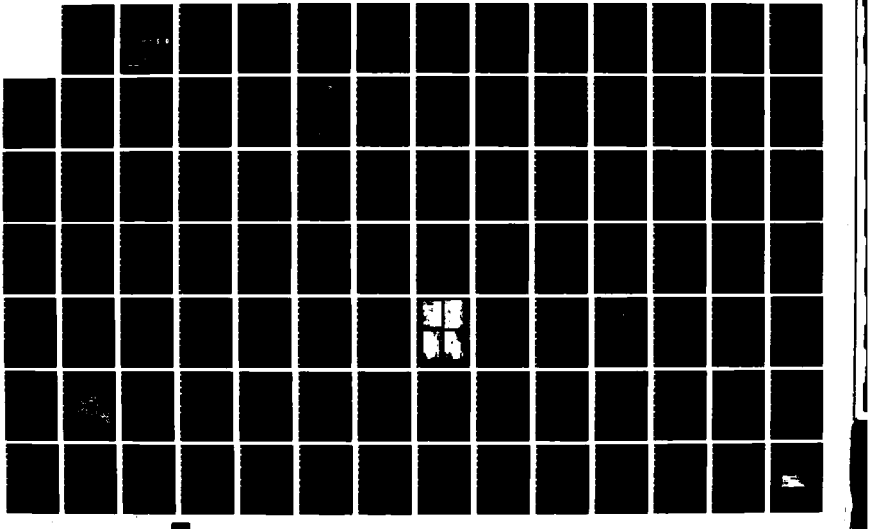
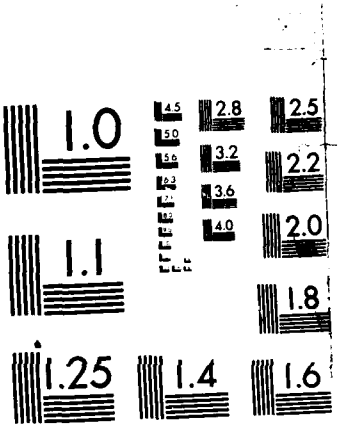
AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL. 1/7

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

Archeological Survey of the Proposed Charity Lake Hydroelectric Project, Upper Smith River Basin, Patrick and Franklin Counties, Virginia

AD-A168 104

DTIC FILE COPY

by

Lawrence E. Abbott, Jr.,
Erica E. Sanborn, Michele N. Vacca,
David C. Crass, Elizabeth Dull,
J. Ned Woodall and Alan N. Snavely

DTIC
ELECTE
MAY 2 3 1986
S D
D

WAKE FOREST
UNIVERSITY

Prepared under the supervision of

J. Ned Woodall

Wake Forest University
April 1986

Report prepared in partial fulfillment of contract DACW54-84-C-0038, U.S. Army Corps of Engineers, Wilmington District.

US Army Corps
of Engineers
Wilmington District

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

86 5 22 038

50272-101

REPORT DOCUMENTATION PAGE	1. Report Number	2.	3. Recipient's Accession No.

4. Title and Subtitle
Archeological Survey of the Proposed Charity Lake Hydroelectric Project, Upper Smith River Basin, Patrick and Franklin Counties, Virginia

5. Report Date
April 1986

6.

7. Author(s) Lawrence E. Abbott, Jr., Erica E. Sanborn, Michele N. Vacca, Davis C. Crass, Elizabeth Dull, J. Ned Woodall, and Alan N. Snavely

8. Performing Org. Rept. No.

9. Performing Organization Name and Address
Archeological Laboratories
Wake Forest University
Post Office Box 7808
Winston-Salem, North Carolina 27109

10. Project/Task/Unit No.

11. Contract(C) Grant(G) No.
(c) DACW54-84-C-0038
(g)

12. Sponsoring Organization Name and Address
U.S. Army Corps of Engineers
Wilmington District
Post Office Box 1890
Wilmington, North Carolina 28402-1890

13. Type of Report & Period
Final
September 1984 - May 1986

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

A stratified cluster sampling design was used to evaluate the nature and extent of cultural resources in the upper Smith River Basin of southwestern Virginia, Patrick and Franklin Counties. In addition to the 306 hectares surveyed using the sampling design, another 162 hectares (the potential dam site areas for the proposed hydroelectric project) received 100% survey coverage. A total of 163 archeological sites and historic structures was recorded, including 85 historic sites (mostly liquor stills) and 78 prehistoric sites. National Register evaluation was performed for all sites and 3 sites were recommeded for further work.

17. Document Analysis a. Descriptors

b. Identifier/Open-Ended Terms
Archeology; Virginia; Lithics;
Cultural Resources; Settlement Pattern; Ceramics

c. COSATI Field/Group

18. Availability	19. Security Class This Report	21. No of Pgs
	Unrestricted	539
	20. Security Class (This Page)	22. Price
	Unrestricted	

(See Ansi-Z39.18) Optional Form 272 (4-77)

Archeological Survey of the Proposed Charity Lake Hydroelectric Project, Upper Smith River Basin, Patrick and Franklin Counties, Virginia

by

Lawrence E. Abbott, Jr.,
Erica E. Sanborn, Michele N. Vacca,
David C. Crass, Elizabeth Dull,
J. Ned Woodall and Alan N. Snavely

Wake Forest University

Prepared under the supervision of

J. Ned Woodall

Wake Forest University
April 1986

Report prepared in partial fulfillment of contract DACW54-84-C-0038, U.S. Army Corps of Engineers, Wilmington District.

FOREWORD

The pages following describe the results of archeological investigations in a remote corner of southwestern Virginia. The area is immediately east of the Blue Ridge Mountains in Patrick and Franklin counties, geologically part of the Virginia Piedmont but nevertheless characterized by abrupt slopes, deeply entrenched streams, outcrops of bedrock, thick stands of second-growth timber and rhododendron thickets. The Upper Smith River Basin (USRB) area is about as far west as one can go in the Virginia Piedmont, and our study provided an opportunity to assess the clarity of the "cultural contour" prehistorians often draw between the mountains and the Piedmont of the central Atlantic states. This and other research questions provided in Appendix A guided our work and, as so often happens in archeology, the resources we found allow only equivocal answers.

The typical USRB prehistoric site is a small scatter of lithic debris on an eroded slope, usually a terrace or the base of a ridgetoe near the confluence of streams. The artifacts will consist of debitage, one or two broken bifaces and a few simple flake tools, all or most of local white quartz, notorious for its ambiguity in regard to patterned retouch. Bone, antler and shell is practically non-existant, most likely destroyed by the highly acidic soils; even charcoal was rare in any site. Rockshelters and caves are present in the area, and 15 of those found contain cultural debris. Unlike the more common open sites, those shelters have been little affected by man-induced recent land change (logging and plowing), but nevertheless they reveal only scanty remains. Sites containing Woodland ceramics are likewise small, most yielding only a handful of sherds; there are two exceptions (44Pk9, 44Pk171), large Woodland sites located on a relatively broad terrace or on a floodplain. Overall, however, the density of sites is comparable to that found elsewhere in the Piedmont. What are missing in USRB are the large (1-4 ha) single or multi-component Archaic sites that, elsewhere in the Piedmont, are present along with the small sites in an approximate ratio of 1:20. If these large sites represent base camps, and the small ones are temporary foraging/collecting/hunting bivouacs, then USRB would appear to have had a quite different settlement system than that of the Piedmont to the east. Using ethnographic data and Optimum Foraging Theory, Binford (1981) has pointed out an inverse relationship between the likelihood of "logistical" settlement systems (i.e. base camps provisioned via short-term visits to resource patches) and the length of the growing season, a concept applied to North Carolina's Archaic by Claggett and Cable's (1982) research on the Haw River. By implication the USRB region, with its higher elevations and northerly location (relative to Haw River), should exhibit a greater emphasis on logistical strategies and consequently more pronounced base camp-bivouac bimodality of site size. This is, of course, exactly opposite what was

encountered and thus we are confronted with the terror of modern archeology, a beautiful theory threatened by an ugly fact. For now we can argue that large base camps may be concentrated above the 1200' contour where we did not survey, or along the bigger streams' floodplains where they have been buried by alluviation. Alternatively, base camps may have been sited out of the survey area, up or downstream, suggesting a larger catchment for each social group than elsewhere in the Piedmont; this seems unlikely when one considers the higher productivity of mast in USRB than, say, in the middle Yadkin or Dan river basins. Perhaps we have found base camps but are not recognizing them as such due to the small size of the social unit creating them, i.e. a nuclear or small extended family rather than a band. Finally we can point out that the region was sampled, and sampling error may account for the deficiency. I hope future investigations along the Blue Ridge front will address this problem.

The Woodland sites in USRB likewise suggest short-term visits with two exceptions, 44Pk9 and 44Pk171. In the Piedmont, Woodland sites clearly are associated with riverine floodplains and there is a low frequency of either in USRB. Recovered Woodland ceramics indicate the majority of these sites are Late Woodland, and clearly share the bulk of their ceramic and lithic attributes with other Piedmont, rather than Blue Ridge, Woodland components. One model that fits these scanty data would have the Woodland settlement-subsistence pattern and its attendant material culture developing in the central or eastern Piedmont and moving incrementally--probably in consequence of population density increases--up the river valleys and entering the USRB region late in time. This would be more plausible if not for the fact that everywhere in the North Carolina-Virginia Piedmont, Late Woodland sites constitute the great majority. This may indicate a dramatic population increase at that time, or it may indicate a serious flaw in the archeologists' concepts regarding the age of certain Woodland ceramic and lithic attributes. I believe it is some of both, but more of the latter. To put the matter succinctly, I am convinced Uwharrie ceramics (aka Grayson Series in Virginia) are much older than traditionally perceived, and that the size and shape of Woodland triangular points are of very limited value for even relative dating. (These prejudices are reflected in the Archeological Background section of this report, and supported by the C-14 dates from 44Pk9.) One tendency noted elsewhere in the Piedmont and maintained at USRB is a Woodland community pattern of small satellite sites clustering near the large sites, and the ceramic analysis reported here suggests these are special activity bivouacs which serve to provision the larger, more permanent villages. Finally, some ceramic attributes and lithic raw materials suggest some degree of information and commodity flow out of the Blue Ridge into USRB and no doubt beyond. Limestone tempered pottery, strap handles and Ridge and Valley cherts provide the evidence for this, but despite this "leakage"

eastward of such traits the Woodland sites of USRB maintain a distinctively Piedmont cast.

In regard to historic resources we see another permutation of the prehistoric pattern. Sites are small and scattered and exhibit a high degree of cultural conservatism. As may be the case with the Woodland precedents, Euroamerican settlers arrived late in USRB. By the beginning of this century the subsistence farms they founded were being abandoned as the people clustered in the peripheral communities of Charity, Martinsville, Woolwine and Stuart, and the USRB was used as a hunting preserve, timber farm and a refuge for illegal liquor production. During the eight months of field work the survey crew encountered less than a dozen other persons, some of whom were also survey parties engaged in other kinds of environmental studies.

The proposal in Appendix D lists several research questions posed prior to the fieldwork, and the responses to those questions are provided in the appropriate sections of this report. Some of the questions could not be answered because relevant data had not been collected (e.g. soil mapping of the survey area has not been done), because crucial data have been destroyed (e.g. courthouse records), or because expected information was not recovered by the fieldwork (e.g. no Woodland sites with Grayson-Dan River ceramic stratification were found). Despite these limitations a great deal of information was collected and, more importantly, several archeological sites were discovered which promise to yield even more information to future investigators. I believe the discovery, evaluation and subsequent preservation of those data through the wise management of Upper Smith River Basin's cultural resources is the major contribution of this project.

J. Ned Woodall
Archeology Laboratories,
Wake Forest University
April, 1986

Accesion For
NTIS CRA&I
DTIC TAB
Unannounced
Justification
By
Distribution/
Availability Codes
Dist | Avail and/or Special
A-1

QUALITY INSPECTED 3

ACKNOWLEDGEMENTS

The archeological survey of the Upper Smith River Basin study area was made possible through the assistance and dedication of many people. The cooperation of Mr. Richard H. Lewis, Wilmington District of the U.S. Army Corps of Engineers, was invaluable. We greatly appreciate the efficient work of Mr. Stan L. Hill of the Corps of Engineers, Cary Area Real Estate Office, in obtaining landowner permission to conduct our work in the field. We thank the people at the Virginia Historic Landmark Commission Research Center for Archeology, in particular Mr. Keith Egloff, Mr. Bruce Larson, and Ms. Merry A. Outlaw for their hospitality and help in researching the background literature for this project. The insight provided in correspondence with Mr. Stephen R. Claggett, Dr. Joffre L. Coe, Dr. Jefferson Chapman, Dr. Roy S. Dickens, Mr. Sherman S. Dutton, Dr. William M. Gardner, Mr. Jerry T. Moldenhaur, Dr. Stephen E. Plog and Mr. Billy L. Oliver was very helpful and much appreciated. Doug Haynes, Bruce Smith and Mr. and Mrs. Carroll Snell provided us very useful information through their personal collections of sites in the project area. We are indebted to Ms. Nadine Gilbert and Mr. Leonard Bowling for information about the towns of Stuart and Patrick Springs, and especially for our housing during the field work.

