farmsteads in the area would have been situated on level hilltops set back from the waterways, and outside of the area studied by archaeologists for SCE&G.

Only four historic archaeological sites or sites containing a historic component were found. Two nineteenth- to early twentieth-century sites have stone chimney remains and refuse scatters associated with domestic (most likely farmstead) sites. A small family cemetery and a refuse scatter is related to a mid-nineteenth-century farmstead site. The fourth site is composed of refuse scatter from the construction and operation of the Neal Shoals plant in the early twentieth century.

In addition, the single architectural property identified was the Neal Shoals hydroelectric generating plant itself. Of these five cultural resources, only the

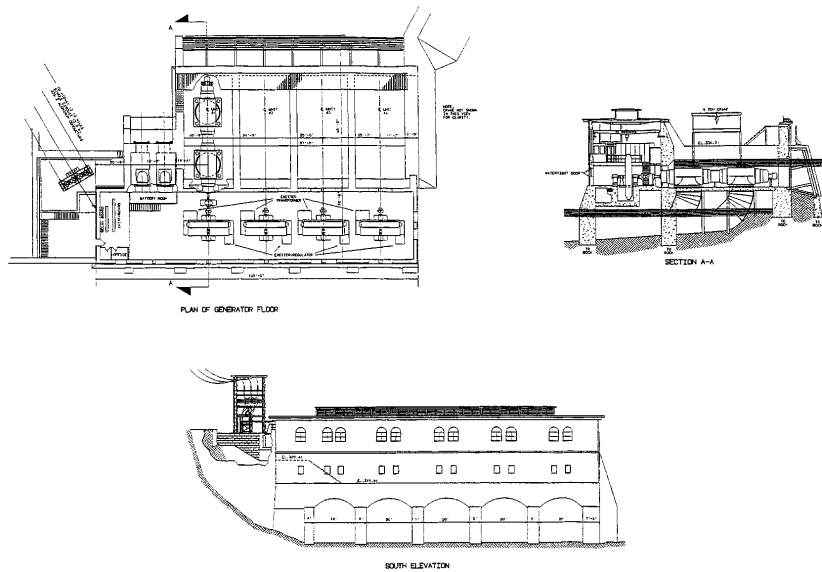
Neal Shoals plant was determined eligible for the National Register of Historic Places, as it provides information about the industrial activity along this area of the Broad River. The plant is on SCE&G property and is not open to the general public.

Neal Shoals Hydroelectric Plant

The Neal Shoals plant was originally constructed to supply power to the Union and Glenn Springs Railroad. The Union Manufacturing and Power Company built the Neal Shoals hydroelectric facility between 1903 and 1905. It was the industrial expansion of the city of Union that encouraged the hydroelectric development of the Broad River. Supplying electricity to textile mills in the towns of Buffalo, Union, and the surrounding area became the chief purpose for the Neal Shoals plant.



The Neal Shoals Hydroelectric Facility.



The plant consists of a dam, which impounds water in a pool or reservoir behind it, and a powerhouse, where electricity is generated. The Neal Shoals dam has a 1,087-foot spillway. The two-story powerhouse has a concrete substructure, or foundation, containing the plant's four waterwheels. Each wheel is connected to a generator mounted on the floor of the reinforced concrete, brick-covered superstructure. The mechanical power produced by the waterwheels turns the generators to produce electricity. The powerhouse measures roughly 141 feet long, 32 feet wide, and 52 feet high. A set of transformers steps up the low voltage produced by the generators to a higher voltage suitable for long-distance transmission.

LOOTING AND VANDALISM OF ARCHAEOLOGICAL SITES

While South Carolina has undergone a construction boom over the last 20 years, the Neal Shoals area maintains its historically rural character. The preservation of the rural setting in this area has enabled one type of activity to go largely undetected—the destruction of archaeological sites. This destruction is caused by looting and vandalism. Looting indicates individuals who dig up artifacts either to sell or keep for their own collections. Vandalism is the senseless or purposeful destruction of archaeological remains, whether or not artifacts are collected. Looters and vandals are sometimes unaware that such actions cause a valuable loss of information about the region's past, and the professional archaeological community has stepped up its effort to educate the public about our priceless heritage and the need to safeguard it.



Looted archaeological site. Note the screen used to sift through the soil that was left by looters.

Looting or vandalism of archaeological sites is illegal on public property. Near the Neal Shoals Hydroelectric Project, several sites are located on federal (United States Forest Service) land. Section 6 of the Archaeological Resources Protection Act of 1979 (Public Law 96-95) states a person convicted of looting or

vandalizing an archaeological site can be fined up to \$10,000 and/or imprisoned for up to a year for a first offense, with a second offense carrying maximum penalties of a \$100,000 fine and/or five years in jail. In addition, collecting artifacts (whether on the ground surface or by digging) is considered trespassing on privately held property.

