THE NEW RIVER SURVEY:

A PRELIMINARY REPORT

by
Linda B. Robertson
and
Ben P. Robertson

Edited By
Amanda G. Watlington

NORTH CAROLINA ARCHEOLOGICAL COUNCIL
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North Carolina Archeological Council
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Archeology Branch
Division of Archives and History
North Carolina Department of Cultural Resources
Sara W. Hodgkins, Secretary

Raleigh, 1978

HALL

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PREFACE

During the month of May, 1976, the Archaeology Section, N.C. Division of Archives and History, conducted an archeological reconnaissance in the New River valley in Ashe and Alleghany counties in western North Carolina. This survey was part of a larger effort by the state of North Carolina to bring about reconsideration of proposed hydroelectric dam construction on the river. The proposed Blue Ridge Project would have resulted in the inundation of some 14,000 acres along the river and its north and south forks in North Carolina. The State's efforts to halt the project were eventually successful, and the river was protected from any future inundation projects by the United States Congress in the summer of 1976.

The report which follows describes the results of the investigation conducted by the Archaeology Section in 1976. The survey was unfortunately conducted during a time of crisis and, as is often the case in "emergency" or "salvage" archeology, detailed analysis was set aside for an undetermined period in the future. Staff archeologists Ben and Linda Robertson were given primary responsibility for the analysis preparation of a report on the survey. Portions of this report, in preliminary form, were completed by the Robertsons before they left the Section for graduate school at Brown University (in the fall of 1976). For a variety of reasons, no further work was attempted on the report until June of 1977. It was then decided that the recently reorganized archeology program, now designated the Archeology Branch, would provide the resources necessary to publish the Robertsons' report.

Over the past 16 months, various members of the Branch staff and others have contributed to the realization of this goal. Dr. Amanda Watlington, then staff member of the Underwater Archeology Branch, volunteered her services for editing the draft report and putting it into publishable form during the summer of 1977. The Robertsons reviewed the manuscript and completed various unfinished sections. Carl Merschat of the N.C. Department of Natural Resources and Community Development and Henry Bruno of Duke University gave permission for their reports on the geology and vegetation of the New River valley to be included in this volume. Photographic plates and graphics for the report were prepared by Linda Luster, staff photographer for the Archeology Branch. Tom Hargrove, also of the Branch staff, compiled the bibliography and saw that the entire report was properly put together.

The artifacts collected during the survey are now in storage at Appalachian State University in Boone, North Carolina. Some of the field notes and analysis charts are currently in storage at the Archeology Branch and are available for research purposes. While the Archeology Branch is pleased to be able to make the results of the New River survey available to interested researchers, we do not take responsibility for the approaches, interpretations, or opinions expressed in the report. Those having questions about the survey or the report should contact Ben and Linda Robertson.

Jacqueline R. Fehon
Head, Archeology Branch
Raleigh

ACKNOWLEDGEMENTS

No archeological project ever ran successfully without the care, concern, and energies of its field crew and the grace and goodwill of the landowners involved. Of no project was this ever more true than of the New River survey. The field crew worked thirty days without a day off, putting in ten to twelve-hour days of climbing ridges, fighting underbrush, measuring, mapping, collecting, and writing. We shared their exhaustion, we remember it, and we are grateful to them for their perseverance. Members of the field crew were Bill Rasch, Bill Flynt, Marna Mears, Brad Leftwich, Gayle Russell, Cye Gossett, Bill Gossett, Sarah Goodnight, and H. G. Ayers. Present for part of the survey were Timothy Thompson, D. Katharine Beidleman, and Stephen J. Gluckman from the Division of Archives and History, and volunteers Michael Hammond of Duke University, Judy Hammond, and Duke students Hank Bruno, Anne Underhill, and Andy Nickelhoff.

The landowners of the New River valley who gave us permission and encouragement to survey on their lands and the many good people of the valley who gave us help in other ways beyond counting, are unfortunately too numerous to mention by name. But their kindness and courtesy and energies in our behalf will not soon be forgotten.

Linda and Ben Robertson

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INTRODUCTION

Older than the Appalachian Mountains themselves, the New River winds northward through them, becoming the Kanawha River in West Virginia, then the Ohio, then finally the Mississippi. The headwaters of the ancient Teays system, it belies its name in being a river of immense antiquity.

The New originates in the Blue Ridge province of northwestern North Carolina as the north and South Fork of the New River, which conjoin into the main stem along the line between Ashe-Alleghany counties of North Carolina. It flows thence northward into Virginia and makes one more meander down into North Carolina south of Mouth of Wilson, Virginia. No steep-sided mountain river gorge, the New River has broad entrenched meanders and wide floodplains of extraordinarily fertile soil frequently rejuvenated by flooding.

This regular flooding is one of the New River's characteristics that make it particularly promising in terms of adding to the very sketchy knowledge of early human occupation of North Carolina and the Southern Appalachians in general. Throughout most of North Carolina, conditions of soil degradation obtain. Erosion constantly deflates many sites, leaving the remains of extensive occupations jumbled within a few inches of surface material and lacking the stratigraphic context crucial to archeology. The New River Valley, on the other hand, is characterized by frequent constrictions in the path of the river that slow the path of flood waters. The waters pool behind these constrictions dropping their loads of sediment on the broad floodplains and creating deep soil stratification. The debris of human occupation are sealed and separated by these layers of silt. The importance of this phenomenon for North Carolina archeology was pointed to by J. L. Coe (1964:11) in work in the piedmont of the state. Due to this phenomenon, the archeologists of the New River Survey had reason to expect to find an extraordinary number of deeply stratified sites within the valley, and this proved to be the case.

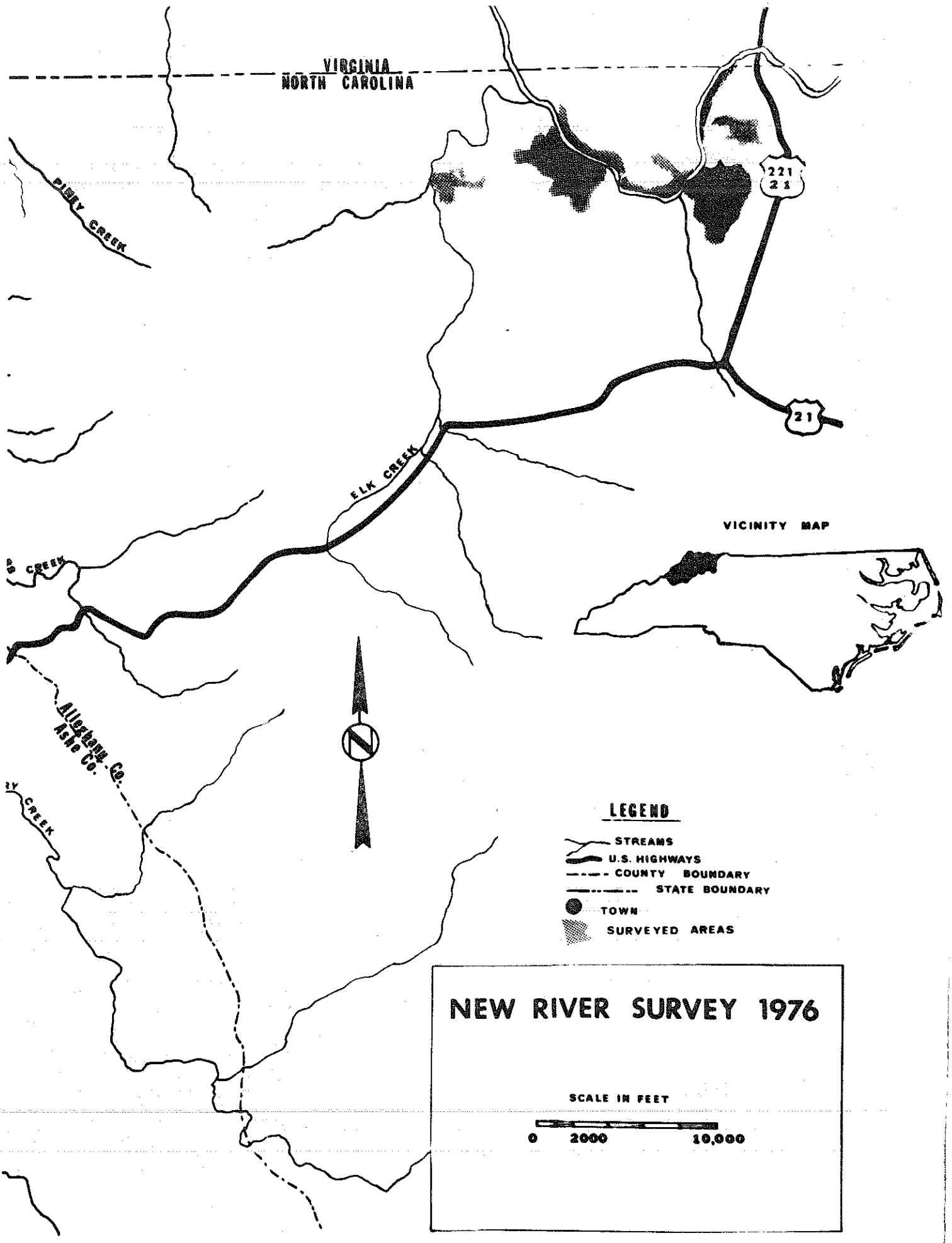
In March, 1963, the Appalachian Power Company was granted a two-year preliminary permit and in February, 1965, it applied for a license for the "Blue Ridge project", which would dam portions of the New River in northwestern North Carolina and southwestern Virginia to generate hydroelectric power. In response to objections to the original project, the Federal Power Commission proposed and Appalachian accepted the "Modified Blue Ridge Project", which would consist of a lower reservoir of 12,390 acres and an upper reservoir of 26,000 acres. A further modification of the project was accepted by the FPC. The State of North Carolina petitioned for a stay of the effective date of the license pending appeal and adducing evidence that, among other things, significant archeological remains would be destroyed by the project.

On March 5, 1974, then North Carolina governor James Holshouser made preliminary application to the U.S. Secretary of the Interior for classification of the New River as a scenic river. On March 21, 1974, it was

designated as a scenic river by the North Carolina General Assembly, and on May 28, 1974, the United States Senate designated a portion of the New River where the Blue Ridge project would be located as a subject for study for inclusion in the National Wild and Scenic Rivers System. The FPC's Opinion and Order Granting a License for the Modified Blue Ridge Project was issued June 14, 1974, to become effective January 2, 1975, "unless otherwise delayed by judicial review." A stay of the license was later granted. On April 13, 1976, U. S. Secretary of the Interior Thomas S. Kleppe designated the 26.5 mile section of the river as a scenic river and a component of the National Wild and Scenic Rivers System. The Modified Blue Ridge Project's area of inundation would be in large part on the designated "scenic" portion of the New River.

It was in this climate that the New River Survey was conducted, in order to find out whether or not there were significant archeological resources that needed to be taken into account in considering the impact of either the Modified Blue Ridge Project or the Wild and Scenic River System designation. This preliminary report outlines the findings of the survey.

In late summer of 1976, the United States Congress made the decision that no designated Wild and Scenic River may be dammed, making such billboards as "Dam the Scenic River" relics of the past and leaving the New River unchanged as the focus for human occupation of the valley.


VIRGINIA
NORTH CAROLINA
PINEY CREEK
221
21
21
ELK CREEK
VICINITY MAP
Alleghany Co.
Ashe Co.
LEGEND
STREAMS
U.S. HIGHWAYS
COUNTY BOUNDARY
STATE BOUNDARY
TOWN
SURVEYED AREAS
NEW RIVER SURVEY 1976
SCALE IN FEET
0
2000
10,000

VEGETATION

by

Henry Bruno
Duke University

Vegetational diversity is extremely high in mountainous areas. Changes in elevation juxtapose habitats of different moisture, temperature, or soil conditions. In turn these habitats support different plant communities or associations. Plant and environment are bound in a system of interaction. This relation is not linear or causal but reticulate, forming an exchange network. Change in vegetative patterns is a continuous process. There is alteration of ecosystems through succession or, on a larger temporal scale, via evolution. Such change may be gradual as in the break-down of exposed rock by lichens and mosses, or the change may be abrupt such as occurs after fire or the interferences of man (Cooper 1926:401).

The area covered by this archeological survey does not contain extreme altitudinal variation. Topography does, however, produce a moisture gradient from river bottomlands to ridgetops. Along such a transect, plant associations may be recognized. These are not segregated absolutely as much intergradation of components occurs. Further inconsistencies are added by the intensive land use, past and present, for crops, timber, and grazing. Researchers acknowledge several forest types in this region. These are labeled with the names of the dominant or co-dominant species. Dominance is judged for canopy trees on the relative basal areas occupied by their trunks measured at four feet above the ground. The deciduous forest contains a vast array of shorter trees, shrubs, and herbaceous plants. Yet, the distributions of such undergrowth species are not tightly bound to those of dominant species (Whittaker 1956:23). The shorter growth forms are genetically determined, physiologically adapted to lower light intensities and will not replace dominant species. Thus, an equilibrium may be reached with the biotic and abiotic environment. Such climax vegetation occurs only when undisturbed for hundreds of years--a rarity in this area.

There are few general patterns for bottomland components. The rich soil along rivers has been cultivated wherever possible. The disturbances of farming and flooding have introduced countless vegetational irregularities. Weedy species are common. They establish themselves quickly and survive by abundant seed set, colonizers of unstable habitats. An important consideration is the seedlings' tolerance of soil saturation. Studies by McDermott (1954) showed Alder (Alnus), Sycamore (Platanus), and River Birch (Betula) recover most rapidly from stunting induced by saturation. The ultimate stand composition of bottomland communities depends heavily on frequency and duration of river floodings, soil drainage, and the average height of the water table.

A representative section of floodplain was examined on the Douglas property along the south fork near County Road 1549. The river bank and some low areas were not plowed. There was a dense vegetation consisting of Platanus, Buckeye (Aesculus), Alnus, Dogwood (Cornus), Ironwood (Carpinus), Betula, Cottonwood and Balm of Gilead (Populus), and Willow

(Salix).* The last two trees are in the same family--Salicaceae. There is a tendency for hybridization within each genus. Hybrids are usually sterile yet relatively common in nature. This may be attributed to the ability of both groups to reproduce from cuttings. Twigs or even small logs floating down the river will sprout once they become lodged in wet soil. Green fence posts may grow to form trees. The abundance of these genera may be due in part to actual plantings. Both grow rapidly and help stabilize the river bank. Beneath the tree layer there is a tangle of Catbrier (Smilax), Bramble and Blackberry (Rubus), Blueberry (Vaccinium), Cinquefoil (Potentilla), and a variety of grasses. It should be noted that these listings are not meant to be complete; rather, they indicate only the frequent and abundant genera.

Walking up the slope on the Douglas property one encounters a probable result of man's intensive land use. Over one area there was a large stand of White Pine (Pinus strobus). The trees were very dense and all the same age. The landowner said many acres had been similarly planted since WPA days. Wood of several pine species is used for furniture, pulp, framing, etc. It is possible for nearly pure pine stands to occur naturally. These originate in open sites, often following fire or clear cutting. All that is required to produce these are a few large trees to act as a seed source. The result is approximately even-aged but not nearly so dense as planted areas (Lutz 1935:256). The farm contained the intermediate stages of this process. Several acres had been recently lumbered. Slash and other debris had been left, and there was no replanting. Erosion of the drag trails was extensive. Nearby was a similarly eroded, semi-open hillside. It contained grass, a few shrubs, and scattered pine of a mixed age distribution. Younger trees were established in eroded places. As the community matures, it will be mixed with oak and other deciduous species.

Another section was in pasture. Trees and shrubs occurred in drainage gullies and along fence lines. In such places one finds Black Cherry (Prunus), Cornus, Oak (Quercus), Hickory (Carya), Locust (Robinia), Sumac (Rhus), May-apple (Podophyllum), and Sassafras. Many wooded slopes were included within fence lines. Wood lot injury resulting from grazing takes several forms. Leaf litter is decreased and unevenly distributed by winds. Soil is compacted and eroded, exposing tree roots. With water percolation reduced, run off may increase by a factor of five causing erosion to be ten times greater (Dambach 1944:257). Under such conditions, the diversity of flora in deciduous forests is reduced by fifty percent. Abundance of fauna is also reduced. There are fewer small animals to transport seeds of plants, such as Carya, Jack-in-the-pulpit (Arisaema), or Podophyllum, to name but a few. There are few herbs and shrubs. No tree seedlings are established, since they are eaten by the cattle. Through time this greatly alters the composition of the forest.

*Scientific names are taken unofficially from the Vascular Flora of the Carolinas, by Radford, Ahles, and Bell (1968). Common names are often numerous and confusing.

A less disturbed wooded slope was found near the mouth of Grassy Creek. Up from the junction of Ashe County Road 1550 and Alleghany County Road 1311, there occurs a mixed mesophytic forest. The characteristic trees include: Robinia, Carpinus, Maple (Acer), Quercus, Cornus, Aesculus, Basswood (Tilia), Tulip-tree (Liriodendron), and Prunus. In the understory there was Grape vine (Vitis), Rhus, Mountain Laurel (Kalmia), Azalea (Rhododendron), Viburnum, Vaccinium, and Senecio--a yellow flowering ground cover. The top of this ridge was in pasture. More representative of the rich herbaceous strata was the eastern slope of Hellton Creek, a tributary of the north fork. Beneath the deciduous forest are Senecio, Galax, Rattlesnake Plantain (Goodyera), Partridge berry (Mitchella), Solomon's Seal (Polygonatum), and False Solomon's Seal (Vagnera). At Cranberry Creek on Ashe County Road 1603 there was Trillium, Arisema, and Geranium in addition to the above. In these wet areas of both localities such as low lying glades or rock outcrops with water seepage, diversity of species was increased. Mosses, sedums, and ferns such as Polysticum, Asplinium, and Thelypteris were noted. In this vicinity are Hemlock (Tsuga), and Pinus strobus covering dense thickets of Rhododendron and Kalmia.

At the base of the ridge near Hellton Creek, Platanus, Fagus (Beech), and Acer are common. Beech has a rather shallow root system and is a good indicator of soil moisture. Precipitation, run-off, and percolation may combine to produce a water deficiency, especially at higher elevations. When this happens the beech-maple complex can be expected to recede. The corresponding advance would be of oak-maple or oak-hickory forest types (Diller 1935:81).

When left undisturbed, the ridgetops of this region are dominated by Oak-Hickory forest. Here the soil moisture gradient approaches xeric conditions. But mountain elevations are not sufficient to support the Spruce-Fir climax as is found to the South. With Quercus and Carya are Liriodendron, Cornus, Acer, Carpinus, etc. Vaccinium, Rhododendron, and Vibernum are the major shrubs. Many of the herbs listed above occur here also. Pippsissewa (Chimaphila), Wild Yam (Dioscorea), and Squaw-root (Conopholis) are also common. The last mentioned is a parasite which grows on oak roots.

This habitat was once classified as Oak-Chestnut. The spread of an infection by Endothia parastica in the 1930s has virtually eliminated the Chestnut (Castanea dentata). Quadrat studies showed a reduction of Castanea from 41 percent to less than 1 percent of total basal area between 1934 and 1953 (Nelson 1955:352). These forests are no longer impressive, containing few large trees. As the blight spread, owners cut much of the infected timber as well as neighboring oaks. These stumps remain and are able to produce sprouts, but the young trees are not resistant and soon die. Expanding into the openings are the former co-dominant oaks. There is also primary replacement in the canopy by Liriodendron, Carya, and Acer. Finally, there is increased density of subordinate species such as Cornus, Sourwood (Oxydendrum), Magnolia, and several shrubby genera mentioned earlier. When equilibrium is established, hickory has replaced chestnut as climax co-dominant with oak.

Fire is a significant factor in the determination of community composition. Its effects are long term and demonstrate the interrelatedness of ecological factors. Burning may have been used to drive game or increase the yield of berries, especially blueberries (Vaccinium). This shrub, commonly found in eastern deciduous forests, can reproduce by sucker growth. Fire removes many of its competitors. Burned areas are subject to much higher water run-off and erosion. Fire decreases soil fertility by greater leaching of nutrients. It has been shown how this condition might aid the establishment of a pine stand. Pinus is shade intolerant but able to grow on dry and less fertile soils. Fire-interruped succession results in a pine stand which will replace itself and remain dominant.

Local plant distributions depend on edaphic factors, topographic influences on soils and soil moisture, and local atmospheric conditions (Braun 1935:299). As the area lacks sharp climatic divisions and is of rather low topography near the rivers, "segregation of the intergrading phases is difficult and inconsistent" (Benson 1959:626). Through time the physiography changes with fires, erosion, and the influences of man. The presence and persistence of a certain floral association within a local environment is determined by the above historical factors as well as the components of ancestral forests--particularly that of the Arcto-Tertiary flora. Species diversity was introduced when these mountains acted as refuges during Pleistocene glaciations. Much still remains, making this a rich area for botanical study.

GEOLOGY

by

Carl Merschat
N.C. Dept. of Natural Resources and Community Development

Topography

The south fork of the New River lies within the Blue Ridge province of the Appalachian Mountain System. This portion of the Blue Ridge province is a plateau-like area between 3000 feet and 4000 feet above sea level, characterized by gently sloping land with locally steep-sided valleys. The meandering course of the south fork of the New River indicates that the river once flowed more quietly than it does now. The fact that the meanders are intrenched indicates that the river was rejuvenated in the geologic past. This rejuvenation or uplift caused the stream to start downcutting more vigorously and produced the locally steep-sided valley walls. As the stream downcut, rapids formed where the more resistant rocks lay beneath the stream. The trend of these rocks can be determined by observing the angle at which the rapids cross the stream bed.

Bedrock Geology

The south fork of the New River flows through some of the oldest rocks in the United States. Rocks related to these have been dated by radiometric methods at 1.1 billion years old. In addition to their extreme age, all of these rocks are quite complex for they have all been metamorphosed twice, possibly three times in the past. The first metamorphism, a prograde stage of Barrovian-type, occurred at about 450 million years ago and the second, a retrograde event, followed later in the Paleozoic Era. The process of metamorphism changes the original character of the rocks and thus complicates their interpretation and understanding. All of the rocks in the vicinity of the south fork of the New River are metamorphic except for any post-Paleozic intrusives that may be found.

The oldest Pre-Cambrian rocks outcropping along the south fork are those exposed east and north of Boone, North Carolina and those exposed from a point located on the Mouth of Wilson, North Carolina-Virginia quadrangle along the south fork at coordinates 1,017,000N, 1,314,400E to the North Carolina-Virginia state line. They belong to the Cranberry Gneiss of the Elk Park Plutonic Group. Two phases of the Cranberry Gneiss are mapped along the south fork. The most abundant phase consists of equigranular quartz monzonite, quartz monzonite flaser gneiss, and quartz monzonite gneiss. The other phase is a coarse-grained augen or porphyritic gneiss having a monzonite composition with very large subhedral to euhedral grains of potash feldspar surrounded by a finer-grained matrix. In places the augen or porphyritic gneiss contains significant amounts of blue quartz and green epidote so as to be comparable with "Unakite", a rock type that is sought by rockhounds in Southern Virginia, Western North Carolina and Northeastern Tennessee. The majority of the Cranberry Gneiss is igneous in origin with minor amounts of originally sedimentary material.

Nonconformably overlying the Elk Park Plutonic Group is the Ashe Formation (Rankin 1970). The Ashe Formation is a fine-grained, thinly-layered, sulfidic, biotite-muscovite gneiss interlayered with varying amounts of mica schist and amphibolite. In the vicinity of Jefferson, North Carolina the Ashe Formation becomes increasingly more amphibolitic.

Rankin (1970) suggested that many of these amphibolites were originally ancient lava flows. The type section of the Ashe Formation is along the south fork of the New River. It extends north from the junction of Obids Creek with the south fork (Glendale Springs 7½ minute Quadrangle) to a point on the river located by the following North Carolina coordinates 1,017,000N, 1,314,400E (Mouth of Wilson, North Carolina-Virginia 7½ minute Quadrangle). The Ashe is Pre-Cambrian in age and has been dated radiometrically at approximately 800 million years.

The Crossnore Plutonic-Volcanic Group intruded the older Cranberry Gneiss and either intruded or formed simultaneously with part of the Ashe Formation. The Crossnore Plutonic-Volcanic Group is exposed near the head of the south fork at Boone, North Carolina. The mafic rocks are now greenstones, amphibolites, and metagabbro dikes and sills, whereas the felsic rocks are alkalic granites and granitic gneisses.

Intrusive into the lower Ashe Formation in this area are several large altered ultramafic bodies. They are composed mainly of chlorite-tremolite-magnetite schist or gneiss, some containing relict olivine and either talc or serpentine.

Conformably overlying the Ashe Formation is the Alligator Back Formation (Rankin 1973). The Alligator Back Formation is a finely foliated gneiss composed of fine-grained quartzo-feldspathic laminae a few millimeters thick separated by thin micaceous partings. Thicker schist and amphibolite layers are common. The Alligator Back Formation is Late Pre-Cambrian to Early Paleozoic in age (Rankin, et al 1972). Muscovite-granitic pegmatite dikes and sills intrude the Alligator Back Formation and all older rocks.

Structural Features

Thrust faults, with displacements commonly as great as several miles, are a characteristic structural feature of the Southern Appalachians. The south fork of the New River cuts the Fries thrust fault NE of Boone at North Carolina coordinates 911,900N, 1,220,600E and at the confluence of the south and north forks of the New River. Movement along this fault in the vicinity of the south fork shoved Cranberry, Ashe, Alligator Back, and other related rocks northwestward over the top of other Cranberry rocks. Another major thrust fault, the Linville Falls fault, has been mapped just south of the study area. Appalachian thrust faults are old and inactive and present little chance of renewed movement.

The south fork flows across the western limb of the Ararat Synclinorium. This synclinorium is the result of a large downfold in the earth's crust during a period of mountain building. This fold along with thrust faulting and topography controls the outcrop pattern of the rocks along the south fork of the New River.

Mineral Resources

At the time of writing this report, the only active mineral production within the one mile study limits of the south fork of the New River is from the Bamboo Road quarry operated by the New River Crushed Stone Company. The company is crushing a biotite to biotite-hornblende gneiss that Rankin, et al (1972) mapped within the Crossnore Plutonic-Volcanic Group. The crushed stone from this quarry is being used primarily in road and driveway construction. This deposit and those discussed in the following paragraphs are listed in Table I according to their economic significance.

Although no other mining is going on today, several minerals have been extracted from the rocks along the south fork in the past. Copper is the most notable commodity mined and the most desirable for future exploration. The south fork of the New River cuts across one of the major copper bearing sulfide belts in the United States. This belt extends from Maine to Alabama. The third largest copper mine in this belt, the Ore Knob Mine, is located less than two miles from the southeast bank of the south fork. This deposit has produced about 35,000 tons of copper, 9,400 ounces of gold, and 145,000 ounces of silver during its intermittent history. This deposit has been abandoned several times only to be reopened when new exploration techniques located additional ore.

Two other known copper deposits lie within one mile of the south fork. The first is the Gap Creek (Copper Knob) deposit which has produced both copper and gold. This mine carries the highest gold values in all the copper mines in the Appalachian copper belt. The second is an intriguing occurrence of native copper known as either the Church prospect or the Lichtenstein prospect. At this deposit native copper occurs in amphibolite layers. This prospect was worked in the early 1800s and is situated approximately 50 feet above the narrow floodplains in the SE bank of the river. R. C. Hale and R. H. Carpenter (1968) report that other native copper deposits exist along the strike and they further suggest that copper mineralization in this area may be more widespread in the Late Pre-Cambrian volcanic rocks than previously realized.

Northeastward from the aforementioned deposits, copper-bearing sulfides are found along strike for several miles into Virginia where they are known as the Great Gossan Lead. The Great Gossan Lead extends for some twenty miles in Virginia and represents the longest massive sulfide deposit in the eastern United States.

As reported by Kinkel, et al (1968) in U. S. Geological Survey Professional Paper 580, "Mineral Resources of the Appalachian Region", page 385, the potential for finding exploitable deposits of copper, pyrite, and pyrrhotite, particularly of the massive sulfide type, in this part of the state is excellent.

In addition to its occurrence with the copper deposits, gold has been mined from gravel deposits in Howards Creek north of Boone, North Carolina (Bryson 1936).

Only three small mica mines are located within the one mile limits of the south fork study area, even though numerous mines are present in the Jefferson-Boone district located a few miles west of the south fork (Lesure 1968). Little Prospect #1 had the most extensive workings and the largest production of the three. It produced somewhere between 500 pounds and 10,000 pounds of sheet mica and was mined during both World Wars. Little Prospect #2 had a similar history, but only small production, with less than 500 pounds being produced. The H. E. Brookshire Prospect east of Jefferson had very minor production, less than 500 pounds, in the 1930s. As long as sheet mica can be supplied more economically from foreign countries, there is little chance of mica mines in this area becoming important again.

Other previous mining activity in the area was for crushed stone or sand and gravel. There was only minor production from any one quarry or pit. The majority of the material was used for road material first by the county and later by the State Highway Commission.

Mineral commodities mined a few miles beyond the limits of the natural and scenic river area in addition to all of the commodities previously mentioned include: (1) talc, (2) crystal quartz, (3) magnetite, and (4) manganese. None of these are being mined currently. The description of these deposits is well documented in several of the geological publications of the State of North Carolina.

Just beyond the limits of the study area crystal quartz near Jefferson and staurolite near Crumpler have been sought after by mineral collectors.

Points of Geologic Interest

A. The type section for the Ashe Formation is defined as those exposures along the south fork of the New River between the prominent curve concave to the northwest at the mouth of Obids Creek (North Carolina Coordinates 942,600N, 1,291,400E) and a point located by North Carolina Coordinates 1,017,000N, 1,314,400E. The southern end of the section is on the Glendale Springs 7½ minute quadrangle and the northern end is on the Mouth of Wilson, North Carolina-Virginia 7½ quadrangle. This portion of the south fork will serve as the reference point for the Ashe Formation in all future mapping and scientific investigations of these ancient rocks.

B. The rapids along the south fork of the New River are a result of differential erosion of the underlying rocks. The rocks more resistant to erosion protrude out into the river causing the rapids.

C. The presence of ancient lava flows and other volcanics that now appear as amphibolite ledges and cliffs along the south fork of the New River are some of the most scenic and unique geologic features.

D. The presence of 1.1 billion year old (Pre-Cambrian) metamorphic rocks places these among some of the oldest rocks in the United States.

E. The meandering nature of the south fork of the New River is unusual for a stream with a moderate gradient in a mountainous area. It is this meandering that causes the south fork to travel approximately 90 miles, when the straight line distance is only about 30 miles. This meandering nature results from a time in the geologic past when the south fork was flowing much more gently.

F. The mineral resources listed in Table I make this an excellent area for mineral collection as well as for the potential commercial production of base metals and industrial minerals.