We also would thank the laboratories personnel, Joelle Crum, Steve Hissom, Jennifer Allen, Catherine E. Ripley, Christy Vacca, Jamie Vacca, Sally Vacca and Tracey Vacca for their work washing and labeling artifacts, and John Davis, Janet S. Harris and Catherine E. Ripley for their work on the computer. Photographic darkroom work was done by Virginia Gooch. A special thanks goes to Ms. Natalie P. Adams for her work in drafting the figures presented in this report. To all the people listed and others we have omitted, we wish to express our sincerest gratitude for their cheerful and dedicated assistance.

Although this report is very much a product of teamwork, with consultation and information exchange characterizing the day-to-day preparation, certain of the co-authors had primary responsibility for drafting various chapters. Thus, Lawrence Abbott and Erica Sanborn prepared Chapter One; Ned Woodall and David Crass, Chapter Two; Lawrence Abbott, Chapters Three and Four; David Crass, Chapter Five; Erica Sanborn, Chapter Six; Michele Vacca, Chapter Seven; Alan Snavely, Chapter Eight; and Eliabeth Dull, Lawrence Abbott and Ned Woodall, Chapter Nine.

ABSTRACT/MANAGEMENT SUMMARY

A stratified cluster sampling design was used to evaluate the nature and extent of cultural resources in the Upper Smith River Basin of southwestern Virginia, Patrick and Franklin counties. In addition to the 306 hectares surveyed using the sampling design, another 162 hectares (potential dam site areas) received 100% survey coverage. The survey was conducted under contract with the U.S. Army Corps of Engineers, Wilmington District, and was intended to provide preliminary information on a potential area for inundation. A total of 163 archeological sites and historic structures was recorded, including 85 historic sites (mainly liquor stills) and 78 prehistoric sites.

The prehistoric resources consist, in the main, of small ephemeral sites containing quartz debitage and tools. Several larger sites were present, on or near the main course of the Smith River, but the settlement pattern throughout prehistory seems to be dispersed and temporary. It is suggested that these sites represent short-term hunting or other special activity loci related socially and economically to the few large riverine sites and/or other undiscovered base camps or villages possibly located above the 1200-foot contour line (the upper survey limits). Fifteen rockshelters exhibiting cultural deposits were identified and deemed eligible for nomination to the National Register as an historic district, along with two open sites likely containing undisturbed subsurface features and deposits. No evidence was found for population increase or increased useage of the area from the early Archaic through late Woodland stages. Radiocarbon dates were obtained from one Woodland site, 44Pk9, and indicate that the Dan River (or Wythe) ceramic series was present in the region by A.D. 1000.

Historic resources indicate the region was not settled until the nineteenth century, and available architectural data point to a degree of culture lag probably due to extreme isolation. Log cabins are prominently featured among the standing structures, along with a few I-houses but no hall-and-parlor plan houses. The cabins are marked by design features suggestive of both English and Irish building techniques. The historic resources were inventoried, not evaluated for National Register eligibility, but architectural evidence alone suggests certain standing cabins possess sufficient integrity for nomination. Archeological testing in and near these structures likely would support such a nomination. Also, archeological testing of ruined historic structures may identify additional significant properties.

TABLE OF CONTENTS

FOREWORD.....p. i
ACKNOWLEDGEMENTS.....iv
ABSTRACT/MANAGEMENT SUMMARY.....v
CHAPTER ONE: INTRODUCTION.....1
Geology.....6
Ecology.....7
Previous Work.....12
CHAPTER TWO: THE CULTURAL BACKGROUND.....34
Prehistory.....34
"Pre-Clovis Occupation of the East.....34
The Paleo-Indian Stage.....34
The Archaic.....36
The Woodland.....38
History.....39
CHAPTER THREE: METHODS.....48
Introduction.....48
Set-Up Procedure.....48
The Sampling Design.....48
Field Methods.....66
CHAPTER FOUR: PREHISTORIC CULTURAL RESOURCES.....74
Site Descriptions.....75
44Pk73.....75
44Pk74.....77
44Pk75.....78
44Pk76.....79
44Pk78.....80
44Pk79.....86
44Pk81.....87
44Pk83.....88
44Pk86.....89
44Pk87.....92
44Pk88.....95
44Pk89.....96
44Pk90.....98
44Pk91.....100
44Pk92.....101
44Pk93.....103
44Pk94.....104
44Pk95.....105
44Pk96.....107
44Pk102.....110
44Pk124.....111
44Pk126.....113
44Pk128.....114
44Pk129.....117
44Pk116.....118
44Pk131.....122
44Pk132.....123
44Pk133.....125
44Pk134.....127
44Pk136.....128
44Pk137.....129
44Pk140.....130
44Pk141.....132

44Pk142.....134
44Pk143.....136
44Pk144.....139
44Pk145.....140
44Pk148.....142
44Pk154.....143
44Pk159.....146
44Pk161.....147
44Pk162.....148
44Pk172.....149
44Pk174.....150
44Pk175.....151
44Pk178.....154
44Pk186.....156
44Pk191.....157
44Pk195.....159
44Pk197.....162
44Pk198.....164
44Pk204.....165
44Pk205.....166
44Pk206.....167
44Pk210.....170
44Pk213.....172
44Pk214.....174
44Pk219.....177
44Pk222.....178
44Pk223.....180
44Pk224.....185
44Pk225.....182
44Pk167.....189
44Pk170.....190
44Pk171.....192
44Pk226.....213
44Pk227.....214
44Pk230.....215
44Pk231.....216
44Pk232.....218
44Pk233.....219
44Pk234.....221
44Pk235.....223
44Pk236.....225
44Pk237.....226
44Pk242.....227
44Pk9.....228
Additional Sites Recorded.....244
44Pk228.....244
44Fr139.....245
44Fr149.....246
CHAPTER FIVE: HISTORIC CULTURAL RESOURCES.....247
Site Descriptions: Liquor Stills.....247
44Pk84.....247
44Pk85.....248
44Pk117.....249
44Pk118.....249
44Pk119.....250
44Pk120.....251

44Pk121.....252
44Pk97.....253
44Pk98.....254
44Pk99.....255
44Pk100.....256
44Pk123.....256
44Pk240.....257
44Pk103.....258
44Pk104.....259
44Pk127.....260
44Pk138.....260
44Pk150.....261
44Pk151.....262
44Pk153.....263
44Pk156.....263
44Pk160.....264
44Pk163.....265
44Fr141.....266
44Fr142.....267
44Fr143.....267
44Fr144.....268
44Pk176.....269
44Pk179.....269
44Pk180.....270
44Pk181.....271
44Pk182.....271
44Pk183.....272
44Pk184.....273
44Pk185.....274
44Pk187.....274
44Pk188.....275
44Pk189.....276
44Pk192.....279
44Pk193.....274
44Pk194.....278
44Pk196.....279
44Pk200.....280
44Pk201.....280
44Pk202.....281
44Pk211.....282
44Pk216.....283
44Pk238.....283
Site Descriptions: Historic Structures.....284
44Pk80.....284
44Pk101.....286
44Pk125.....287
44Pk130.....288
44Pk138.....289
44Pk146.....290
44Pk147.....291
44Pk149.....292
44Pk152.....293
44Pk155.....294
44Pk157.....295
44Pk158.....296
44Pk164.....296

44Fr145.....297
44Pk173.....298
44Pk177.....299
44Pk190.....300
44Pk207.....300
44Pk209.....301
44Pk218.....303
44Pk168.....304
44Pk169.....305
44Pk229.....306
Site Descriptions: Rock Piles and Walls.....307
44Pk77.....307
44Pk82.....308
44Pk135.....309
44Pk165.....309
44Pk166.....310
44Pk203.....311
44Pk220.....312
44Pk221.....312
Site Descriptions: Historic Cemeteries.....313
44Pk239.....313
44Pk241.....315
44Pk199.....316
44Pk208.....319
44Pk215.....320
AL164.....321
AL165.....325
AL166.....328
CHAPTER SIX: SITE DENSITY ESTIMATES.....332
Site Location Probability.....337
CHAPTER SEVEN: CERAMIC ANALYSIS.....339
Typological Attributes.....341
Technological Attributes.....354
Variability of the Smith River Assemblage.....355
Technological Trends.....360
Ceramic Distribution of the Smith River Assemblage.....361
CHAPTER EIGHT: LITHIC ANALYSIS.....371
Geological Context.....372
Projectile Points.....399
Trends in the USRB Lithic Assemblage.....411
CHAPTER NINE: SUMMARY AND CONCLUSIONS.....434
Historic Cultural Resources.....438
Prehistoric Cultural Resources.....451
REFERENCES CITED.....464
APPENDIX A: SITE LOCATIONS.....477
APPENDIX B: SELECTED CLUSTERS AND SAMPLE UNITS, USRB.....488
APPENDIX C: PHOTOGRAPHS OF STANDING STRUCTURES, USRB.....485
APPENDIX D: SCOPE OF WORK AND PROPOSAL.....489

LIST OF FIGURES

Figure 1: Project Area Map, USRB, Virginia.....p. 2
Figure 2: Topographic setting of 400 acre dam site areas with roads and areas of 60% visibility, USRB.....3
Figure 3: Topographic setting of the penstock, with roads and areas of 60% visibility, USRB.....5
Figure 4: Vegetational transect locations, USRB.....9
Figure 5: Site types, USRB.....47
Figure 6: Selected sampling clusters and dam site area, USRB.....50
Figure 7: Cluster III sampling units, USRB.....55
Figure 8: Cluster IV sampling units, USRB.....56
Figure 9: Cluster VI sampling units, USRB.....57
Figure 10: Cluster VIII sampling units, USRB.....58
Figure 11: Cluster IX sampling units, USRB.....59
Figure 12: Cluster X sampling units, USRB.....60
Figure 13: 44Pk78, profile of strata, USRB.....81
Figure 14: 44Pk86, EU1, profile of strata, USRB.....91
Figure 15: 44Pk154, EU1, profile of strata, USRB.....144
Figure 16: 44Pk195, EU2, profile of strata, USRB.....160
Figure 17: 44Pk213, profile of strata, USRB.....173
Figure 18: Site map, 44Pk9, USRB.....230
Figure 19: Profiles of shoreline cutbank, 44Pk9, USRB.....231
Figure 20: 44Pk9, Profile of strata, USRB.....233
Figure 21: 44Pk9, EU-OM, profile of strata, USRB.....234
Figure 22: Ground plan, 44Pk80, USRB.....285
Figure 23: Ceramic artifacts, USRB.....350
Figure 24: Ceramic sites, USRB.....362
Figure 25: Site plan and sampling units, 44Pk171.....365
Figure 26: Lithic material survey transects and cobblebars, western sector, USRB.....374
Figure 27: Lithic material survey transects and cobblebars, eastern sector, USRB.....375
Figure 28: Geological map, USRB, western section.....383
Figure 29: Early and Middle Archaic non-quartz projectile points, USRB.....401
Figure 30: Early and Middle Archaic quartz projectile points, USRB.....402
Figure 31: Late Archaic and Woodland non-quartz projectile points, USRB.....403
Figure 32: Late Archaic and Woodland quartz projectile points, USRB.....404
Figure 33: Log cabin, 44Pk155, USRB.....442
Figure 34: Log cabin, 44Pk209, USRB.....443
Figure 35: Seriation of gravestone types, USRB.....450
Figure B-1 - B-6: Selected sampling units with type of coverage, USRB.....Appendix B
Figure C-1 - C-3: Photographs of standing structures, USRB.....Appendix C