Archaeological sites are nonrenewable resources—once the material is dug up, the site is destroyed and lost forever. Professional archaeologists record their observations, down to the smallest of details, because of the destructive nature of archaeological excavation. While we can continue to generate hydroelectric power from the constantly flowing Broad River, we can never recreate the archaeological context of a Late Archaic projectile point or Mississippian vessel once it has been destroyed by looting or vandalism.

The most important information is not what an artifact is, but where an artifact is found. The artifact's location, and what it is found in association with, helps the archaeologist learn about the activities at a site and when it was occupied. This information, when combined with the study of the artifacts themselves (the shape, style, and decoration of projectile points and pottery) provides valuable clues that the archaeologist uses to date when a site (or a portion of a site) was inhabited. Sometimes Native Americans visited sites more than once, and they may have used the sites for different purposes. Such detailed information can be acquired only if the archaeologist can study the artifacts and their context from a site that looting and vandalism have not disturbed.

If the site has not been disturbed, the archaeologist can learn a great deal from the recovery of identifiable artifacts from different soil depths or from different activity areas across the site. The artifacts recovered from varying soil depths can illustrate changes through time in how people lived and worked. To assure that their research is as thorough as possible, archaeologists take detailed notes about where the artifacts came from, both horizontally and vertically. Taking photographs and preparing measured drawings and maps during fieldwork are



standard practice used by archaeologists worldwide. Not only does all this record-keeping follow sound scientific practice, but it is the only way for the archaeologist to recreate the site through maps and drawings.

The unique nature of archaeological sites in their individual settings is one reason it is important to have a trained professional directing any excavation. The professional archaeologist has a grasp of the various ingredients that constitute an archaeological site, much as a chemist understands the chemical ingredients for particular formulas—any misunderstanding of the ingredients could lead to a very explosive and damaging situation!

Unfortunately, construction, farming, looting, and vandalism have disturbed some of the archaeological sites within the Neal Shoals project area and its vicinity. Site 38CS112 has been particularly hard hit, partly because it has been known to looters for many years and is easily accessible. Site 38UN186 has also suffered from looting, where a large pit has been dug into the plot of a grave within a small family cemetery. Before the looting, these sites represented valuable archaeological resources because they contained areas of undisturbed, artifact-bearing deposits. These sites had the potential to provide key pieces of information about community structure, the functions and activities carried out at individual sites, and what food sources the people used. While these sites retain some information for the archaeologist to study, the damage from looting has made the job more difficult.



Our archaeological heritage is collective—it belongs to all of us. Our knowledge and understanding of the past and our future are enriched through the scientific study of this heritage. We encourage you to explore the volunteer opportunities in your region, and experience the challenges archaeology has to offer. To learn more about the various topics presented here, please review the information provided below.

LEARN MORE ABOUT—

Legislation Protecting Cultural Resources

Carnett, Carol

1995 *A Survey of State Statutes Protecting Archeological Resources*.
Archeological Assistance Study Number 3. National Trust for Historic
Preservation, Washington, D.C.

Hunt, Sherry, Elwood W. Jones, and Martin E. McAllister

1992 *Archeological Resource Protection*. The Preservation Press, National
Trust for Historic Preservation, Washington, D.C.

King, Thomas F.

1998 *Cultural Resource Laws and Practice: An Introductory Guide*. Altamira
Press, Walnut Creek, California.

Broad River Archaeology

For further reading about the scientific contributions of various archaeological sites in the South Carolina Piedmont and along the Broad River, please consult the following list of publications.

Anderson, David G.

1994 *The Savannah River Chiefdoms*. The University of Alabama Press,
Tuscaloosa.

Anderson, David G., and Kenneth E. Sassaman (editors)

1996 *The Paleoindian and Early Archaic Southeast*. The University of
Alabama Press, Tuscaloosa.

Goodyear, Albert C. III, and Glen T. Hanson (editors)

1989 *Studies in South Carolina Archaeology, Essays in Honor of Robert L.
Stephenson*. Anthropological Studies 9. Occasional Papers of the South
Carolina Institute of Archaeology and Anthropology, Columbia.

Kane, Sharon, and Richard Keeton

1993 *Beneath These Waters: Archeological and Historical Studies of 11,500 Years Along the Savannah River*. Funded by the U.S. Army Corps of Engineers, Savannah District. Administered by the Interagency Archeological Services Division, National Park Service, Atlanta, Georgia.

To learn more about how the destruction of archaeological sites has compromised our knowledge of the past, please consult the following sources.

Anderson, David G., and Virginia Horak (editors)

1993 *Site Destruction in Georgia and the Carolinas*. Readings in Archeological Resource Protection Series Number 2. Interagency Archeological Services Division, National Park Service, Atlanta, Georgia.

Ehrenhard, John E. (editor)

1990 *Coping with Site Looting: Southeastern Perspectives*. Readings in Archeological Resource Protection Series Number 1. Interagency Archeological Services Division, National Park Service, Atlanta, Georgia.

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To learn more about how to become educated on protecting archaeological sites and how to educate children about archaeology, please consult the following sources.