Locality Number	Status	Mine Name	North Carolina Coordinates	Commodity Mined	Potential
1	Active	Bamboo Road Quarry	907,800N 1,222,600E	Crushed stone	Good
2a	Inactive	Ore Knob	972,400N 1,312,600E	Copper, gold, silver	Good
2b	Inactive	Ore Knob	973,300N 1,314,300E	Copper, gold, silver	Good
3	Inactive	Gap Creek (Copper Knob)	928,600N 1,263,700E	Copper, gold, silver	Good Good
4	Inactive	Church Prospect	1,001,900N 1,312,700E	Native copper	Fair
5	Inactive	Howards Creek	919,200N 1,209,500E	Gold	Fair
6	Inactive	Index Quarry	973,800N 1,291,00E	Crushed stone	Fair
7	Inactive	Scottsville Quarry	1,007,700N 1,324,700E	Crushed stone	Fair
8	Inactive	Little Prospect #1 & #2	978,800N 1,289,300E	Muscovite mica	Poor
9	Inactive	H. E. Brookshire Prospect	913,500N 1,219,400E	Muscovite mica	Poor
10	Inactive	Todd Gravel Pitt	942,600N 1,232,300E	Sand and gravel	Poor

Table I. Mineral commodities located within one mile of the banks of the south fork of the New River.

LAND USE

Modern development in New River valley

An important factor in the archeological assessment of the New River area is the land use patterns which have developed in this relatively isolated area. Modern development along the New River has been slight and directed toward agriculture. This has resulted in the preservation of an extremely large, if not the total, range of types and locations of archeological sites along the New River. The following figures from the North Carolina Conservation Needs Inventory, December, 1971, indicate the limited extent to which the area has been developed:

*Land Use	Alleghany County % of Total Land	Ashe County % of Total Land
Federal noncrop	3.3	0.6
Small water	0.3	0.4
Cropland	20.4	18.3
Pastureland	25.3	21.6
Private or Commercial Forest	45.8	53.2
TOTAL PERCENT NONDEVELOPED LAND	95.1	94.1

* "This table indicates the project area. Overlapping uses such as forestland also used for pasture are not reflected."

Adjustments were made in these figures to correct for losses from totals due to rounding to thousands of acres.

Another indicator of the level at which development of an area is proceeding is the number of federally funded or federally licensed projects which have taken and are taking place. The average number of initiated projects for a county in North Carolina for the period from June, 1974, to June, 1976, is just over thirty-eight, while the initiated projects in Ashe and Alleghany counties are fifteen and seven, respectively, for the same period.

This is not only important in terms of the types of sites surveyed by this project but also in terms of the state of their preservation as well. The land use practices in the New River area have left the sites generally in an excellent state of preservation.

Correlation of soils and site information

Because of a shortage of both equipment and sufficiently trained personnel, adequate soils information was gathered on only 56 percent of the open sites recorded by the survey. Soils information was also collected from rock shelters located by the survey. This was extremely consistent due to the configurations of rock shelters. Soils within them throughout the New River valley are colluvial wash mingled with highly organic humus formed by the decomposition of organic materials deposited in the shelter.

Among the open sites, however, the soils differ. Of the sample for which soils information was collected, 34 percent were located on sandy loams, the most common soil on the broad floodplains. The next most common type was clay loam, where 21 percent occurred. This soil type is most common on the narrower floodplains, where erosion is caused by a steeper slope angle, and on the flatter or more densely vegetated ridge tops, where erosion has not been severe. Fifteen percent were located on silt loams, characteristic of the floodplains, and 13 percent on loams, which occur in uneroded situations from the ridge tops to the floodplains. A 5 percent or less occurrence of sites was on silts, loamy sand, silty clay loam, sandy silty loam, and sandy silt, all of which are floodplain type soils, and on loamy clay and clay, both of which are ridge top types.

The soils on which the sites were located seem primarily to reflect the soil types most common in areas of 15 percent slope angle or less, the terrain apparently favored by the inhabitants. Within these constraints, the common choice of sandy loams could indicate a selection for the best drained soils in any given place. Perhaps a finer analysis of the soils for organic and chemical content would reveal more specific predictive factors.

Correlation with studies on Watauga River valley

Purrington and Douthit, in studies of the Watauga River valley which lies just south of the New, have noted that during the prehistoric horticultural period, ca. 1000 A.D. and later, there was a strong preference for Class 1A soils, loams, and fine sandy loams of the highest capability agriculturally. Their work indicates that Middle and Late Woodland period sites also show some preference, though much less pronounced, for Class I soils. They isolated no soil selection factors for the earlier periods, when a multispectral environment was apparently in use (Purrington and Douthit 1976:5-6).

The same general picture seems to exist in the New River valley where floodplain sites seem to dominate throughout. Sites of Archaic periods range over a broad environment, with occurrences of sites off of the floodplain steadily diminishing with time. By the Middle-Late Woodland period, floodplain sites are the general rule, and these are not on lands with "enough stones or gravel to materially interfere with tillage," as Class IB soils are defined (Purrington and Douthit 1976:4).

Although existing data is not sufficient to determine which factor, if any one, is controlling, there appear to be several possible reasons for the soil selection in the New River valley sites. First is the possibility that the prime agricultural capability of these floodplains is a result of the prehistoric occupation, rather than a cause of it. It is conceivable that the residues of periodic prehistoric occupations over the millennia could have created unusually rich farmland in certain areas.

A second factor is the make-up of the New River floodplains. The large, broad floodplains are created in most cases by the river pooling and sediment dropping behind constrictions in the river course. Silts and sands, with some clay and a high organic content, are the natural consequences of this type of formation; and these are, in turn, the best soils for farming. Modern agriculturists along the river are able to farm these large floodplains very intensively. There is no evidence, however, to suggest that this type of intensive farming was of interest to prehistoric inhabitants. It is possible, with the low-yield crops available to them, that aboriginal farmers were more concerned with a large number of farmable acres in one place and that the primary attraction was the size rather than the unusual richness of the large bottomlands. As well as the raw size potential of the floodplains for farming, they also afford large potential habitation areas within the less than 15 percent slope-angle range identified as favored. The bottomland yielding the most ceramic material would have been sufficient in size to carry both a village and extensive farmlands surrounding it.

Finally, the floodplain lands are also positioned where a wide variety of subsistence resources would have been available from the river itself, as well as riverbank vegetation, floodplain vegetation, and the numerous springheads and their vegetation, which characterize the bottoms of ridges near the floodplain. Given these various advantages, any one or a combination of them could have accounted for the common use of the bottomlands for site location.

Another factor which leads to conservative statements regarding floodplain soils along the New River is that western lumbering and farming practices may well have accelerated erosion and runoff in the valley, increasing both the frequency of flooding and the sediment load carried by the river in flood. The last 200 years of deposit on these large floodplains may or may not resemble the soils present at the time aboriginal peoples were selecting sites.

Given this variety of factors concerning the broad floodplains, it thus seems premature to postulate a direct causal relationship between the rich soils of the floodplains and the locations of late prehistoric sites. Use of these floodplain soils as an indicator of probable site locations is a different matter. Whether due to the soils, the river, the expanses of land, or some other unknown factors, there were certainly sites on these broad floodplains, and any factor that directly reflects on the presence of these floodplains will probably correlate with site location as well.

SUMMARY OF NEW RIVER PREHISTORY

In discussing the human occupation within the New River valley, it is first useful to look at what is thought or known about the past occupation of the eastern United States and North Carolina in general. When placed against this background, the data gathered from the New River Survey will be more meaningful.

The earliest dates for mankind's entry into the New World are a matter of considerable controversy. Various hypotheses would place man in the New World as far back as 40,000 years ago, but as yet none of these claims have been substantiated in published literature. For the present it will be sufficient to go along with Willey, who cites radiocarbon dates demonstrating mankind's presence in the New World between 10,000 and 9000 B.C. (Willey 1966:29).

These earliest inhabitants of the New World, the Paleo-Indians, are generally considered to have largely depended for subsistence on the herds of large game animals which existed during and after the last glaciation period, the Wisconsin. Sanders and Marino (1970:28) suggest that the southeastern Paleo-Indians had a hunting and gathering economy less specialized toward megafauna hunting than that of their western plains counterparts. This period is usually thought to have ended ca. 8000 B.C.

According to Coe, the only evidences of the fluted-point, megafauna-hunting cultures in North Carolina are in the form of isolated surface finds. However, the Hardaway Complex, identified by Coe in stratigraphic context, has some characteristics in common with Paleo-Indian materials (Coe 1964:120) and probably represents a transitional phase between the Paleo-Indian and the Archaic periods (Willey 1966:61).

As the climate in the eastern woodlands stabilized into something similar to that in the area today, the abundant small game, shellfish, fish, and vegetational resources of the area made possible a new subsistence adaptation. This more thorough utilization of the environment, referred to by Caldwell as primary forest efficiency, is characteristic of what is known as the Archaic period in the east (Sanders and Marino 1970:29). During the Archaic period, notched projectile points and ground-stone implements were characteristic.

By most definitions the appearance of pottery in the east signals the beginning of the Woodland period. Willey suggests that pottery did not arrive east of the Appalachian Mountains until sometime after 1000 B.C. (Willey 1966:258). Coe places the first pottery after the end of the Savannah River Archaic occupation and occurring initially with a fully developed ceramic technology and triangular projectile points (Coe 1964:124). The earliest date Coe places on a ceramic-bearing level is "around the beginning of the Christian Era," and this is for the Badin culture (Coe 1964:55). Also characteristic of the Woodland period is the occurrence of horticulture or agriculture, and some authorities also include the building of burial mounds and other earthworks in this period.

The building of earthworks and the occurrence of elaborate mortuary practices are most commonly associated with the Adena and Hopewell cultures of the Ohio Valley and with the Mississippian of the Mississippi Valley. To date, no positive evidence for occupations of these cultures in North Carolina has ever been found. Some generalized Hopewell and Mississippian traits, such as artificial burial mounds and echoes of the Southern Death Cult ceremonial complex, appear in North Carolina. In general, the Woodland type culture lasted essentially unmodified in North Carolina through the periods when burial and temple mound construction were major traits in the Ohio and Mississippi valleys (Willey 1966:282-283).

An analysis of the projectile point inventory and ceramic data collected by the New River Survey shows that this area has been inhabited during the full range of mankind's known existence in the New World.

PREVIOUS ARCHEOLOGICAL RESEARCH IN THE NEW RIVER VALLEY

Prior to 1965 little work had been done in the North Carolina New River valley. A 1964 survey by C. G. Holland in southwestern Virginia included some work along the New River. He located eleven sites in Virginia and two in North Carolina which were within the proposed impoundment area of the now defunct Blue Ridge project.

In 1965 the Smithsonian Institution conducted a two-week survey in the area, with fieldwork done by Harvard G. Ayers. The survey located eighteen sites in the North Carolina/Virginia areas that would have been inundated by the damming of the New River. Three of these were the same sites visited by Holland in 1964 (Holland 1969:2). On the basis of the 1965 survey's findings, complete excavation was recommended for one site, extensive excavation for two sites, extensive testing for three sites, and limited testing for five sites. Ayers recommended for the area a full three months of fieldwork by eleven persons, followed by nine months of laboratory analysis (Ayers 1965:6-22).

In 1969 Holland followed up his 1964 work with a ten-day survey in the New River valley, which identified sixteen sites and two fish weirs in North Carolina. One of the sites was previously surveyed by Ayers in 1965. In total, Holland identified forty previously unknown sites and eleven fish weirs, which were added to the tally of sites in North Carolina and Virginia threatened by the proposed Blue Ridge project.

Holland's 1969 work indicated that Ayers's recommendation for mitigation was inadequate. Holland, on the basis of ten days in the field, suggested that a minimum of six month's work would be necessary for thirteen excavation personnel and two laboratory aides.

For the sites surveyed in 1969, Holland recommended extensive excavation of one, excavation of six, test cuts on fifteen, and further reconnaissance on six (Holland 1969:9-11).

The 1964, 1965, and 1969 surveys revealed evidence of a full range of human occupation of the valley from approximately 6500 B.C. to the present. Local collectors also reported to Holland finds of Clovis projectile points along the two forks of the New River (Holland 1975:409). These would push the dates back to approximately 10000 B.C., in the Paleo-Indian period.

More recently, Dr. Burton L. Purrington in 1974 conducted a one-day archeological reconnaissance of the North Carolina New River area to assess the potential need for an archeological survey of the area. He recommended an "intensive, systematic survey...." He also noted that:

> Moreover, 25 sites have been located in a very short field work period in the drainage of the South Fork of the New River in Watauga County. The data from Watauga County indicates that the upper New River has a prehistory of several thousand years, that

> a variety of cultures and time periods are represented at different sites, and that several different types of habitats were exploited by the prehistoric Indians.

He also noted that the area is rich in historic sites (Purrington 1974:1-2).

More currently, Purrington, Ayers, and Mary Lee Douthit have done more work along the New and Watauga rivers. The Watauga River is geographically near the New and in a similar topographic situation to the upper portions of the New. Purrington and Douthit have worked on the correlation of soil types with the occurrence of archeological sites along the Watauga (Purrington and Douthit 1976).

Thus, previous work in the New River valley has shown cultural remains from a full range of known periods of human occupation in North America, and the archeologists involved have called, unanimously, for more archeological work in the valley.

METHODOLOGY

Limitations

From the New River Survey's inception, there were extreme limitations inherent in the project. The land area involved was immense in light of the time and personnel limitations. More than 14,200 acres in North Carolina would be flooded by the Blue Ridge project; another 4,000 acres were planned as a probable state park; and 1,100 more acres would be destroyed archeologically by the relocation of roads. A rough estimate of the impact of planned recreational development in the area within one mile of the shoreline would result in another 75,200 acres of impact.

Time limitations were another major problem in planning the survey. Circumstances allowed eight days for planning the survey and a maximum of thirty days for executing the fieldwork. These time limitations were combated as much as possible by utilizing a crew of twelve people, with occasional additional volunteers working thirty consecutive ten to twelve-hour days. With one person obtaining land-access permission in advance of the survey crews, it was possible to cover approximately 5,760 acres within the thirty-day field period.

Many problems were caused by the limited time provided for preparation. Initial plans for systematic coring of all sites located were abandoned when the equipment for coring was not available in time. After considerable survey work was completed, borrowed 4-inch bucket augers arrived; consequently, systematic coring information was obtained for some, but not all sites.

A similar situation arose in respect to the Brunton hand transits used for obtaining bearings and slope angles. They were not available and had to be borrowed for the first part of the project and returned before others could be obtained; consequently, an accurate recording of the slope angle and bearing was not possible in every case.

Monetary considerations limited the personnel on the project to twelve and forced numerous equipment limitations. A larger project staff would have allowed subsurface testing, where it was needed, to determine the presence or absence of a site. It might also have resulted in greater ground coverage. The urgency of the situation, however, demanded that the survey proceed.

Survey plan

The above mentioned limitations, therefore, had bearing on the methodologies reviewed and chosen at the project's outset.

The initial plan, proposed by the authors, was to attempt to take a 25 percent sample of the area to be directly impacted, using ¼-mile by 1-mile precisely defined transects. These transects were chosen in an attempt to represent the whole spectrum of microenvironments available to prehistoric and historic peoples in the New River valley. They were designed to include a variety of hydrologic and topographic settings. Detailed

vegetational, geologic, and geomorphological information was to be recorded in the field. Field crews were, in this plan, to utilize subsurface testing techniques at specified regular intervals where ground cover or colluvial/alluvial overburden required it, so that an extremely intensive survey would be done within each of the transects.

Two types of transects were outlined. One type crosscut the valley, going from the river bank up to the tops of high ridges, in order to take in the whole range of elevations and a variety of hydrologic environments as well.

The second type ran within one major elevation zone, such as along the floodplain or along a ridgetop. It was felt that the elevation range, water resource settings, and erosional situations represented in such crosscuts would also be controlling factors for floral and faunal environments. The survey would, in fact, get from this technique valid microenvironmental samples while avoiding the possible skewing factors of using western ecologists' zonation.

This plan was, however, abandoned on the orders of Dr. Stephen J. Gluckman, then chief of the Archeology Section, who felt there was not sufficient time to implement it. Instead, the survey was planned in such a way as to inspect as complete a spectrum of the available microenvironments as possible from surface reconnaissance only. Crews were assigned to cover as great a variety as possible of types of terrain, and hydrologic settings, as well as the full continuum of elevations without the quantitative comparability introduced by transects.

Field survey

Field crews on the New River Survey were assigned blocks of land according to property boundaries, and they attempted to survey these as intensively as possible without employing subsurface testing techniques.

In situations of heavy ground cover, the surveyors took advantage of occasional bare patches of ground, erosion scars, ditches and gullies, farmroads and cowpaths, animal burrows, and other existing phenomena which resulted in breaks in the ground cover. In some cases, rakes were employed to remove loose ground cover, such as leaves and twigs.

In cultivated fields, crew members walked approximately 20 to 40 feet apart, depending on the extent of cultivation and visibility.

Locations topographically analogous to those of known sites were inspected particularly carefully. Grass cover was parted to search around the root systems in selected areas.

Members of the archeological crews also talked to the landowners and members of the community about the places on each tract of land where prehistoric artifact remains had been found in the past by farmers or collectors. Locations where local persons remembered or had been told about the sites of old homes or industries were also given close attention.

The crews collected no artifactual material on the initial walkover of a site, but instead used survey flagging to mark diagnostic materials and concentrations and to establish the site's perimeters. Dimensions were recorded, with bearings derived from Brunton hand transit readings.

Crew members then inspected the layout of the materials and chose a 10-foot wide transect that, in the judgement of the archeologists present, would show a representative sample of the site's materials in one crosscut of the site. On rare occasions, more than one crosscutting transect was chosen when it was felt that one transect would not adequately represent the site.

The transects were divided into equal sized segments according to the judgement of the archeologists on each particular site. Most of the transects were collected in three segments, but occasional instances called for the collection of a larger number of segments in order to represent all concentrations adequately.

All cultural materials were collected and bagged by transect segment in an effort to recover a representative sample of the types, locations, and quantities of materials on each site. After the transect was collected, an overall walkover for diagnostic materials was made in order to attempt to represent the time range of each site as fully as possible.

All identifiable soils on the site's surface were recorded by characteristics and Munsell color readings, such as "10YR4/6 sandy clay loam." Sequences of 4-inch bucket auger samples were also taken on the sites. This was done in order to assess how much potential stratigraphy each site had and thus more accurately determine its possible significance. Within the cores, each soil change was recorded by the soil's composition and Munsell color reading. Notations were made of moisture, texture, and the occurrence of artifactual materials, gravels, and organic matter. Because of equipment limitations, soil coring was no deeper than nine feet.

Detailed maps of each site were made, including dimensions, bearings, landmarks, concentrations of artifacts, transect and auger positions, and soil changes within the site. Nearby identifiable water sources and possible quarries were also recorded on the maps.

Additional information recorded for each site included its precise location, vegetation types occurring in association with the site, slope angle, local history, plowing history, elevation and elevation above a water source, nearness to a water source, occurrence of nearby marshy areas, and its geomorphological setting, such as "second terrace of the New River, main stem." Notations were also made of any other special characteristics of each site which might have some bearing on its use in the archeological past.

Observed natural vegetation was recorded. In cases where planted crops were the actual plants growing on the site, a record was made of the natural vegetation nearest the field. Only observed phenomena were used, in order

that specific information for each site would be available. Studies to date indicate that little change in vegetation has taken place since man first entered North Carolina; consequently, this information is useful in considering the probable prehistoric environment of each site.

Faunal information included only observed animal species and their tracks. This is the only reliable mechanism presently available, as the ranges of animal species have altered significantly with the arrival of western peoples. At present, no accurate projections are available for the supposed original game ranges, and only these would be helpful in attempting to make a statement about the prehistoric environment.

Problems limiting results

Several problems arose during the fieldwork which had a strong bearing on the results of the survey. In many places, the topographic situations of survey areas necessitated access by canoes, often a slow process. At one point during the survey, the New River rose out of its banks and flooded some sites. It remained high until the end of the survey, preventing the mapping of one newly found fishweir. Since soil augering equipment and a number of the Brunton pocket transits were not available during the first part of the survey, it was necessary to later spend extra time revisiting sites already found.

The frequency of absentee landownership along the New River was another major problem. Many properties are owned by persons who live elsewhere in the United States and seldom visit the lands. These persons are often unknown to their neighbors. The survey could spare no personnel to do the deed research necessary to find the landowners and obtain access to these properties; therefore, some extremely promising areas could not be surveyed. In cases where the property owner's name could be discovered, it was still not possible to get in touch with them in the limited amount of time available.

In a few cases, the controversial nature of the Blue Ridge project led landowners to be hesitant to allow any strangers on their lands. The general climate of suspicion that now exists with regard to any of the proposed fates of the New River made it impossible in isolated instances to obtain land access.

Another problem in site surface collection was that the survey crew arrived on the New River just as plowing began. The plowing came in the midst of a long dry period. In many cases this resulted in rather poor conditions for surface collection. This also resulted in some lack of compatability in the collections.

Figure 2. 31Ah100 (the Reeves fish weir), south fork of the New River

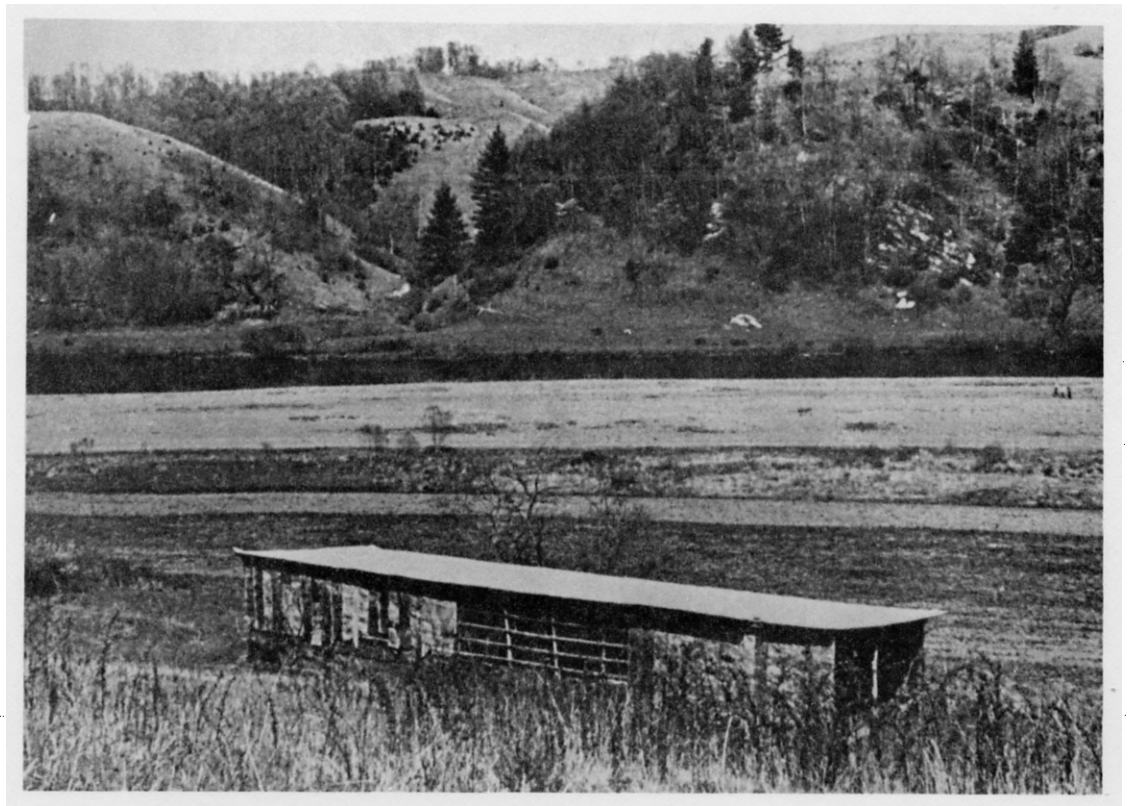


Figure 3. The New River in Alleghany County near Piney Creek, April, 1976.

FINDINGS

NEW RIVER SURVEY, 1976

A total of 163 archeological sites were found and recorded during the course of the thirty days of fieldwork on the 1976 New River Survey. Of these, twelve were recollections of sites found by C. G. Holland in his 1969 brief survey of the valley. Forty-seven were located in Alleghany County and 116 in Ashe County.

Each site was given a preliminary number for purposes of the survey and analysis. Preliminary numbers included the first three letters of the county name, followed by Arabic numerals. Each field crew was assigned a block of 100 numbers within which to assign consecutive numbers for the sites they located. Numbers within the state-wide system were assigned later.

Alleghany County

31A143, the Dancy Site, measures 200 feet NE/SW by 450 feet NW/SE. It had not been plowed in at least three years at the time of the 1976 survey and was in grass and weeds, bare in scattered patches. A large creek is ca. 60 feet north and west of the site. The New River is 200 feet northeast.

The soil is 10YR3/3 dark brown silt. Auger tests revealed that this dark brown silt extends to about 0.7 feet below the surface, where it changes to a light soil, 7.5YR5/6, which continues to 3 feet below the surface. The site is entirely on the second terrace of the floodplain and there is some erosion. Approximate elevation is 2360-2400 feet above mean sea level (AMSL).

This site has been collected extensively by local persons and is said to have yielded large numbers of diagnostic artifacts.

C. G. Holland collected this site in 1969 and designated it as "All-A." He recovered from the site: 1 rhyolite Savannah River projectile point; 23 chert flakes; 11 chalcedony flakes; 59 rhyolite flakes; 3 quartz flakes; 3 quartzite flakes; 1 sandstone pitted hammerstone/millingstone; 1 chert drill; 1 large rhyolite blade; 2 rhyolite blade knives; 1 chert blade knife; 1 chert side scraper; 2 quartz side scrapers; 2 quartz cores; 1 unidentified projectile point fragment; 1 chert projectile point fragment; 1 unidentified worked quartz fragment; 2 net-impressed Smyth Series sherds; 2 plain Smyth Series sherds; 5 net-impressed Grayson Series sherds; 1 fabric-impressed Grayson Series sherd; 1 plain Grayson Series sherd; and 1 unclassified Dan River Series sherd.

When the site was revisited in 1976 by Harvard Ayers, the following artifacts were collected: 1 felsite Morrow Mountain point; 6 felsite knife scrapers; 25 felsite flakes; 68 quartz fragments; 107 chert flakes; 4 chert knife scrapers; 3 triangular chert projectile points; 2 quartz knife scrapers; 27 rhyolite flakes; 1 felsite cobble; 1 chert core; 1 chalcedony point tip; 1 felsite projectile point tip; and 2 quartz scrapers.

31A144 is in a field that had been plowed in 1975. The site measured 135 feet N/S by 325 feet W/E.

The site was situated on a ridgetop, approximately 100 feet southwest of a springhead. The site is approximately 40 feet in elevation upslope from this nearest water source. There are no known marsh or quarry areas near the site. Elevation is approximately 2600-2540 feet AMSL. Soil was 5YR4/6 yellowish red clay loam, and little erosion was in evidence.

The 1976 collection was not taken via transect due to the sparsity of the material scatter. Collected were: 2 felsite blank fragments; 1 felsite knife-scraper; 1 projectile point fragment; 3 quartz projectile point fragments; 6 quartz flakes; 2 chert flakes; and 7 felsite flakes.

31A145, the reported first Alleghany County jail and Doughton Homeplace, consists of the foundations of a building and 6½ feet remaining of a chimney. One informant contacted by survey personnel reported remembering bars on the cellar window, and another reported it to be the first jail of the county.

It was reported by the first informant to have been a two-story log and brick structure with a porch spanning the entire front side. She thought it was built in the 1700s and said her family had occupied the structure from her great-great-grandfather's lifetime until its abandonment in the 1920s. The foundations consist of two parts, brick on dry-laid stone in the southern section, which measures 18 by 26 feet, and stone in the northern section, which is 18 by 16 feet. The bricks are beginning to crumble. The brick chimney on the southern end of the foundations has been pushed to the interior, but stands to 6½ feet still. Brickfall extends 20 feet to the north, preserving the materials below it. There are 5 by 10 inch beams and boards with hand-cut nails visible within the chimney fall. A depression in the northern section of the ruins may mark the reported cellar.

Artifacts collected from a trash dump northwest of the foundations date from the late 1800s. Artifacts from the earlier period, in direct association with the house, were not in evidence on the ground surface. A depression measuring 16 feet E/W by 9.4 feet N/S lies 17.5 feet west of the foundations. The local informant says this is the location of a well dug in the early twentieth century by her father. There are pump parts on the surface. Approximately 200 feet southwest of the foundations are the remains of the springhouse which is said to have antedated the well. It measures 15 feet N/S by 5 feet E/W. Cedar, maple, and hickory trees grow around the foundations, and blackberry thickets surround the northern section. Elevation is 2560-2600 feet AMSL.

Collected in 1976 were: 3 Mason jar fragments; 1 basal sherd; 1 body sherd, and 1 milkglass sherd; 1 drinking glass rim fragment; 1 molded bottle rim and neck; 1 clear window glass fragment; 2 green window glass fragments; 1 blue inkbottle fragment; 1 basal rim sherd, Roper's China; 1 basal rim sherd, and 1 basal sherd demi-porcelain; 1 rim sherd, 2 basal sherds, 1 cup body sherd, and 1 overglaze basal sherd of late ironstone; 1 body sherd late porcelain; 1 stoneware neck sherd; 1 hand-forged iron door hinge; 5 plaster wall fragments; 1 unidentified animal molar; and 2 bricks.

31A146 is a historic site where the landowner reported having torn down a rock chimney and having removed a flat rock which served as its base. The 1976 survey found rubble including field rock and slate material, along with varied artifacts of glass and ceramics. The site measured approximately 100 feet square and was 100 feet east of a stream. It was situated at elevation 2560 feet AMSL in pine vegetation on a ridgetop. An informant remembered a tenant house on this site in the past.

Collected in 1976 were five basal sherds of late ironstone ceramic, including one with the basal mark: "Homer)(A..." The site was in heavy MADE pasture in a field which had not been plowed since ca. 1940. Artifacts were located in cowpaths and streamcuts.

31A147 is situated primarily on the second terrace above the main stem of the New River. It is in bottomland on the outside of a meander and at a creek's confluence with the New. Elevation is 2320-2360 feet AMSL. The heavy vegetation made it impossible to determine site boundaries. Two chert flakes and one plain aboriginal sherd formed the general surface collection.

31A148 is on a floodplain bordering the main stem of the New River. The site is situated next to a creek's confluence with the river, at elevation 2330-2350 feet AMSL. The site in 1976 was partly cultivated, partly in pasture. Erosion was severe on some parts of the site. The landowner reported that this area was hard hit by the flood of 1940, which washed away 6 to 7 feet of topsoil. He also has in his possession some Savannah River projectile points from the site and reported finding a projectile point 1½ to 2 feet below the surface in a posthole. It is therefore possible that buried archeological deposits may have survived the 1940 scouring. Slope angle of the site was 5-10 percent. Soils were 7.5YR4/4 dark brown sandy silt. A general surface collection yielded only two crushed-stone-tempered, net-impressed sherds.