LIST OF TABLES

Table I: Environmental Transect Results, USRB, Virginia.....p. 16
Table II: Previously Recorded Sites, Upper Smith River Valley.....24
Table III: Previously Recorded Sites, Franklin and Henry Counties, Virginia.....25
Table IV: Patrick County Sites on File, VRCA-Locational Variables.....26
Table V: Patrick County Sites on File, VRCA-Analytical Variables.....28
Table VI: Franklin County Sites on File (USRB Vicinity), VRCA-Locational Variables.....31
Table VII: Franklin County Sites on File (USRB Vicinity), VRCA-Analytical Variables.....32
Table VIII: Topographic Features (hectares/acres), USRB....52
Table IX: Sample Units per Topographic Feature (hectares/acres), USRB.....53
Table X: Soil pH, 44Pk9 Auger Tests, USRB.....232
Table XI: Soil pH, 44Pk9, Excavation Units, USRB.....235
Table XII: Data Elements, Historic Site Frequency Estimation, USRB.....333
Table XIII: Data Elements, Prehistoric Site Frequency Estimation, USRB.....336
Table XIV: Bartlett's Test of Homogeneity of Variance, USRB.....337
Table XV: Site Count by Topographic Unit, USRB.....338
Table XVI: Prehistoric Site Count by Topographic Unit, USRB.....338
Table XVII: Historic Site Count by Topographic Unit, USRB.....338
Table XVIII: Temper Theme Attribute Summary, USRB.....344
Table XIX: Temper Theme by Stratigraphic Distribution, USRB.....344
Table XX: Distribution of Exterior Surface Treatment by Temper Theme, USRB.....345
Table XXI: Exterior Surface Treatment by Stratigraphic Distribution, USRB.....346
Table XXII: Distribution of Interior Finish by Temper Themes, USRB.....347
Table XXIII: Interior Surface Treatment by Stratigraphic Distribution, USRB.....348
Table XXIV: Color Distribution by Temper Themes, USRB.....349
Table XXV: Sherd Decoration Within Temper Themes, USRB....351
Table XXVI: Rim Sherds by Temper Theme, USRB.....352
Table XXVII: Matrix by Temper Theme, USRB.....355
Table XXVIII: Range of Sherd Thickness and Temper Size within Temper Themes, USRB.....356
Table XXIX: Comparison of the Dan River Series Attributes and the USRB Collection.....357
Table XXX: Distribution of Temper Themes and Sherd Numbers, USRB.....363
Table XXXI: Temper Theme Distribution, 44Pk171, USRB.....366
Table XXXII: USRB Lithic Analysis; Chalcedony--Microcrystalline Fibrous.....413

Table XXXIII: USRB Lithic Analysis; Chalcedony--
Cryptocrystalline.....421
Table XXXIV: USRB Lithic Analysis; Quartz--Blue.....422
Table XXXV: USRB Lithic Analysis; Quartz--Gold/Citrine....430
Table XXXVI: Site Inventory, USRB, Virginia.....434
Table XXXVII: Locational Data for Sites with
Temporally Diagnostic Artifacts, Archaic Stage, USRB....453
Table XXXVIII: Locational Data for Sites with
Temporally Diagnostic Artifacts, Woodland Stage, USRB...454
Table XXXIX: Temporally Diagnostic Specimens, USRB Sites..455
Table XXXX: Site Density and Areal Extent, Archaic
Sites, USRB.....456

CHAPTER ONE: INTRODUCTION

Beginning September 24, 1984, archeologists from the Archeology Laboratories of the Museum of Man, Wake Forest University conducted investigations within the study area of the proposed Charity Lake pumped storage facility. The project area is located northwest of Philpott Lake, Patrick and Franklin counties, Virginia (Figure 1). This work was done for the Wilmington District U.S. Army Corps of Engineers (COE), under the terms of contract Number DACW54-84-C-0038.

The purpose of the study was to execute an archeological sampling of approximately 3000 acres comprising the impoundment area, and archeological and historical survey and testing of 400 acres containing the three alternative damsites (Figure 2). This work was not designed to provide a complete inventory of the area's cultural resources, nor to satisfy the requirements of the National Historic Preservation Act's Section 106. It was intended to give an estimate of the number, kinds and condition of cultural resources which are present to allow more rational decision-making and project planning. If the USRB hydroelectric dam is constructed additional survey of the flood pool area, and also of those lands above the flood pool slated for disturbance or use, will or course be necessary. Thus this document should be considered a planning tool only.

Of the 3000 acres 759 acres (slightly over 25 per cent) were examined and relevant data collected on sites located in that superstratum. In the dam site areas all the land potentially affected was surveyed, for a total area of 1159 acres or 470 hectares. Using the data acquired under the sampling design, site density was projected for the total project area, and research questions and suggestions for future research were generated.

The fieldwork for this project was completed over a ten month period by Lawrence E. Abbott, Jr. (field director), Elgar H. Cochrane, David C. Crass, John D. French, Laila Johnson, LouAnn MacMillian, Rhea R. Marshall, Gregory A. Mikell, Jennifer Allen, Richard O. Murdoch, Catherine E. Ripley, Erica E. Sanborn, Neil Smith, Alan N. Snavely and J. Ned Woodall.

The survey area lies within Patrick and Franklin Counties, Virginia along the Smith River. It is located within the Charity, Va. and Philpott Reservoir, Va. quadrangles of the United States Geological Survey (USGS) 7.5 minute series, Zone 17. The proposed dam project will flood land below 1200 feet (AMSL) beginning at a point on the Smith River located 1097 meters (3600 feet) northwest of Dodson, Virginia, Universal Transverse Mercator (UTM) coordinates Northing 4077430m, Easting 579280m, to a point 792 meters (2600 feet) south of Rock Castle Creek, UTM Northing 4070440m, Easting 568020m (Figure 1).

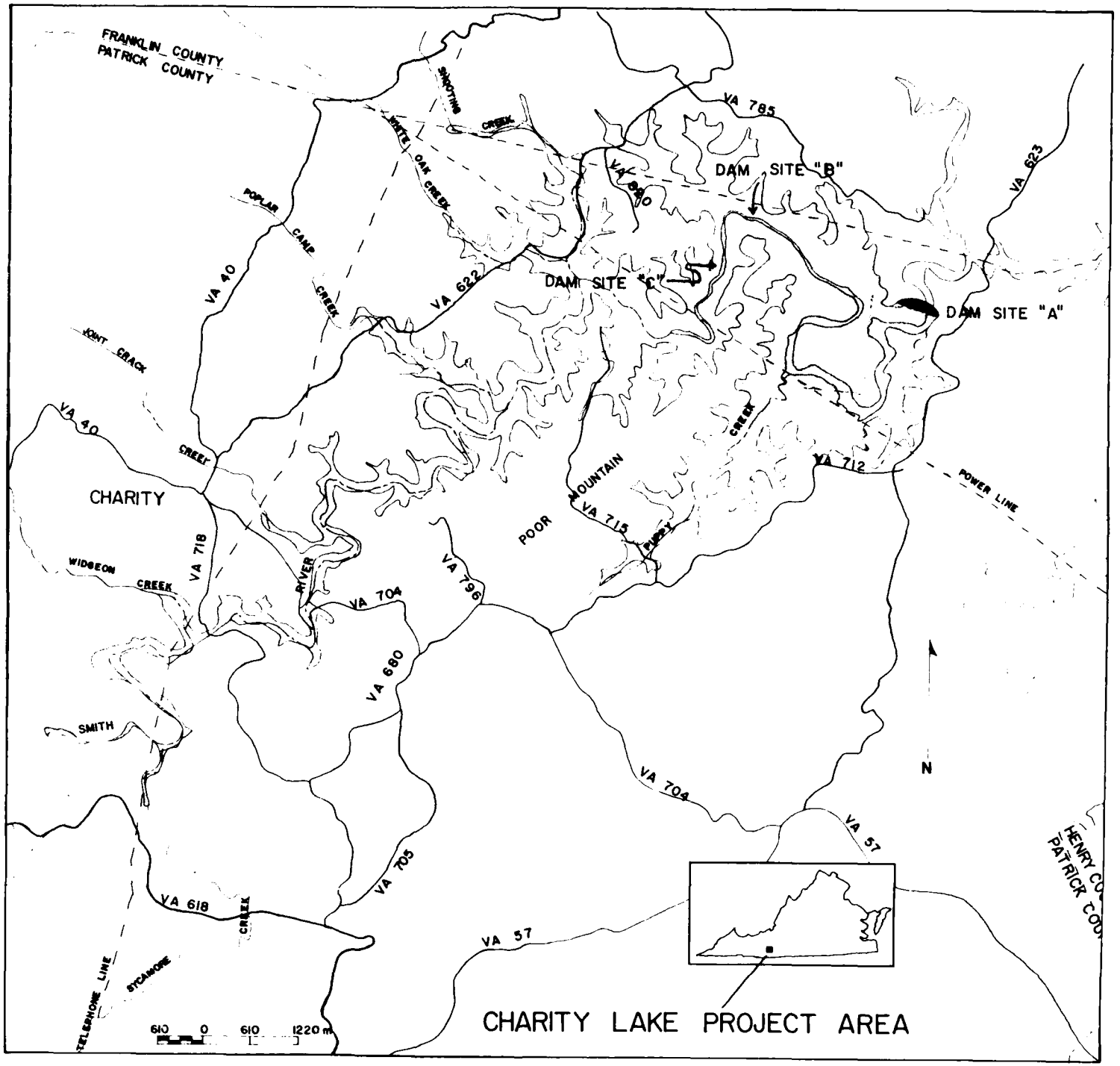


Figure 1: Project Area Map, USRB, Virginia

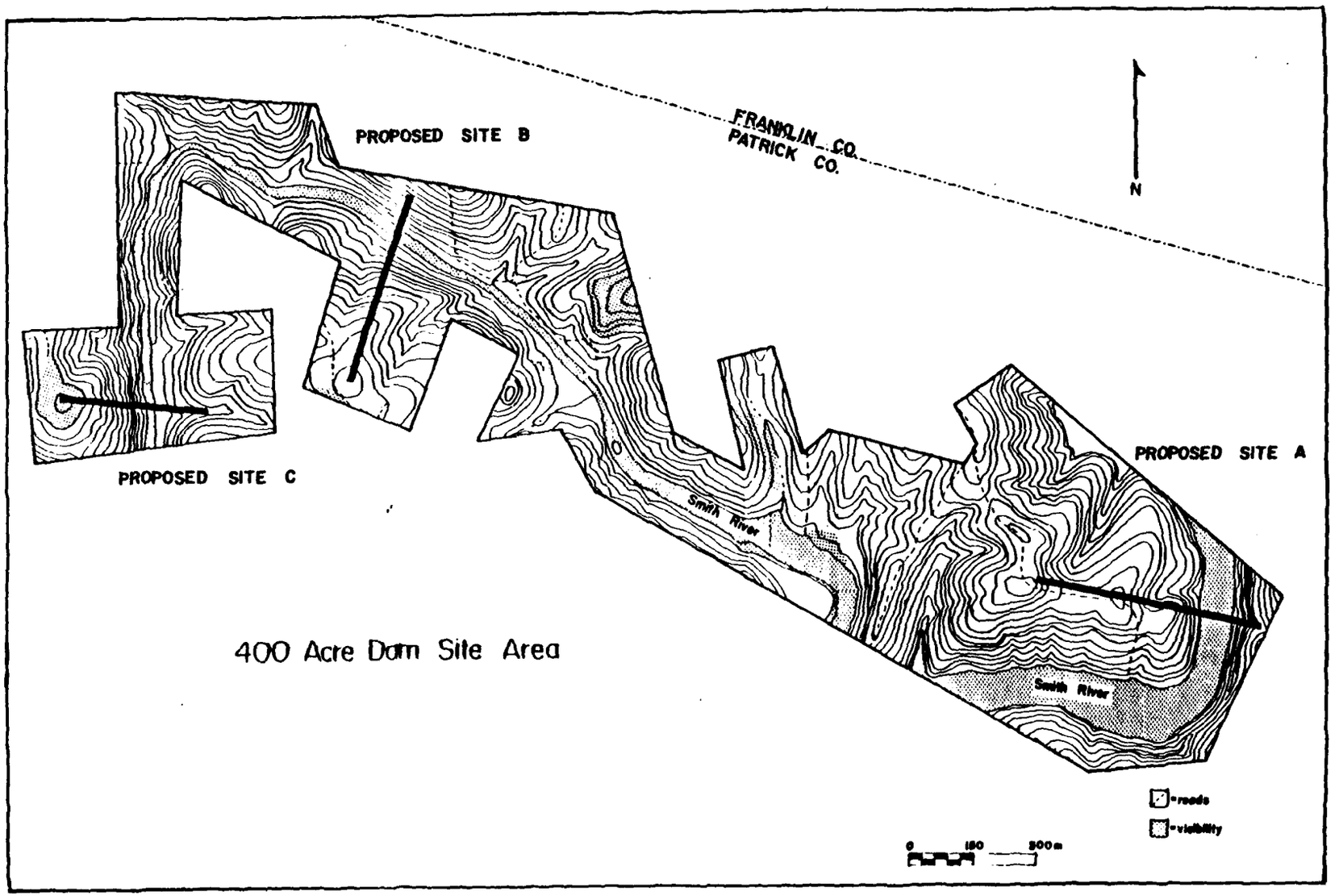


Figure 2: Topographic setting of 400 acre dam site areas with roads and areas of 60% visibility, USRB, Virginia.