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To learn more about the culture and history of the Catawba and Cherokee tribes, please consult the following sources.

Catawba Tribe

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Brown, Douglas S.

1966 *The Catawba Indians: The People of the River*. University of South Carolina Press, Columbia, South Carolina.

Heinemann-Priest, Claudia Y. (editor)

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Merrell, James H.

1989 *The Indians' New World, Catawbas and Their Neighbors from European Contact Through the Era of Removal*. W.W. Norton and Company, New York.

Cherokee Tribe

Dickens, Roy S., Jr.

1976 *Cherokee Prehistory: The Pisgah Phase in the Appalachian Summit Region*. University of Tennessee Press, Knoxville.

Keel, Bennie C.

1976 *Cherokee Archaeology: A Study of the Appalachian Summit*. University of Tennessee Press, Knoxville.

King, Duane H. (editor)

1979 *The Cherokee Indian Nation: A Troubled History*. University of Tennessee Press, Knoxville.

Royce, Charles C.

1887 *The Cherokee Nation of Indians*. Fifth Annual Report of the Bureau of American Ethnology, 1883-1884:129-378. Smithsonian Institution, Washington, D.C.

Internet Web Sites

For further information about archaeology in general for South Carolina, please consult the following web sites on the Internet. This list is only the beginning of many pages devoted to archaeology, and is intended to provide a guide for people to continue their on-line searches for more specific topics.

Council of South Carolina Professional Archaeologists

<<http://www.midnet.sc.edu/coscapa/coscapa.htm>>

This web page outlines activities of the organization, efforts to synthesize prehistoric and historical archaeology of South Carolina, recent workshops sponsored by the organization, and how to get a public brochure about archaeology and historic preservation.

South Carolina Institute of Archaeology and Anthropology

<<http://www.cla.sc.edu/sciaa/sciaa.html>>

The home page offers a variety of information about the organization itself, readings in archaeology, a list of archaeological contractors who work in the state, and links to other archaeology sites.

Archaeological Society of South Carolina, Inc.

<<http://msnhomepages.talkcity.com/Terminus/asscinc/index.html>>

Information on the society's activities, publications, and how interested citizens can become members are found at this web site.

National Park Service Southeast Archeological Center
<<http://www.cr.nps.gov/seac/seac.htm>>

This extremely detailed web site has information on recent Park Service fieldwork, site stabilization and protection projects, collections management, data management, and several varieties of publications.

The Society for American Archaeology
<<http://www.saa.org>>

One feature of this web page is a section devoted to public education and educational resources. General information about archaeology is also provided.

The Society for Historical Archaeology
<<http://www.sha.org>>

A special section designed for children is listed in this web site. Also present is information on how to get copies of a brochure, *Mapping Out a Career in Historical Archaeology*, which is designed for middle school students.

GLOSSARY

activity area: a place or location, within an archaeological site, that preserves the remains of a particular task or tasks, such as stone tool making.

archaeology: the scientific study of past cultures through their physical remains.

archaeological site: a location where evidence of past human activity is found.

artifact: anything made or modified by humans.

biface: a stone tool that has been worked on two sides.

component: a specific time period represented at an archaeological site.

culture: the behavioral expression of human groups as they adapt to the environment around them, exhibited through their technology, how they organize their society (social system), and how they view their world (ideology).

debitage: waste material from making or manufacturing stone tools.

diagnostic artifact: an artifact that characterizes a particular time period or prehistoric group.

feature: an immovable artifact, such as a storage pit that has been dug into the ground.

fire-cracked rock: rock altered by fire, such as those that might be used for a hearth.

floodplain: the part of a river valley that has been repeatedly covered with soil deposited by floods.

lithic raw material: stone material used for making tools.

lithic processing encampment: a place briefly occupied by Native Americans to make tools from stone gathered nearby.

National Register-eligible resource: a resource determined eligible for the National Register by the Keeper of the National Register, or a resource that has not yet been determined eligible but meets the criteria for eligibility.

prehistory: the time period before written history; for the Americas this is generally accepted to be before AD 1492.

projectile point: a stone tool that can be fastened to the end of a shaft and used for hunting.

retouched flake: an expedient tool with one or more of its edges retouched, either to resharpen the working edge, to create a dulled edge for grasping, or to form a specific angle or shape.

resource procurement encampment: a place briefly occupied by Native Americans to acquire resources from an area before moving on to another location.

riverine: associated with the banks of rivers.

scraper: a stone tool used to scrape the fat from animal hides, to smooth wood, or for any other similar purpose, and worked on one side.

sedentism: the trend toward more settled, permanent occupations by prehistoric populations.

steatite: an easily worked stone material that is a kind of talc (also called soapstone), which was used for pots and other items.

subsistence: concerns what prehistoric groups ate on a regular basis, which can be used to determine the time of year a site was occupied as well as the technological level of a prehistoric group.

technology: the application of science to ease the workload of humans.

terrace: landforms situated above rivers.