31A149, the T. J. Carson House and Cemetery, is near Rock Creek. The house is located 2000 feet south of the creek, the barn foundations 2000 feet north, and the cemetery 1000 feet north. Almost nothing remains of the house ruins, only a stone foundation and possible chimney base. Dimensions of the foundations are ca. 15 by 50 feet and there were no visible artifacts. The barn foundations were also of stone, with rusting mowing equipment still inside. The cemetery contains death dates of 1854, 1863, and 1867.

The house and barn are at elevation 2550 feet AMSL, and the cemetery is on a knoll at 2640 feet AMSL. No artifacts were collected by the 1976 survey.

31A150 is located on the second terrace above the main stem of the New River and measures 150 by 75 feet. The site is 75 feet from the New River, at elevation 2300-2340 feet AMSL. The second terrace is high at that point, some 40 feet above the river. The site is also 200 feet west of a small creek. Soils were 10YR3/2 and 10YR4/3 brown sandy loams. Collected by the 1976 survey were 1 crushed quartz-tempered sherd with unidentified surface treatment, 6 chert flakes, 1 jasper flake; 13 quartz flakes; 2 felsite flakes; and 2 unidentified quartz tools.

31A151 is a one-acre site immediately adjacent to a large creek near its confluence with the main stem of the New River. Artifacts were found in an area approximately 300 feet NW/SE by 200 feet NE/SW, but archeologists on the crew suggest that it may extend another 150 feet NE/SW. The site is in creek low terrace bottomland with two small patches of marsh vegetation just west of the site. A stand of eastern cottonwoods is nearby. Elevation is 2400-2420 feet AMSL, and the site has a slope angle of 3 to 5 percent. Soil is 10YR4/4 dark yellow brown silt loam.

The 1976 survey recovered 1 unidentified felsite tool, 2 felsite flakes, 2 chert flakes, and 1 quartz flake. Although this artifact collection was limited, seeing conditions were very poor, with less than 1/10 of the surface visible in the heavy ground cover. Also, local artifact collectors report that it has been collected often and heavily and has yielded many projectile points in the past.

31A152, a mill site, was located on Prathers Creek 1 mile above the confluence of Prathers Creek with the south fork of the New River. It is situated at 2550 feet AMSL and is on the creek bank. It is a probable nineteenth century site. Time constraints of the 1976 survey did not allow precise measurement of the structural remains.

31A153 is located in a plowed field at the confluence of an intermittent stream with the main stem of the New River. The site appears to have a heavy alluvial deposit and measures 360 feet NW/SE by 70 feet SW/NE. It is approximately 250 feet east of three rockshelters.

The river by 31A153 is very shallow, with rock shoals. The site is about 20 feet north of the river, at an elevation of 2480 feet AMSL. There are mixed hardwoods associated, and the slope angle is 0-6 percent. Soils on the site are 10YR7/4, in the Tate-Ashe-Chester association.

The 1976 survey located one broken quartz tool, one possible atlatl weight fragment, 2 unidentified potsherds, one felsite tool, and 2 felsite flakes.

31A154 is a rockshelter of gneiss with quartz intrusions located approximately 75 feet north of the New River main stem. The shelter has southern exposure and is 36 feet deep and 33 feet wide. The mouth has a width of 5.1 feet and a height of 6.4 feet. A window in the shelter faces west with dimensions of 4 by 2 feet.

31A154 is one of three shelters located in the immediate area and has an elevation of 2480 feet AMSL. It is associated with hardwood vegetation. The slope to the river in front of the shelter is 0-3 percent. Strike of the rock surface is 4-6 percent to the east. It is associated with Ashe-Chester soils.

One quartz core was recovered by the 1976 survey. Objects in local collections said to be from this site indicate Archaic period occupation.

31A155 is similar to 31A154 but lies 75-100 feet above it. It has a height of 3.0 feet and is 16.7 feet long and 9 feet deep. The elevation is 2580. It is approximately 100 feet above the New River vertically and 75 feet away horizontally. No artifacts were collected there in 1976, though local collections indicate Archaic period occupation for 31A155 as well.

31A156, the third of what local persons call the "Indian Caves," is similar to the others also and directly above 31A155. The north-northwest opening is 3.9 feet wide and 9 feet tall and the south-southeast opening is 5.6 feet wide and 3.9 feet high. The shelter is 12.7 feet deep and 19.2 feet wide NW/SE. It is 31.8 feet tall.

Elevation of 31A156 is 2580 feet AMSL and it is associated with hardwoods and stony steep slopes. Local collectors have Archaic period artifacts from this site, though nothing was collected there by the 1976 survey.

31A157, the J. C. Gambill Site, is located on New River main stem bottomland which is presently in pasture. Erosion is moderate and alluvium deposits appear to be heavy, indicating a good chance of stratified remains on the site. The slope angle is 7-10 percent. Elevation is approximately 2360 feet AMSL. The river is approximately 150 feet wide at this point and very shallow.

Artifactual material was scattered over the total bottomland, which is about 150 feet wide and ½ mile long. The river is 30-50 feet away from the site, and there is a perennial stream on both the east and the west sides of the site. Soil is Comus fine sandy loam.

The 1976 survey collected: 1 celt; 1 basal end of Savannah River projectile point; 2 side scrapers; 1 broken unidentified tool; 1 corncob-impressed potsherd; 1 plain potsherd; 3 unidentified potsherds; and 76 flakes.

31A158 is located on a series of sandy levees on low ridges. It was impossible to establish site dimensions, as the site is covered with hardwood forest and grasses. The site is frequently flooded, and the ridges are point bar deposits. Slope of the ridges is 10-15 percent on both sides. The ridges are 30-125 feet long and 30 feet wide. Elevation is 2360 feet AMSL.

The site is 30-40 feet north of the New River, and a small stream is northeast of the site. The site is on Suncook levee deposit soils, and erosion is slight.

The 1976 survey collected from the site 1 quartz flake, 9 felsite flakes, 1 felsite core, 1 basal end of quartz projectile point; 7 unidentified sherds, 1 drag and stab sherd, 1 net-impressed sherd, 1 cord-dowel sherd, 1 cord-marked sherd, and 1 plain sherd.

31A159 is a ruined structure, a house which probably dated from the late nineteenth or early twentieth century. Although no evidence of an older house site was found, ceramics found near 31A159 indicated eighteenth-century occupation.

Elevation of the site is approximately 2400 feet AMSL. Artifacts collected by the 1976 survey included: 1 white-glazed stoneware sherd; 1 stoneware storage vessel sherd with blue and white glaze; 1 stoneware vessel fragment with banded brown glaze; 3 white and brown stoneware storage vessel fragments; 3 white salt-glazed stoneware vessel sherds; 1 base fragment of white-glazed stoneware; 5 white-paste earthenware body fragments; 3 white-paste earthenware rim fragments; 2 flow-blue on dark pearlware sherds; and 1 porcelain wire insulator fragment.

31A160 and 31A161 are located in a plowed field which had been, at the time of the 1976 collection, deep-plowed. Each of the sites was collected in two transects which ran the lengths of the sites. The transects were 10-feet-wide strips through areas of the sites which, in the opinion of the archeologists, gave a collection representative of the surface materials present.

The sites are associated with hardwoods vegetation on the ridges, and elevation is approximately 2510 feet AMSL. 31A160 has a slope angle of 2-10 percent to the southwest, while 31A161 slopes 2 percent to the southwest. The New River is 50 feet west from 31A160 and 40 feet west from 31A161.

The hill east of the sites rises to an elevation of 2640 feet AMSL and has a slope of 30-45 percent. It is covered by hardwood vegetation and there is a quartz outcropping at the base of the hill directly behind the sites. A shoal system extends laterally from the sites out into the river. The sites are approximately 6 vertical feet above the river.

Soils are Tate sandy loam. Bucket auger cores of the sites indicated considerable depth of alluvium with slight to no erosion. This suggests a very high probability of protected, buried in situ context.

31A160 measures 200 feet W/NW by 20 feet E/SE. The collection transect returned one jasper Hardaway-Dalton projectile point; 1 unidentified projectile point; 2 unidentified lithic tools, basal; 29 flakes; 1 core; and 5 retouched flakes.

31A161 is 150 feet west/northwest by 20 feet east/southeast. Its collection included 14 flakes and 7 retouched flakes. Both sites had just been visited by collectors when the 1976 survey team arrived, so the small artifact collections probably do not adequately represent the sites.

31A162 lies on both banks of a perennial creek at an axis of N25E. The creek drains to the southeast to the south fork of the New River. The bottomland on which the site is located was in cultivation at the time of the survey and varies from 100 to 200 feet in width. Both sides have a 10-20 percent slope toward the creek. It is approximately ¼ mile long.

There are hardwoods associated with the site, and the elevation is approximately 2520 feet AMSL. The soil is the Codorus Complex, and there is moderate erosion. No artifacts were collected by the 1976 survey, but the landowner's collection from this site includes Archaic period material.

31A163, the Oliver Site, is located in a large area of bottomland on the north bank at the confluence of the north and south forks of the New River. The site was in heavy pasture at the time of the 1976 survey, and the surface visibility was thus very poor. A surface collection was taken from open ground areas. The site has been cleared of trees in the recent past.

The site is 40-50 feet east, west, and north of the south fork and the New River main stem, within a U-shaped meander created by the south fork and the main stem of the New River. Elevation is 2510 feet AMSL.

The slope angle of the site is 3 percent toward the river, and erosion is moderate. The bottom is narrow and covered with hardwoods in many areas. Soils are of the Suncook and Tate sandy loam series. Extent of stratigraphy was impossible to determine, but some depth is highly probable, due to the geomorphological setting and thick ground cover. Coring indicated heavy alluvial deposits.

Surface collection of the site in 1976 recovered 1 core and 16 flakes.

31A164 is located in a saddle area 100-200 feet northeast of the confluence of the north and south forks of the New River, just above 31A163. The site was in heavy pasture at the time of the 1976 survey, causing poor surface visibility. The surface collection was taken from bare places in the grass. The site is approximately 75 feet in diameter. It is approximately 100 feet above the level of the river, and elevation is 2600 feet AMSL. There are mixed hardwoods on the site's periphery. The soil is slightly eroded Chester loam, with a 0-5 percent slope angle. The 1976 survey collected 1 quartz flake and 23 flakes in a general surface collection.

31A165 is a stone wall approximately 100 feet long on the south bank of the main stem of the New River. It is 20 feet west of a permanent creek and of apparently historic period construction. It is in a stand of mixed hardwood. Date and utility of the wall could not be determined.

31A166 lies on bottomland about 20 feet from the south fork of the New River. There are heavy alluvial and point bar deposits, and the area had been recently plowed at the time of the 1976 survey. The first terrace and second terrace above the river are each 75 feet wide. There is a slope angle of 0-6 percent on the second terrace. The site measures 75 by 100 feet. Fire-cracked rock was found scattered over the concentrations.

There was mixed hardwood vegetation associated with the site, and the elevation was 2600 feet AMSL. The site's general slope angle was 0-7 percent. Soils were sandy loams, 10YR5/3, 10YR4/3, and 10YR3/3. The 1976 survey recovered only flakes from the site: 11 quartz flakes; 19 felsite flakes; and 1 chert flake. The site was collected by concentrations, rather than transect.

31A167, the Winston Ridge site, is a rockshelter on a tributary that runs north to the New River. The horizontal axis of the shelter is N45E. It is not far from a springhead on the east and is well sheltered by a ridge on the west side. The site is located 35 feet above a perennial creek, and the spring 30 feet to the east is permanent. The slope to the creek is 35-45 percent west. The shelter floor is level. A quartz outcropping is on top of a ridge approximately 250 feet to the south/southwest, and quartz has washed into the tributary below the site. The shelter bottom is covered with a thick layer of humus and roof fall.

A core sample of the site revealed about 1.5 feet of charcoal, burned bone, and quartz in stratified context. There was no material apparent on the surface. Erosion is slight, and there is approximately 3.8 feet of sedimentation. Vegetative materials associated were hardwood mix. Approximately 125 feet east of the site is a permanent wetland area created by the stream. Elevation is 2640 feet AMSL.

31A168 has the appearance more of a cave than of a rock shelter in the usual sense. It faces S60W and has a heavy humic deposit in the bottom of the cave. No artifacts were found by the 1976 survey, but collectors report finding a Kirk projectile point and pottery in the cave. The mouth of the cave is 13 feet wide and 4 feet tall. The long axis of the cave is 34 feet, and the ceiling slope is 45 degrees northwest to the vertex. Associated vegetation is hardwood, and the site has a 20 percent slope angle. It is 150-200 feet east of the south fork of the New River. The site has some stratigraphic context, though there has been disturbance by pothunters.

31A169, referred to by Holland as A11-B, is on the second terrace of a plowed field that is bordered by a rise in elevation to the north and the New River to the south. A perennial stream is located 100 feet west of the site, and a springhead is just northwest of the site. Slope to the north was 15-35 percent with mixed hardwood vegetation. The slope to the river from the terrace was 10-15 percent, with a series of point bar deposits about 300 feet to the southeast. Elevation is 2390 feet AMSL. The soil is sandy loam with a thick organic admixture, and erosion is slight.

The 1976 survey collected from 31A169: 1 Kirk projectile point; 1 unidentified Woodland period projectile point; 1 basal end of Woodland period projectile point; 1 unidentified potsherd; 1 quartz scraper; 5 felsite flakes; 1 felsite core; 11 chert flakes; and 5 quartz flakes. Holland recovered 14 flakes and 2 side scrapers. Dimensions of the site are 300 feet long NW/SE by 75 feet wide NE/SW.

31A170, identified by Holland as A11-C, is in a shallow swale, near the highest point on a ridge. It is ¼ mile north of an intermittent stream. There is a possible old streamcut through the site. Elevation is 2800 feet AMSL, and there is a 10-25 percent slope angle. The site measures 150 feet E/W by 200 feet N/S. Vegetation associated includes young pines and hardwoods. It is located on Chester-Ashe Association soils.

The 1976 survey collected from the site: 43 quartz flakes; 15 felsite flakes; 1 core; 1 white-paste earthenware base fragment; 1 brown-glazed stoneware fragment; 1 Mason jar porcelain spaler cap-ring; 7 quartz cores; 1 quartz retouched flake; and 2 chert flakes.

In 1969 Holland collected from the site 47 flakes, 1 drill, 1 large blade, 1 end scraper, 2 backed knives, 1 stemmed knife, and 2 unidentified lithic artifacts.

31A171, the McMillan Complex, includes a house ruin, a shed, a springhouse, a barn ruin, a dugout in the hillside south of the house ruin, and a cemetery on a knoll north of the house area.

The house ruin measures 33 feet W/NW by 32 feet E/SE and has foundations of stone. There are two associated chimney bases, averaging 6 feet on a side. The western chimney has been torn down and the bricks have been removed. The eastern chimney has also been dismantled but the bricks remain on the site. There is a 15 feet W/NW by 10 feet E/SE platform on the southwest corner of the house. The north wall of the house is dry-laid stone. The other three walls have been reinforced with concrete. Beams in the southern corners are charred, and there is tin roofing lying around the foundations.

Located 11.8 feet west from the northeast corner of the house ruin is a 12 feet W/NW by 12 feet E/SE concrete-walled shed with a sloping tin roof. Fifty-four feet south of the house ruin is a concrete-walled springhouse reservoir. It is 8.6 feet W/NW by 8.6 feet E/SE, also with a sloping tin roof.

There is a dugout in the hillside 54 feet south of the house ruin. It extends 85 feet southeast and is 25 feet wide NE/SW. There are two posts set in the southern part, presumably to fence off the dugout portion, possibly for a corral or silage storage area. Twenty-five feet southwest from the dugout are the remains of a barn. The dry-laid stone foundations are 49 feet NE/SW. Two concrete corn cribs are west of the barns. They are 11 feet in diameter and have 1 foot thick walls. They average 4 feet deep.

The cemetery is on the highest knoll north of the house ruin and has five stones marked with both birth and death dates and a sixth unidentified grave immediately visible. The cemetery is covered by a thick bramble patch and may thus contain more graves hidden by the vegetation.

The New River is 1100 feet southeast of the complex, and there are streams and springs surrounding the site. The closest spring is 50 feet west of the house ruin. Elevation is 2540 feet AMSL.

Artifacts collected from the platform area of the house ruin included 1 stoneware sherd, 1 molded bottleneck fragment, and 1 metal watch case.

31A172, the James Sturgill House site and Sturgill family cemetery, is located in a cove beside a stream, 50 feet north of the large floodplain bottomlands of a large meander in the main stem of the New River. It is protected on the west, north, and east sides by steep ridge slopes. The house site measures approximately 40 feet E/W by 20 feet N/W. Three of the cornerstones remain in place. The fourth has been moved, apparently to accommodate a twentieth-century logging road. Elevation of the house is approximately 2840 feet AMXL and there is a spring approximately 12 feet northeast of the site.

The Sturgill family cemetery is on a knoll on the west side of a state road. There are seven graves and ten stones remaining, rough shaped of local stone. According to A Brief History of the Sturgill Family from 1650-1960, published privately by David Andrew Sturgill in 1960, this was the house site of James Sturgill, who settled in the New River valley prior to 1765. Although most of the inscriptions in the cemetery are obliterated, a surviving death date of "180_" supports a date early in the historic period for this site.

The grass cover around the site was extremely heavy at the time of the 1976 survey, and no artifacts were found in the area immediately surrounding the house site. The nearby streamcut, however, yielded metal buggy parts, a plow tip, and a horseshoe.

31A173, the Second Sturgill House site, is located in an apple orchard above a large area of New River bottomland. The foundations are unexposed, and there is now a rectangular patch of brambles covering the site. The surrounding area is presently in pasture, and the elevation is 2550 feet AMSL. The main stem of the New River is approximately 560-600 feet southeast of the site. Soils are Ashe fine sandy loam.

The 1976 survey recovered three sherds of blue transfer-printed pearlware from the site, and one glass sherd, probably from a Mason jar. The pearlware suggests a mid-nineteenth-century date for the site.

This date is corroborated by a reference to the site in David Andrew Sturgill's A Brief History of the Sturgill Family from 1650-1960. He states that the house was built in 1850 by the children of Francis Sturgill, who held land grants numbered three, four, and five for what was then Ashe and is now Alleghany County.

31A174, the J. J. Gambill Cabin, was the site of a reported one-room log cabin. The only remains of the structure are one possible cornerstone. The flat area of ground is to the south and east of the stone, so it was probably the northwest cornerstone. There is a creek 25 feet north of the site and a seep just west of it with associated wetland vegetation. The site is presently surrounded by cherry trees. Elevation is 2360 feet AMSL. No artifact collection was made.

31A175 was in a plowed field which measures approximately 50 feet E/W by 75 feet N/S. The site extends slightly beyond the edges of the field into the grass, but the exact boundaries were indeterminant due to the heavy ground cover. Elevation was 2600 feet AMSL. Soils were a 7.5YR4/4 strong brown clay loam, with little erosion.

No transect was taken on 31A175. The overall collection included: 5 white-paste earthenware body sherds; 2 burned white-paste earthenware sherds; 4 salt-glazed stoneware sherds; 1 grey and brown stoneware sherd; 1 amethyst pressed glass bowl fragment; 2 porcelain Mason jar sealer fragments; 1 polychrome ironstone sherd; 1 unidentified historic sherd; 1 green grey salt-glaze stoneware sherd; 33 quartz flakes; 29 felsite flakes; 50 chert flakes; 1 worked quartz flake; 1 thin section of grey slate; 1 basal end of quartz Guilford projectile point; 1 basal end of quartz Halifax projectile point; 1 quartz Palmer projectile point; 2 felsite projectile point tips; 1 unidentified chert tool; 1 backed knife; 1 retouched chert flake; 3 unidentified felsite tools; and 1 red jasper flake.

31A176, a ridgetop site, measures approximately 140 feet N/S by 500 feet E/W. At the time of the survey, the field was in rye grass and had not been plowed in three years. There is a spring 70 feet north of the site, and elevation is 2520 feet AMSL.

Soils on the site were clay loams, varying from 10YR4/4 to 7.5YR4/4 and 5YR5/6 on the surface. This surface clay loam varied from .5 to 2.0 feet deep. Below, according to soil cores taken on the site, was a 5YR5/6 yellowish red clay, which seemed to contain no cultural material.

No transect was taken due to a sparsity of the scatter of artifacts. Collected by the 1976 survey were: 5 unifacially worked quartz flakes; 19 quartz flakes; 1 bifacial quartz tool; 2 jasper flakes; 55 chert flakes; 6 felsite flakes; 1 felsite blade; 1 unifacially worked flake; 1 felsite large-stemmed Archaic period projectile point; 1 chert projectile point fragment; and 5 late Woodland period triangular chert projectile points.

31A177 is the site of the Niles School House, reported to have been built in 1903 and torn down within the past fifteen years. Only the foundation stones remain, including cornerstones and additional supports on the sides. The foundations indicate that the building measured 18-20 feet N/S by 26 feet E/W. There are fragments of modern window glass scattered about the foundation stones. An unnamed creek is approximately 50 feet east of the site. Elevation is 2400-2440 feet AMSL. Structural remains were mapped, but no artifacts were collected.

31A178, 79, 80, 81, 82, 83, and 84 lie on broad, second-terrace bottomlands which are cultivated on a regular basis. The entire second terrace of this large bottomland is covered with artifactual material.

31A178, which measures approximately 800 feet NNE/SSW by 165 feet WNW/ESE, is a long, narrow concentration which follows the first slight rise in the second terrace. There are small springs in the sides of the ridge just west of the site. The New River's main stem is about 150 feet east of the site. A small marshy area below a spring is about 400 feet south of the site.

There are four associated colors of medium-grained, micaceous, silty clay loams, 10YR3/2, 7.5YR4/4, 10YR5/6, and 10YR4/3. There is little apparent erosion on 31A178. Most of the site is level and only small areas have up to 10 percent slope angles. Results of coring with a four-inch bucket auger indicate a high possibility of stratified *in situ* cultural remains.

The 1976 survey collection for 31A178 was made by means of a 10-feet-wide transect running N45E through the site. The transect was divided into three 100-foot segments which were collected separately. Recovered were: 2 Yadkin projectile points; 2 Clarksville small triangular projectile points; 1 Kirk serrated corner-notched projectile point fragment; 4 Clarksville small triangular projectile point fragments; 2 unidentified projectile points; 4 projectile point fragments; 1 blade; 1 blade fragment; 4 cores; 9 scrapers; 1 chopper; 335 flakes; 2 unidentified lithic tools; and 118 aboriginal ceramic sherds.

Between 31A178 and the steep ridge slopes north of the floodplain is another long, narrow, distinct concentration, designated 31A179. Measuring approximately 1100 feet NNE/SSW by 200 feet WNW/ESE, 31A179 is on the second slight rise in the second terrace back from the river, behind (west of) 31A178. It is very near the springheads and marshy areas, ca. 100 feet north of, and 500 feet east of the river. Erosion is slight, and the same soil types exist as in 31A178.

The use of a four-inch bucket auger on the site indicated a high possibility of stratified, in situ cultural remains at 31A179. 31A179 was collected by transect at N35E in nine 100 feet by 10 feet segments through the long axis of the concentration, and a general surface collection was taken. The 1976 survey recovered 4 Savannah River projectile points, 1 Kirk serrated projectile point, 19 plain body sherds, 1 knotted cord-impressed body sherd, 6 net-impressed body sherds, 3 unidentified, grit-tempered sherds, 26 cord-marked body sherds, 2 quartz-tempered body sherds, 1 fiber-tempered body sherd, 1 fabric-marked, grit-tempered, basal sherd, 1 comb-incised rim sherd, 1 incised body sherd, 1 fabric-marked body sherd, 2 punctate body sherds, 9 roughened body sherds, 1 cord-marked rim sherd, 31 unidentified body sherds, 1 unidentified rim sherd, 1 piece fired clay, 2 small triangular projectile point bases, 1 unidentified projectile point base, 2 projectile point tips, 1 unidentified lithic tool, and 78 flakes.

Northeast of 31A178/31A179 is 31A180, which is a separate concentration 500 feet N/S by 165 feet E/W and containing a roughly circular dark soil stain with a diameter of 50 feet. Part of this stain may be covered by a fine alluvial deposit at the northwest end of the site. The site is primarily on a slight rise in the second terrace and is only 50 feet SW of the New River at the nearest point. A spring and its associated marshy area are near this site. The same group of silty clay loams exist on this site, and augering shows a high probability of stratified cultural remains. Elevations on 31A178, 79, and 80 are approximately 2470-2480 feet AMSL.

31A180 was collected in a 10 feet by 500 feet strip on a bearing of N 30 degrees W, divided into three segments. A general surface collection was also taken. Total artifacts collected were: 1 Guilford projectile point; 1 Savannah River projectile point; 1 Savannah River projectile point base; 1 plain, sand-tempered sherd; 1 cord-marked, sand-tempered sherd; 1 sand-tempered sherd with indeterminant surface treatment; 7 indeterminant sherds; 1 net-impressed sherd; 1 sherd with indeterminant surface treatment and combed or brushed interior; 1 cord-marked sherd; 4 bifaces; 5 unifacially-retouched flakes; 1 bifacially-retouched flake; 2 unifacial tools; 6 ovate scrapers; 2 scrapers; 1 crystal quartz scraper; 1 chopper; and 100 flakes.

The southwestern segment of the meander's floodplain contains four other, smaller, concentrations of materials, 31A180, 81, 83, and 84. The sites are all located on the second terrace of the floodplain, in association with places where spring-fed, intermittent streams enter the New River. These sites are open and of unknown function. All have close associations with springs and the marshy areas created by springs. Erosion on 31A181 is slight to moderate; on 31A182-84, erosion is slight. Soils are 10YR3/3 clay loams, with some admixture of silts.

31A181 measures 200 feet NW/SE and 65 feet NE/SW. The artifacts are closely associated with a large, very dark stain in the soil. Only a few artifacts were recovered outside this stain. Slope angle on the site is 5-10 percent and the elevation is 2470-2580 feet AMSL.

The collection from 31A181 was taken in a 10 foot by 200 foot strip, divided into three equal segments. A general surface collection was also made. The 1976 artifact collection yielded: 1 Roanoke large triangular projectile point base; 1 Savannah River projectile point; 1 Yadkin projectile point; 2 scrapers; 1 chopper; 1 unidentified tool; 7 retouched flakes; and 22 flakes.

31A182 shows an extremely dense artifact concentration in an area 200 feet NW/SE by 60 feet NE/SW. A black soil stain at this site occurs at about 2460-2470 feet AMSL. The site is next to a spring-fed stream and is less than 100 feet northeast of the main stem of the New River.

31A182 included an artifact inventory from the Archaic period through the Proto-Historic period. A 10 foot by 200 foot transect divided into three equal segments was used for the 1976 collection. An overall general collection was also made. The inventory included: 2 Badin projectile points; 1 Randolph complex projectile point; 1 possible Kirk drill; 1 Guilford projectile point; 1 Historic period pottery finial; 4 projectile point fragments; 6 scrapers; 3 cores; 2 blade fragments; 3 ovate bifaces; 9 bifacially-worked tools; 12 retouched flakes; and 95 flakes.

Artifactual material in 31A183 is scattered over a 900 feet NW/SE by 200 feet NE/SW area less than 100 feet northeast of the New River and just west of a spring-fed stream and marshy area. Elevation is approximately 2440-2470 feet AMSL.

The artifactual scatter was so sparse that no transect was used. An overall surface collection included: 1 Morrow Mountain projectile point; 1 chalcedony projectile point tip; 1 steeply-retouched biface, possibly broken projectile point; 1 unidentified projectile point midsection; 2 projectile point tips; 1 felsite hoe; 3 ovate bifaces; 2 choppers; 1 blade; 2 scrapers; 1 punctate body sherd; 1 reed-impressed with punctate rim sherd with quartz temper; 2 plain, steatite-tempered body sherds; 1 roughened, quartz-tempered sherd; 29 retouched flakes; 4 cores; 78 flakes; 1 coarse earthenware, lead-glazed historic body sherd; and 1 ironstone body sherd.

31A184 is less than 100 feet northeast of the New River and just east of a spring-fed stream and marshy area. Elevation is approximately 2440-2470 feet AMSL. The artifactual scatter is very sparse, running 2800 feet NE/SW by 200 feet NW/SE.

31A184 contains material from the late Archaic period through the Historic periods. The 1976 team recovered 1 Pee Dee pentagonal projectile point, 1 steatite vessel fragment, 1 unidentified projectile point, 2 punctate body sherds, 1 punctate rim sherd, 1 net-impressed body sherd, 1 fabric-impressed body sherd, 1 knotted cord-impressed body sherd, 4 roughened body sherds, 4 cores, 1 blade, 2 ovate bifaces, 4 choppers, 3 scrapers, 1 end scraper, 1 hafted scraper, 11 bifacially-worked tools, 5 unifacially-worked tools, 1 hafted knife, 83 flakes, and 1 pearlware hip sherd.

31A178, 79, 80, 83, and 84 are individual sites within a large scatter identified by Holland in 1969 and lumped together as A11-D. Holland identified A11-D as a large Woodland period village site with some indications of a previous Archaic period occupation. Artifacts recovered by Holland included: 48 quartz flakes; 126 rhyolite flakes; 32 chert flakes; 6 chalcedony flakes; 1 quartzite flake; 3 rhyolite Savannah River projectile points, 1 quartzite Savannah River projectile point; 1 chert Savannah River projectile point; 2 very large quartz triangular points; 2 very large rhyolite triangular projectile points; 3 chert Clarksville small triangular points; 2 rhyolite Morrow Mountain II projectile points; 1 quartz Palmer side-notched projectile point; 1 rhyolite Lamoka projectile point; 1 quartz Patrick indented base projectile point; 1 unidentified side-notched chert projectile point; 1 small parallel stemmed chert projectile point; 1 quartz projectile point fragment; 3 rhyolite projectile point fragments; 4 chert drills; 4 rhyolite blade knives; 1 quartz blade knife; 3 quartz side scrapers; 1 rhyolite side scraper; 1 chert end scraper; 5 quartz backed knives; 1 large rhyolite blade with narrow rounded stem; 1 rhyolite hand chopper; 2 quartz cores; 3 unidentified quartz tools; 10 net-impressed Smyth Series sherds; 12 plain Smyth Series sherds; 21 cord-marked Grayson Series sherds; 12 fabric-impressed, Grayson Series sherds; 17 plain Grayson Series sherds; 4 unclassified Grayson Series sherds; 6 net-impressed, Dan River Series sherds; 1 cord-marked Dan River Series sherd; 3 plain, Dan River Series sherds; 1 unclassified Dan River Series sherd; 2 net-impressed and knot-roughened Radford Series sherds; 1 net-impressed, mica-tempered sherd.

31A185, the Bays Hash Site, is in a cultivated field on top of a high ridge 1300 feet west of the New River, approximately 400 feet above the floodplain. It is 400 feet slightly above and east of the headwaters of a small stream. It is 1300 feet west and 400 feet upslope from the New River and 400 feet east of a small stream.