Several tributaries of the Smith River will be affected by the proposed project. These include Small, Shooting, White Oak, Poplar Camp, Joint Crack, Widgeon, Rock Castle, Sycamore and Puppy creeks. A total of nine unnamed drainages and numerous seasonal streams also will be influenced by the impoundment. All of the above streams will be flooded upstream to the 1200 foot contour.

The study area equals approximately 1377 hectares (3400 acres) divided into two units. One unit is the 160 hectares (400 acres) containing the three potential dam sites, and presently is defined by the boundaries of the Philpott Lake property held by the Corps of Engineers, U.S. Reservation Boundary, beginning at a point designated above as the starting point for the project area, UTM Northing 4077430m, Easting 579280m, and extending upstream to a point designated as "Site C", UTM Northing 4077940m, Easting 576570m. Included as part of the 400 acre area is a unit of land designated for the penstock. This area is a rectangular parcel of land beginning at the confluence of an unnamed drainage and the Smith River, UTM Northing 4076000m, Easting 577460m, and extending northwest and upslope to a point located 90 m west of a ridgetop, UTM Northing 4077270m, Easting 576970m. This area will be the location of the penstock associated with alternative dam site C. The area encompassed by the penstock extends to points 98 m on both sides of these points (Figure 3).

The second unit is the approximately 1200 hectares (3000 acres) comprising the balance of the survey area. This unit contains the land to be flooded by the proposed dam. It should be noted that the contract confined work to these two units--no investigations were done in areas above the potential flood pool where recreational facilities, roads or other ancillary developments may occur.

The Smith River heads in northwestern Patrick County, flowing first southeast then bending northeast to the USRB area, and finally resuming a southeasterly direction until it joins the Dan River near Eden, North Carolina. Its waters ultimately empty into the Atlantic. Across the Blue Ridge escarpment, only a few miles west of the USRB area, streams flow to the Little River, then the New River which joins the Ohio (and, ultimately, the Mississippi and the Gulf of Mexico). Thus the project area is situated on the extreme western edge of a geographical province that can also be distinguished archeologically as the mid-Atlantic Piedmont. That province is characterized most markedly during the Woodland period by a particular array of ceramic attributes, including sand, grit or crushed quartz temper; fabric, cord or net-impressed vessel surfaces; and simple conoidal or round-based jars. By the eighteenth century its resident Indian groups were speaking related Siouan languages. This congruence of a physiographic and a cultural province is one

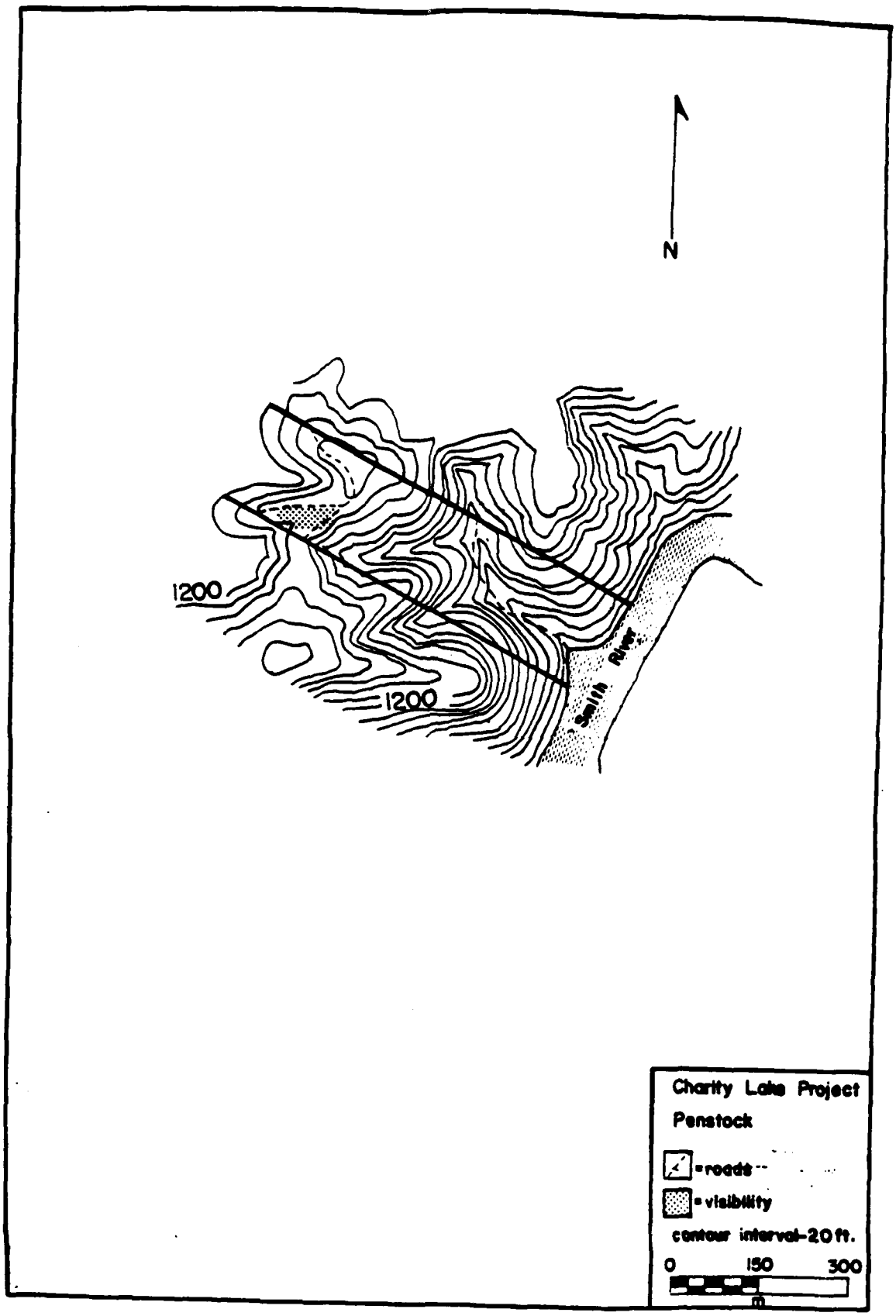


Figure 3: Topographic setting of the Penstock, with roads and areas of 60% visibility. USRB, Virginia

striking feature of the region's prehistory.

Geology

Geologically, the project area lies along the eastern boundary of the Blue Ridge Mountains, approximately 10 km northwest of the Bowens Creek Fault (Espenshade et al.:1975). The Blue Ridge Belt extends southeast for more than 1200 km from northern Alabama to southern Pennsylvania (Wilson et al.:1976), and is divided into two major sections. One section, the Northern Blue Ridge, extends north of Roanoke, Virginia. The other section, the Southern Blue Ridge, extends southwest underneath the coastal plain of Alabama (Wilson et al.:1976). According to Wilson et al. "The belt is composed of variously metamorphosed Precambrian rocks, and other than the Canadian Shield, is one of the largest exposed areas of Precambrian rocks in North America" (1976:21). A lower core of older Precambrian rocks is overlain by metamorphosed sedimentary and volcanic rocks of late Precambrian age. The lower core is composed of granite-textured rocks and granite gneisses mixed with varying components of biotite and hornblende schist, amphibolite and other non-granite rocks (Wilson et al.:1976). Numerous types of intrusive and plutonic rocks have infused into these Precambrian formations. In addition to these intrusive rocks, various episodes of regional metamorphism, uplifting, folding and faulting have transformed the Blue Ridge Belt into an extremely complex area in terms of geological interpretation.

The Piedmont Uplands abutt the Blue Ridge in Patrick County, and thus the project area lies in the most rugged portion of the Virginia Piedmont with the Blue Ridge clearly visible to the west. The same schists and gneisses are present, but are buried beneath red clay soils formed by the decomposing rock. From the USRB vicinity the Piedmont extends eastward to the coastal plain, declining in elevation and relief, but in the survey area the terrain is one of steep slopes and ridges, the undulating surface broken only by a few small terraces and floodplains along the incised streams.

In the immediate vicinity of the project area, the Blue Ridge Belt has a width of approximately 45 km. It is bordered on the east by the Brevard Belt and on the west by the Valley and Ridge Belt. The entire area encompassed by the project lies within a geological division termed the Alligator Back Formation (Espenshade et al.:1975). According to Espenshade and others, this formation is characterized by "typically finely laminated gneiss composed of quartzo-feldspathic layers a few millimeters thick separated by very thin micaceous partings; 'pin stripe' appearance. Thicker schist or phyllite and amphibolite or greenstone layers are common. Gneiss is generally more micaceous than similar units in the Ashe Formation [Equivalent in part to the

Lynchburg Formation of Stose and Stose (1957)]. Epidote, magnetite, and tourmaline are common, locally abundant constituents. Cale-silicate lenses are locally abundant." Interlaced with the rocks listed above, Espenshade and others also note "amphibolite, garnet amphibolite, and greenstone interlayered with biotite-muscovite gneiss and metapelite" (1975).

Ecology

Over the last 40,000 years, southwest Virginia has experienced changes in the forest stand structure as a result of glacial and interstadial fluctuations in the Upper Pleistocene and Holocene and, with the advent of human populations in the area, as a result of human disruption in the form of clearing and timbering. According to Delcourt and Delcourt (1981), the project area was covered with jack pine forests from 38,000 BC to 12,000 BC. The warming trend during the Farmdalian served to bring a mixed conifer-northern hardwood forest as close as eastern Virginia and North Carolina, but the mixture of elevation and latitude prohibited the movement of hardwoods into the western and central Virginia (Delcourt and Delcourt 1981; Watts 1980; Whitehead 1973; Wright 1981). Fauna dating from 11,460 +/- 420 BC found near Saltsville, Virginia show that the glacial fauna existed in the area at this time. The assembly consisted of the long armed ground sloth, the wooly mammoth, bison, and musk ox. This faunal type is thought to have remained in northern Virginia until 9,300 +/- 1,000 BC (Claggett and Cable 1982, quoting Guilday 1962) and was probably present in the project area at about this time.

By 7340 +/- 1,000 BC, the large mammalian Upper Pleistocene faunal complex had disappeared in Virginia and been replaced by the present-day faunal assembly (Guilday 1967). The forest stand present in the area had also changed by this time. The mixed hardwood forest of oak, maple, beech, basswood, elm, walnut, hemlock, and gum had replaced the mixed conifer-northern hardwood forest of pine, hemlock, spruce, fir, oak, birch, elm, ash, ironwood, maple, and beech by 8,000 BC (Delcourt and Delcourt 1981). It is uncertain when the mixed conifer-northern hardwood forest first appeared in the area around Charity, Virginia, but by 8,000 BC, Hack Pond, Virginia was on the border of a mixed hardwood forest to the south and a mixed conifer-northern hardwood forest to the north. The appearance of the modern-day fauna seems to be correlated with the appearance of the mixed hardwood forest, though the exact relationship between the two is uncertain. The modern fauna noted in the USRB today consist of white-tailed deer, turkey, bear, squirrel, beaver, fox, raccoon, quail, and bobcat. (These creatures all were seen, or their tracks seen, by the field party.) At the time of the European explorers, there was also mention of bison and elk.

By 3,000 BC the present day forest of oak-hickory-southern pine existed in the Smith River Valley , extending northeast and southeast to the coast. Just to the west, in the higher elevations of the Appalachians, the oak-chestnut forest becomes dominant. Today the oak-hickory-southern pine forest has been greatly disturbed by timbering. The hilltops, in particular, are eroded to the red clay subsurface. Some slopes show moderate to slight erosion below the areas of timbering. This increased erosion has dumped added sediments into the Smith River and, as a result, onto the floodplains, disrupting the usual forest stand dynamics in the floodplain.

A series of three vegetational transects in three different areas of the Smith River Valley were investigated to determine the extent of this disturbance, and also to describe the vegetational succession over the last 200 years (Figure 4). Each transect contained a series of 10 meter x 10 meter sample units 60 meters apart along the line of the transect. Each 10 meter x 10 meter area was counted for the number and species of trees. Any tree with a radius of eight centimeters or greater was noted. In the southwest corner of each sample unit, a two meter x two meter square was sampled for shrubs and saplings. Any herbs of possible use to native Americans or settlers were noted (McEvoy et al 1980; Oosting 1942; and Whittaker 1952).