Although the site is located at elevation 2680-2720 feet AMSL on a high ridge with a slope angle of 5-10 percent, erosion is slight to moderate and coring at the site shows a high probability of stratified *in situ* cultural remains at the site.

During the 1976 survey, the site, which measures approximately 700 feet NE/SW by 150 feet NW/SE was collected in seven 10 feet by 100 feet transect sections. Artifactual material recovered included 9 Palmer projectile points, 6 Savannah River projectile points, 1 Savannah River projectile point base, 5 Kirk projectile points, 3 Guilford projectile points, 3 Morrow Mountain projectile points, 1 Kanawha stemmed projectile point, 1 Roanoke large triangular projectile point, 1 very large Pee Dee projectile point, 1 Yadkin projectile point, 1 Stanly projectile point base, 1 Pigeon side-notched projectile point, 1 Bradley Spike projectile point, 4 unidentifiable projectile point fragments, 5 blade projectile point or drill fragments, 1 chopper, 2 blades, 1 core, 10 core fragments, 5 ovate bifaces, 27 bifacially-worked tools, 4 unifacially-worked tools, 1 unidentified tool, 46 retouched flakes, and 199 flakes.

Lithic materials in use at the site were felsites, quartz, and jasper.

31A185 contains a full range of Archaic materials and indications of a later Woodland period component as well. It is particularly significant because it is an example of a high ridgetop site which has a high probability of stratified in situ cultural remains. During the 1976 survey, soil augering was conducted on the site which indicated probable stratigraphy. The rarity of stratified ridgetop sites, particularly those with full-range representation of the North Carolina Archaic period, make this site of particular significance in understanding prehistoric occupation of the Southern Appalachian Mountains.

31A186 is a ridgetop site situated in a cultivated field overlooking the main stem of the New River. It measures 1000 feet E/W by 500 feet N/S, with the main concentration 630 by 500 feet. The site is 1200 feet from a small stream, approximately 120-160 feet above its headwaters. It is 3300 feet from the New River in a zone of hardwood mix vegetation. Slope angle of the site is 5-10 percent and the elevation is 2760 feet AMSL.

Soils on 31A186 are 10YR5/4 fine loam underlain by 10YR6/6 fine sandy loam, shifting to a 10YR5/8 fine clay loam at 2.05 feet below the surface and to a 7.5YR5/6 clay at 2.45 feet below the surface.

The 1976 survey collected the site in three 10-feet-wide transect segments of 210 feet long each. Materials recovered included 10 felsite flakes, 27 quartz flakes, 7 chert flakes, 1 jasper scraper, 1 quartz ovate biface, 2 quartz side scrapers, 7 quartz scrapers, 1 quartz core, 1 felsite scraper, 3 felsite blades, 3 Guilford projectile points, 1 Kirk serrated projectile point, 1 lead-glazed earthenware sherd with copper salts, 1 unidentified chert tool, 1 chert end scraper, 1 reworked Kirk corner-notched projectile point, 1 St. Alban's side-notched projectile point, 2 retouched chert flakes, 1 unidentified felsite projectile point base, 1 unifacial quartz tool, 5 retouched quartz flakes, 1 retouched felsite flake, 1 felsite blank, and 1 iron hook.

31A187, a small concentration ca. 20 feet N/S by 15 feet E/W, is in a small cultivated field within a Y formed by the confluence of two intermittent streams. The 1976 season was the first time it had been cultivated in many years. The slope angle is 0-2 percent, and it is approximately 50 feet from the permanent stream formed by the confluence of the intermittent streams. Vegetation around the site is that common along mountain streams, including alder, birch, linden, willow, and sweetgum. Soils on the site are a light reddish brown fine sandy loam. Elevation is 2600 feet AMSL.

Artifacts collected by the 1976 survey were taken in one overall surface collection due to the small size of the site. They included 1 cord-marked rim sherd, 2 unidentified rim sherds, 5 unidentified body sherds, 3 cord-marked body sherds, 4 chert flakes, 44 flakes, 4 quartz flakes, 1 quartz probable Palmer projectile point, broken in half from tip to base, and 1 unidentified felsite projectile point. In a private collection from this site are 1 Savannah River projectile point, 1 Guilford projectile point, and 1 Randolph projectile point.

Ashe County

31Ah32, the Lionel Ballou Site, is located in a mostly cultivated field on the north fork of the New River. The north side of the site is obscured by field grasses. The site is on the second terrace of the floodplain, inside a large meander. The nearest water sources are a small tributary, about 20 feet to the south, and the north fork, about 30 feet east. The site measures 104 feet N/S and 140 feet E/W.

Elevation of the site is ca. 2560 feet AMSL. The soil is a yellowish brown sandy loam, 10YR5/4, and is slightly eroded.

There were more chert artifacts in the lower half of the site and more felsite artifacts on the upper half. Artifact quantity in general was noticeably less on the lower half.

Artifacts were collected by means of a transect running east/west through the site. The transect was divided into three 45 by 10 feet sections. A general surface collection was also obtained. The inventory included: 1 Savannah River projectile point fragment; 1 reworked Morrow Mountain projectile point; 1 early Woodland period projectile point; 2 projectile point blanks; 1 perforator; 1 scraper; 47 flakes; 1 crushed-quartz-tempered sherd with indeterminant surface treatment; 1 wire nail; and 1 green, lead-glazed, earthenware sherd.

31Ah33, the Ruby Ballou Site, is located upstream from the mouth of a major creek. It is in a plowed field by the north fork of the New River on the inside of a meander. The site measures approximately 395 feet E/W and 180 feet N/S. It is confined to and delineated by a change in soil from a yellowish red 5YR4/6, coarse-grained clay loam (which was culturally sterile), to a medium-grained 10YR3/3 dark brown sandy loam. The latter begins on the western end of the site, and changes to a dark yellowish brown, 10RE4/4, fine-grained sandy loam at the center of the site. There has been no apparent erosion. The nearest source of water

is the north fork of the New River, about 35 feet south of the site. In the past, there was an area of marsh on the west side of the site which has been drained for cultivation. The elevation is ca. 2550 feet AMSL.

*The concentration of artifacts was fairly evenly distributed over the site. During the 1976 survey a collection was made by means of a 10-foot-wide transect running 80 degrees east of north in three 130 foot sections through the site. In addition, a general surface collection was made.

Artifacts recovered included: 1 Morrow Mountain I projectile point base; 7 small triangular projectile points; 1 scraper; 1 end scraper; 2 cord-marked, crushed quartz-tempered sherds; 2 fabric-marked, crushed stone-tempered sherds; 5 unidentified surface treatment, crushed stone-tempered sherds; 1 net-impressed, crushed quartz-tempered sherd; 2 unidentified surface treatment, crushed quartz-tempered sherds; 1 cord-marked, unidentified, tempered sherd; 2 fabric-marked, crushed quartz-tempered sherds; 11 retouched flakes; and 21 flakes.

31Ah34, situated on the second terrace above the north fork of the New River, measures approximately 90 feet N/S by 75 feet E/W and is approximately 40 feet west from the north fork. The site scatter consists largely of quartz flakes and fire-cracked rock. Elevation is approximately 2550 feet AMSL.

Soil associated with the site was a 10YR4/3 medium-grained, brown sandy loam.

The site was collected via north/south transect, with two wr/x10-feet sections collected. Artifacts in the inventory were: 1 broken Savannah River projectile point; 1 probable Stanly projectile point base; 3 flakes; 1 chert flake; 20 quartz flakes; 1 circular quartz scraper with shallow notch; and 1 cord-marked sherd.

The Lon Reeves Site, 31Ah35, is in a large area of bottomland on the south fork of the New River. The main concentration of material is in the southern corner of a plowed field and measures approximately 170 feet E/W and 345 feet north/south. The nearest water source is the south fork of the New River, about 30 feet W/SW of the site, and the approximate elevation is 2600 feet AMSL. Soil is a 10YR4/3 brown sandy loam, with slight erosion.

When the site was collected by C. G. Holland in 1969 as "Ashe-D" it yielded both Archaic and Woodland period artifacts, including 2 Savannah River projectile points, 5 sherds of Smyth Series pottery, 11 Grayson Series sherds, 5 Dan River Series sherds, 1 large blade, 13 large projectile point fragments, 1 unidentified lithic artifact, and 20 flakes.

Materials collected in the 1976 survey included 1 Guilford projectile point, 3 Morrow Mountain projectile points, 1 Savannah River projectile point base, 1 unidentified projectile point, 1 small, stemmed, unidentified projectile point, 2 bifacially-worked tools, 1 broken bifacially-worked tool, 1 medial section of projectile point, 1 possible hoe, bifacially worked, and 172 flakes.

31Ah36, the Walnut Hill Bottom Site, is on the second terrace of the floodplain and on the inside of a meander in a plowed field. The site is about 10-12 feet above the level of the river and at an elevation of approximately 2550 feet AMSL. The vegetation upslope from the site includes rhododendron, sycamore, black walnut, and alder. The slope angle is about 5 percent. The nearest source of water is the north fork of the New River, about 60 feet to the east. The soil is very dark greyish brown, 10YR3/2 light silt loam, with slight erosion. The site boundaries coincide in general with the limits of the dark soil.

In 1976 artifacts were collected using a transect with three 10 feet by 75 feet sections. The transect was oriented S14 degrees W, about 10 feet west of the terrace edge. A general surface collection was also made to obtain additional diagnostic material. The material collected in total included: 2 Morrow Mountain projectile points; 3 unidentified projectile points; 2 projectile point blanks; 1 side scraper, 1 hammerstone; 2 cores; 81 flakes; and 7 unidentified aboriginal sherds.

31Ah37, 38, 39, 40, and 41 are located in an area of narrow bottoms on a straight portion of the north fork of the New River 4000-6000 feet below the mouth of Helton Creek. An unnamed creek enters the river about 5000 feet below the mouth of a major floodplain-producing creek, between 31Ah38 and 31Ah41.

The sites are located on the second terrace above the river, in dark brown sandy loams that have experienced slight to no erosion. The site areas are cultivated regularly; they are 50-100 feet northeast of the north fork of the New River. Elevation on the terrace is 2540-2560 feet AMSL.

Augering on the five sites indicates numerous areas where stratified cultural remains should still exist. The situation of the sites just below the mouth of the creek, which may have brought down cobbles of various materials favored for stone-tool-making, may make the sites significant in studies of material-gathering and manufacturing techniques.

In 1969 C. G. Holland identified the area as a site and noted that Woodland period material was found parallel to the river in a band approximately 30 feet by 600 feet. Archaic material was located inland and upslope. According to Holland (1969) "the deposition of the two widely separated periods overlap slightly but the more recent is nearer the river and the more ancient farther from the river."

From the area, Holland collected 1 very large triangular projectile point, 15 sherds of Smyth Series pottery, 8 Grayson Series sherds, 1 Dan River Series sherd, 1 sherd of unidentified mica-tempered pottery, 90 flakes, 2 blade knives, 1 side scraper, 1 backed knife, 1 core, 1 large blade fragment, and 6 projectile point fragments.

31Ah37, whose dimensions were approximately 200 feet NW/SE by 175 feet NE/SW, was collected during the 1976 survey via a 10 feet wide strip down the center of the site's long axis. A general surface collection was also taken. Collected were: 1 Kirk corner-notched projectile point; 4 net-impressed sherds; 1 broken projectile point; 1 unidentifiable projectile

point; 2 unidentified triangular projectile points; 1 plain carved stone pipe; 1 combination shaft straightener/side scraper; 5 shaft straighteners; 1 side scraper; 4 choppers; 10 unidentified tools; 3 unidentified sherds; 5 knives; 4 cores; 1 retouched flake; and 76 flakes.

31Ah38 is an L-shaped site with dimensions of 75 feet by 195 feet NE/SW and 80 feet by 110 feet SE/NW. Soils on the site were 10YR3/3. Some subsoiling has been done on the southwest edge of the primary terrace.

31Ah38 was transected in three 65 feet by 10 feet sections at a bearing of N28E. Materials recovered by the 1976 survey included: 1 probable Halifax projectile point base; 1 reworked Morrow Mountain projectile point; 1 Guilford projectile point; 1 Savannah River projectile point base; 2 cord-marked, crushed rock-tempered sherds; 1 cord-marked sherd; 3 net-impressed sherds; 1 unidentified historic sherd; 1 jasper end scraper; 1 side scraper; 1 knife fragment; 1 broken projectile point; 1 chopper; 2 medial sections of projectile points; 4 steep-sided scrapers; 1 burin; 3 shaft straighteners; 3 knives; 4 unidentified potsherds; 3 scrapers; 2 unidentified lithic tools; and 28 flakes.

31Ah39 is approximately 100 feet by 60 feet and was transected in three 33 feet by 10 feet sections. Material collected included: 16 flakes; 1 side scraper; and 1 Savannah River projectile point base, placing a date of approximately 500-2000 B.C. on the concentration.

31Ah40 measured 145 feet SE/NW and 165 feet NE/SW. Its soils were 10YR4/3 brown sandy loam mingled with 10YR2/3 very dark grayish brown sandy loams in the low drainage and with 10YR4/4 dark yellowish brown on the lower edge of the terrace. The site was transected in three 10 feet by 55 feet segments during the 1976 survey. The following artifacts were collected: 1 Yadkin variant projectile point; 1 Savannah River projectile point; 1 Morrow Mountain projectile point; 1 contracting stem projectile point; 1 crushed rock-tempered sherd; 2 projectile point fragments; 2 projectile point tips; 15 knife-scrapers; 2 blank fragments; 1 historic sherd; 3 cores; 1 chopper; 1 unidentified lithic tool; and 91 flakes.

31Ah41's soils are 10YR4/3 brown sandy loam and 10YR3/3 dark brown sandy loam. The site measures 150 feet NW/SE and 140 feet NE/SW. The site was collected in three 10 feet by 50 feet segments. A general surface collection for additional diagnostic materials was also made. The 1976 survey recovered 1 pentagonal projectile point, 2 triangular projectile point bases, 2 bifacially-worked tools, 2 unidentified tools, 1 side scraper, and 25 flakes.

31Ah42 is a ridgetop saddle site above a steep-sided gorge and adjacent to a small springhead. All cultural material was found just east of the spring and above it. The site is situated within a meander of the north fork of the New River about 1000 feet from the river and 200 feet above river level. The slope angle is 0-11 percent and elevation is 2750 feet AMSL. Associated vegetation included rhododendron, oak, tulip poplar, and buckeye. The site's dimensions are approximately 150 feet NW/SE by 90 feet NE/SW.

Surface soils are 10YR4/3 sandy loams, underlain by 10YR5/5 sandy clay.

Artifactual remains were too sparse for transecting. The overall surface collection consisted of one projectile point base and 6 felsite flakes.

31Ah43 was a rock shelter 6 to 8 feet above the level of the north fork of the New River. It is approximately 10 feet from the north fork of the New River, at an approximate elevation of 2560 feet AMSL. Heavy rhododendron, alder, oak, and hickory growth protects the shelter, which faces west. Soil appears to be primarily flood silt, and erosion was slight. No artifacts were recovered from the shelter.

31Ah44 was composed of a standing dwelling, a well, and two privies or trashpits. The house is on a hill, and just southeast of it is either an old streambed or runoff going down to the south fork of the New River. The well is five feet in diameter and 15 feet north-northwest of the northern corner of the house. The privies or trashpits are each 2 feet in diameter and 12-15 feet northwest of the house's western corner. The house is on the sideslope of a ridge above the second terrace of the south fork, about 310 feet from the river.

The well is stone-lined, and the top two courses do not appear to have been laid with mortar. The well is filled almost to the top, and the top visible layers of trash are modern. The boards and beams in the house are circular sawn. All visible nails are machined, probably wire nails. The house is set on dry-laid stone pilasters, and there is modern window glass lying around. The material in the field below is all late nineteenth-early twentieth-century artifacts, primarily whiteware and ironstone, with some pearlware.

31Ah45 and 46 are two rockshelters immediately next to one another and facing a large creek. They are located about 20 feet above the creek level on the eastern slope and about 200 feet north of the confluence of the creek with the north fork of the New River. Nearest outside water source is the creek, 15 to 30 feet away. The ceilings of both shelters have spalled off in flat slabs onto the living floors. Elevation is ca. 2580 feet AMSL.

Vegetation on the slope surrounding includes rhododendron and hemlock. Soils within the shelters are light silt loams of very dark brown 10YR2/2 color, with some 10YR3/2. Slight erosion has taken place.

31Ah45's protected living floor has been partially cut away for road construction, but the major part of the shelter is undisturbed, except for minor vandalism. The shelter is 36 feet long, aligned along a N10W axis. It is 14 feet deep at the deepest point and is tall enough for an adult to stand in. Because all artifactual material on the surface was the remains of the pothunters' work, no transect was felt to be applicable. The 1976 survey recovered: 3 unidentified tools; 41 flakes; 1 clear bottle glass sherd; 1 green bottle glass sherd; and 1 sherd of white-paste earthenware.

31Ah46 lies just south of 31Ah45 and has, behind the usual rockshelter overhang, a 15 by 25 feet room. The room is high enough for a person to stand upright in the center. There is a small spring at the back of this room, but it is quite small and a large portion of the potential living floor was dry at the time of the survey. 31Ah46 is 52 feet long, aligned on a N10W axis. It is 18 feet deep at the deepest point and is tall enough for an adult to stand in. Again, pothunters' disturbance had left only highly disturbed surface remains, so no transect was taken. The 1976 survey team recovered 2 flakes and 1 aboriginal potsherd, grit-tempered and net-impressed.

31Ah47 and 48 are two concentrations of material in very close proximity, which may be associated culturally. The two sites are located on a saddle of a ridge which runs parallel to the north fork of the New River. It is also within a meander of the river. The saddle was primarily in pasture at the time of the 1976 survey and did not appear ever to have been plowed. A small springhead is 200-300 feet east of the site and about 80-100 feet below the sites in elevation.

Poor visibility leaves open the possibility that 31Ah47 and 48 are one continuous site, though there was a 60-foot gap in surface material between the two sites.

31Ah47 measured approximately 175 feet N/S by 75 feet E/W. Associated vegetation included pasture grasses, crabapple, and walnut. The site was 200 feet from a small springhead. Slope angle was 22-30 percent, and erosion was moderate. Elevation was 2800-2840, and soils were 7.5YR5/6 clay loam.

Due to the sparsity of the artifact scatter, only a general surface collection was taken, which included: 1 broken projectile point base; 1 worked flake, possibly a knife; and 6 felsite flakes.

31Ah48, an open site approximately 35 feet in diameter, is on the edge of a wooded area. It was ca. 300 feet southwest of a small springhead. Maple, oak, white pine, and tulip poplar were in association with the site. Elevation was 2840 feet AMSL, and there was a slope angle of 0-2 percent. Soils were 10YR3/4 loam.

A general surface collection on 31Ah48 yielded one unidentified tool, 4 flakes, and 1 quartz flake.

31Ah49 is located on a relatively gently sloping ridge whose axis is perpendicular to the main ridge line and saddle on which 31Ah47 and 48 are located. It is 150 feet east of an active springhead located in a gully north of the site. The site is presently in pastureland, with associated laurel, rhododendron, azalea, white pine, tulip poplar, oak, walnut, sweet birch, crabapple and buckeye. A marshy area surrounds the springhead. Slope angle was 11 percent.

The site's elevation is 2790-2810, and soil was 10YR5/4 clay loam. A general surface collection included 1 probable Morrow Mountain II projectile point, 1 broken projectile point, 1 unidentified quartz tool, and 1 quartz flake.

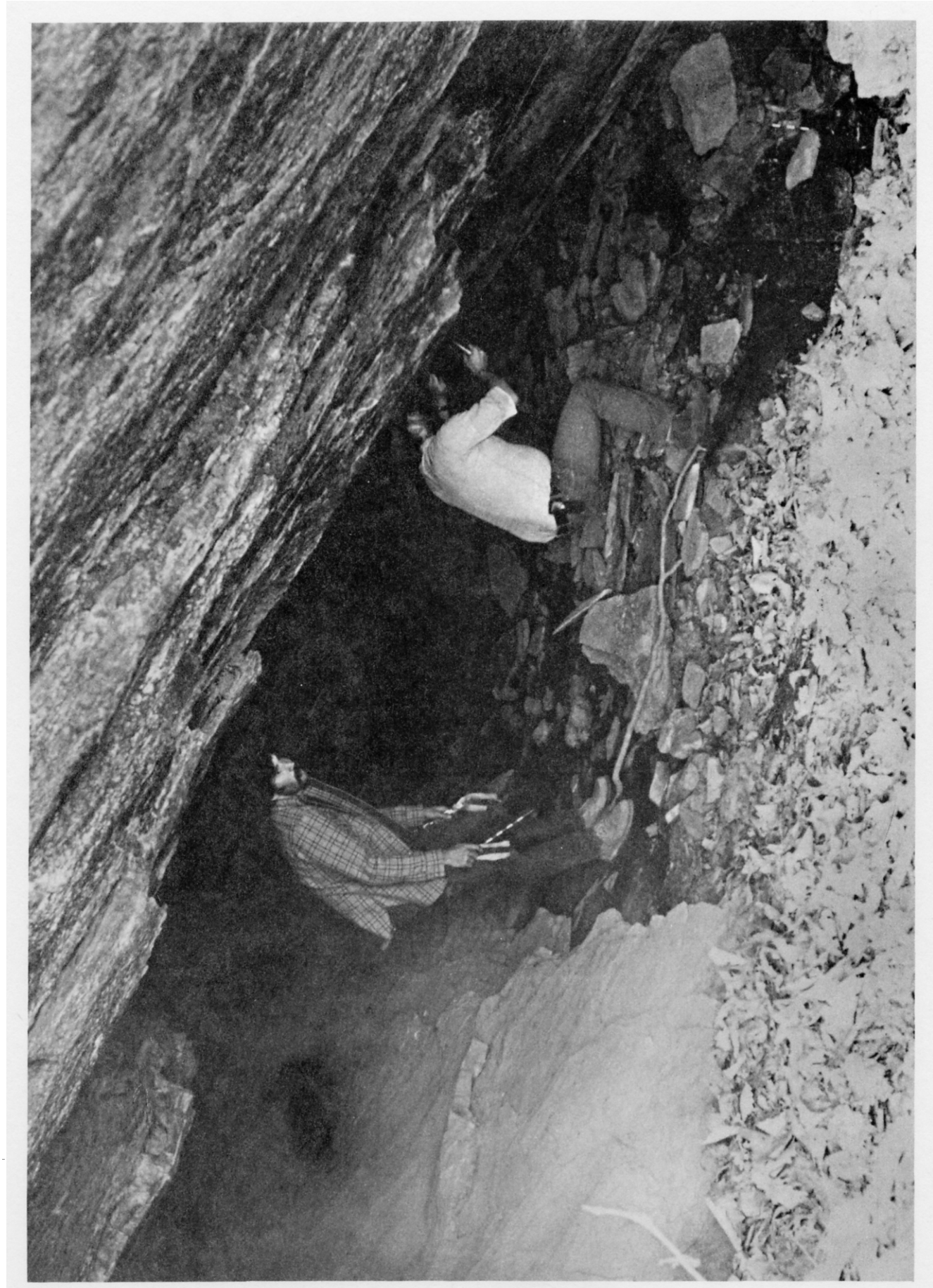


Figure 4. 31Ah46, a rock shelter above the north fork of the New River.

31Ah50 measures 400 feet N/S by 100 feet E/W. It is situated on the second terrace of the north fork of the New River, just across the river from the mouth of a major creek. The terrace was ca. 14 feet above the level of the river, and is about 50 feet away. Elevation is 2560 feet AMSL.

Vegetation associated with the site included white pine, locust, sycamore, and alder just upslope from the site. Soil was a 10YR3/3 heavy silt loam, with slight erosion. The 1976 survey recovered 2 chert knife-scrapers, 1 chert core, 1 felsite knife-scraper, 1 triangular chert projectile point, and 1 pentagonal chert projectile point.

31Ah51 and 52 are an open floodplain site and a large rockshelter just above and northeast of it. A major creek is adjacent to the floodplain site.

31Ah51 is located in a cultivated field which was the site, according to the landowner, of an early twentieth century house and a pre-1900 log cabin, as well as the aboriginal occupation noted in the 1976 survey. There is a scatter of early to mid-nineteenth century historic material throughout the north end of the field, while felsite and chert flakes are confined to the northeast side, adjacent to the slope and rockshelter. There is a secondary concentration of aboriginal material in the center of the field. There is a major creek on the west edge of the site and there is a seep just south of the site's limits. Associated vegetation was sycamore, buckeye, cottonwood, and hickory. Elevation is 2555-2560 feet AMSL and the slope angle is 10 percent.

31Ah51 is apparently related to the nearby rock shelter (31Ah52). 31Ah51 is about 50-100 feet SW from the opening of the shelter, and there is a continuous scatter of lithic artifactual material between the two. The rock shelter (31Ah52) is large, relatively flat and dry, and near a major stream.

Soil augering on 31Ah51 revealed a good possibility of stratigraphic context. Surface soils are 10YR3/2 very dark greyish brown silt and loam, fine-grained with high organic context. At 1.4 feet below the surface, soils change to 7.5YR4/4 dark brown clay loam, also fine-grained. This level goes down to 2.9 feet.

The 1976 survey recovered from 31Ah51: 2 cores; 1 Stanly projectile point; 11 unidentified tools; 15 flakes; and 1 unidentified aboriginal sherd. In historic materials, numerous pieces of stoneware were collected--three with manganese exterior, gray interior including 1 rim sherd; 2 rim sherds, 2 body sherds, and 2 basal sherds, manganese interior and exterior, 1 basal sherd, green interior and exterior, 3 burned white sherds, 1 basal sherd, green exterior, gray interior, 2 gray salt-glazed sherds, 1 body sherd, manganese interior, gray exterior, 1 blue, shell-edged pearlware sherd, 1 blue sponged pearlware sherd, 5 white-paste earthenware body sherds, and 2 transfer-print polychrome white-paste earthenware body sherds.

31Ah52 is a large, relatively flat and dry rockshelter. It is 100 feet northeast of a large creek and about 20-25 feet above the creek level. Elevation of the shelter is approximately 2590 feet AMSL. Associated vegetation includes sycamore, buckeye, cottonwood, and hickory. Soils were 7.5YR3/2 and 10YR5/5 silt loam.

The shelter is about 50 feet wide, SE/NW, and about 18 feet deep NE/SW. The height from floor to ceiling is approximately 21 feet in the center of the opening.

From 31Ah52 the survey team collected 1 Morrow Mountain projectile point, 1 Yadkin projectile point, 2 unidentified tools, 1 microlith, 45 flakes, and 1 deer bone.

31Ah53 was a rockshelter on the same creek. The shelter faces N35W and has a slope angle of 22 percent. The shelter is approximately 20 feet from the creek at an elevation of 2590 feet AMSL, about 20 feet above creek level. The shelter is about 35 feet long and has an overhang of 6-8 feet. The ceiling slopes from two feet at the back of the shelter to a height of seven feet at the drip line. Augering just in front of the drip line revealed about two feet of stratigraphy. Soils were mottled 10YR3/2 and 5YR5/6 heavy silt loam with charcoal flecks. It was impossible to determine possible stratigraphy within the rockshelter because of heavy ceiling fall. Erosion was slight. No artifacts were recovered.

31Ah54 was a small shelter facing west. It sits about 150 feet from the same creek and 200 feet from another, smaller, creek and is 15 feet long and 12 feet deep. It is eight feet tall at the dripline. White pine, hemlock, maple, and tulip poplar were associated vegetation. Elevation is 2640 feet. Soil augering showed a very dark silt loam, 10YR2/1 from 0.4 feet below the surface and a lighter colored, more sandy silt loam below that, whose lower limits could not be determined. No artifacts were recovered.

31Ah55 measures 100 feet N/S by 40 feet E/W and is situated on the second terrace of the floodplain 70-100 feet west of and 4-10 feet above a large creek. The site has obviously received considerable deposition, as evidenced by river-washed historic ceramics, flood sand and washed aboriginal flakes. Artifacts were recovered only from the lower, rather flat section of the site. Associated vegetation included alder, white pine, hemlock, maple, and tulip poplar. Elevation was 2550-2560 feet AMSL. Slope angle is 0-10 percent, and there is some sheetwash erosion evident.

Soil augering on 31Ah55 revealed a very strong possibility of stratified remains. A 7.5YR4/4 loam went down to .8 feet below the surface, then changed to a 10YR2/2 light silt loam, which went to 1.5 feet. A 10YR4/4 sand went down to 2.9 feet, followed by a 10YR2/2 loam to at least four feet. Equipment limitations prohibited further coring.

The 1976 survey recovered 4 aboriginal sherds, 1 quartz flake, 2 chert flakes, 1 felsite flake, 3 Historic stoneware sherds, and 1 ironstone rim sherd. They were collected in two segments--one concentration and a general surface collection.

31Ah56 is in a cultivated field on a meander of the creek near its confluence with the north fork of the New River. The central part of the floodplain occupied by 31Ah56 is approximately two feet higher than the surrounding area. Erosion is slight and the site is on a portion of the floodplain that is level. Elevation is approximately 2560 feet AMSL. The creek is approximately 150 feet to the west. Vegetation includes locust, buckeye, tulip poplar, eastern cedar, cottonwood, dogwood, sweet birch, alder, and sycamore.

The site dimensions are approximately 70 feet NE/SW by 110 feet NW/SE. The site is 6 to 8 feet above the present normal creek level. It is on a peninsular arrangement of land formed by the intersection of a small, intermittent tributary with the creek. Soil cores of the site show one to three feet of soil stratification. Topsoil is a 10YR3/3 light silt loam.

A 10 feet by 90 feet transect oriented NE/SW was collected in three 10 feet by 30 feet sections across the site, and a general surface collection for additional diagnostic material was done. The total collection included three crushed stone-tempered, fabric-marked body sherds, 2 crushed stone-tempered, fabric-marked, incised rim sherds, 11 crushed stone-tempered, cord-marked body sherds, 12 crushed stone-tempered , net-impressed body sherds, 33 unidentified sherds, 1 flake, 1 Woodland projectile point, 1 sand-tempered, punctate, unidentified surface treatment sherd, 1 sand-tempered, scratched unidentified surface treatment sherd, 1 net-impressed, unidentified temper sherd, 2 plain, unidentified temper sherds, and 2 exterior-scraped sherds.

31Ah57 is the site of a reported iron forge which forged iron taken from the mines recorded as 31Ah58. The road appears to be laid rock. The present structure is a two-story wooden building, probably a late grist mill. It appears to be built on the foundations of an older building. These foundations are dry-laid rock. There are fragments of slag and iron ore around the building and the stream. Pieces of large cut stone block are in the creek south of the spillway, and an iron bar is imbedded in one of these.

The structure has circular sawn boards with machined nails and Portland cement in the chimney. The timbers of the door are pit-sawn and the beams hand-hewn. The mill was turbine powered, and part of the gearing is still in place. The associated dam is concrete over rock. The south side has the spillway opening, which appears to be of a modern type.

Elevation of the site is 2560 feet AMSL. It is on Helton Creek ca. 1500 feet from its confluence with the north fork of the New River. No artifacts were collected.

31Ah58 consists of two iron ore mine shafts, from which ore was reportedly taken to the forge on Helton Creek, recorded as 31Ah57. Both have caved in and were considered too unsafe for exploration. However, from outside appearances, the lower one appears to be an adit, cutting into the side of the hill, and the upper one a shaftlike configuration, leading down into the hill. Both were reportedly reopened in recent years

to release accumulated gases. The lower shaft is at 2600-2640 feet AMSL and the upper one at 2640-2680 feet AMSL. The lower shaft or adit is approximately 400 feet west of the north fork of the New River. The upper shaft is approximately 800 feet west of the river.

31Ah59 is an iron truss bridge with iron railings over the mouth of Helton Creek as it enters the north fork of the New River. An incised manufacturer's mark on the inside of the one-land bridge's northern cross-piece reads: "PENCOYD USE." Elevation is 2560 feet AMSL.

31Ah60-66 are on the northwest bank of the south fork of the New River. The seven sites are located on the second terrace in the flood-plain, in a large plowed area inside a U-shaped bend of the river. Associated vegetation consists of hardwoods and some pine on the ridges northwest of the site. Vegetation on the first terrace below the sites includes willow, locust, and birch. This first terrace is approximately 15 feet lower than the second terrace, where the sites are located, and is less than five feet wide. Elevation is 2600 feet AMSL.

31Ah60 is approximately 40 feet west of and 10 feet above the river, and a small spring-fed branch runs beside the site. It measures 300 feet NW/SE by 60 feet NE/SW. Soil is a micaceous, alluvial sandy loam, 10YR5/3 and 10YR4/2. Erosion is slight. Slope angle is 0-2 percent.

31Ah60 was collected by C. G. Holland as Ash-C in 1969. He reported that the cultural debris occurred in several discrete areas, suggesting dwelling or midden concentrations. He reported only a small portion of the surface collection: 1 Savannah River projectile point; 1 Clarksville small projectile point; 125 Smyth Series sherds; 263 Grayson Series sherds; 31 Dan River Series sherds; 1 Radford Series sherd; 114 flakes; 2 drills; 1 blade knife; and 2 unidentified artifacts (Holland 1969).

The 1976 survey of 31Ah60 recovered 1 chopper, 2 unidentified tools, 1 core, 1 flake, and 38 unidentified pottery sherds. Artifacts recovered in the two surveys indicate the major occupation occurred during the Woodland period.

31Ah61's dimensions are 197 feet NE/SW by 165 feet NW/SE. The south fork of the New River is about 20 feet east of the site, and there are drainage areas on each side of the site, possibly from natural springs. Soils are micaceous, alluvial sandy loams, 10YR5/3 and 10YR4/2. The site has a slope angle of 1 percent and erosion is slight.

The 1976 survey collected 1 core, 1 small triangular projectile point, 4 flakes, and 17 unidentified potsherds.

Separated from 31Ah61 but possibly part of the same site is 31Ah62, which measures 575 feet from NE/SW and 165 feet NW/SE. It is ca. 20 feet west of the south fork of the New River and there is a drainage area, probably for a spring, on one side. Slope angle is 1 percent to the northwest, and erosion is slight. Soils are micaceous, alluvial sandy loams, 10YR5/3 and 10YR4/2. The 1976 survey of the site recovered 1 small triangular projectile point, the base of an unidentifiable projectile point, 15 unidentified potsherds, and 4 flakes.

31Ah63 is also 575 feet NE/SW and 165 feet NW/SE. Fire-cracked rock was scattered over the site.

The south fork of the New River is 20 feet to the east, and a permanent stream enters the south fork just across from 31Ah63. Soil is 10YR5/3, micaceous, sandy alluvium, with slight erosion. There is a 14 percent slope angle on the site.

Four potsherds, 1 tool, and 20 flakes were collected from the site in 1976. No time period can be assigned on the basis of these artifacts other than a general ascription to the Woodland period.

31Ah64 was measured in 1976 as 245 feet NE/SW and 66 feet NW/SE. It is 20 feet west of the south fork of the New River and has a 0-4 percent slope angle. There are minor quartz outcroppings above the site, and there is a shoal in the river between 31Ah64 and 31Ah65. Soils are 10YR5/3 micaceous, alluvial sandy loams, with 10YR6/4 subsoils.

Artifacts collected were: 1 Savannah River projectile point; 9 potsherds; 1 unidentified chipped stone tool; 1 ground stone tool, and 1 flake.

No artifacts were found on 31Ah65, which may be an extension of 31Ah64. The site is covered by a thick alluvial deposit and is 490 feet long NW/SE by 180 feet E/W on the northwest end and 300 feet N/S on the southeast end. A drainage ditch had exposed a post mold 1.5 feet below the surface, indicating a buried site below the alluvium. It was on this evidence that the site was identified. There is a shoal in the river by the site. It is 20 feet west of the river and has a 0-1 percent slope angle. Soils are 10YR5/3 caceous, alluvial sandy loams with 10YR6/4 subsoil. The river goes into a narrow channel just north of this site.

31Ah66 has dimensions of 150 feet NW/SE and 60 feet SW/NE. It is 20 feet from the south fork and has a slope angle of 0-1 percent. Erosion is slight. Four potsherds and 4 flakes were recovered by the 1976 survey. No transect was used due to the sparsity of the artifact scatter.

This group of sites appears to represent a series of concentrations within a large Woodland period village. While this seems the most logical conclusion from the available data, the areas were kept separate and given individual site numbers by concentration in case subsequent investigation invalidates this original conclusion.

31Ah68 is located in a plowed saddle area approximately 400-750 feet east of and 150 feet above the south fork of the New River. A small stream runs 100-200 feet south of and approximately 100 feet below the site. A dark, circular stain in the soil was evident, approximately 50 feet in diameter. Evidence of a hearth was on the surface, and a quartz outcropping was 75-120 feet north of the site. Elevation was 1260-2720 feet AMSL. Erosion was slight and the slope angle was 0-6 percent to the southwest. Soils are 10YR6/3 in the dark stain and 10YR4/2 outside of it. Soil augering reached subsoil, 10YR5/6 at 0.7 foot below the surface.

Due to the sparse surface scatter, only a general surface collection was taken. It included: 22 quartz flakes; 2 quartz cores; 1 felsite blade; 1 chert flake; 2 historic porcelain cup fragments; 2 quartz scrapers; 1 backed quartz knife; 1 base of quartz Savannah River projectile point; 1 base of Guilford projectile point; 1 base of quartz Guilford projectile point; 1 base of unidentified blade; and 1 unidentified quartz projectile point.

31Ah69 is located on the second terrace above the south fork of the New River, in a plowed field approximately 25 feet from the river and 7-10 feet above river level. There is a small tributary 50 feet south of the site. Site slope angle is 5 percent to the west. Elevation is 2520 feet AMSL. Vegetation associated with the site is a hardwood mix.

Soil augering to 5 feet deep revealed only alluvial deposit, 10YR4/3, a uniform deposit from the surface to at least 5 feet deep. There may be a buried site here whose identification was prevented by equipment limitations.

Due to a very sparse surface scatter, only a general surface collection was taken. The inventory included two unfinished unidentified quartz projectile points and one aboriginal sherd.

31Ah70 is a saddle site, located between the highest two ridges on this portion of the south fork of the New River. The site lies in a bend of the river, approximately 240 feet above the river bottoms on the east and south. It is covered in heavy pasture. Dimensions of the site were impossible to determine, as only about 1/8 of the ground could be seen. There are quartz outcrops within 50-100 feet of the site. Elevation is 2760 feet AMSL and the soil was 7.5YR5/3 sandy loam. There is hardwood forest on the site's periphery. A general surface collection recovered 1 large metasediment chopper and 5 metasediment flakes.

31Ah71 lies in a plowed field on river bottomlands 40 feet northwest of the south fork of the New River. The site is covered in a heavy alluvium deposit and measures 175 feet NW/SE by 70 feet SW/NE. Erosion is slight and the slope angle is 0-1 percent west toward the river. Elevation is 2510 feet AMSL. The field measures 800 by 150 feet, but poor visibility made it impossible to determine precise site dimensions.

Soil augering showed alluvium down to 5 feet, the extent of the equipment's capacity. Soil was 10YR3/2 to 0.9 feet, 10YR3/3 to 1.0 foot, 10YR3/2 to 3 feet and 10YR2/1 below 3 feet. One potsherd and 2 quartz flakes were recovered by the 1976 survey. The landowner also has some pottery and a large blade from the site.

31Ah72 is located in a plowed field in a saddle overlooking the south fork of the New River. The site is approximately 100 feet in diameter and is bordered on the west-northwest by a small tributary which feeds northward into a permanent creek which flows into the south fork. A permanent creek is approximately 200 feet north of the site. The site is 200 feet west and 100 feet above the river itself. Erosion is severe and the site slopes 25 percent to the north and west on a small saddle. Elevation is 2600 feet AMSL. Soils are 10YR5/3, 10YR6/4, and 10YR5/8 clay loams.

The 1976 survey made a general surface collection, including 72 felsite flakes and 3 retouched quartz flakes.

31Ah67, 73, 74, and 75 are located on three low ridges, apparently old terraces, in 40-50 acres of bottomlands at the confluence of two major, floodplain-producing creeks with the south fork of the New River. The area is bounded on the south and east by the large creek and on the west by the south fork of the New River. Topsoil on the sites is micaceous silty loam and the slope angles of 31Ah73, 74, and 75 are 0-3 degrees. 31Ah67 has a 10-25 percent west-southwest slope. Augering to 5 feet on the sites revealed 10YR3/3 to 10YR4/6 loamy sands on 31Ah73 and 74 and both loamy sands and 10YR4/6 loamy clay on 31Ah75. These three show very high potential for stratified in situ cultural remains. Coring on 31Ah67 shows subsoil near the surface on the upper portion, grey at three feet in the backswamp, and alluvium to three feet on the lower portion. Below that, extreme wet conditions made augering impossible.

31Ah67 measures approximately 450 feet N/S by 150 feet E/W. It is 30-40 feet southeast of the creek and 30-100 feet east of the south fork of the New River. It is 30 feet northwest of a small tributary, and a quartz quarry is 200-300 feet to the east-northeast and 100 feet above the site. Two small intermittent streams crosscut the site and there is marshy vegetation associated with them. No distinct concentrations of surface material were found, although most material was taken from the upper portion of the bottomland.

The 1976 collection of 31Ah67 included 4 cores, 6 scrapers, 2 unidentified tools, 2 unidentified sherds, 4 plain sherds, 1 fabric-marked sherd, 1 net-impressed sherd, and 27 flakes. The presence of aboriginal pottery indicates Woodland period occupation of the site. The collection was taken in two 50-feet long strips along the long axis of the site. Each transect segment was 150 feet in length. Recovered were 2 quartz cores, 5 quartz scrapers, 1 chert scraper, 3 unidentified tools, 16 quartz flakes, 9 flakes, 2 unidentified sherds, 1 fabric-marked sherd, 4 plain sherds, 2 cores, and 1 net-impressed sherd.

31Ah73 is the most eastern ridge in the bottom area. Dimensions of the site are 328 feet by 164 feet on the NNW/SSE axis and 164 feet on the SSW/NNE dimension. It is 640 feet east of the south fork and 160 feet west and north of the creek by transect. Materials collected during the 1976 survey included 1 Hardaway-Dalton projectile point, 1 unidentified projectile point--basal end, 1 quartz scraper, 1 thumbnail scraper, 1 core, 43 flakes, 7 plain sherds, 2 cord-dowel-impressed sherds, 12 net-impressed sherds, and 28 unidentified sherds. The transect was set up to cross-cut the major artifact concentration.

31Ah74, an open site of unknown function, measures 246 feet E/W by 98 feet N/S and is approximately 225 feet east of the south fork of the New River-large creek confluence. It is 30 feet north of the creek. Artifacts recovered by the 1976 survey transect were: 1 Guilford projectile point--basal end; 1 Early Woodland projectile point; 1 triangular projectile point; 1 steatite vessel rim sherd; 3 unidentified sherds; 3 scrapers; and 14 flakes.

31Ah75, an open site of unknown function, sits on the westernmost low ridge in the Woodie District, parallel to the south fork and about 32 feet east of the river. Its dimensions are 656 feet N/S by 131 feet E/W, and it is bounded on the east by a channeled ditch. Collection made by the 1976 survey was made in a 10 feet wide strip along the center of the long axis of the site. Material recovered included 1 Kirk corner-notched projectile point, 1 unidentified projectile point, 2 cores, 22 flakes, 1 scraper, 1 simple-stamped sherd, 3 net-impressed sherds, and 12 unidentified sherds.

The 1969 survey by C. G. Holland identified a site called Ash-A in this general area. It was described as containing Woodland period cultural material in an area about 75 feet in diameter, approximately 60 feet from the river on the creek side with Archaic material further downstream. This seems to coincide with the eastern portion of 31Ah75. Holland suggested that it was, perhaps, a small Woodland village or "farmstead," with some type of previous Archaic occupation. Artifacts recovered in the 1969 work included: 1 medium-size parallel-stemmed projectile point; 3 sherds of Smyth Series pottery; 65 sherds of Grayson Series; 9 sherds of Dan River Series pottery; 39 flakes; 4 blade knives; and 1 projectile point fragment.

31Ah76 is a small rock shelter located approximately 100 feet west of and 25 feet above the north fork of the New River. There is evidence of smoke blackening on the ceiling of the shelter and there is approximately 0.5 foot of humus on the floor of the shelter. The shelter is 200 feet long, 8 feet deep, and five feet tall. The interior angle formed by the overhang and the floor is 40 degrees. Associated vegetation is mixed hardwood and pine, and the entrance to the shelter is hidden by rhododendron growth. Elevation is 2520 feet AMSL, and there is a 4 percent slope angle inside the shelter. The slope in front of the shelter is 30 percent. The shelter faces west. No artifacts were collected.

31Ah77 is also a rock shelter, approximately 25 feet east of the north fork and approximately 25 feet above the river level. The shelter faces west and has a slope of 1-2 percent to the southwest. The long axis of the shelter is on a bearing of N40W. Depth is 11 feet and height is 13 feet. There was evidence of smoke blackening on the ceiling of the shelter, but no artifacts were recovered from the site.

31Ah78 is a late nineteenth-century-early twentieth-century home/shoeshop complex, reportedly of the Sturgill family. The complex consists of a house, shoeshop, shed, barn, and Sturgill family cemetery. The house and shoeshop were at the time of the 1976 survey littered with trash from the last occupation, which ended about 1950. The cemetery lies 1500 feet north of the home complex on a high knoll east of the stream which runs between the house and shoeshop. No artifacts were collected.

31Ah79 is an open site lying on both the east and west sides of a small creek. The site is presently in heavy pasture. It was impossible to assess precise dimensions of the site, but the approximate dimensions of the bottomland it occupies are 400 feet E/W by 200 feet N/S. The area has a high density of cobbles and evidences of frequent flooding.

The slope angle is 1-3 percent. Elevation is 2560-2600 feet AMSL. The soil is very stony, and soil coring encountered bedrock at 0.5-1.0 foot.

A general surface collection of the site recovered 1 quartz core, 1 quartz chopper, 1 flake, and 2 quartz flakes.

31Ah80 lies in a plowed field with a heavy density of rock and cobbles. The site slopes 10 percent south toward a small creek 300 feet from the site. Erosion is severe, with the reddish clay loam subsoil visible on the surface of the site. The site covers approximately two acres. There are hardwoods and pines on the periphery of the site. Elevation is 2600-2640 feet AMSL. No surface material was apparent on the site. All of the general collection was taken from two erosion cuts. It included: 1 quartz Guilford projectile point; 5 quartz flakes; 1 quartz unfinished projectile point; and 3 felsite flakes.

31Ah81, 82, and 83 consist of a series of artifact concentrations, with some mixture caused by agricultural activity. All concentrations are located on the second terrace above the south fork of the New River. The terrace makes up the bulk of the field and is 10-15 feet above river level. Heavy alluvial deposits have formed a series of terraces concentrated in the SW/SE portion of the field. A thick backswamp has formed behind the terraces. Cultural materials were found on and along these terraces and along the drainage laterals at each end of the field. Soils were 10YR4/3 and 10YR3/3 loamy sands and alluviums with moderate erosion.

There are marshy wetlands both along the river and along the stream laterals. The slope angle is approximately 5-10 percent to the south, and elevation is 2600 feet AMSL. Slope angle of the ridge just behind the site varies from 5-45 percent.

Four-inch bucket auger cores from these sites indicated a good possibility of *in situ* stratified cultural remains.

31Ah81 is 50 feet E/W by 400 feet N/S, ten feet east of a permanent stream and thirty feet north of the north fork. Collected by transect in three 20 feet by 10 feet sections, the following materials were recovered by the 1976 survey: 1 broken Woodland projectile point; 1 basal end of quartz blade; 4 unidentified tools; and 67 flakes. Lithic materials represented in the collection included jasper, felsite, chert, and quartz.

31Ah82 is 50 feet north of the south fork and 100 feet east of a small stream. It measures 300 feet N/S by 900 feet E/W. Materials were collected by concentrations rather than by formal transects in the 1976 survey. Artifacts recovered were: 1 Woodland projectile point; 1 net-impressed body sherd; 1 net-impressed rim sherd; 2 plain body sherds; 2 reed-incised sherds; 19 unidentified body sherds; 2 unidentified rim sherds; 1 broken hammerstone; 2 grinding stones; 3 cores; 4 unidentified tools; and 38 flakes.

31Ah 83 measures 190 feet N/S by 625 feet E/W. It is 50 feet north of the south fork and west of a small stream.

Artifactual materials included 2 unidentified tools, 2 cores, and 8 flakes.

31Ah84 lies on the west side of a meander in the north fork of the New River, on the plowed second terrace about 40 feet from the river. There are very heavy alluvial deposition and moderate erosion. The site measures 250 feet N/S by 40 feet E/W. Vegetation present includes mixed hardwoods. The slope angle is 5 percent to the west. Elevation is 2600 feet AMSL.

Soils on the site are 10YR4/3 and 10YR3/3 alluvial loamy sands. Coring revealed this alluvium to 5 feet, the limits of the coring equipment. There is a good possibility that this site could contain stratified cultural remains.

A general surface collection of the site returned: 1 steatite sherd; 1 reed-incised rim sherd; 1 reed-incised body sherd; 1 cord-marked sherd; 1 flake; 8 quartz flakes; 1 chert flake; 4 unidentified sherds; 1 punctate sherd; 3 net-impressed sherds; and 1 plain sherd.

31Ah85 is an open site on the inside of one leg of a meander of the north fork of the New River. The site measures 50 feet NW/SE by 40 feet NE/SW. The site is in a plowed field on the second terrace of the bottomlands. The site is 10-15 feet above the river level and 100 feet south of the river itself. The slope is 0-1 percent to the north, and there are backswamp and point bar deposits. Mixed hardwoods surround the site. Elevation is 2610 feet AMSL.

Soils on the site are 10YR4/3 and 10YR3/3 loamy sands. Coring on the site indicated only alluvium to the extent of the equipment's capacity, approximately 5 feet. There is a possibility of a buried site here. Artifacts included 1 chert Woodland projectile point, 1 chert flake, and 1 quartz projectile point midsection.

31Ah86 and 102 are inside a large meander of the north fork of the New River, both in at least partially cultivated fields. 31Ah102 is on the broad second terrace, while 31Ah86 is on a low ridge 5-6 feet above the present river floodplain. There is a possibility that 31Ah86 may extend down onto the second terrace also, as one projectile point was found on the second terrace below the site, but poor visibility prevented any final conclusion on this matter from being made during the 1976 survey. The projectile point from the second terrace below 31Ah86, it should be noted, is from an approximate period some 3500 years earlier than anything found within the main concentrations of the site. The cultivated fields are surrounded by pasture vegetation, with pines and mixed hardwood-rhododendron associated with the upland site. Ash and linden grow between 31Ah102 and the river. Soils are micaceous clay loams on both sites, with a silty admixture on 31Ah102. On the sites themselves, slope angles are 0-2 percent in the major concentration areas, but there is a slope angle of 7-9 percent from the second terrace, where 31Ah102 lies, to the 31Ah86 ridgetop. Material in both cases extends onto the slope. Slight erosion is evident on both sites. Elevation at 31Ah102 is approximately 2540-2550 feet AMSL, while 31Ah86 lies at approximately 2650 feet AMSL.

Near both sites are low, marshy areas of high density, low species diversity, floral material. This wetland vegetation would have been within easy access of both sites for subsistence purposes.

31Ah86 measures approximately 100 feet E/W by 50 feet N/S. It is approximately 500 feet north of the river. Material was collected by means of a transect at bearing due east.

The 1976 collection included 1 Late Woodland projectile point, 1 Stanly projectile point, 3 unidentified aboriginal sherds, 4 chert flakes, 1 lithic tool, 1 chert retouched tool, and 2 quartz flakes.

The artifact collection made by Holland (1969) on 31Ah86, or Ash-H, includes 2 Clarkville small triangular projectile points, 3 sherds of Smyth Series pottery, 42 sherds of Grayson Series pottery, 6 sherds of Dan River Series pottery, 1 unidentified mica-tempered sherd, 43 flakes, 1 side scraper, and 5 unidentified lithic tools.

Holland originally identified Ash-H (31Ah86) as a small Woodland period occupation. However, the Stanly projectile point recovered just below the site by the 1976 work indicates a possible Archaic period extension of the site. Stanly materials date from approximately 5000 B.C.

31Ah102 was partially in pasture when it was surveyed and it was impossible to ascertain precise limits for the site. However, the major concentration was in an area approximately 300 feet N/S by 175 feet E/W. The site was 100 feet from the north fork.

Material was collected by transect at bearing N05E. Segments were 50 by 10 feet, and there were six segments collected, plus an overall surface collection.

The 1976 work on the site recovered 1 Savannah River projectile point and a fragment of another Savannah River point, 3 unidentified lithic tools, and 22 unidentified aboriginal sherds.

The 1969 collection by Holland of 31Ah102, or Ash-G, included a Savannah River projectile point, 1 Clarksville small triangular projectile point, 23 sherds of Smyth Series pottery, 6 Dan River Series sherds, 1 Radford Series sherd, and 1 unidentified mica-tempered sherd. Additional lithic materials included 83 flakes, 1 hand chopper, 1 unidentified projectile point fragment, and 2 unidentified lithic tools (Holland 1969).

31Ah87, the Woodall Site, is in a plowed field on the second terrace above the south fork of the New River, in the angle formed by the river and a small, unnamed creek. The main concentration measures 540 feet N/S by 384 feet E/W, and a sparse scatter continues another 620 feet toward the northeast.

Soils are brown sandy loams near the river, shifting upland to an orange brown clay loam. There is a pine forest on the uplands above the site. There are three possible water sources, the river 100 feet west and two streams, 10 and 600 feet from the main concentration. A small

area of marsh is at the mouth of the upstream creek 10 feet from the site. Elevation is 2400-2600 feet AMSL and the site's slope is approximately 0-6 percent. Soil augering indicates a very good possibility of stratified cultural deposits on 31Ah87.

The site was identified in 1969 by C. G. Holland and given the designation Ash-K. He collected 1 Morrow Mountain projectile point, 1 large blade, and numerous flakes from the site.

The 1976 survey collected it by means of a 10 feet wide by 300 feet long transect along the western edge of the site, set out 60 degrees east of north and divided into three 100 feet segments.

Collected in 1976 were: 1 Morrow Mountain projectile point; 1 Stanly projectile point; 1 Palmer corner-notched projectile point; 1 grinding stone; 10 scrapers; 2 cores; 6 knives; 2 knife fragments; 22 unidentified tools; 67 flakes; 1 semiporcelain ceramic sherd; 1 grit-tempered, plain basal sherd; and 1 quartz-tempered body sherd.

Ash-201 (temporary site number) is in a plowed field downstream from a small creek. The site measures approximately 450 feet NE/SW by 100 feet NW/SE. There is a quartz outcropping nearby and there is pine forest above the site. Slope angle is 0-5 percent and erosion is very slight.

Primary materials in the field were quartz and quartzite cores and a few rough and large flakes. This suggests that it is a possible quarry site or tool preparation site. It is very near 31Ah87 and could be associated.

Materials were collected by a transect set at bearing N25W. The transect was collected in three 10 by 48 feet segments. The collection included 11 quartz flakes, 11 quartz scrapers, 2 quartz cores, 1 unidentified quartz tool, 1 cord-marked sherd, and 10 large chunks of quartz manufacturing debris.

Ash-202 (temporary site number) is an area approximately 90 feet E/W by 150 feet N/S in a plowed field at the confluence of a small creek with the south fork of the New River. Slope angle is 0-5 percent and there has been little or no erosion on the site. Soil on the site is light, micaceous, aeolian sand.

Due to extremely poor visibility and the sparse visible surface scatter, only a general surface collection was made by the 1976 survey. It recovered: 2 quartz flakes; 2 unidentified quartz tools; 1 quartz fragment of scraper or knife; 1 chert fragment; manufacturing debris; 4 chert flakes; 1 unidentified, bifacially-worked chert tool; 4 felsite flakes; 1 unidentified projectile point base; 1 Guilford projectile point; 1 Savannah River projectile point base; 1 felsite backed knife; 25 unidentified sherds; 1 reed-marked body sherd; 2 plain body sherds; 1 fabric-marked body sherd; 4 cord-marked body sherds; and 1 quartz bifacially-worked blade.

Ash-203 (temporary site number) is an open site, consisting of two main concentrations, in a plowed field between the intersections of two creeks with the north fork of the New River. Poor collecting conditions made it impossible to define the limits of the two concentrations precisely, but one is in the central portion of the field, approximately equi-distant from the two creeks, while the other is aligned along the southernmost of the two creeks.

The site was collected by concentration, rather than by transect. In the creek-associated concentration were 1 unfinished quartz Archaic period projectile point, 4 quartz flakes, and 1 historic period stoneware sherd. In the other concentration were 1 hammer or chopping tool, 1 chert unfinished projectile point, and 1 felsite flake.

31Ah88 is in a plowed field approximately 50 feet north of the south fork of the New River. The site measures 60 feet NW/SE by 1200 feet NE/SW. Artifact scatter was very sparse. Slope angle is 10 percent and vegetation consists of cottonwood along the river and white pine on the slopes above. Elevation is 2560-2570 feet AMSL, approximately 10 feet above the river level. Erosion on the site is slight.

Soils on the site are micaceous brown sandy loam. The topsoil layer is 7.5YR4/2 and goes to a depgh of 1.7 feet. It then becomes sandier and more micaceous, 10YR5/6, to 3.5 feet.

A general surface collection of the site yielded 1 Savannah River projectile point, 1 small triangular projectile point, 1 potsherd, and 1 unifacially-retouched chert blade.

31Ah89 is located in an old plowed field 45 feet from the south fork of the New River. It measures 125 feet NW/SE by 62 feet NE/SW. Pasture vegetation surrounds the site and there are cottonwoods along the river-bank. Slope angle was approximately 6 percent and elevation was 2520 feet AMSL. There was no discernible patterning to the artifacts, although poor visibility may have obscured information of this type.

Soil was 10YR3/3, dark brown sandy loam from 0-2 feet, underlain by 7.5YR5/6, strong brown clay loam. A general surface collection of the site recovered 1 broken quartz blade, 1 quartz scraper, 1 quartz flake, 4 chert flakes, and 7 felsite flakes.

31Ah92, the Healing Springs Complex, is the site of the Bromide-Arsenic Springs Hotel, which was reportedly built in 1888 by Captain C. V. Thompson and burned to the ground in one hour in 1962. According to the owners, mineral water was bottled on the property throughout its early history.

The complex now consists of eight cabins, a bathhouse, a springhouse, and the foundations and chimney of the hotel. There is a spring on the property, with an outlet in the springhouse, and a stream runs in front of the hotel and cabins. It is at an elevation of 2600 feet AMSL and is 1800 feet west of the north fork of the New River.

Remains of the hotel include 12 stone foundation piers, three brick central support foundation piers, two groups of concrete slabs, three lengths of terracotta pipe, and three artifact concentrations. Two of the artifact concentrations may have been from ceramic storage areas. The third may have been a collapsed table and the objects on it. At the south end of the hotel ruins is a plank and log footpath leading toward the woods across the stream.

The hotel's chimney is 3.38 feet wide and 5.15 feet long. The concrete piers are 4.4 feet wide and encompass an area 29.7 feet long on the east side and 30.15 feet long on the west side of the hotel. Width appears to be approximately 20 feet.

Artifacts were collected by concentration and included: 2 basal ½ coffee cup with handle, rim bowl sherds; 2 basal rim platter sherds, and 1 basal sherd, all of semiporcelain with embossed scallop rim design, basal mark "Syracuse China-Econo-rim"; 1 basal sherd white semiporcelain, basal mark "Inca ware"; 2 basal rim platter sherds, 1 basal rim bowl sherd, 1 basal rim dessert plate sherd, all of white semiporcelain with red banded rim design; 2 basal sherds and 1 body sherd, white exterior ironstone with badly burned interior; 1 mug basal sherd, white porcelain with green exterior, marked "Made in Japan"; 1 creamer rim sherd, ironstone, fire-blackened interior and exterior, handle broken near rim, banded design above pattern around rim; 1 body sherd and 1 rim sherd pitcher, grey bodies, blue-glazed stoneware with barrel motif; 1 Corningware spouted bowl or pitcher sherd, white with blue cornflower; 1 body sherd red salt-glazed stoneware, exterior burned; 1 bowl basal sherd, white body glaze with green and pink under glazing flower design; 1 cornucopia horn rim, burned semiporcelain, decorative piece; 1 cup basal sherd, burned white semiporcelain with fluted exterior; 1 rim body sherd vase, ironstone; 1 bottle or glass jar basal sherd with clear basal mark, "McKee 7 Bottle Glassbake Pa"; 1 basal sherd of glass tumbler, clear with beaded background and floral pattern on body, flower on base; 1 clear glass body sherd with embossed band with design inside and out; 1 clear glass rim with fluted exterior; 3 badly burned unidentifiable glass fragments; 1 folding metal hinge, similar to card table hinge, with burned glass in hinge.

31Ah93, the John Stringer House, was reported built by E. V. Jenkins for Stringer 65-70 years ago. Remains of the house now include two field rock chimneys 150 feet south of a small creek, at elevation 2760 feet AMSL. The site is presently in pasture land. The house was reportedly oak with oak supports, and had a one-story porch on the north and west and another porch on the south side of the house. Rooms downstairs were 16 feet square with a wide hallway running N/S through the house. An additional 5 by 10 feet room was at the back on the west side. The house dimensions were reportedly 40 feet N/S by 45 feet E/W and it was two-story with an attic and a crimped tin roof. When the house was torn down, within the past ten years, it had never been wired or plumbed.