The three transects were selected to contain all of the niches which might contain clearly different forest stands, if undisturbed, and would also be applicable to the stratification techniques in choosing the samples for the archeological testing and be useful in the site prediction models. The major factor in determining the forest stand niches seems to be the moisture content of the soils in the area. Topographic features can be divided, from most mesic to most xeric, into floodplains-lower concave slopes and coves-summits-backslopes-upper convex slopes (McEvoy et al 1980). For our purposes, the convex slopes and backslopes were collapsed into one category. The lower concave slopes and coves were simply considered as coves because the only area in the transects in which lower concave slopes occurred were in the area of the cove. An additional category of terraces was included to allow for the sampling stategy in the archeological testing. The three transects, then, from mesic to xeric, contain floodplain, terrace, a cove, a summit, and slopes.

Transect One lay along proposed dam site C whose ends are the top of a large hill to the west and the 1200 ft contour to the east. The transect ran east-west across the Smith River and included a summit, steep and moderate slopes, and a terrace. Eight sample units, four on each side of the River, were placed along the transect. To the east of the Smith River, there has been recent logging just above the transect to the north. Trees from this area have fallen into sample units two and three. The eastern portion of the

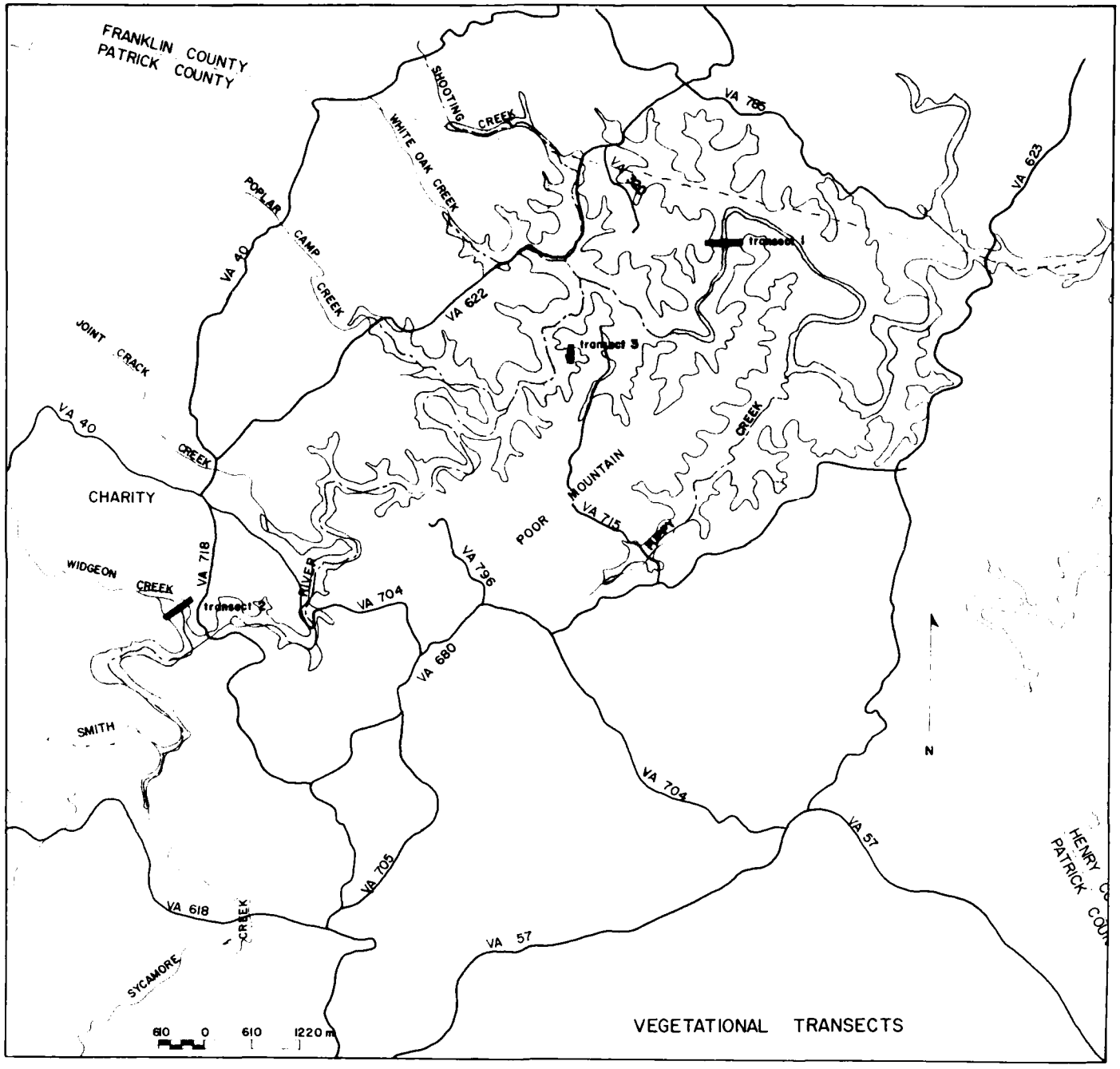


Figure 4: Vegetational Transect Locations, USRB, Virginia

transect crossed an unnamed feeder creek of the Smith River. Sample Unit Two included this creek and the land on either side of it. The transect on the western side of the river had a road on the summit, but the transect was placed to the south of the road. The slopes on the western portion of the transect contained rock outcrops, but none were included in the transect. (The results of the transect study are presented in Table I by transect number and sample unit.)

Transect Two lay across Widgeon Creek, running north-south and located 917 meters upstream from the confluence of Widgeon Creek and the Smith River. The ends of the transect were located at the 1200 foot contour line. Three sample units were collected on the south side of the river but none on the north side, where a tangle of fallen trees, herbs and a few deciduous saplings reveals recent timbering activity. Transect Three lay across an unnamed branch of the Smith River, 285 meters upstream of the confluence of the of the unnamed branch and the Smith River. The transect runs north-south with the north end being the 1200 ft contour and the south end being the top of a ridgetoe. The transect included a moderate slope and a cove. This area is just to the west of an old homestead. A total of four sample units were tested, one to the south of the branch and three to the north.

It was expected that we would find a clear difference, in terms of types of forest stand, between the various ecozones that were chosen similar to the findings of McEvoy, et al. (1980), and Whittaker (1952, 1956). They found that the forest stand composition followed a gradient, along with the topographic types, from mesic to xeric. This gradient runs from cove forests, with beech being the predominant species, to a mixed oak canopy with ericaceous (of the heath family, e.g. azalea, rhododendron, heath, laurel, etc.) understory being mostly absent to a mixed oak-pine forest with moderate ericaceous understory to a mixed pine forest with heavy ericaceous understory. This can be seen, to some extent, in the cove forest, as predominantly beech saplings are replacing the dogwood and red maple. In general, however, the areas sampled have been so disturbed as to mask the differences in forest stand composition. The forests are all young hardwood forests, the oldest being the cove forest whose climax species are just beginning to appear in the stand as saplings.

Forest succession has been fairly well established in the North Carolina Piedmont. This model for succession is representative for the Piedmont from Pennsylvania to Alabama (Oosting 1942). Forest stand communities which developed on cultivated fields have some very distinct stages of succession. A plowed field will immediately be taken over by crabgrass in the first year of abandonment. By the first summer, horseweed and ragweed will dominate the area. Aster follows in the second summer with broomsedge establishing

itself in the third and remaining until shaded out by pine, usually shortleaf or loblolly pine. This generally occurs by the fifth year. By 10 to 15 years, the pine has formed a closed stand. Forty years after initial colonization by crabgrass, the pine forest contains an understory of subordinate hardwoods such as red gum, black gum, dogwood, and sourwood with seedlings of oaks and hickories. Seventy or eighty years from abandonment, the pine forest reaches old age and begins thinning out, with oaks and hickories replacing them. By 150-200 years, a near climax oak-hickory forest will be visible with only a few pine trees remaining. Of note, however, is the fact that a pine forest will not colonize an area which has been clearcut. Apparently the red gum, red maple, and other subordinate species grow up faster than the pine, shading the seedlings out. This speeds up the recolonization of the hardwoods by cutting out competition with pine. This removes about 20-30 years of succession in reaching a climax oak-hickory forest.

If one looks at the forest stand in terms of the above scenario, one would find that the summit in Sample Unit Eight of Transect One, the floodplain in Transect Two, and the cove in Transect Three all retained the pine forest stage, while all else seems to have by-passed this stage. This would seem to suggest that clearcutting was widespread in the area during the last 200 years.

The terrace of Sample Unit One of Transect One contains no pine, or pine remnants, suggesting a forest of about 20-30 years of age. Likewise, the western slopes of Transect One show about 20-30 years of recovery. The eastern slopes, however, show chestnut oak as one of the major saplings suggesting a forest of about 40 to 50 years. The summit of Transect One shows shortleaf pine gaining a dogwood understory, suggesting this area may have either been cultivated or selective timbering may have occurred about 30 years ago.

Along Transect Two, the north side was clearcut about two or three years ago; there are only miscellaneous herbs and saplings covering the area now. The south side is just reaching the 40-year stage of a pine forest, beginning to acquire a substantial subordinant hardwood understory. The third transect south of the unnamed branch shows a forest nearing climax with some pine remnants. The high percentage (78.3) of beeches among the saplings along with the moderate number (32%) in the canopy would suggest a 80-100 year old forest. The cove on the other side of the branch is not quite that old, with the trees being predominantly subordinant hardwoods. This forest might be 50-60 years old.

As seen, all the forest stands sampled have been disturbed in one way or another over at least the last 100 years. In a pristine forest we would have expected to see a high percentage of beech on the terraces, in the floodplains and

in the coves. Along the moderate to steep slopes it was expected that an oak-hickory forest with light to heavy ericaceous understory would be found, with the amount of ericaceous plants becoming heavier as the slope increased and the exposure became more southwestern. Summits were expected to produce a mixed pine-oak forest with moderate ericaceous understory (McEvoy et al. 1980; Whittaker 1952, 1956). These general trends can begin to be seen in the cove and the eastern slope , terrace and summit of Transect One. For the most part, however, the area is too disturbed to make a substantive statement about the niches present in the area before lumbering and cultivation occurred.

Previous Work

The general area of southwest Virginia's piedmont has seen little professional archeological work. Word et al. (1981) notes the absence of a comprehensive culture history in this part of Virginia due to the lack of systematic study, and MacCord (1972) describes southwestern Virginia as "unknown" in terms of the archeology of the general area. Despite the lack of synthesis, several investigations within the general vicinity of the project have provided some useful background data. Evans (1955) studied ceramic collections from 96 sites throughout Virginia and defined the "South-Central Ceramic Area" as the region drained by the Roanoke, Staunton and Dan rivers and their tributaries (1955:112). According to Evans:

"the principal ceramic features are shown in two pottery complexes representing slight differences in time: an unclassified series with a high mica content, sandy, reddish paste, with fine cord-marked and medium to fine fabric-impressed surfaces, and the Clarksville Series with medium to coarse sand temper, gray-tan paste and surfaces, distinctive recurved neck shapes, finger pinchings along the rim or neck, and the majority of the surfaces roughened with a crumpled net or fabric." (1955:113).

Coe and Lewis (1952) note a close relationship between the Clarksville Series and Dan River net-impressed wares of the North Carolina piedmont, placing the two at approximately A.D. 1625-75. (That date has been severely revised in light of more recent studies which indicate an age of A.D. 1200-1700.) Evans also notes a few sherds of the Radford Series included with the above-named types at the Bone Bottom site, 44Fr11, in Franklin County.

Holland (1970) surveyed 18 counties in southwest Virginia and portions of two counties in North Carolina, analyzing the ceramics in terms of temper themes and using the established series of Dan River (sand-tempered), New River (shell-tempered), and Radford (limestone-tempered); new series also were defined as Grayson (crushed quartz-tempered), Lee (sand-tempered), Smyth (soapstone-tempered), and Wythe (sand-tempered). Holland recorded 24 sites in Patrick County along

the Mayo and Dan rivers and two sites in Henry County on the Smith River. The Smith River sites, Holland's 44Hr1 and 44Hr2, produced Grayson and Dan River ceramics and Madison Triangular projectile points (called Caraway points in North Carolina). MacCord (1972:51-2) found the Box Plant, Belmont, Leatherwood, Koehler and Stockton sites on the upper Dan and Smith rivers to yield "circular and square houses, Dan River pottery predominately, flexed burials, circular palisaded villages, with frequent finds of pottery from more southern sources (Catawba-like, Lamar, etc.)." Other sites excavated within the area reveal additional features. The Meador Site, 44Fr12, on Maggodee Creek in Franklin County produced two circular hearths and Dan River ceramics exclusively. The lithic assemblage was dominated by quartz projectile points, scrapers and drills (including a Stanly drill) with debris of quartz, quartzite and chert, and preserved faunal remains of deer, birds, groundhog, beaver, turtle, snails and mussels. The site was seen as representing two occupations, one by a small Archaic population and the second a small, short-term Late Woodland presence (MacCord 1970).