31Ah94, the Vannoy House, was reportedly built in 1896 as a three-room house. Two field rock chimneys now remain on the site, as well as stone foundations. Some logs are still lying within the foundations,

with some still in place on the stones. The log at the southern end has machine-cut spikes and nails in it. The chimneys are 2.5 feet E/W by 5 feet N/S. The house appears to have been built in two sections. The northern section measures 16 by 34 feet and the northern chimney fall extends 15 feet into the interior. The southern chimney's firebox faces south into the second section of the building, which is ca. 12.5 feet by 17 feet. The three floor joists on this second section are still in place, three feet apart. Chimney rubble is east of the second chimney obscuring part of the foundations. The house is oriented on an axis of S30W.

There is a spring 15 feet from the southwest corner of the house, and a branch running to Nathan's Creek is approximately 300 feet south and southeast of the house. The house's elevation is 2850 feet AMSL, and the site has experienced little erosion. No artifact collection was made.

31Ah95 is in pasture land 400 feet northeast of the south fork of the New River. The site has been extensively collected for many years and has reportedly yielded whole pots in the past but, according to the landowner, has not yielded much in recent years. The site has a slope angle of 11 percent and slight erosion. Elevation is 2620 feet AMSL. Soils are strong brown clay loam, 7.5YR5/6. Vegetation is normal pasture vegetation and young white pines.

The 1976 survey recovered 1 Kirk corner-notched quartz projectile point and 1 quartz scraper.

31Ah96, the Billy Turner House, is a log cabin site 50 feet west of Shatley Springs. The site has been primarily obliterated by recreational and building activities in connection with the Shatley Springs resort. It was reportedly built in 1835 and Ashe County's first Methodist Church was organized there. Elevation is approximately 2840 feet AMSL, and the area is in lawn grasses and pines now.

31Ah97 consists of a standing log house and barn, and a cemetery. The house is made of hand-hewn logs with notched corners and mud chinking. The logs are set 0.25-0.43 feet apart. Hand-cut nails are present, though not used as structural support. The cross beams are no longer in place. It has pole rafters and a slate and tin roof. The house has plank floors with hand-cut, possibly rosehead nails. The house appears to have been built in two sections and faces east. The northern part, measuring 20 by 17 feet, was built first. The southern part was built second and measures 15 by 17 feet. The logs are pegged at the ends. The exterior of the structure is now weatherboarded, and there are field rock chimneys. Sheds have been added on the east and west and it has been modified with plasterboard and wiring.

The barn consists of two log structures, approximately 20 by 20 feet and 15 feet tall, spaced 15 feet apart, with weatherboarding completing the building. Notches used in the construction are pentagonal, and the barn has stone corner foundations.

The cemetery consists of 18 graves with 25 stones. The earliest legible inscription records a death date of 1878, the latest, 1950. Most were in the first quarter of the twentieth century. Some stones were rough-cut field rock with no legible inscriptions. Elevation of the complex is 2800 feet AMSL. The site is on a ridge and is believed by the landowner to be pre-Civil War.

The Francis Site, 31Ah98, is located on the floodplain of the north fork of the New River. The major portion of the site is on the first terrace and is bounded on the south by an unnamed creek. The soils is a yellow brown clay loam, and erosion is slight. The site had been plowed recently when the survey was done.

Dimensions of the site are 345 feet E/W by 500 feet N/S. The nearest water sources are the contiguous creek and the New River, which is ca. 200 feet to the west. Elevation is 2540-2560 feet AMSL, and the slope is ca. 5 degrees, except in the southern half, where it is up to 10 degrees.

A 1969 survey by C. G. Holland identified the site as Ashe-I. He collected predominantly Archaic period artifacts, with some evidence of a later Woodland period occupation. Materials recovered included 1 Ledbetter projectile point or knife, 1 lunate knife, 9 sherds of Grayson Series pottery, 1 Dan River Series sherd, 40 flakes, 1 micro-graver, 1 blade knife, 1 side scraper, and 4 unidentified projectile point fragments.

31Ah98 was collected in 1976 by means of a 210 feet by 10 feet transect down the center of the site. It was oriented at 60 degrees east of north and collected in three 70 feet long segments. Artifacts collected included: 1 Guilford projectile point; 1 Morrow Mountain projectile point; 2 cores; 3 unidentified projectile point fragments; 3 knife fragments; 2 blades; 1 ground stone celt; 13 scrapers; 14 unidentified tools; 125 flakes; 2 net-impressed sherds; 1 incised sherd; and 1 unidentified sherd. The Woodland period materials were concentrated in the southern portion of the site.

31Ah99, the Poe Fishweir, is located on the west side of the south fork of the New River, within the banks of the river, in one leg of a large horseshoe bend. Associated bank vegetation includes yellow buckeyes, wild cherry, and linden. There were freshwater mollusks within the weir and evidence of beaver activity nearby. Associated soils are river gravels, with very micaceous sandy alluvium on the bank. Quartz outcrops are across the river and within 600 feet. The elevation is ca. 2540 feet AMSL. There is a very slight river gradient at this point, and the river is quite shallow, easily fordable by humans.

The V-shaped weir is 120 feet long on the outer leg and 40 feet long on the bank side, which is the west bank of the south fork of the New River. The point of the V is 15 feet from the bank and the end of the longest leg is 55 feet from the west bank and 90 feet from the east bank. The weir is constructed of river cobbles, with the ends of the V pointing upstream. No artifacts were found in association. The

opposite bank has no floodplain and rises steeply to a ridgetop. The weir side has a broad floodplain.

The weir may be associated with the Absher Site, 31Ah101, which is in a large bottomland on the west side of the river about 0.5 mile downstream from the weir. 31Ah101 is a large multi-component aboriginal site.

31Ah100, the Reeves Fishweir, is located on the east side of the south fork of the New River, in one leg of a horseshoe bends, within the banks of the river. Again, the opposite bank has no floodplain, while the weir adjoins a large alluvial plain. This weir may be associated with 31Ah35, which is about 0.25 mile further upstream on the east bank of the river. 31Ah35 is a large bottomland, multi-component site. Observable bank vegetation near the fishweir includes yellow buckeyes, wild cherry, linden, and dogwood. The soils consist of very micaceous alluvium on the bank, and there are quartz outcrops about 500 feet away. Elevation is ca. 2540 feet AMSL and there is a very slight river gradient. No artifacts were found in association.

The weir is built in a semi-circle, the curve measuring 80 feet around, with the two ends of the curve 60 feet apart. It is built of large river cobbles stacked so as to place the open ends of the curve pointing downstream. One end of the semi-circle touches the eastern bank of the south fork of the New River. The curve encompasses about 40 percent of the width of the river at that point.

31Ah101, the Absher Site, is located on the second terrace of the west bank of the south fork of the New River. The site was cultivated during the 1976 survey and evidenced slight erosion. It is on a broad floodplain on the outside of a meander about 0.25 mile from a fishweir construction. Associated vegetation included linden, white walnut, choke cherry, dogwood, and locust. Site dimensions are 400 feet E/W by 200 feet N/S.

The nearest water source is the south fork of the New River, 50 feet east of the site. There are quartz outcrops across the river and upslope. The river here is shallow enough to be easily fordable by humans. A small marshy area is ca. 50 feet from the site, and elevation is ca. 2520 feet AMSL. A small portion of the site slopes 0-20 percent, but most of it is level. Coring on the site strongly suggests deeply stratified cultural remains on the site. Soil is a fine, micaceous sandy silt.

The site was identified by C. G. Holland in 1969 and designated as "Ash-E." His collection included: 1 Clarksville small triangular projectile point; 15 Grayson Series sherds; 2 Dan River sherds; and 10 flakes.

The 1976 survey collected the site by means of a 10-feet-wide transect running through the site at N49W. There was a very sparse scatter of artifacts with one major concentration at the southern end. Artifacts recovered included: 1 Morrow Mountain projectile point fragment; 1 Savannah River projectile point fragment; 1 Guilford

projectile point fragment; 1 chert core fragment; 1 burin; 1 scraper; 1 chopper; 13 flakes; and 13 aboriginal sherds.

31Ah147 is an open site on the second terrace above the south fork of the New River. It was under cultivation at the time of the 1976 survey but surrounded by pasture land. There were dogwood and tulip poplar trees along the river about 100 feet away from the site. Slope angle of the site is 0-10 percent and elevation is 2580 feet AMSL.

The site's dimensions are 85 feet E/W by 195 feet N/S. It is within a large meander of the south fork. Soil is 10YR4/4 dark yellowish brown, fine-grained loam, with slight to moderate erosion. Material was too sparsely scattered to transect, so a general surface collection was made. Recovered were 1 chert flake, 1 retouched chert flake, 2 quartz flakes, 2 retouched flakes, 1 coarse earthenware foot sherd with lead glaze, 1 quartz biface midsection, and 1 chert Kirk serrated projectile point.

31Ah103, the Davis Site, is on the west side of the south fork of the New River in a cultivated field within a horseshoe meander. The site is about 500 feet west of a small stream and its confluence with the south fork. The site is located in bottomlands 100 feet from the river and is surrounded by pasture land vegetation. Slope angle is from 0-9 degrees and the elevation of the site is approximately 2580 feet AMSL. Soils are 10YR4/4 dark yellowish brown fine-grained loam with slight to moderate erosion. Augering indicates a small amount of stratigraphy below the plow zone.

The 1976 survey collection of the site recovered both historic and aboriginal artifacts: 1 ground-stone celt fragment; 2 roughened body sherds; 1 net-impressed body sherd; 1 incised body sherd; 2 punctate body sherds; 1 plain body sherd; 1 projectile point fragment; 12 flakes; 2 ovate bifaces; 1 perforated copper object (historic); 1 porcelain, transfer-print foot sherd; 3 sherds lead-glaze, coarse earthenware; 1 sherd salt-glaze, coarse earthenware; 4 glass fragments; 1 early ironstone rim sherd; 1 transfer-print, early ironstone body sherd; 1 hand-painted, cobalt-glazed early ironstone body sherd. The artifact inventory indicates occupation throughout the Woodland period and into the historic period.

31Ah104, 105, and 106 are three plowed fields on the inside of a horseshoe meander in the south fork of the New River. The three sites lie on the second terrace above the river, in an area of dogwood and tulip poplars with pasture vegetation. There are large quartz cobbles in these fields and evidences of possible quarrying activities for the white quartz. Elevation is 2520-2560 feet AMSL.

31Ah104 is beside a small spring and 100 feet from the river. The site measures 1500 feet N/S by 200 feet E/W. It has a slope angle of 0-10 percent and soils are 5YR4/6 yellowish red clay loam, medium to coarse-grained and moderately organic; 7.5YR4/4 fine-grained dark brown loam; and 10YR3/3 fine-grained dark brown sandy loam. Erosion is slight to moderate. Slope angle was 0-10 percent.

The site was collected in three equal transect segments down the long axis of the site. Each segment was 10 feet wide. The collection included: 4 flakes; 35 quartz flakes; 14 quartz scrapers; 5 bifacially-worked quartz tools; 17 retouched quartz flakes; 2 chert flakes; 5 quartz cores; 1 quartz microblade; 1 felsite core; 1 chert projectile point tip; 3 retouched felsite flakes; 3 bifacially-worked tools; 1 chert St. Alban's B projectile point base; 1 felsite MacCorkle stemmed projectile point; 1 maul; 1 chopper; and 1 blade tip.

31Ah105 is an open site with 100 feet of the south fork. Its dimensions are approximately 1200 feet N/S by 200 feet E/W. Soils were 7.5YR4/4 fine-grained dark brown loam and 5YR4/4 reddish brown clay loam, medium to fine-grained. Slope angle was 5-15 percent and erosion was moderate.

The artifact scatter was too sparse to make a transect collection meaningful on the site, so only a general surface collection was made. It included: 3 Quartz cores; 1 unifacially-worked quartz tool; 2 bifacially-worked quartz tools; 1 felsite Pee Dee triangular projectile point; and 13 quartz flakes.

31Ah106 measures approximately 100 feet NW/SE by 405 feet NE/SW and is 50 feet from the south fork of the New River. It has a slope angle of 5-15 percent and moderate erosion. Soils on the upland 60 percent of the site are a 5YR3/4 medium-grained, dark reddish brown clay loam. On the lower 40 percent of the site, soils are 7.5YR4/4 medium to fine-grained dark brown loam.

The site was transected in three 135-foot sections, each 10 feet wide. Transect was at a bearing of N80E and recovered: 8 quartz scrapers; 14 retouched quartz flakes; 39 quartz flakes; and 14 quartz tools.

Nine rockshelters and one ridgetop site lie along the western side of the ridge surrounded by the northernmost meander of the south fork of the New River at the confluence of the two forks. The rock-shelters occur in one group of six and one isolated pair. The ninth shelter is directly below ridgetop site 31Ah111.

31Ah107-110 and 31Ah90-91 are close together on a WNW-facing escarpment approximately 200 feet from the south fork of the New River, 0.5 mile north of its confluence with the north fork. Within 50-100 feet of the shelters are a springhead and some associated marshy area. Also near the group are shoal areas of the river, where freshwater shellfish are common.

Vegetation associated with the group includes primarily rhododendron and various ferns. Various hardwoods are on the forest floor below the rockshelters and some cedar grow near the upper shelters. The elevations range from approximately 2500 feet to 2560 feet AMSL. Collections were made by doing two overall collections, one inside the driplines and one in front of the shelter up to the break in slope.

31Ah107 is 75 feet long N/S and 20 feet deep E/W with a south to north floor slope of 15 degrees. The shelter is 28 feet high at the tallest point and has smoke blackening on the ceiling. Soils are fine-grained, dark brown organic loam, 10YR3/3 and 10YR3/2 in the Munsell designation. Four-inch bucket auger cores in the floor of the shelter showed significant deposition and indicate a high probability for stratified in situ cultural remains.

Collected within the rockshelter were 16 flakes of felsite, quartz, and chert. In the area just outside of the dripline in front of the rockshelter, 1 triangular Woodland period projectile point, 158 flakes, 5 retouched flakes, and 1 core fragment were recovered.

Aligned at an angle of S60W, 31Ah108 is a rockshelter facing N20-40 degrees W. The ceiling is fire blackened and there is some charcoal evident in the soil. The shelter is 19.5 feet long SW/NE, 14.4 feet deep SE/NW at the deepest point, and 9.7 feet tall. The 1976 survey collected 1 grit-tempered aboriginal sherd, 1 chert core, and 1 quartz flake from inside the shelter. The soil was a black, humic, fine-grained loam, 10YR2.5/1, shading to 10YR3/3. The floor slope is 0-5 percent. It is 150 feet south of 31Ah107.

Rockfall in 31Ah107 made augering difficult but also provides protection for probable stratified deposits underneath.

31Ah109 is situated just above and 10-20 feet south of 31Ah108. It is 10.5 feet in height, 45 feet long N/S, and 10.2 feet deep E/W at its deepest point. A probable hearth is visible in the deepest part of the shelter, containing burnt bone, nutshells, gastropod shells, and fire blackened rock. The shelter ceiling directly above the hearth area is blackened by fire.

The soil at 31Ah109 is a dark brown, fine grained, organic loam, 10YR3/3 in the Munsell system. Rockfall impeded deep coring efforts, but some evidence of stratification was recovered along with the indication of possible deeper soil strata protected by the ceiling fall.

The 1976 collection from the shelter included 1 flake, 11 gastropod shells, 6 nuts, and 1 deer bone.

31Ah110 is just above 31Ah109. It is 30.5 feet long N/S, 10.8 feet tall, and 17.5 feet deep E/W at the deepest point. Materials recovered by the 1976 survey included 1 grit-tempered rim sherd, and 1 deer scapula. It was collected in a 10 feet wide strip from the deepest point in the shelter W60 degrees W to the break in slope in front of the shelter. Soil at 31Ah110 is 10YR3/2, a very dark grayish brown loam with a great deal of organic material.

31Ah90, north and upslope from 31Ah107, yielded 3 flakes and a fragment of burned bone. The shelter is 53 feet in length N/S, 11 feet deep E/W at the deepest point, and 8.2 feet tall. There is a 19 degree slope along the length of the shelter and a 30 percent slope angle downhill in front of the shelter.

There is water seepage in the back part of the rockshelter. Augering showed over 2 feet of stratigraphy before rock was encountered. There may be considerably more depth to the site as this rock may be fall from the ceiling.

31Ah91 is a small shelter, 5 feet high, 5 feet deep, and 22.1 feet long N/S. A great deal of ceiling fall has taken place, obscuring the floor of the shelter and any possible artifactual material. If stratified deposits are present in the site, they should be protected by the slabs of rock fall.

31Ah111 and 112 are a ridgetop site and the rockshelter just below it. 31Ah111 is a small scatter of lithic material on the point of land overlooking the confluence of the north and south forks of the New River.

Dimensions of 31Ah111 are 20 feet N/S by 82 feet E/W and the collection made by the 1976 team included 1 quartz point tip, 1 unidentified tool, and 4 flakes. The site is at elevation 2600 feet AMSL, on an area of 0-5 percent slopes, surrounded by very steep 78 percent downslopes. Soil is a clay loam, and the land is thickly forested in a rhododendron/hardwood mix.

31Ah112, the rockshelter just below, is 19.4 feet in length N/S, 10.4 feet high at its highest point, and 11.3 feet deep E/W. It is aligned at N40 degrees W and faces westerly. The ceiling is smoke blackened, and soils are fine-grained, organic loams, varying from dark brown to brownish yellow (10YR6/6, 10YR3/3, 10YR4/4). The 1976 survey recovered 2 flakes inside the drip line, and outside the drip line 1 scraper, 3 flakes, and 1 small triangular projectile point.

31Ah113 and 114 are about 30 feet from the river and less than 100 feet from a spring. Both have loamy soils with high organic content. They are in rhododendron/hardwood mix forest.

31Ah113 is 22.8 feet long, aligned at N20 degrees E. It is 6.5 feet tall and 4.6 feet deep E/W. One chip and 1 hand chopper were recovered from the site during the 1976 survey. The floor's slope angle is 11 percent, and the angle in front of the shelter is 60 percent. Both 31Ah113 and 31Ah114 face westerly.

31Ah114 is 10.6 feet long, aligned on a N30 degrees E angle. It is 5.8 feet tall and has a depth of 4.5 feet at its deepest point. The floor's slope angle is 9 percent and the slope of the terrain in front of the shelter is 60 percent. Three flakes were recovered from the site by the 1976 survey, within the sheltered area.

Study of this group of shelters would provide an opportunity to gain understanding of the selection factors at work in prehistoric peoples' use of rockshelters. The district includes one unusually large shelter--75 feet in length--and a variety of smaller sizes, all in similar riverine-spring environments. Augering indicates that the rockshelters are, in addition, stratified and have a high probability of possessing an *in situ* artifactual record of prehistoric utilization in this district. The group also contains a ridgetop site in close proximity to the shelters. A comparison of this site with the shelters

could add valuable information to the archeological record concerning whether or not it was occupied simultaneously with the shelter below, at other seasons, or during entirely different cultural periods.

Although artifactual material recovered from these 10 sites is relatively sparse, this is not an indicator of the richness of the sites for two reasons. First, these shelters are frequented by local collectors who have carried off nearly all of the surface materials. Second, the tendency of the gneiss to break off the ceilings of the shelters in thin plates has created a false rock floor in most of the shelters, hiding most evidence of the prehistoric occupation. Although it makes surface collection in the shelters difficult, it has the advantage of protecting the sites from vandalism. Careful removal of this rockfall could reveal excellently preserved sites for scientific investigation.

31Ah115 is an open site on a transitional slope between narrow river bottomland and the low ridge beyond. The site is about 75 feet southeast from the north fork of the New River at an elevation of 2540 feet AMSL. Its dimensions are approximately 200 feet NE/SW by 100 feet NW/SE. The field is presently under cultivation and has slight to moderate erosion. Associated vegetation includes poplar, dogwood, and maple, with planted pines on the uplands behind the site. Soils are 10YR3/2, very fine, very dark grayish brown loam, on the lower parts of the slopes, underlain by an extremely compact, medium-grained yellowish red clay, 5YR5/6.

Material on the site was very sparsely scattered, so only a general surface collection was taken. It included: 3 quartz scrapers; 1 flake; 4 glass fragments; 1 cut nail; 5 ironstone sherds, including 1 foot sherd; 7 pearlware body sherds; 3 pearlware rim sherds; 2 pearlware foot sherds; 1 annual pearlware rim sherd; 1 ironstone foot sherd with transfer print; 1 shell-edged pearlware rim sherd; and 3 coarse earthenware body sherds. A large felsite biface from the site is in the landowner's possession.

31Ah116 is located on the second terrace above the north fork of the New River on a narrow bottomland. It is associated with one permanent spring and one intermittent seep. The river is 50-100 feet northwest of the site. It includes both the bottomland and two knolls rising out of the bottomlands and lies between two small streams near their confluence with the river. The site measures 180 feet NW/SE by 450 feet NE/SW and is at elevation 2540 feet AMSL. The slope angle is 5-15 percent.

Soils on the site, which are moderately eroded, are 10YR3/2, very fine, very dark grayish brown loam with heavy organic matter in the lower parts of the field; 5YR5/5 yellowish red clay, extremely compact and medium-grained on the upper parts of the slope; and 10YR3/1 very dark gray, very organic loam in the swale area between the two knolls. Topsoil on this site is apparently quite shallow. Poplar, dogwood, and maple are the associated trees.

The site was transected in three 135-foot sections, each 10 feet wide. Artifacts included: 1 quartz Roanoke large triangular projectile point; 1 felsite Morrow Mountain projectile point; 1 Savannah River projectile point; 19 felsite flakes; 4 retouched felsite flakes; 9 chert flakes; 2 quartz cores; 7 bifacially-worked quartz tools; 5 unifacially-worked quartz flakes; 14 quartz flakes; 2 retouched quartz flakes; 1 tentatively identified ground quartz vessel rim sherd; 3 unifacially-worked quartz tools; 2 felsite cores; 2 bifacially-worked felsite tools; 5 unifacially-worked felsite flakes; 2 retouched chert flakes; and 1 chert ovate biface. Residents also have in their possession a steatite bowl and a Morrow Mountain projectile point from the site.

31Ah117 lies in a cultivated field on the north side of a permanent spring and 50 feet southeast of the north fork of the New River. The site measures 50 feet E/W by 225 feet N/S. It has a slope angle of 0-5 percent and is moderately to slightly eroded. Elevation is 2540 feet AMSL, and poplar, dogwood, and maple are the main trees near the site.

Soils on the site are primarily 10YR3/3, a fine-grained clay loam which grades to loam as it approaches the river.

The site was collected by means of a transect divided into three 75 by 10 feet segments, at a N/S bearing. Artifacts recovered included: 2 retouched quartz flakes; 4 quartz flakes; 5 felsite flakes; 1 felsite drill; 1 quartz Roanoke large triangular projectile point; 1 felsite core; 2 chert flakes; 2 retouched chert flakes; 2 retouched felsite flakes; and 1 felsite Savannah River projectile point.

31Ah118 is a rockshelter facing west on the inside of a meander in the north fork of the New River. It was 14 feet long and 8 feet deep. It was 7.7 feet high at the dripline. The shelter was 25 feet upslope from the first terrace above the north fork, which was 20 feet wide. It is 100 feet east of the river. The shelter was aligned on a bearing of N70 degrees E. Associated vegetation includes rhododendron, violets, and sweetgum. The shelter had a level floor and was at 2560 feet AMSL. Soil was very dark brown humus.

Although no artifacts were recovered there by the 1976 survey, diagnostic artifacts have been found there by collectors in the past.

31Ah119 is also a rockshelter, part of whose floor is formed by the roof of 31Ah118. It is 10.5 feet long, aligned on a N40 degrees E bearing. It is 3.5 feet deep and 12.7 feet high. It was 100 feet west of the north fork and was associated with primarily rhododendron and sweetgum vegetation. Elevation of 2570 feet AMSL, and the shelter has a level floor. Soil is very humic and slightly eroded. A general surface collection recovered one felsite projectile point tip from the site.

The Lawrence Ham Site, 31Ah120, is a large, multi-component site in a cultivated field on the second terrace of the north fork of the New River. It lies between the natural levee of the second terrace and the steep upslope of the ridge overlooking this long straight segment of the north fork. The site is inaccessible to most vehicles and lies on the west side of the New River. The site measures ca. 1200 feet N/S by 250 feet E/W.

The site lies approximately 50 feet from the north fork of the New River at an elevation of ca. 2540 feet AMSL. The land is quite level where the artifactual material was collected, with no apparent erosion.

Surrounded by pastureland vegetation, the site's soils are 10YR3/2, very dark grayish brown clay loam. The soils were augered to 10 feet and show strong evidence of stratified cultural remains. Results of the augering included one sample from 6.5 feet down which contained a Savannah River projectile point. Such points date from 1000 B.C. to 2000 B.C.

Topsoil on the site is 10YR3/2 very dark grayish brown, fine-grained sandy loam, which goes down 2.25 feet. Below that for a distance of 3.25 feet is 10YR3/3 dark brown, oxidized, clay loam; then 0.4 feet of 10YR4/1 dark gray, sandy, clay loam, heavily oxidized; 0.7 feet of 10YR5/2 silicaceous gray brown clay with no oxidation; 1.0 foot of 10YR4/2 and 10YR5/2 sand, grayish brown clay with some oxidation and 2.5YR5/0 gray sandy clay to the limits of the augering equipment.

The site contains evidence of both aboriginal and historic occupations, with the historic material primarily at the northwestern end of the site. The site contains large amounts of prehistoric debitage, including many large cobbles of various types. The site shows evidence of having been in an area where large cobbles were pulled out of the river for manufacturing purposes.

During the 1976 survey, the site was transected in five 200 feet by 10 feet segments and a general surface collection was made. Artifacts recovered included 1 Savannah River projectile point base, 1 Roanoke large triangular projectile point, 1 Caraway triangular projectile point, 17 flakes, 7 retouched flakes, 3 cores, 2 core fragments, 3 choppers, 3 scrapers, 1 punctated, quartz-tempered sherd, 1 incised, crushed quartz-tempered rim sherd, 6 plain, crushed quartz-tempered body sherds, 1 plain, crushed quartz-tempered rim sherd, 14 crushed, quartz and micaceous, schist-tempered body sherds with indeterminant surface treatment, 3 rim sherds with indeterminant surface treatment and crushed quartz and micaceous schist temper, 1 cord-marked body sherd, crushed quartz-tempered, 1 knotted cord-impressed body sherd with crushed quartz temper, 1 bifacial end scraper, 1 pearlware sherd with potter's mark, 1 bottle bottom, 1 wire nail, 1 porcelain rim sherd, 2 porcelain body sherds, 1 opaque glass jar lid, 1 molded pearlware rim sherd, 1 glass tube, 2 bottle necks, 1 coarse earthenware, salt-glazed body sherd, 1 coarse earthenware, salt-glazed rim sherd, 4

miscellaneous glass fragments, 2 coarse earthenware, lead-glazed body sherds, 1 coarse earthenware rim sherd with cobalt glaze, 1 coarse earthenware body sherd with indeterminant glaze, 1 early ironstone foot sherd, with transfer print, 1 harmonica reed, 3 ironstone body sherds, and 7 window glass fragments.

31Ah121 is an area of pasture and pine forest on the floodplain inside a meander of the north fork. There is a very strong possibility of a buried site here, although only one artifact was found and, therefore, no site dimensions could be established. The site is only 20 feet west of the north fork of the New River and is covered by an extremely silty loam, where the ground could be seen. Elevation is 2540 feet AMSL and slope angle 0-5 percent. One metasediment flake was recovered from the site.

31Ah122, the Robert Phipps Site, is a saddle and ridgetop site now in pastureland. It is situated 100-200 feet above a springhead, approximately 800 feet from an unnamed stream, and 1600 feet from the south fork of the New River. The slope angle is 0-20 percent and the elevation is 2600-2640 feet AMSL. Most of the material is situated in the saddle, with some artifactual remains on the eastern ridgetop.

31Ah123 was a probable historic dwelling site consisting of a fieldstone chimney, mud-mortared up to roof level with handmade bricks above the roof level. The bricks appeared to be of local manufacture, with large chunks of quartz and other local rock in them. Part of the house's foundation was native bedrock outcropping on the site. The natural topographic boundaries and the positions of planted ornamental shrubbery indicate that the house could have been no more than 40 by 45 feet at the most. However, no cornerstones or other foundation remains were present to place a precise size on it. There is a spring 50-75 feet below the house, and the site is approximately 100 feet from a stream, within 1000 feet of its confluence with the south fork of the New River. The land has a 5 percent slope angle and is moderately eroded. It is very stony, with some bedrock showing. The soil, a 10YR3/3 brown loam, is no more than 0.5 feet deep. Elevation is 2720 feet AMSL. Vegetation includes pasture vegetation, blackberries and sumac, as well as introduced ornamentals such as lilacs and roses.

The chimney was 13 feet tall above the foundation--8 feet below the roofline and 5 feet above. It was 3 feet wide across the front and 1.8 feet wide along the side of the chimney. The chimney and fireplace below the roofline are 3 feet wide along the side and 5 feet across the front. The pillar on which the fireplace stands is 6.4 feet across the front and 7.7 feet on the sides. The firebox is 2.5 feet tall by 3 feet wide by 1.5 feet deep.

There is a cemetery on a steep knoll above the site which has hewn granite stones, very small with no inscriptions. A local informant says this was an old slave cemetery not associated with the house. He also says the chimney was from a house built about 40 years ago, which subsequently burned. The only artifacts found on the site, some burned

glass and burned wire nails inside the firebox, could support this contention, although more recent use of the fireplace after the dwelling was abandoned must also be considered. The handmade bricks and the chimney's shape argue for an earlier date. No artifacts were collected.

31Ah124 was an open site just downslope from a high ridgetop. Little could be recorded about this site, as a few artifacts were found around the perimeters of a very thickly planted oat field. It is quite probable that the major portion of the site is inside this field's limits, but the 1976 survey could not have collected the site adequately without destroying crops. The site should definitely be investigated at some point when crop damage would not occur.

It is in a plowed field surrounded primarily by pasture and oak forest. Soil is a moderately eroded brown clay loam. Slope angle is 0-5 percent and elevation is 2800-2840 feet AMSL. The site is approximately 400 feet north of a permanent stream. Two felsite flakes and one felsite ovate biface were collected from the periphery of the field.

31Ah125 was also a thickly planted oat field with artifactual evidence around the perimeters. It, too, should be investigated again at a more opportune time of year. It is within 50 feet of the headwaters of a small stream, on a slope angle of 5-10 percent. Elevation is 2880-2920 feet AMSL, and it is situated on moderately eroded brown clay loam. Vegetation nearby includes red maple, dogwood, locust, various oaks, and pasture vegetation. The site, like 31Ah124, is situated on the sideslope of a ridge.

Artifacts recovered from around the edges of the field were 1 quartz flake, 1 chert flake, 1 felsite flake, 1 unifacially-worked felsite tool, and 2 bifacially-worked felsite tools.

31Ah126 was an extremely unusual site for the area, as it was situated on a very steep, 50-55 percent slope. It was a small, 10 feet in diameter, flake scatter situated in an eroded area within heavy pasture, 100 feet north of an intermittent stream, 1400 feet from the stream's confluence with the south fork. Erosion was severe and soils were 5YR4/6 yellowish red loamy clays. A general surface collection recovered 9 quartz flakes, and 1 unifacially retouched quartz flake.

31Ah127 is a crescent-shaped, ridge-saddle scatter ca. 30 feet NE/SW by 200 feet NW/SE. The site is situated in a cultivated field in an area of pastureland vegetation with some locust and oak. Deer tracks were evident on the site. The site is situated about 800 feet upslope from a springhead, and another springhead is somewhat further away. Elevation is 3040 feet AMSL, and the slope angle is approximately 5 percent.

The soils on the site are 10YR3/3 fine-grained, rocky, somewhat micaceous clay loam, moderately eroded, underlain by a fine-grained 5YR4/6 clay. The soil is about 0.5 feet deep above the clay.

Due to the very sparse surface scatter, only a general surface collection was taken. It included: 1 unifacially-worked quartz flake; 8 felsite flakes; 1 bifacial felsite tool; 2 quartz flakes; 2 unifacially-worked quartz flakes; 2 bifacially-worked quartz tools; 8 felsite flakes; 1 felsite projectile point or blade midsection; 1 chert flake; and 1 chert Kanawha stemmed projectile point fragment.

31Ah128 now consists of a scatter in a farm road, barn lot, and lower cultivated fields near a state road. The site was apparently in the saddle cut by this state road, so that part of it has been destroyed. The farm road and erosion in the cultivated fields have damaged the remaining portion of the site also.

The site is surrounded by pasture vegetation, and there is a springhead approximately 200 feet northwest of the site. Its topographic situation is a low saddle between two high ridges, near the springhead and resulting intermittent stream. Elevation is 2920-3000 feet AMSL, and the slope angle is approximately 8 percent.

Soils are 5YR3/4 dark reddish brown loams, severely eroded. The excessive damage that the site has obviously undergone made a transect virtually useless in collection. A general surface collection recovered: 1 felsite Savannah River projectile point; 2 quartz flakes; 1 chert flake; and 1 broken quartz tool.

31Ah129 is separated from the apparent extent of 31Ah128 by a small sterile area. It, too, has been disturbed by the farm road, as well as by the building of the pond at the old springhead. This site, also, is surrounded by pastureland vegetation, and is 50 feet southeast of the old springhead. It is in a saddle area between two high ridges at elevation 2920-2960 feet AMSL. Slope angle was approximately 6 percent. Soils were severely eroded 5YR3/4 dark reddish brown loam. Dimensions could not be determined, due to the disturbed condition of the site.

Due to the disturbed condition of the site, no transect was made. A general surface collection returned: 3 quartz flakes; 1 chert flake; 8 felsite flakes; 2 worked felsite flakes or unfinished tools; 1 unfinished felsite projectile point; 1 unfinished red chert projectile point or tool; 1 unfinished Archaic projectile point, side-notched with a concave base; and 1 quartz tool.

31Ah130 is on a high ridgetop in a plowed field, measuring 50 feet N/S by 20 feet E/W. It is associated with a small hardwood forest area on the ridgetop, including various oaks, wild cherry, locust, sarvice, sassafras, maple, and dogwood. The nearest visible water source is a springhead and intermittent stream approximately 1000 feet northeast. Elevation is 3080 feet AMSL, and the slope angle is 0-9 percent. Soil is severely eroded 5YR3/4 dark reddish brown loam.

A general surface collection recovered 1 chert core, 1 chert chip, and 1 gem-quality clear quartz possible Palmer projectile point.

31Ah131 is a small, 30 feet N/S by 10 feet E/W scatter on the remnants of the second terrace above the south fork of the New River. The soil there was very mucky and is obviously subject to flooding. The field was plowed and moderately eroded. The site is 50 feet west of the river and 50 feet north of a small springhead. Slope angle is 0-5 percent, and associated vegetation includes locust, lindens, oak, and white pine.

Soils are 10YR4/4 dark yellowish brown sandy loam, underlain by 5YR4/6 reddish brown clay. Two chert flakes and a Randolph complex projectile point were recovered in a general surface collection of the site.

31Ah132 is 50 feet E/W by 390 feet N/S and is situated on the remnants of the second terrace above the south fork of the New River also. It is in a plowed field in narrow bottomlands 50-75 feet west of the river. A gem-quality clear quartz quarrying area is 1500 feet W/NW and a milky quartz quarry 1500 feet W/SW. Elevation is 2520 feet AMSL, and the slope angle is 0-2 percent. Associated vegetation includes locust, linden, willow, and pasture vegetation.

The site was collected by transect in three 130 by 10 feet segments at a bearing of S20E. The artifact inventory included: 1 unidentified aboriginal sherd; 1 historic ironstone rim sherd; 1 chert flake; and 1 unfinished chert projectile point, probably Randolph complex.

The Jones Quarry Site, 31Ah133, is in and on both sides of a farm road and small stream. A large outcrop of milk white quartz is on both sides of the farm road on the west side of the small stream. Evidence of quarrying activity can be seen all around the boulders and in the small streamcut. The elevation is 2620 feet AMSL. The site measures 50 feet N/S and 30 feet E/W. The soil is very rocky 10YR4/4 dark yellowish brown clay loam. Vegetation nearby includes horse chestnut, sumac, and poplar. The area, because of its position and rocky nature, has probably never been under cultivation.

The site was collected by a general surface collection, due to its small size. The collection included: 5 quartz core fragments; 3 quartz flakes; 4 unifacially-worked quartz flakes; 1 bifacially-worked quartz flake, and 2 quartz choppers.

The Crystal Quarry, 31Ah134, is in a saddle area and is an apparent quarrying area for the glass-like, clear gem-quality quartz that is found in artifactual material in the New River area. Presently in a cultivated field, the site is covered with clear quartz tools and debitage. It is ca. 81 feet in diameter.

The saddle area is 100 feet west from the south fork of the New River, 1200 feet south-southwest from the intersection of an intermittent and a permanent stream, and 900 feet north from a small stream. This clear quartz quarry is about 900 feet northwest from the white quartz quarry called the Jones Quarry. Elevation is 2760 feet AMSL.

The site is on a 5 percent slope angle, and soils are a 5YR3/4 dark reddish brown, rocky clay loam, moderately eroded. The quartz is apparently quite near the surface, and quarrying activities were probably primarily digging down to the material.

The 1976 survey collected the site in three 27 feet by 10 feet segments at a bearing of N35E. Materials recovered included (all of clear quartz): 1 scraper; 15 core fragments; 44 flakes; 10 unifacially-worked flakes; and 1 bifacially-worked flake. The landowner has in his possession a Guilford projectile point found in the field.

This area is an apparent quarrying site for subsurface material and could shed invaluable light on the methods prehistoric peoples used in getting to and quarrying the clear quartz. The site could also give information on the techniques for retrieving subsurface material and the manufacturing techniques associated with this glass-like quartz. It is unusually fine material for lithic work, apparently similar in workability to the obsidian found in other parts of North America and prized by prehistoric peoples.

This site would be of particular value studied jointly with nearby 31Ah133, where quarrying activities were from surface outcrops rather than the buried deposits of 31Ah134. The comparisons of the aboriginal quarrying technologies for these two situations, plus other possible comparisons between different time periods' quarrying activities, could return extremely valuable archeological information.

31Ah135 is a scatter of material in a plowed field on the sideslope near the top of a high ridge. Material is sparsely scattered in a roughly circular area 115 feet in diameter. Pasture vegetation, locust, and linden are associated with the ridgetop. The site is 750 feet north of an intermittent stream, 500 feet from a clear quartz quarry, and 1200 feet from a milky quartz quarry. Elevation is 2840-2860 feet AMSL, and the slope angle is 4½-5 percent. Soil is a 5YR3/4 rocky clay loam, dark reddish brown in color. Erosion is moderate.

A general surface collection of the site yielded 4 quartz core fragments, 27 quartz flakes, 6 unifacially-worked quartz flakes, and 2 bifacially-worked quartz tools.

31Ah136 is located on a high ridgetop that is now in thick primary forest growth but was cultivated regularly in the past. The landowner reports that a great deal of artifactual material was found there during the years when it was regularly plowed. It is reportedly a very extensive site, but it was impossible to assign dimensions in the present overgrown state. The site is 1000 feet above the head of an intermittent stream, 1800 feet from a clear quartz quarry, and 1500 feet from a milky quartz quarrying place. Elevation is 3080-3120 feet AMSL and a slope angle is 0-10 percent.

Only small bare spots were found to examine for a surface collection. One broken quartz tool or projectile point was found.

31Ah137 was in a cultivated plot 200 feet from an intermittent stream, 600 feet from a milky quartz quarry, and 1000 feet from a clear quartz quarry. It measured 12 feet in diameter and had locust and linden associated with the low ridge it was situated on. Elevation was 2620 feet AMSL, and slope angle was 5-10 percent. Soil is a 5YR3/4 stony clay loam, and erosion is slight to moderate. A general surface collection of the site recovered 2 quartz flakes, 1 chert flake, and 1 coarse earthenware body sherd with lead glaze.

31Ah138, the Dane Gambill Site, lies on a low, level ridgetop, which slopes sharply away on the sides. The site, presently in forest and pasture, is about 600 feet west of an intermittent stream. The elevation is approximately 2840 feet AMSL.

The site is L-shaped. One linear segment is oriented S80W, measuring 30 feet NW/SE by 225 feet NE/SW. The other segment is 30 feet NE/SW by 225 feet NW/SE, oriented at S25E.

Present vegetation includes oaks, maples, young pines, and wild strawberries and blackberries. The soils are a 7.5YR5/8 strong brown, fine-grained, clay loam.

The landowner reported that a large amount of material, including a stone pipe, had been found on the site in the past when the field was under cultivation. Considering the amount of material recovered by the 1976 survey team in relatively dense ground cover, it seems probable that this site represents extensive occupation.

For collection purposes, 10 feet wide transects were taken down the center of the long axis on each of the two segments. They were collected in 10 feet by 75 feet strips, three on each leg of the angle.

Artifacts recovered included: 2 Morrow Mountain II projectile point bases; 2 core fragments; 9 unifacially-worked flakes; 2 bifacially-worked tools; 2 retouched flakes; and 114 flakes.

31Ah139 is an open site in a plowed field situated on a small saddle beside a spring. It was approximately 30 feet in diameter and had a 0-5 percent slope angle. Elevation was 2680 feet AMSL, and it was surrounded by pastureland. Soils on the site are 7.5YR5/6 clay loam.

A general surface collection on the site returned: 7 quartz flakes; 2 unifacially-worked quartz tools; 3 felsite flakes; 2 felsite ovate bifaces; and 1 chert flake.

31Ah140 is a ridgetop site which measures approximately 100 feet N/S by 50 feet E/W. It is in a plowed field with moderate to severe erosion. It is approximately 300 feet south of a spring and surrounded by pasture-land vegetation. Elevation is 2920 feet AMSL and the slope angle is 0-10 percent. Soil is a 5YR4/6 yellowish red clay.

Artifactual material was collected by general surface collection only because it was extremely sparsely scattered. The inventory included: 10 quartz flakes; 4 unifacially-worked quartz flakes; 1 quartz biface; 1 felsite flake; 2 felsite bifaces; and 1 chert flake.

31Ah141 is situated on a ridgetop and part of a saddle 400 feet above a permanent stream. The material is very scattered and occupies an area approximately 180 feet E/W by 75 feet N/S. It is in a cultivated field, with lindens, oaks, blue spruce, and pastureland vegetation surrounding. Gray squirrel and deer tracks were observed near and in the field. Elevation is 2850 feet AMSL, and the slope angle is 10-13 percent.

Soils are 7.5YR5/6 strong brown clay loam, on the saddle, and 5YR4/6 yellowish red clay on the ridgetop. A general surface collection of the site recovered 13 quartz flakes, 1 unifacially-worked quartz flake, 3 felsite flakes, 1 chert flake, and 2 retouched chert flake.

31Ah142 is in a small cultivated field next to a small stream in a saddle area. The site is associated with lindens and tulip poplars and is 50 feet from a small stream below a high ridge. Elevation is 2780 feet AMSL and the slope angle is 6-11 percent. Deer tracks and gray squirrel were observed in association with the site. Soil is 10YR5/6 yellowish brown sandy loam. Erosion on the site has been slight and it is covered by colluvial wash. There is a very good chance of a buried site here.

There is little material on the surface and most was within a 10-foot circle. Two more flakes were about 20 feet away, making a total scatter of approximately 10 feet NW/SE by 30 feet NE/SW. General surface collection on the site yielded 1 felsite Guilford projectile point, 3 felsite chips, and 1 chert chip.

31Ah143 is located in a cultivated field on a low ridgetop in an area of linden, locust, and cedar trees. The headwaters of a small stream are 1000 feet W/NW of the site, downslope, and slope angle is 0-5 percent. Elevation is 2920 feet AMSL.

The site was collected by transect at a bearing of N67W, in three equal segments 10 feet wide. Recovered were: 19 quartz flakes; 2 unifacial quartz scrapers; 9 felsite flakes; 6 chert flakes; 3 unifacially-worked quartz flakes; 1 quartz biface; 1 retouched felsite flake; 1 quartz Savannah River projectile point; and 1 unidentified felsite projectile point tip.

31Ah144 is situated in a plowed field south of the mouth of a large creek along a horseshoe bend in the south fork of the New River. It is between the creek and a small intermittent stream, 200 feet from each and 50 feet from the river. Elevation is 2680-2720 feet AMSL, and erosion is moderate. It is an aboriginal site that has been worked extensively by local collectors. No collection was made by the 1976 survey.

ARTIFACT ANALYSIS

Introduction

In order to satisfy the primary obligation of gathering and publishing data necessary for realistic archeological resource management of the area once threatened by the Revised Blue Ridge Project and still by the development that may well attend the "Wild and Scenic River" designation, it has been necessary to publish this report before much of the most important archeological data is available.

The lithic material typology in this report is based on field laboratory classification done by the survey crew members under severe time and laboratory limitations. On the basis of a general review of the materials and a preliminary comparison with type descriptions, the classifications appear to be accurate. Although some fine details may change, it is probable that more intensive study of the materials will merely clarify and not alter substantially the general picture obtained from the field analysis.

Projectile Point Inventory

The sample of land inspected by this survey was admittedly small--just over 25 percent of the primary impact area and no more than 5 percent of the combined primary and secondary impact zone of the Revised Blue Ridge Project. The survey covered a wide range of the available topographic situations in the area and recovered 225 identifiable diagnostic points and 48 presently unidentified points, which after intensive analysis may yield more information. It was felt that, with this quantity of data, there might be some utility in attempting to construct locational models for each of the projectile point types identified in the New River Survey. For the overall analysis, all sites containing examples of each given projectile point type were isolated in one group. Their topographic characteristics were then considered for possible regularities in settlement patterns within each projectile point type.

The projectile point inventory from the 163 sites collected by the 1976 New River Survey includes types from the Uwharrie area and Halifax area sequences identified by Joffre L. Coe (1964), types identified by C. G. Holland from south-western Virginia, types similar to those at Bettye J. Broyles' St. Alban's site, a component from Thomas M. N. Lewis and Madeline Kneberg Lewis' Eva Site (1961), a type identified by Keel in the southern North Carolina mountains, a type not previously reported any nearer to North Carolina than Ohio, and five examples of a type not identified before in the archeological literature. These points extend over the full range of mankind's known existence in the New World, from possible Paleo-Indian manifestations up to the period of Indian contact with colonial peoples.

Coe's Uwharrie area sequence (Coe 1964:121) is more fully represented than any other on the surfaces of the sites along the New River. During the 1976 survey of the New River valley, projectile points were found falling within the range of variation of all of the thirteen types of the sequence. Although they were represented, there were four or fewer examples each of the Hardaway, Stanly, Badin, and Pee Dee types.

Coe's shorter Halifax area sequence is much weaker, as one would expect, given the New River valley's greater distance from the type-site, but there were six examples of the Halifax type and two probable Gaston points found in the valley. Clements and Vincent types were either missing or blended in with the Roanoke Large Triangular type. The two probable Gaston type points could also represent Clarksville Small Triangular points which are below the size variation range suggested by Coe (1964:112).

The New River inventory also includes types from Holland's southwestern Virginia sequence (1970). The Cache Diagonal-Notched and Big Sandy Side-Notched types are missing, replaced by the Kirk series known from the Carolina Piedmont. The Wheeler Incurvate type which predates the Hardaway type was not found either, though the general surface rarity of these earlier types indicates that negative evidence is probably dangerous here and they could be present in the valley.

Lamoka, Saratoga, and Ledbetter, Late Archaic manifestations in Virginia, were also absent from the New River inventory. As in the Piedmont of North Carolina, the sequence seems to go from Halifax straight to a very large Savannah River component. The Savannah River type seems to be a rounded-based New River variant, but it lacks the assymetry of the Ledbetter type and the early general knife-like configuration. Lamoka, Saratoga, Riverton, and Merom types are absent as well. From the Early Woodland period, there are examples of the Upper Valley Side-notched and the Bradley Spike types. Perkiomen and Potts types were not found in the 1976 survey, nor was the Middle Woodland Lowe type.

In looking at the Middle Woodland sequence in the valley, there are eight projectile points that fit within the ranges of variation for Coe's Yadkin type (Coe 1964:45) or Holland's Levanna Triangular (Holland 1970:88). The descriptions given for the two types lead to the conclusion that they are in fact the same types and that this type does exist in the New River valley.

Coe's Uwharrie type (Coe 1964:49) and Holland's Hamilton (Holland 1970:87) likewise seem to be the same type, and New River examples fit within the range of variation for both. Holland suggests that the Hamilton styles probably entered southwestern Virginia from the Tennessee area (Holland 1970:93). The similarity or identity of the type with Uwharries could also suggest either that this postulated influence found its way down into the Carolina piedmont as well, or that the influence was working from east to west instead.

It is conjectural whether or not the Madison Triangular was present. Nothing was collected fitting the precise variation range of the type. As was previously noted, the two examples tentatively typed as Gastons could represent Madison or Clarksville types of a size somewhat smaller than any noted when the type was originally identified. Clarksville Small Triangulars were relatively common in the valley in half the numbers of the Pee Dee and Caraway, which are from a similar range in the piedmont time scale.

A small component of the valley's inventory included a series similar to that identified at the St. Alban's Site in the upper Kanawha Valley as dating from about 7000 to 6000 B.C. The Kirk sequence present in the North Carolina Piedmont was also identified at the St. Alban's site and was present in numerous examples at the New River sites. At St. Alban's it was followed in sequence by a small variety of Kirk (not noted by Coe), the MacCorkle Stemmed, St. Albans A and B, LeCroy, and Kanawha. The surface collection within the New River valley yielded the small Kirk, the MacCorkle, St. Alban's A and B, and Kanawha.

Lewis and Lewis's 3-mile component of the Eva site contained two projectile point types, the Morrow Mountain I and the Eva II. Both of these types were found in surface collections returned by this survey. Kirk Serrated, as defined by Coe, occurred in both the Eva sequence and in the New River collections.

Besides these general sequences, there were three other isolated identifiable types in the 1976 collection from the New River. The survey recovered one Pigeon side-notched projectile point, originally identified by Keel in the southwestern North Carolina Appalachian Mountains. One Table Rock-type projectile point, heretofore reported no nearer to North Carolina than Ohio and Indiana, was also found in the valley. Past identifications of the type on sites in Wisconsin, Michigan, Iowa, Illinois, Ohio, Indiana, Missouri, northern Arkansas, eastern Kansas, and northeastern Oklahoma (Perino 1970:96) suggest a broad distribution of the type on the tributaries of the Mississippi and the Ohio. The find on the New River would fit with such a pattern.

A previously unidentified projectile point type occurred four times in the surface collections of the 1976 New River Survey. Its base is similar to that of a Kirk corner-notched, and there is some possibility that it is, in fact, a reworked Kirk. It is most distinctive in its short, rounded blade and is very broad for its length. It is called New River I and has corner notching and, in three cases, is or was eared. The fourth, New River II, is unusual in two ways, although it is within the size variation and has the characteristic blade shape. First, it is worked from a flake and is plainly not a reworked version of a broken projectile point. It is also not eared, and there is no possibility of broken-off ears. The edge is carefully pressure-flaked. The four range in length from 24 to 48 millimeters and in width from 23 to 37 millimeters. The length-width ratio for the blade portion is from 2:3 to 1:1. One of the New River I types was an extremely fine-grained chalcedony, one was felsite, and another was chert. The New River II was chert.

Also represented three times in the New River collections is a long, narrow, lanceolate projectile point with no fluting and a flaring base. It strongly resembles the Guilford type identified by Coe, but its base has slight ears which flare beyond the range of variation identified for Guilford. Given this basal configuration, these three resemble Cumberland types, of which occasional thin examples lack the flute (Bell 1960:22). The examples do have the distinct median ridge associated with the Cumberland type (Bell 1960:22), but the incurved base shows only minor grinding, unusual for either Guilford or Cumberland. The size of the three could fit into either the Guilford or Cumberland range, but the relatively coarse-grained felsite of which they are made is very common to the Guilford period in North Carolina.

Clearly, no conclusions can be drawn from a handful of surface finds. It is hoped that excavations in the New River valley will be able to shed some light on this unusual type's place in the cultural sequence. If this find does represent a variant of the Cumberland type, it would be the only clear evidence of Paleo-Indian occupation found by the 1976 New River Survey. A large broken blade of agate was also found by the survey. The material and overall very high quality workmanship of this blade suggest a possible Paleo-Indian or Early Archaic time framework. The blade is very finely finished, has a slight median ridge on one side, and appears to have been manufactured by taking off long flakes running from either edge toward the median ridge in a diagonal distal-to-proximal direction. The edge is slightly serrated. Without the missing base, however, it is impossible to come to any firm conclusions as to its time frame.

Locational Models for Projectile Point Types

The quantity and type of data yielded by the survey dictates locational models for each of the projectile point types identified by the survey as a format useable by other professionals. For additional ease in use, the types are arranged in a rough time sequence from the Paleo-Indian to most recent. Although, as mentioned earlier, the possible Cumberland type points are considered to be a probable mountain variant of the Guilford, the possibility of a Paleo-Indian origin for the three is still extant, as well as for the agate blade. In view of this possibility and for the sake of argument, a separate model, given below, has been constructed on the basis of the locations of these four.

Paleo-Indian Manifestations

All four Cumberland or variant Guilford types were located on the second terrace above the New River, next to springs or a small permanent stream within 10 feet elevation rise above the river and within 100 feet of the river itself. Two of the four were near known quartz-quarrying areas, and one was near a source for felsites. Three of the four were beside permanent wetland areas associated with springs and near the river. The fourth was at a small permanent stream's confluence with the river. Absolute elevations were within a 2440-2600 feet AMSL range, the difference dictated apparently by the sites' second terrace positions at various points along this mountain river's long gentle gradient. Site slope angles are all 5 percent or less. All are on floodplains directly across the river from steep slopes with no floodplain.

Of the four sites, 31A182 and 31A183 are near one another in one large, broad floodplain in a huge meander of the river, probably the largest continuous flat area in the primary impact area. The variety of materials found in the seven concentrations on this bottomland was immense, encompassing a continuum that goes back at least to the Palmer period (ca. 6500 B.C.) and continues unbroken up through the Historic period. Ash-202 (temporary site number) was also within a large floodplain meander, and 31Ah38 was on a straight segment of the New.

In considering possible Paleo-Indian manifestations in the New River valley, a fifth area should be mentioned. On the surface of a large bottomland at the confluence of the south fork and a major floodplain-producing creek within the area to be flooded, a collector recently reportedly found a Clovis projectile point, definitely from the Paleo-Indian period. According to the landowner, the collector visited the field after a fifteen feet deep drainage ditch had been dug, and the backdirt spread over the rest of the field. The bottomland from which the find was reported fits into the general model just advanced, except for one detail. It adds the major stream to the river-spring configuration.

Hardaway-Dalton

Two Hardaway-Dalton projectile points were found during the survey on sites 31A160 and A11-127 (temporary number). Coe dates this type ca. 8000 B.C. (Coe 1964:121). Both were on the second terrace above the river within 10 feet elevation. 31A160 was within 50 feet of the river and by a small stream. A11-127 was 600 feet from the river and 150 feet from a major floodplain-producing stream. 31A160 was situated by a marshy area; A11-127 was approximately 200 feet from permanent wetlands.

Palmer

In the course of the survey, a total of 15 Palmer projectile points, dated by Coe ca. 6500 B.C., were found on seven different sites. Nine of the examples were on one site, 31A185, and each of the other sites had only one example.

Three of the sites, including 31A185, were on high ridgetops 400-1000 feet from the nearest permanent water source, which in all cases was a small spring or stream. In only one of the seven cases was there more than one potential water source nearby, an unusual situation for the sites in this well-watered area. In only three was the river within 1000 feet of the site. This apparent orientation toward the small streams and away from the river is unusual for the area and is certainly worthy of note. It may also be explained by the tendency of erosion to occur down to the Palmer levels on the hills and by deposition burying possible Palmer materials near the river.

One of the sites was in a creek hollow situation, again far from the river. Two were within 60 feet of the river but not near any stream confluences or springs, and the seventh was in the most common overall New River site position, beside a small creek's confluence with the river.

In respect to elevation above a water source, there are two definite groupings. Four sites are within 20 feet above a source of potable water. Three are in a range from 80 to 160 feet higher than any presently operative source. The same grouping applies in actual distance from water. Four sites are 0-100 feet from water. The other three are 400-1000 feet away from a source. The site with 9 Palmer types is in the higher, further from water group.

Slope angles range up to 10 percent on six of the seven sites, slightly more than the 0-5 percent that is common in the overall New River pattern. This, again, could be culturally significant or could be a function of erosional tendencies and the presumed depth of Palmer deposits.

In general, the sites where Palmer types have been identified are in less versatile environments than most of the sites located along the New River. Rather than having the diversity of river and stream, river-spring-stream, and/or river-spring econiche available for exploitation, these sites usually had only the river, or only a stream, or only a spring. These locations seem to be designed to take intensive advantage of more limited zones rather than allowing several different zones to be exploited from one habitation site. The two distinct site types suggest subsistence strategies that involved full exploitation of the highlands by one part of the population at one time of year and utilization of resources near the river at another time or by another segment of the population.

Kirk

Kirk type projectile points, ca. 6200 B.C. (Coe 1964:121), were found on eleven different sites along the New River. Seven were located on the second terrace above the New River, within 100 feet of the river and within 20 feet above it. The other four were ridgetop sites, three of which were more than 1000 feet from the river and probably had no subsistence association with it. They vary from 40 to 160 feet above water and from 400 to 1200 feet away from the nearest water. The fourth is a low ridgetop site (31Ah95) 400 feet from the river and 100 feet in elevation above it. No other permanent water source is presently visible nearer to this site than the river.

Four of the sites are near quartz quarrying areas, and quartz Kirks were recovered by the survey. Six of the seven floodplain sites were also near permanent wetland areas. Slope angle range is quite varied on Kirk sites, ranging from the 0-5 percent slopes of the floodplains to a 15-35 percent range found on 31A169. Three of the sites have slope angle ranging to more than 10 percent. Two of these are high ridgetop sites, and the other is a low ridge site near the river.

In terms of absolute elevation above mean sea level, the Kirk type occupations are grouped neatly into a cluster of four sites between 2390-2440 feet AMSL and a second group of seven sites between 2560-2720 feet AMSL. Sites are not located in the 120 feet separating the two groups. In a mountain environment, where some species cannot live above (or below) certain prescribed elevation levels and where elevations can moderate the severity of winter storms, this marked duality may possibly be culturally significant. It may represent seasonal shifts in population for any of a number of subsistence resource reasons.

New River I and II

The New River I and II types differentiated in this survey collection cannot, of course, be assigned a place in the time sequence on the evidence of the surface survey. Their Kirk-like, corner-notched, basal configuration, however, and the possibility that these are reworked or variant Kirk types make it possibly fruitful to enter them at this point in the discussion of the locations for various Archaic period types.

One of the four examples of this short-blade type is on a site that yielded 43 projectile points, ranging from Palmer through Yadkin types. The location of the New River and the Kirk on this one site is certainly shaky evidence for placing the New River within the Kirk range. Also, all five of the Kirks recovered from this site are Kirk stemmed, as opposed to the Kirk corner-notched variety which the New River type most closely resembles.

The New River I, an eared type, seems to be oriented toward the river floodplain. All three examples are from within 200 feet of the river, two on low second terraces and one on an upland concentration of 31Ah35. The first terrace example is from high on the first terrace at an area not associated with any other water source. The other two examples are from 31Ah87 and 31A178, both of which sites are by small, permanent spring-fed streams at their confluences with the river. They are also both near marshy areas caused by the springs. Slope angle of the second terrace pair is 0-5 percent, and the slope angle of the first terrace example is 3-8 percent. This latter site is also very near large outcroppings of milky quartz, although none of the New River type points are made of this material.

The long New River II type, earless unlike the other three, was found on a site with a very different topographic setting. 31A185, where it is from, is a high ridgetop site 80-100 feet above and 400 feet distant from the nearest water source. It is on a 5-10 percent slope angle and is near a known quartz quarrying area.

Although 31A185 is the only high ridgetop site represented in this group, its considerable distance downstream from the others allows it to remain within the general elevation range occupied by the others, 2600-2720 feet AMSL. In respect to absolute elevation, the unusual occurrence is one of the second-terrace sites, which lies 2400-2440 feet AMSL in one of the furthest downstream meanders within the study area.

MacCorkle Stemmed

Following the Kirk tradition on Bettye Broyles's St. Alban's Site is the MacCorkle Stemmed type, for which she sets a date of ca. 6850-6750 B.C. (Broyles 1971:71). One example of this type was recovered at 31Ah104 during the New River Survey. This is a second terrace position site 100 feet from the river and by a small spring. It has a slope angle of 0-10 percent, and the elevation is 2520-2560 feet AMSL. It also appears to have been an aboriginal quarrying area for milky quartz.

St. Alban's

In the St. Alban's sequence, the St. Alban's type itself follows the MacCorkle Stemmed. The St. Alban's type occurred on 31A186, a ridgetop site, and 31Ah104, the site just discussed in respect to the MacCorkle Stemmed point. The two site locations have in common only their sandy loam soils and 0-10 percent slope angles. 31A186 is 120-160 feet above and 1200 feet away from its nearest water source, a small stream. 31A104 is 0-10 feet above and right beside its nearest water source, a spring. It is also within 100 feet of the river.