The Brubaker Site, 44Fr13, on Blackwater River revealed circular pits and an arc of postholes which implied a circular structure. Artifacts included Dan River and Grayson series ceramics and Clarksville, Caraway, Yadkin and Halifax projectile points of quartz and chert. The lithic debris was confined to quartz, chert and chalcedony (Davis 1973).

The Koehler Site (44Hr6), on the Smith River downstream from the proposed project area, revealed 141 features including clay pits, hearths, refuse pits, postholes and burial pits. These burials were interesting in that eight were found clustered within a probably circular structure, and both shaft-and-chamber and straight-walled graves were present (Coleman 1976).

More recent surveys prompted by historic preservation legislation revealed additional sites in the area. Word et al. (1981) surveyed the Smith River valley near the town of Martinsville in Henry County, finding 27 previously unknown sites and revisiting 6 others. Those sites, coupled with others previously recorded, are summarized in Table II below.

Gardner (1983) conducted a survey of a transmission line corridor across portions of Wythe, Carroll, Floyd, Franklin and Henry counties, Virginia. That survey recorded 22 sites including three possible base camps, one hamlet, three quarries/reduction stations, one isolated find, 11 lithic scatters, two sites of unknown function and an historic cabin. Gardner attributes the small number of sites to the distance from major stream systems since such stream systems are viewed as the focal point for the bulk of prehistoric human populations, from which radiated smaller groups engaged in seasonal or particular tasks (Gardner and Boyer 1978; Gardner 1978, 1983). Gardner notes that:

"the watercourses because of their greater resource abundance, variability, and longer duration dependability, are the foci of the most intensive prehistoric habitation and are also the loci of the more sedentary settlements. It is therefore to be expected that sites of all types would increase in frequency closest to these streams. On the other hand, recent work, particularly that involved with cultural resource management studies (cf Hoffman et al. 1979) have definitely indicated that areas away from these streams were exploited. Site types, in such conditions while not including hamlets or villages, can include macro-social unit base camps, micro-social unit base camps, and smaller transient camps and lithic scatters. These sites are all associated with water and are in zones of maximum habitat overlap, but can be somewhat removed from the major streams." (1983:6).

Of the 22 sites recorded by Gardner, three were located in Franklin County and six were in Henry County, Virginia. Data on those sites is presented in Table III below. The results of our survey support Gardners' thesis that the settlement pattern used in the area involved a fusion-fission strategy for adapting to seasonal variation in resource availability. The site types progress outward from the major streams from "macro-social unit base camps (or hamlets or villages) in or immediately adjacent to the floodplain setting, to micro-social unit base camps (or fission stage base camps) to transient camps (e.g. lithic scatters." (Gardner 1983:23-4).

One Phase III excavation project resulted from the survey reported by Gardner (Gardner et al. 1984). This project took place at the Lawrence Site, 44Hr118, an upland late Woodland Dan River Phase hamlet. The site revealed subsurface features, evidence of trade and some agriculture. The significance of the site was seen in the implication that hamnlets on the lesser tributaries were included along with the major floodplain villages and hamlets as loci of year-round habitation. Gardner interprets this to be the result of population pressure which forced the movement of certain groups into less optimal areas (1984:22). This view also has been expressed by Taylor (1984) and Mouldenhauer (1984 personal communication).

Hargrove (1984) conducted a survey of two recreational areas at Philpott Lake, Franklin County, Virginia. One area, Horseshoe Point, was located on a long, steeply sloped ridge overlooking the Smith River. The other area, Jamison Mill, was in a small sheltered cove. Subsurface tests within both of these sites failed to produce any archeological materials.

Site files at the Virginia Research Center for Archaeology listed the previously recorded sites in Patrick County and sites in Franklin County in or near the USRB survey area.

Nine variables for those sites are shown in Tables IV-VII.

Only one previously recorded site, 44Pk9, was located within the the USRB area. That site was recorded in 1973 by R. P. Gravely, Jr., and was reported to contain crushed quartz-tempered and sand-tempered ceramics with net-impressed, cord-marked, fabric and corncob-impressed and smoothed surface finishing. Lithic material included stone celts, grubbing tools and picks, a chert triangular point and a quartzite scraper. Faunal material included shell fragments, burned deer bone and portions of antler. Gravely also reports one shallow bowl-shaped excavated feature which contained ash, charcoal, sherds, fire-cracked rock and burned bone. This site was revisited by the Wake Forest University field party, and information collected at that time is presented in Chapter Four of this report.

Table I: Environmental Transect Results

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
1/1	East of Smith River S. of confluence, Smith River and unnamed feeder creek	Flat, north western exposure	Well drained	40% dogwood Other: tulip popular, chestnut oak, sugar maple, red oak, sourwood, beech	2 red oak 1 beech	Mountain laurel, catawba rhododendron	36.4% red maple, 27.7% sourwood Other: dogwood beech birch	No edibles
1/2	60m East of S.U. one, unnamed creek bottom	Steep slope to North, southeast area level, southern exposure	Well-drained to summit recently clear cut; southeast area wet	38.5% sourwood Other: tulip, popular, red maple, chestnut oak, beech, dogwood	2 tulip popular 1 chestnut oak	Mountain laurel	60% birch, 20% red maple, Other: red oak, sourwood, chestnut oak, dogwood	Slopes-none; arrowroot along creek

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
1/3	60m, east of S.U.2; N. of unnamed feeder creek	Moderate slope, southern exposure		Species generalized: 19.4% tulip poplar, 19.4% beech, 12.9% dogwood, Other: hickory, cherry, sugar maple, sourwood, birch, persimmon, shortleaf pine, red maple	6 tulip popular, 1 cherry	Mountain laurel	40.6% Chestnut oak, 31.3% red maple Other: redbud, red oak, birch	Wild strawberry orchird

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
1/4	60m east of S.U.3; north of unnamed creek	Steep slope toward summit,; southern exposure	Clear cut recently	26.1% sourwood, 21.7% loblolly pine Other: tulip popular, cherry, black walnut, red maple beech, dogwood	2 loblolly pine		32% beech, 32% dogwood Other: red maple, sugar maple, black-jack oak, chestnut oak, red oak, tulip popular	Wild straw-berry
1/5	5m west of Smith River	Slight terrace; 1.3m wide, above river with very steep slope above terrace, east expo-sure		19% beech 19% dog-wood Other: hickory, chestnut oak,birch sourwood, sugar maple,red oak, paw-paw,black locust, red maple	1 beech 1 red oak		Few: dogwood, birch, sourwood	Wild straw-berry

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
1/6	60m west of S.U. 5	Very steep slope, east exposure		Few trees (n=6) 33.3% dogwood, 33.3% red maple Other: birch, beech	None		91.5% dogwood Other: birch, beech, red maple, redbud	Wild grapes, wild strawberry
1/7	60m west of S.U. 6	Moderate slope near crest of summit		48.3% tulip poplar Other: dogwood, chestnut oak, sourwood, sassafras, birch, black locust	1 sourwood 1 chestnut oak	Dead raspberry bushes	87.5% dogwood Other: birch, beech	No edibles

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
1/8	70m west of S.U.7, south of road	On the summit	Heavily eroded, little topsoil	46.3% shortleaf pine 29.3% dogwood Other: red oak, blackjack oak, birch	None		61.5% dogwood Other: red maple, hickory, birch	No edibles
2/1	15m from Widgeon Creek on flood-plain	Flat, north exposure	Well drained	70% sumac 23.3% redbud Other: shortleaf pine, cherry	None		37.5% cherry Other: sumac, redbud, short-leaf pine, black locust, tulip poplar	Rasp-berry, black-berry, onion, mint, straw-berry

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
2/2	60m south of S.U. 1 on flood-plain at base of a moderate slope	Flat, northeast exposure	Well drained	36.7% shortleaf pine 23.3% redbud 20.0% cherry Other: dogwood, sumac	None		55.6% redbud 33.3% cherry Other: dogwood	Rasp-berry
2/3	60m south of S.U. 2 at the base of a moderate slope	Flat, east exposure	Well-drained	65.9% redbud Other: shortleaf pine, dogwood, cherry, sumac, pawpaw, cedar, black walnut	1 short-leaf pine		68.8% redbud Other: cherry, black locust, red maple, hickory, sourwood	Rasp-berry, mint, wild grape

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
3/1	15m south of an unnamed branch of the Smith River	Moderate slope above a steep slope to creek, northern exposure		30.8% beech 26.9% sourwood Other: white pine, tulip poplar, red maple dogwood, sugar maple, red oak	1 white pine	Mountain laurel	78.3% beech Other: sourwood, tulip poplar, red maple, hickory, black-jack oak	No edibles
3/2	10m north of an unnamed branch within a cove	Southern exposure		21.7% sourwood 21.7% ? Other: red maple beech, cherry, tulip poplar	2 sourwood 1 beech		66.7% beech Other: dogwood, redbud	Strawberry, honeysuckle

Table I: Environmental Transect Results (cont.)

TRANSECT #/ SAMPLE #	LOCATION	TOPOGRAPHY	CONDITION	TREES	TREES > 8 cm rad.	UNDERSTORY	SAPLINGS	HERBS
3/3	60m north of S.U. 2	On a gentle slope, eastern exposure	Good drainage	65.0% dogwood 20.0% cedar Other: tulip poplar	1 cedar 3 tulip poplar		52.4% beech Other: red maple, red oak, redbud, black-jack oak hickory	Straw-berry
3/4	10m north of S.U. 3	Crest of a hill	Good drainage	29.2% shortleaf pine 29.2% red maple Other: tulip poplar, sourwood, blackjack oak, beech	3 short-leaf pine	Mountain laurel	60% beech Other: cherry, red oak, dogwood, black-jack oak, red maple	No edibles

Table II: Previously Recorded Sites, Upper Smith River Valley
(Adapted from Word et al.1981)

Site No.	Setting	Size (sq.m)	Affiliation	Features	Site type
44Hr3	Low terrace	8000	Woodland	Pits, palisade, burial	Fortified village
44Hr9	Low terrace	12000	L. Woodland	Pits	Village/ camp
44Hr10	Low terrace	225	L. Woodland	--	Unknown
44Hr22	Bank, Smith R.	942	Archaic	--	Unknown
44Hr23	Low terrace	7900	Woodland	--	Temp. camp
44Hr27	Low terrace	32800	Woodland	--	Village
44Hr31	Sand bar	--	L. Woodland	--	Small camp
44Hr41	Low terrace	--	L. Woodland	--	Unknown
44Hr52	Low terrace	1600	L. Woodland	--	Temp. camp
44Hr58	Low terrace	11300	Woodland	Midden	Unknown
44Hr60	W. slope of knoll	18000	M. Archaic	--	Small base camp
44Hr74	Cove	1500	Unknown	--	Unknown
44Hr76	Low terrace	10000	Woodland	--	Unknown
44Hr77	Low terrace	4700	Woodland	Pits	Hamlet
44Hr79	Ridge top	isolated find	Archaic(?)	--	Unknown
44Hr81	Low terrace	2000	Woodland	--	Unknown
44Hr82	Lower slope	<1600	Unknown	--	Unknown
44Hr83	Ridge top	<4000	Unknown	--	Unknown
44Hr85	Slope	<180	Unknown	--	Unknown
44Hr86	Floodplain	<80	Unknown	--	Unknown
44Hr87	Slope	<5300	Unknown	--	Unknown
44Hr89	Low terrace	1600	Unknown	--	Unknown
44Hr90	Low terrace	<4700	Unknown	--	Unknown
44Hr91	Low terrace	<1600	Unknown	--	Unknown
44Hr92	Slope	isolated find	Unknown	--	Unknown
44Hr93	Low terrace	<1500	Woodland	--	Unknown
44Hr96	Low terrace	2400	Unknown	--	Unknown
44Hr97	Low terrace	<2200	Unknown	--	Unknown
44Hr98	Low terrace	21700	Woodland	--	Village
44Hr99	Low terrace	<38000	Woodland	Midden	Unknown
44Hr100	Stream edge	1500	Unknown	--	Unknown
44Hr101	Ridge top	isolated find	Unknown	--	Unknown
44Hr102	Cove	<500	Unknown	--	Unknown
44Hr103	Slope	<900	Unknown	Midden(?)	Unknown
44Hr106	Low terrace	<240	Unknown	--	Unknown
44Hr108	Low terrace	<300	Woodland	Midden(?)	Unknown
44Hr109	Low terrace	<400	Woodland	--	Unknown
44Hr110	High terrace	isolated find	Unknown	--	Unknown
44Hr112	Low terrace	3770	Woodland	--	Unknown
44Hr113	Low terrace	2400	Unknown	--	Unknown

Table III: Previously Recorded Sites, Franklin and Henry Counties, Virginia
(Adapted from Gardner 1983)

Site No.	Setting	Size (sq.m)	Affiliation	Features	Site type
44Fr62	Ridge top	15400	Unknown	--	Quarry/ reduction
44Fr63	Ridge toe	7400	M. Archaic	--	Quarry/ reduction
44Fr64	Floodplain	3700	Unknown	--	Unknown
44Hr114	Saddle	2100	Historic	Foundation	House
44Hr115	Floodplain	1100	L. Woodland	--	Hamlet
44Hr116	Floodplain	1100	Unknown	--	Unknown
44Hr117	Terrace	isolated find	M. Archiac	--	Hunting camp
44Hr118	Ridge-saddle	23100	M., L. Archaic, L. Woodland	Midden	Hunting camp, hamlet
44Hr119	Ridge-saddle	9800	Unknown		Hunting camp

Table IV: Patrick County Sites on File, VRCA--Locational Variables

Site No.	Setting	Size (sq.m)	Elevation (ft. AMSL)	M to water
44Pk1	Hilltop	--	910	48
44Pk2	Low terrace	--	880	61
44Pk3	Floodplain	2100	880	--
44Pk4	Floodplain		870	--
44Pk5	Floodplain	--	--	--
44Pk6	Floodplain	--	--	230
44Pk7	Floodplain	--	--	--
44Pk8	Low slope	--	870	76
44Pk9	Floodplain	--	980	0
44Pk10	Floodplain	15600	--	--
44Pk11	Slope	60	--	30
44Pk12	Mid terrace	20000	890	91
44Pk13	Saddle	470	--	--
44Pk14	Floodplain	5800	--	9
44Pk15	--	15	--	--
44Pk16	--	700	--	--
44Pk17	Terrace	250	--	--
44Pk18	Terrace	630	920	15
44Pk19	Mid terrace	--	1220	183
44Pk20	Floodplain	324	1250	46
44Pk21	Low terrace	--	1230	160
44Pk22	Mid terrace	520	--	--
44Pk23	Knoll	240	900	122
44Pk24	Ridge top	--	940	190
44Pk25	Ridge top	1200	920	70
44Pk26	Ridge	1200	920	60
44Pk27	Ridge	3500	900	60
44Pk28	Ridgetoe	90	900	122
44Pk29	Ridgetoe	--	900	107
44Pk30	Terrace	1500	880	53
44Pk31	Ridgetoe	32000	900	61
44Pk32	Floodplain	18000	860	10
44Pk33	Floodplain	--	860	100
44Pk34	Floodplain	180	870	10
44Pk35	Mid terrace	10000	940	100
44Pk36	Mid terrace	50	890	50
44Pk37	Low terrace	8000	880	50
44Pk38	Floodplain	--	890	100
44Pk39	Ridge toe	--	920	60
44Pk40	Slope	--	920	30
44Pk41	Ridge	--	1080	20
44Pk42	Floodplain	60000	850	60
44Pk43	Floodplain	--	850	100
44Pk44	Low terrace	--	870	150
44Pk45	Low terrace	4800	860	120
44Pk46	Ridge toe	--	890	150
44Pk47	Knoll	3600	--	54
44Pk48	--	--	--	--
44Pk49	Ridge, slope	--	920	50

Table IV (cont.)

Site No.	Setting	Size (sq.m)	Elevation (ft. AMSL)	M to water
44Pk50	Floodplain	1100	1370	50
44Pk51	Slope	--	950	900
44Pk52	Ridge	410	1500	--
44Pk53	Knoll	210	--	--
44Pk54	Ravine	210	--	1210
44Pk55	Slope	--	--	805
44Pk56	Low terrace	620	1330	60
44Pk57	Ridge top	525	--	--
44Pk58	Floodplain	617	--	--
44Pk59	Floodplain	--	--	--
44Pk60	Low terrace	41590	1230	10
44Pk61	Mid terrace	144	1240	9
44Pk62	Ridge top	2100	1390	300
44Pk63	Floodplain	4560	1410	20
44Pk64	Floodplain	--	1370	35
44Pk65	Saddle	--	1710	120
44Pk66	Ridge top	--	1530	350
44Pk67	Mid terrace	3760	850	30
44Pk68	High terrace	2090	910	305
44Pk69	Mid terrace	4705	900	160
44Pk70	Mid terrace	165	930	60
44Pk71	Low terrace	1675	--	70
44Pk72	Ridge	825	--	--

Table V: Patrick County Sites on File, VRCA--Analytical Variables

Site No.	Affiliation	Site type	Ceramics	Lithics	Features
44Pk1	Archaic	--	--	--	--
44Pk2	--	Workshop(?)	--	--	--
44Pk3	Woodland	Village	--	Flakes	Pits, burials
44Pk4	Woodland	--	Present	--	--
44Pk5	Archaic	--	--	Points	--
44Pk6	Archaic, Woodland	--	Present	Points	--
44Pk7	Woodland	--	--	--	Midden, pits
44Pk8	Archaic	--	--	--	--
44Pk9	L. Woodland	Village	Dan River	Cherts, jasper, quartz, felsite	Hearth(?)
44Pk10	Woodland	Village	Grayson(?)	Cherts, quartzites	Buried A soil
44Pk11	Woodland	Rockshelter	Grayson(?)	--	--
44Pk12	Woodland	--	--	--	--
44Pk13	Archaic(?)	Camp	--	Flint, quartz, quartzites	--
44Pk14	Woodland	--	Grayson(?)	Chert, flint, quartz, quartzites	--
44Pk15	Woodland	--	Grayson	--	--
44Pk16	Archaic	--	--	Points	--
44Pk17	Archaic, Woodland	--	Dan River(?)	Points	--
44Pk18	Woodland	--	--	--	Pits
44Pk19	Archaic, Woodland	--	Grayson, Dan River, Radford	Points, chert, quartz	--
44Pk20	M. Archaic, Woodland	Camp	Dan River	Point, chert, quartz, rhyolite	--
44Pk21	Archaic	Village	--	Chert	--
44Pk22	Woodland	--	Dan River, Grayson	Quartz, chert	--
44Pk23	Historic	Cabin	--	--	--
44Pk24	Historic	Cabin	Glazed	--	--
44Pk25	Archaic	--	--	Soapstone, quartz, jasper	--
44Pk26	Historic	Cabin	Glazed	--	--
44Pk27	Historic	Cabin, barn	--	--	--
44Pk28	Historic	Cemetery	--	--	Burials (4)
44Pk29	Historic	Structure	--	--	--
44Pk30	Archaic	--	--	Quartz, rhyolite	--
44Pk31	Archaic	Base camp	--	Quartz	--
44Pk32	L. Woodland	Village	Dan River	Chert, quartz, jasper, rhyolite	--
44Pk33	L. Woodland	Village	Dan River	Points, chert, jasper, rhyolite	--
44Pk34	Historic	Barn	--	--	--

Table V: (cont.)

Site No.	Affiliation	Site type	Ceramics	Lithics	Features
44Pk35	Historic	Farm	Glazed	--	--
44Pk36	Archaic	--	--	Quartz, rhyolite	--
44Pk37	E. Woodland	--	Badin(?)	Quartz, rhyolite	--
44Pk38	L. Woodland	--	Dan River	Quartz, flint	--
44Pk39	Archaic	--	--	Quartz, rhyolite, quartzite, chert	--
44Pk40	Archaic	--	--	Quartz, chert	--
44Pk41	Historic	House	--	--	--
44Pk42	Woodland	Village	Grayson	Quartz, chert	--
44Pk43	Woodland	--	Grayson	Quartz, chalcedony	--
44Pk44	Archaic	Cache	--	--	--
44Pk45	Archaic	--	--	Banded "slate"	--
44Pk46	Archaic	--	--	--	--
44Pk47	Archaic, Woodland	Camp	Grayson	Chert, quartz, chalcedony, point	--
44Pk48	Historic	Mill	--	--	--
44Pk49	Historic	Structure	--	--	--
44Pk50	Woodland	Camp	Grayson(?)	Quartz, points	Present
44Pk51	Archaic	Lithic scatter	--	Quartz	--
44Pk52	Woodland, Archaic	--	Dan River	Chert, quartz rhyolite	--
44Pk53	Archaic	--	--	Chert, quartz	--
44Pk54	Archaic	--	--	Point, chert, quartz, quartzite, rhyolite	--
44Pk55	Archaic, Woodland	--	Grayson, Dan River, Radford	Points, chert, quartz	--
44Pk56	Woodland	--	Grayson	Chert, quartz	--
44Pk57	Archaic	Camp	--	Point, chert, quartz	--
44Pk58	Archaic, Woodland	Village	Grayson, Dan River, New River, Radford	Points, chert, quartz	--
44Pk59	Archaic, Woodland	--	Dan River	Chert, quartz, rhyolite	--
44Pk60	L. Archaic, Woodland	Camp	Grayson(?)	Chert, quartz,	--
44Pk61	--	Camp	--	--	--
44Pk62	Woodland	Hamlet	Badin(?), Grayson(?)	Chalcedony, Jasper, quartz	Faunal remain present
44Pk63	Woodland	Hamlet	Grayson(?) Badin(?) Dan River(?)	Chalcedony, quartz, chert, jasper	Faunal remain present
44Pk64	Woodland	Camp	Grayson(?)	--	--
44Pk65	--	--	--	--	Human bone present
44Pk66	Historic	Cemetery	--	--	Burials

Table V: (cont.)

Site No.	Affiliation	Site type	Ceramics	Lithics	Features
44Pk67	Archaic, Woodland	Village	Grayson	Points, chert, quartz	--
44Pk68	Woodland	Village	Dan River. New River, Radford	Chert, quartz, quartzite	--
44Pk69	Woodland	Village	Dan River	Chert, quartz	Midden
44Pk70	Woodland	Village	Grayson, Dan River, New River, Radford	Point, chert, quartz	Faunal remains present
44Pk71	Woodland	Village	Grayson, Dan River	Chert, quartz	--
44Pk72	Archaic	Camp	--	Points, chert, quartz	--

Table VI: Franklin County Sites on File (USRB vicinity), VRCA--Locational Variables

Site No.	Setting	Size (sq.m)	Elevation (ft. AMSL)	M to water
44Fr1	Upland valley	--	--	--
44Fr2	Hill top	--	--	--
44Fr3	Floodplain	--	--	--
44Fr4	Floodplain	--	--	91
44Fr5	--	--	--	<10
44Fr6	Low terrace	832	--	--
44Fr7	Floodplain	860	--	--
44Fr8	Floodplain	--	--	--
44Fr9	Floodplain	523	--	23
44Fr10	Floodplain	--	1010	30
44Fr11	Ridgetoe	--	970	10
44Fr12	Floodplain	1450	--	--
44Fr13	Low terrace	8000	--	--
44Fr14	Floodplain	--	--	--
44Fr15	Floodplain	5800	--	--
44Fr16	Terrace	160000(?)	--	--
44Fr17	Low terrace	5800	--	--
44Fr18	Floodplain	230	--	--
44Fr19	--	--	--	--
44Fr20	--	--	--	--
44Fr21	--	--	--	--
44Fr22	--	--	--	--
44Fr23	--	--	--	45
44Fr24	Terrace	--	--	--
44Fr25	Terrace	900	--	--
44Fr26	Slope	245	--	10
44Fr27	--	--	--	400
44Fr28	Terrace	29750	--	400
44Fr29	--	--	--	137
44Fr30	--	--	--	--
44Fr31	--	--	--	46
44Fr45	Hilltop	--	--	--
44Fr62	Ridgetop	--	1340	--
44Fr63	Ridgetoe	--	1160	--
44Fr76	Knoll	--	--	--
44Fr77	--	--	--	--
44Fr78	--	--	--	--
44Fr105	--	--	--	--
44Fr111	Knoll	4635	--	--
44Fr126	--	--	--	--
44Fr127	--	1800	--	--
44Fr128	--	110	--	--
44Fr129	--	--	--	--
44Fr130	--	170	--	--
44Fr131	--	35	--	--
44Fr132	--	--	--	--
44Fr133	--	6950	--	--
44Fr134	Ridge top	5580	1400	37
44Fr135	Ridge spur	351	1405	6