Kanawha Stemmed

Kanawha Stemmed is next in the St. Alban's sequence and is represented twice in the collections from the New River valley. They are from two sites on high ridges 80-100 feet in elevation above the nearest water source. 31A185 is 400 feet from the stream, and 31Ah127 is 800 feet from its stream source. Slope angles are 5-10 percent for both sites, and they are situated so that the river would be of little immediate utility. 31Ah127 is 4400 feet from the river, and 31A185 is 1700 feet away, a large portion of which is a very steep and difficult climb.

Stanly

Four examples of the type designated by Coe as Stanly and given an approximate date range of 6000-5000 B.C. were found in the valley. All were in second terrace positions within 20 feet above the river and 100 feet of a constant water source. Only one site, 31Ah86, is more than 100 feet from the river itself, and this was recorded as 500 feet from the river. Survey personnel, however, also noted that ground visibility was very poor and that the site may extend closer to the river. The Stanly projectile point was found nearer the river than any of the other artifacts, which were primarily Woodland period pottery. Three of the sites, 31Ah86, 87, and 105, were near a small spring or stream and attendant marshy areas. The fourth site, 31Ah34, was nearer the river than the others, only 40 feet away. 31Ah105 appeared to be a quartz-quarrying area. None of the other sites were near presently known quarries.

Morrow Mountain

Forty-five projectile points of the Morrow Mountain type were recovered in the 1976 survey, of which 4 were Morrow Mountain I, 34 were Morrow Mountain II, and 7 were unclassifiable into sub-type. Coe dates the Morrow Mountain type in the 3500-5000 B.C. range. Morrow Mountain also appears on the Eva Site, where Lewis and Lewis date it at 4000-2000 B.C.

The examples from this survey show that there appears to be no significant difference between Morrow Mountain I and II in locational utilization. In all cases, Morrow Mountain II has a somewhat larger range of variation, but this may be simply because there was a larger group of examples to work with. There may, however, actually be a population increase represented by the 850 percent larger sample of Morrow Mountain II. If so, it is quite logical that population pressure would enlarge the bounds within which habitation would be considered feasible.

There are two general groups of site types, both in Morrow Mountain I and II. The first and largest group falls within 100 feet of a water source and within 29 feet elevation above it. The second, a much smaller group of sites, is 400-1200 feet from water and 90-150 feet above it. Absolute elevations range from 2400 to 2880 feet AMSL. Two of the Morrow Mountain I sites are near known quartz quarrying sites. Five of the 17 Morrow Mountain II sites are near quartz quarries.

All of the Morrow Mountain I sites have slope angles of 10 percent or less. Three are associated with a riverine environment and the fourth with a high ridge-stream headwater situation. The Morrow Mountain II sites have slope angles ranging up to 13 percent. Of these, 13 sites are riverine locations, and three are ridgetop. Again, approximately a quarter of the sites are highland locations.

Guilford

The New River Survey recovered 21 Guilford projectile points from sixteen sites. They are similar to the type identified by Coe in 1964 and placed by him in a date range of ca. 4000 B.C. (Coe 1964:44). All of the examples were within 100 feet of a constant water source except one, which was 400 feet from a springhead. The sites fell into two different groups in respect to their elevation above water. Five sites were 80-160 feet above a water source, while eleven were within 22 feet above water. In terms of absolute elevation, the sites were fairly evenly distributed from 2440 to 2760 feet AMSL.

Eight of the sites were on river terraces within 250 feet of the river. The other nine were associated with smaller streams and situated on ridgetops and saddles away from the river. Quartz quarries were associated with four of the terraces and four ridge-saddle sites. Quartz Guilfords were recovered by the survey, and it seems quite probable that some at least of these quarrying sites were in use in the Guilford period. The only diagnostic artifact from 31Ah134, a glass-like, gem-quality quartz quarry, was of the Guilford type.

Eva II

One example of an Eva II type, as identified at the Eva Site by Lewis and Lewis and dated at 4000-2000 B.C. (Lewis and Lewis n.d.:173), was recovered from 31Ah36, a second terrace site 60 feet from the north fork of the New River. The site is situated at 2550 feet AMSL and is 10-12 feet above the river level. There is no stream or spring nearby, and the slope angle is 10 percent. Soils are light silt loams. Noteworthy is the fact that the Eva Site's Three-Mile Component had two diagnostic types, Eva II and Morrow Mountain I, and that 31Ah36 contains both Eva II and Morrow Mountain I material.

Halifax

Six Halifax type projectile points were found on six New River sites. Coe suggests a date of ca. 3484 B.C. for this type at the Gaston Site (Coe 1964:123). Four of the sites were in river-stream confluence situations, and the other two are on ridges near streams. All slope angles were within 0-5 percent, and the absolute elevations were fairly evenly distributed from 2400 to 2640 feet AMSL.

Of the four river-stream confluence sites, two are set back about 500 feet from the river and may be oriented more toward the streams, which in each case are within 100 feet. The two ridge sites are not entirely similar situations. One is in a high creek hollow within 500 feet of the creek, and the other is on an exposed ridgetop about 700 feet from a creek hollow and stream's headwaters. This latter site is 80-120 feet above the water source, while the creek hollow site is within ten feet above the water. In general, the Halifax sites show a great deal of variety in the types of areas being chosen for habitation.

Bradley Spike

One Bradley Spike type projectile was found on 31A185, the high ridgetop site with the most varied sequence found on the survey. It is classed as an Early Woodland point by Holland (Holland 1971:93) and has a date posited at 2000 B.C. by Cambron and Hulse (Cambron and Hulse 1969:15). The site at which it was found is at 2680-2720 feet AMSL and 80-100 feet above and 400 feet from the nearest water source.

Table Rock

One unusual projectile point, tentatively classified as a Table Rock, was recovered from 31A178, a broad floodplain site on the second terrace above the main stem of the New. The site is within 100 feet of the river and is 400 feet from a marshy area. It is also next to a small spring. Slope angle is 0-5 percent and the absolute elevation is 2400-2440 feet AMSL.

Savannah River

Savannah River was the projectile point type represented by the largest numbers in the New River collections. There were 41 examples occurring on 26 sites. One of the specimens was the small variety described by Coe (Coe 1964:110).

Twenty-three of these sites occurred within 100 feet of a constant water source. The other three sites, 31A185, 31Ah143, and 31Ah128, are ridgetop sites far from the river and range from 200 to 1000 feet from a water source. Twenty of the sites situated very near water were on river terraces, fourteen on the second terrace and six on the first. The twenty-three sites within 100 feet of water were all within 20 feet elevation above the source. The other three ranged from 60 to 120 feet higher than the level of the nearest water. Fifteen sites were within reach of both river and stream resources, one near only the river and eight near only a stream or spring and well away from the river.

Absolute elevations in general ranged from 2360 to 2720 feet AMSL, with a small cluster of two sites from 2920-3000 feet AMSL. These two sites, 31Ah128 and 31Ah143, may represent small specialized upland camps associated with the exploitation of some specific subsistence resource.

Fourteen of the sites have slope angles of 5 percent or less. Six are between 5 and 10 percent, and three range up to 20 percent. Five of the sites are near known quartz or felsite quarrying areas. Nine are near permanent wetland areas.

Pigeon Side-Notched

Only one example of the Pigeon Side-Notched projectile point type was found on the survey. Keel, who identified the type (Keel 1976) estimates a date for the type at 300 B.C. to 200 A.D. The New River Survey example was found on the ubiquitous 31A185, a high ridgetop site at 2680-2720 feet AMSL, 80-100 feet above and 400 feet away from the nearest water source.

Badin

Only three examples of the Badin projectile point type were found on the New River, two on 31A182 and one on 31Ah73. Both sites are on the second terrace above the river and within 150 feet of a permanent water source. Elevation on both sites is within 10 feet above water level, and there are marshy areas within exploitation distance of both sites. Coe suggests dates of ca. 500 B.C.-500 A.D. for the Badin type (Coe 1964:121).

Yadkin-Levanna

Eight projectile points fitting into the type descriptions of the Yadkin in North Carolina and the Levanna in Virginia were recovered from eight sites in the valley. All sites except for one, 31A185, are within 100 feet of a water source, and five are within 100 feet of both a stream source and the river. Two, 31A179 and 31Ah52, are near a stream but 500 feet or more from the river. 31A185 is 400 feet from and 80-100 feet in elevation above the nearest water.

Absolute elevations range from 2440 to 2720 feet AMSL in the Yadkin-Levanna sites. 31Ah52 and 31A185 have no pottery associated with them and may thus be satellite camps used in pursuit of some specific resource rather than as base-camp habitations. 31Ah52 is a rockshelter and may also be associated directly with a small floodplain site nearby which yielded one aboriginal sherd.

Roanoke Large

Fifteen examples of the Roanoke Large triangular projectile point were found on 13 sites along the New River. Coe associates this type point with the Clements-Vincent period, ca. 500-1600 A.D. (Coe 1964:111, 119). Ten sites on which they were found were on the second terrace above the river, two were on the first terrace, and the thirteenth was a rockshelter associated with the second terrace. All were within 20 feet above the river level, and all but one also had a small stream, spring, or seep nearby.

Eight sites had a slope angle of 0-5 percent, two were within 5-10 percent, and three ranged up to a 15 percent slope angle. Elevations ranged from 2400 to 2600 feet AMSL, with the majority of the sites clustering around 2540 feet AMSL. Sites were usually next to a stream and about 100 feet from the river. No site was more than 100 feet from a source of permanent water. Only one of the thirteen was associated with quarrying activities. 31Ah105 was an apparent quarrying place for milky quartz.

Uwharrie-Hamilton

The Uwharrie type is part of Coe's Uwharrie-Caraway tradition (Coe 1964:40) and seems to be the same type as Holland's Hamilton (Holland 1970:87). Coe suggests a date of 1400-1500 A.D. Nine were found during the New River Survey on six different sites. All of the sites are on river terraces, four on the second terrace, and two on the first. All are within 20 feet above the nearest water source and within 100 feet away from it. All but one are associated with both the river and a stream or spring. Slope angles fall within the 0-8 percent range. Three sites are near permanent wetland areas.

Pee Dee

Three probable Pee Dee type projectile points were found on three different sites. Coe dates this type after 1500 A.D. (Coe 1964:124). The three sites were all in river terrace locations, two with associated pottery. They are all within 20 feet above a water source. 31Ah105 and 31A184, the two sites on which pottery was found, are near permanent marshy areas, but 31Ah32 is not. Slope angles range from 5 to 15 percent. This is slightly more acute than the average New River site.

In absolute elevation, all sites are between 2400-2560 feet AMSL.

Clarksville

The Clarksville small projectile point occurs seven times in the New River Collections. Coe gives dates of 1586-1741 A.D. for Clarksville points (Holland 1970). The survey specimens were from five sites all very near the river. The sites, which are fairly evenly distributed along the continuum, are within 15 feet elevation above the river and fall between 2400-2720 feet AMSL actual elevation. All sites are within 60 feet of some water source. Four of the five sites have both stream and river resources nearby. Three are within easy range for exploitation of marshy resources.

Caraway

Ten examples of the Caraway type, which Coe identified as a Historic period type (Coe 1964:49), came from seven sites in the New River valley. All are from second terrace sites which are within 20 feet above water and within 100 feet from it. Only two sites are more than 500 feet from a stream water source in addition to the river. The slope angles range between 0 and 5 percent on five of the sites and up to 15 percent on two.

Gaston

The survey located only two possible Gaston type examples. Both are from sites on the second terrace of the river within 100 feet of water and 10 feet above the nearest source. Both sites are by marshy areas and are situated on silty clay loam soils. The slope angles are 0-5 percent. Coe set the time period for the Gaston at ca. 1700 A.D.

Randolph

Two Randolph Complex projectile points were found by the survey. This type dates from ca. 1725-1800 A.D. (Coe 1964:50). One of the examples was found at 31A182 on the second terrace above the river. The other was from 31A187, a creek hollow. Both were within 50 feet of water and within 10 feet above it. Interestingly, the Randolph period peoples had maintained the distance from and above water characteristic of precontact Woodland groups, though they had been forced out of the wide floodplains and onto a very narrow and poorly-drained part of the river floodplain in one case and a narrow creek floodplain in the other. Neither site is considered good farmland today by modern farmers, while earlier Woodland occupations were what is now prime agricultural land in the valley.

Figure 5. Point types found in the New River survey: (a) Roanoke Large, 31A179; (b) Savannah River, 31A179; (c) Bradley Spike, 31A185; (d) Clarksville, 31Ah36; (e) Stanly, 31Ah86; (f) Morrow Mountain II, 31Ah116; (g) Morrow Mountain I, 31A185; (h) Palmer, 31A185; and (i) Palmer, 31Ah36 (not to scale)

Figure 6. Point types found in the New River survey: (a) Uwharrie, 31Ah35; (b) Pee Dee, 31Ah85; (c) Yadkin, 31A179; (d) Kirk, 31Ah95; (e) McCorkle, 31Ah104; (f) Guilford, 31A186; (g) Kirk Drill; (h) Badin, 31A182; (i) Caraway, 31Ah82; (j) Eva, 31Ah36; and (k) Halifax, 31A169 (not to scale)

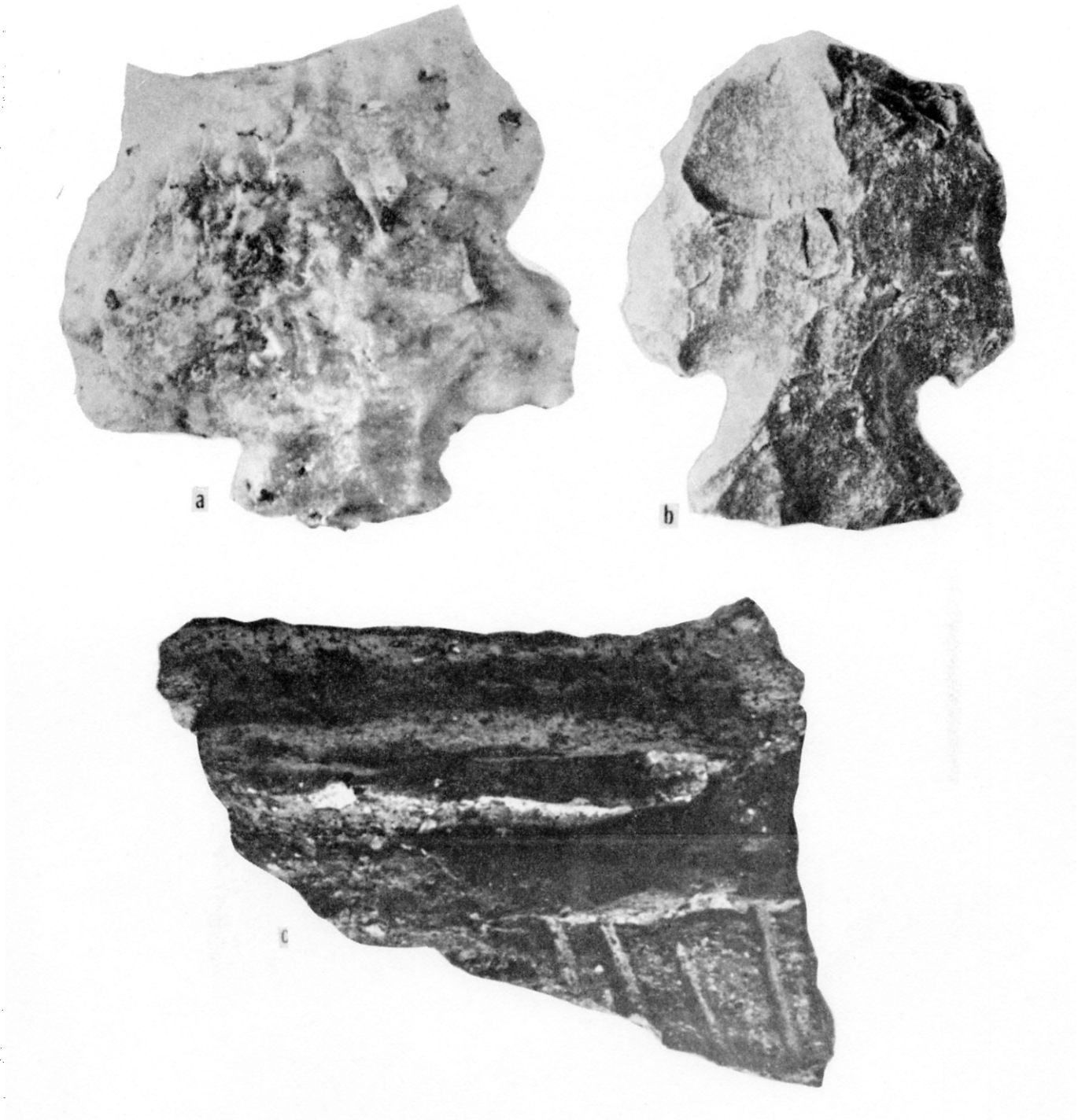


Figure 7. Atypical artifacts from the New River survey: (a) Table Rock point, 31A178; (b) New River I point, 31A178; and (c) appliqued and incised rim sherd, 31A179 (not to scale)

Figure 8. Ceramics found in the New River survey included: (a) net impressed, 31A179; (b) knotted cord impressed, 31A179; (c) incised punctate rim sherd, 31A179; (d) rough surfaced, punctate and incised, 31A178; (e) cord marked, 31A178; (f) cord marked, 31A178; (g) roughened surface, 31A178; (h) incised punctate, 31A178; and (i) fabric marked, 31A178 (not to scale)

PREDICTIVE MODELS FOR SITE LOCATION

Formulative Statements

The limitations of the data obtained by the New River Survey are numerous. First, it is survey data. The stratigraphic context of artifacts is, by definition, nonexistent. Time and financial constraints leave us, at this stage, with only the physical configurations and the materials of the artifacts along with topographic locations of the sites.

In assessing the forms and make up of the cultural materials, it is possible only to compare the specimens from the New River with typologies established from contexts in already excavated sites. The fact that none of these excavated sites are actually within the study area presents obvious problems. It is fundamentally impossible, on the basis of survey data, to positively identify New River specimens within the defined physical range of, for instance, the Kirk projectile point type in the Carolina piedmont as being actually of the same type, from the same time period, in the same sequence. This is because the New River specimens are in a different area and environment. The only certain thing that can be said in such a case is, of course, that the example is similar in configuration and material to that identified as Kirk in the Carolina piedmont.

This, however, would render the data--and, in fact, all survey data in previously unexplored archeological areas--useless for anything except searching out sites with excavation potential. The data would only attain additional utility when sufficient stratified sites in the area have been excavated to establish a local sequence. This may actually be the case and, if so, the usefulness of this report lies only in the list of materials and tables of measurements, combined with an array of photographs of individual artifacts.

Another possibility exists, however, and employing it as a basis the following models were constructed using projectile point types from regions near the study area. The possibility is that the same sequence exists in the New River valley as in adjoining regions. Lending support to this is that artifacts were found in the survey area which fall into the ranges of variation on each of the types in Coe's piedmont sequence. Only two types are missing from the series of eleven types identified at the St. Alban's Site, West Virginia. That the Piedmont sequence was established at the Doerschuk-Hardaway Site only about 100 miles away and that the St. Alban's Site is about 150 miles away in the same river valley admit of some possibility that these groups of similar artifacts are, in fact, from the same sequence. The fact that Kirk and Hardaway-Dalton have been established in datable context southeast, north, and southwest of the New River valley, that Morrow Mountain I has been established in largely similar time frameworks in both Tennessee and Piedmont North Carolina, and that a type apparently similar to or the same as the Yadkin continues north at least into Virginia also

contribute to a case for extending the known typologies in at least a general sequence into the New River valley. It becomes perhaps more difficult to believe that the same set of configurations is rearranged in time within this particular valley. Given the present set of technologies available to the archeologist, only excavation context can resolve this question.

On the basis of the available evidence, it was decided to include both the raw data--i.e., photographs of materials and a general analysis based on the stated assumption that other sequences in the region can be extended into the New River valley.

The smallness of the sample of certain unusual types such as the examples from the St. Alban's series and isolated types from other areas, such as the Pigeon, the Eva II, and the Table Rock, is a major limitation that must be considered in dealing with these. In reference to these, the fact that all of the non-Piedmont sequence types lumped together fall within the same certain topographic settings at each given time is probably more potentially meaningful than locations of these individual types.

An aberrant projectile point type, of which four were found in the course of this survey, appears to fit into no known sequence. No valid type description can, of course, be discerned on the basis of four examples, but it was felt that the finding of this number within a survey of only 30 days warranted some discussion of the group as a separate entity. For the convenience of this and future discussion, the group is given a type name. However, it is also discussed in the light of possible identification as an extreme variant of another type.

In attempting to make some sense out of the data from two hundred sites in the New River basin, it is necessary to attempt to isolate regularities in the data that may reflect selection factors employed, either consciously or subconsciously, by the inhabitants during various periods. Ideally, of course, these factors should be identified in order of importance. It is emphasized that we are looking for reflections of the selection factors, that we in no way believe we have isolated emic categories for aboriginal populations in the New River valley.

Recognizing these criteria and their order should make it possible to predict with some accuracy where more sites in the same cultural system should be located, as well as providing some clues to the lifeways of those who inhabited them.

A predictive model is a mechanism for predicting these distributions within given sets of geographic and cultural parameters. Prediction may range from the very general to the highly specific, depending on the specificity of the environmental setting in question and cultural information desired.

In constructing all but the grossest of models, only sites of similar age may be put into an individual model. That is, since the idea of models is based on the presupposition of systems for human behavior, only sites that could actually have operated within the same general system can legitimately be compared.

The most accurate models could be constructed if we had full knowledge of the culture with which we are dealing. These models, however, would become less crucial. Information on the Paleo-Indian and Archaic periods is very scanty, and knowledge of Woodland period subsistence is certainly still quite limited. Since we are lacking a full understanding of the cultural groups involved in these periods, the models must fall back on the common needs of all human beings: a solid, well-drained place to live, accessibility of a drinking water supply, nearness to various food sources, and the raw materials demanded by each given culture's technology.

The specifics of these parameters change with the technological adaptations of the specific cultures involved. For horticultural agricultural peoples, the rich bottomlands of the rivers denote major food-resource accessibility. For the hunters and gatherers of the Paleo-Indian and Archaic periods, stands of wild food-producing plants and rich game and fishing areas probably provided the means of subsistence. Proximity to trade routes such as roads or rivers and proximity to the relatively sparse amounts of land along the New River farmable by eighteenth and nineteenth century western techniques may have had similar effects on the settlement patterns of western populations.

The construction of a general gross overall model for human habitation in the New River valley would make feasible general predictions concerning the area. More specific models, if correct, could point out finer distinctions made during different periods due to the particular technologies involved at any given time.

The uses of predictive models for the New River valley are threefold. First, they may help archeologists locate quickly and efficiently sites that may come in danger from future projects in the area. Second, they will provide archeologists with a jumping-off place to start intensive research along the river valley to further knowledge of the early inhabitants of the northern Carolina mountains.

Finally, they could form a platform from which to investigate the New River valley as a possible key to further understanding of habitation in the eastern United States as a whole. The valley's largely undeveloped, unsubdivided, untouched character is unique in the eastern United States. It could allow study of complete or nearly complete prehistoric and historic settlement patterns within one coherent area. Compared to the conditions of most eastern river valleys, which are fragmented archeologically by cities, industrial growth, and large housing developments, the New River valley may have the potential to contribute significantly to eastern United States archeology as a whole. Predictive models can form a basis for this research.

Because this survey and this paper are only the beginning of concentrated research in the valley, its primary purpose must be hypothesis generation. Whether the hypotheses ultimately stand or fall is largely irrelevant to that purpose. Therefore, it was decided to attack data analysis on this initial project from the standpoint of suggesting predictive models for site location in the New River valley. Given these reservations and qualifications, the following is presented as a springboard for discussion, speculation, and hypotheses concerning this heretofore largely unexplored archeological area.

Overall Model

A general profile of all prehistoric sites along the New River was first constructed resulting in an overall model for sites along the river. Eighty-eight percent of the sites were within 200 feet of a water source, 6 percent between 200 and 600 feet and the remaining 6 percent between 700 and 1200 feet. No sites further than 1200 feet from a water source were found by the survey.

Overall, 70 percent of the sites were within 40 feet in elevation above a water source, and an additional 17 percent were between 40 and 100 feet above water. The remaining 13 percent were scattered from 110 up to a maximum of 240 feet above a known water source.

The norm for slope angle seems to be 0-15 percent, broken down in this way: 50 percent of the sites fall into the 0-5 percent slope angle group; 75 percent have slope angles of 0-10 percent; and 87 percent are within 15 percent of level.

More than half of the sites, some 56 percent, are within 600 feet of permanent wetland areas, often associated with springs, where vegetation is particularly abundant and where a variety of edible plants may be found. Forty-five percent are within 100 feet of such features.

Twenty percent of the sites are within 500 feet of a known source area for raw materials suitable for lithic technology. This suggests that while it was not a first priority matter in all site selection, the availability of stoneworking materials did constitute a drawing factor in a significant number of cases.

Overall, therefore, it is demonstrable that 87-88 percent of the known sites in the valley are within 200 feet of water, within 100 feet in elevation above water, and located on a slope angle of 0-15 percent. Slightly more than 50 percent are within 600 feet of a marshy area, and one in five is within 500 feet of a stoneworking material source as well.

Secondary models differentiated between sites on which pottery was found and sites which contained no ceramic materials. Ceramic sites fell into a very tight profile. All are within 200 feet of a potable water source and within 80 feet in elevation above it. More than half of the sites were within the 0-5 percent slope angle range, and 88 percent

were in the 0-15 percent range. No ceramic site was on more than a 35 percent slope. Two-thirds of the sites were within 500 feet of a permanent wetland area associated with a seep or spring. Fewer than 10 were near known quarry sites, implying that that was not a factor in the selection process for ceramic sites. Absolute elevation was between 2300 and 2700 feet AMSL, with 77 percent between 2440 and 2600 feet AMSL.

In general, sites with only lithic materials were found in a greater variety of areas than those containing pottery. The exclusively lithic sites occupied one niche similar to that inhabited by ceramic bearing sites. The absolute elevation for these sites stretched from 2360 to 2720 feet AMSL, with 76 percent of one group of exclusively lithic sites falling in the median ground from 2500 to 2600 feet AMSL. Elevations above water in this lowland group range from 0 to 50 feet, and the distance from water was from 0 to 200 feet. Slope angles on the sites were from 0 to 5 percent, and 85 percent of them were in the 0-15 percent slope angle range. This cluster of sites, therefore, is very similar to the entire group of ceramic bearing sites.

A second group of nonpottery sites range in absolute elevation from 2760 to 3120 feet AMSL, with 55 percent of the sites in the group falling between 2760 to 2920 feet AMSL. Sites range from 200 to 1200 feet from water and 70 to 240 feet above the nearest water source, with half in the 300 to 600 feet from water and 70 to 100 feet above water bracket. The slope angle in this group remains the same as the general pattern, with most in the 0-15 percent slope angle range. There is one apparently aberrant site in the group where all the material was found on a very sharp slope of 40-50 percent.

The overall picture during the Archaic period is one of constant intensive usage of the broad floodplains, with a steadily diminishing secondary emphasis on the high ridges. The low ridges and hollows seem to become increasingly important through the Middle and Late Archaic periods and replace the high ridges in secondary emphasis during the Woodland period. The intermediate area became as important as the lowlands during the late historic Randolph period, when the pressures of thick settlement by western peoples along the New River had almost certainly upset native settlement patterns.

This general overview holds true for the types first identified in the Carolina Piedmont sequence, which seem numerically to dominate the New River region. The presence of influences, however, from other areas certainly is very real, and the topographic locations of these other types may be noteworthy. The very small sample of each type throws specific locational conclusions into some doubt, but overall, these unusual types seem to show up in whatever regions are least dominated by the Piedmont sequence at any given time. For instance, during the Late Woodland, the aberrant types appear on the ridgetops, where few of the Piedmont sequence, Late Woodland, artifacts are found.

Considering first the St. Alban's sequence, an opposing succession to the piedmont-types' pattern obtains. The Kirk projectile point occurs 64 percent of the time on the floodplains, 9 percent on low ridges and 27 percent in the higher uplands. It then goes chronologically to MacCorkle, 100 percent occurrence on the floodplains; then St. Alban's, 50 percent on the floodplains, 50 percent on high ridges; and finally Kanawha Stemmed, 100 percent on high ridge tops.

Chronologically, this whole sequence fits into the Kirk period established in the Carolina Piedmont as it developed toward the Stanly. By way of contrast, the Piedmont version of this period, the Kirk-Stanly sequence along the New River goes from 64 percent floodplain to 100 percent floodplain sites, leaving us little evidence of Kirk utilization of the uplands and none for the Stanly period.

Floodplain sites comprised less than 50 percent of those with Palmer components, but following Palmer in the Carolina sequence, the percentage of floodplain sites increases steadily through Kirk and Stanly. A slight reversal of this trend begins with Morrow Mountain and is strongest in the Guilford and Halifax periods from about 4000-2000 B.C. From this same period, when ridgetop sites were at their most common in the Carolina sequence since Palmer, an example of the Eva II type, first identified in Tennessee, was found on a floodplain of the New River. On a floodplain site there was also found an aberrant projectile point, probably a Table Rock, of a type found widely spread along the tributaries of the Mississippi and Ohio rivers throughout the Midwest and given a very tentative date of 1500 B.C.

Beginning with Savannah River in the second millennium B.C. and continuing on through the Woodland period, the Carolina piedmont sequence types are found again in steadily increasing proportions on floodplain sites, compared to upland occurrences. Again, evidence of ridgetop utilization associated with the piedmont types is scanty. At this same time, however, we have examples of the Pigeon side-notched, a type dated by Keel at 300 B.C. to 200 A.D. in the southern Carolina mountains, and the Bradley Spike, a Tennessee-north Alabama type whose dates are estimated as extending from about 2000 B.C. into this era (Cambron and Hulse 1969:15). These examples were found on ridgetop sites only.

Put together, then, this series of pictures gives us an underlying major sequence similar to that outlined by Joffre Coe in the Carolina piedmont. This seems to be dominant in the New River valley. However, during the Early to Middle Archaic periods, from approximately 6000-5000 B.C., ridgetop sites show strong influence from the mountains to the north, where much further downstream the New River is now called the Kanawha.

Utilization of the uplands by cultures using the piedmont sequence seems to have increased from 4000-2000 B.C. The floodplains show some outside influence with Eva II and possible Table Rock types represented in the lowlands.

Following this, the piedmont sequence types move back to the floodplains almost exclusively, and unusual types, from the southern mountains of the Carolina, Tennessee, and north Alabama, south and southwest of the survey area, may show some influence on the ridgetop sites along the New River.

Summarily, the New River valley fell under at least four influences in lithic technology, either by an influx of actual peoples from various areas at different points in prehistory or by simple influence on toolmaking styles. The sequence identified in the Carolina Piedmont was dominant, with occasional influences from the northern mountains, the southern mountains, and the greater Mississippi-Ohio valley. These influences were seemingly strongest in the topographic regions being exploited least by the Piedmont sequence types at any given time.

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