Table VII: Franklin County Sites on File (USRB vicinity), VRCA--Analytical Variables

Site No.	Affiliation	Site type	Ceramics	Lithics	Features
44Fr1	Woodland	--	--	--	--
44Fr2	Archaic(?)	--	--	--	--
44Fr3	Woodland	--	--	--	Burial
44Fr4	Woodland	--	--	--	Midden
44Fr5	Archaic	--	--	Quartz, quartzite, chert	--
44Fr6	Archaic, Woodland	--	--	--	--
44Fr7	Woodland	Village	--	--	Midden, pits, burials
44Fr8	Woodland	--	Grayson(?)	Points, quartzite	--
44Fr9	Archaic, Woodland	Camp	Badin(?)	Points, chert, chalcedony	--
44Fr10	--	--	--	Quartz, fire-cracked rock	--
44Fr11	Woodland	Village	Grayson(?)	--	--
44Fr12	Woodland	--	--	--	--
44Fr13	Woodland	--	Clarksville	--	--
44Fr14	Archaic, Woodland	Village	--	--	--
44Fr15	Woodland	--	--	--	Pits
44Fr16	Woodland	--	--	--	Pits
44Fr17	Woodland	--	--	--	--
44Fr18	Woodland	--	Clarksville (Dan River)	--	--
44Fr19	Woodland	--	Clarksville (Dan River)	--	Faunal remains
44Fr20	--	--	--	--	--
44Fr21	--	--	--	--	--
44Fr22	--	--	--	--	--
44Fr23	Woodland	--	Dan River	--	--
44Fr24	--	--	--	--	--
44Fr25	Woodland	--	--	--	--
44Fr26	Archaic	--	--	--	--
44Fr27	Archaic	Camp	--	--	--
44Fr28	Archaic, Woodland	Village	Badin(?), Dan River(?)	Points, quartz	--
44Fr29	Archaic, Woodland	--	Present	Points	--
44Fr30	Woodland, Historic	-- --	Aboriginal, Euroamerican	--	--
44Fr31	Woodland	--	--	--	--
44Fr45	L. Archaic	--	--	--	--
44Fr62	--	Quarry	--	Quartz, chalcedony	--
44Fr63	--	Quarry	--	Quartz	--
44Fr76	Archaic	Lithic scatter	--	Quartz	--
44Fr77	--	Lithic scatter	--	Quartz, chert	--

Table VII (cont.)

Site No.	Affiliation	Site type	Ceramics	Lithics	Features
44Fr78	Archaic	Camp	--	Points, jasper, quartz, quartzite	--
44Fr105	--	--	--	Chert	--
44Fr111	Prehistoric, Historic	--	Glazed	--	--
44Fr126	Historic	Cemetery	--	--	Burials
44Fr127	Prehistoric, Historic	--	Glazed	Quartz, chert	--
44Fr128	Historic	--	Glazed	--	--
44Fr129	Historic	Cemetery	--	--	Burials
44Fr130	Historic	Cemetery	--	--	Burials
44Fr131	Historic	House	--	--	--
44Fr132	--	--	--	--	--
44Fr133	Archaic	Camp	--	Jasper, chert, quartz	--
44Fr134	Archaic	Camp	--	Quartz, jasper, quartzite, chert, chalcedony	--
44Fr135	Archaic, Historic	--	Glazed	Quartz, quartzite	--

CHAPTER TWO: THE CULTURAL BACKGROUND

Prehistory

Archeology, like its parent discipline of anthropology, is an intensely comparative enterprise. In order to evaluate the results of the USRB study, those data must be integrated with the broader patterns of prehistory as those are known for southwestern Virginia, the western piedmont of the Atlantic states, and the Southeast generally. The following paragraphs are an attempt to provide a context for the present work, to orient the reader toward some of the interpretive problems addressed by the USRB project, and to point out the deficiency of information concerning certain periods of prehistory.

As has been repeatedly pointed out by Binford (e.g. 1980), the archeological record is a contemporary phenomenon which is given meaning only by the interpretive efforts of its students. That is, the remains of the past do not "speak for themselves" but rather provide the data which our interpretive models must accomodate. As data become more plentiful fewer models can be constructed to fit, but at present the archeological record allows varying interpretation of past events. The following is one such interpretation, drawn from knowledge of the record and the model (or construct, or concept, or paradigm) that is believed by the authors to most efficiently posit the processes and events of the past which produced that record. In accordance with archeological tradition this overview has been organized using a culture history framework.

"Pre-Clovis" Occupation of the East

The earliest undisputed occupation of the eastern United States, and the West (Alaska excluded) as well, remains marked by the distinctive Clovis-style projectile point. This artifact class is securely dated west of the Mississippi to 9500-9000 B.C., less securely in the East. There are, however, a number of sites proferred as indicators of a more ancient human presence. The weakest of these claims are based on the relative crudeness of the artifacts themselves (e.g. Caldwell 1954), the strongest on detailed stratigraphy and a suite of radiocarbon dates (e.g. Adovasio et.al. 1978). In every instance the evidence has been disputed and the question of a pre-Clovis occupation remains in doubt. No data acquired from the USRB survey bears on this problem, and for the Southeast the status of "Pre-Clovis" occupations likely will remain an active area of research.

The Paleo-Indian Stage

In theory the Paleo-Indian stage of North American prehistory is marked by a subsistence pattern reliant on now-extinct fauna of the late Pleistocene. In fact, particularly

in the eastern United States, archeologists equate this stage to the presence of fluted, unstemmed and basally ground projectile points of the Clovis type or its several areal varieties. Also considered characteristic are delicate gravers, small "thumbnail" scrapers and a preference for certain kinds of high-quality cherts and jaspers for stone tool production. Nowhere in the Southeast has a Clovis component been securely dated, but the similarity of the projectile point to those well-dated in the West encourages the view that they are roughly contemporaneous, i.e. 9500-9000 B.C. This is also supported by a few radiocarbon dates from the Northeast (Lothrop and Gramly 1982; Funk, Walters and Ehlers 1969).

In the Southeast the Clovis point is followed by a series of projectiles that, in their form, presage the specimens of the early Archaic which follows. Those projectiles are sometimes classified as Paleo-Indian, sometimes as early Archaic. Included here are points of the Dalton-Quad-Hardaway types. These are similar in the retention of at least vestigial fluting and weakly defined stems, usually with lateral and basal grinding, traits which provide a formal technological link to the preceding Clovis tradition. They also, however, are generally smaller, seemingly less carefully crafted, and usually are made on local, rather than exotic, raw materials. Various sites in the Southeast have yielded dates indicating a placement of the Dalton-Quad-Hardaway types between 8500 and 7900 B.C. (Goodyear 1982). This creates an occupational hiatus in the east between 9000 and 8500 B.C. (Fitting 1968) and indirectly suggests that Clovis continued longer in the East than the West. This position is supported by various dated Clovis or Clovisoid sites in the northeastern states and southeastern Canada (Haynes, Donahue, Jull and Zabel 1984; Funk and Wellman 1984:87; MacDonald 1968; Curran 1984; Byers 1959) and in northwestern Virginia (Gardner 1974:5). It is most probable that Dalton and related types were time-transgressive on Clovis from south to north, probably in response to a south-to-north establishment of modern biotic conditions in the early Holocene.

In Virginia, as in much of the Southeast, Paleo-Indian points seem to be scattered thinly to form a light cultural patina across the state. A total of 668 specimens was reported in 1982 (Archaeology of Eastern North America 1982), with three-fourths of the state's counties recording at least one specimen. Although there are certain counties with relatively abundant points, this can easily be attributable to discovered "base camps" or quarries (e.g. the Williamson Site in Dinwiddie County) or differential activity by collectors. There is no compelling evidence that the Paleo-Indian settlement or subsistence patterns favored a particular environmental or topographic setting. In consequence, the absence of Clovis points in the USRB collection cannot be meaningfully assessed until more large-scale systematic surveys have been conducted in Virginia and

its neighboring states.

Moving from statements of the archeological record to models of past behavior, the paucity of information allows, as stated previously, various interpretions. Because west of the Mississippi there is frequent association of Clovis, Folsom and Plano points (the western temporal equivalents of eastern Clovis and Hardaway-Dalton-Quad points) with Pleistocene fauna, it has been assumed that mammoth, mastodon, or other now-extinct species were the focus of the eastern Paleo-Indian hunters. Evidence however is poor at best, with only a handful of known associations in the East, mostly from Florida (Webb, Milanich, Alexon and Dunbar 1984; Palmer and Stoltman 1976). There are a few additional sites producing remains of caribou (Cleland 1965; Funk, Walters, Ehlers, Guilday and Connally 1969; MacDonald 1968), but all told there is little to support the notion that the economy of the eastern Paleo-Indians focused on Pleistocene megafauna. Ritchie (1956) has suggested a foraging economy, combining large and small game, fish and wild plant resources. Whatever the subsistence base, the population seems to have been low and the social organization at the band level. Occasional, perhaps seasonal multi-band encampments likely occurred (Curran 1984) as in the West (Wilmsen 1974). In addition to base camps (single or multi-band), quarry sites and processing stations have been recognized (Gardner 1974; Dragoo 1973). In its most generalized form this model has small bands of hunters and occasional gatherers moving within large but defined territories, returning periodically to quarry sites and encamping with neighboring bands when possible for information exchange, raw material and/or product exchange, marriage and other ceremonial activities. In particular is it necessary to posit an emphasis on hunting, because this creates the need for a low population density as suggested by the site distribution and allows contrast for what follows.

The Archaic

The Archaic stage traditionally is defined in terms of a subsistence pattern dependant upon modern species of wild plants and animals. As discussed previously, however, this contrast with the Paleo-Indian state may be more apparent than real, particularly east of the Mississippi. Yet it is clear that around 8000 B.C. most stone tool forms underwent a degree of formal change; whether that change is indexing a dramatic shift in subsistence modes as in the West, or is attributable to other cultural processes awaits additional research. Regardless of the systematic inaccuracies, the Archaic is characterized archeologically by a variety of side-notched, corner-notched and stemmed dart points, an increasing variety of other chipped and ground stone implements, and a settlement pattern marked by varying degrees of mobility. It is the longest of the cultural stages in eastern U.S. prehistory, traditionally (and arbitrarily) divided into three periods each characterized by

a set of projectile point forms and, sometimes, other tool classes.

Early Archaic, 8000-6000 B.C. In the mid-Atlantic states the early Archaic is distinguished by the presence of a series of corner-notched, side-notched and bifurcate based projectile points. The earliest manifestation is the Kirk or Palmer point (the distinction is not always made), a corner-notched, basally ground point or knife (Coe 1964; Gardner 1974:16; Broyles 1971) and the latest is the distinctive bifurcate point of the MacCorkle-St. Albans-LeCroy series at 6000 B.C. (Chapman 1975; Claggett and Cable 1982:34). Chapman, and Claggett and Cable, view the Early Archaic as a set of cultural systems exploiting both plant and animal resources, but particularly white-tailed deer and hickory nuts and acorns. Probably related to the subsistence pattern is a settlement system utilizing both floodplains and interriverine uplands (Gardner 1974:24; Goodyear, House and Ackerly 1979:28; Chapman 1975). Using quite different data sets and theoretical concepts, various investigators have concluded that the early Archaic was a period wherein only a small portion of the potential food resources of the southeastern biome were utilized (Caldwell 1958; Claggett and Cable 1982:687). As in the preceding stage, social organization seems to have been at the band level; there are no indicators however of short-term multi-band encampments, possibly an indicator of more rigorously defined band territories, encouraged or allowed by increased dependance on fixed resources of nuts and deer (Smith 1980:11).

Middle Archaic, 6000-2500 B.C. This period of the Archaic begins with the appearance of the Stanly type projectile point, and ends with the spread of the Savannah River type. Additional point forms considered of Middle Archaic age include Halifax, Morrow Mountain and Guilford (Coe 1964). The date of 2500 B.C. seems to approximate a climatic shift to cooler, moister conditions following the Climatic Optimum, Hypsithermal or Altithermal of the middle Holocene (Carbone 1977; Claggett and Cable 1982:206,217; Fitting 1978:14; Smith 1985), the beginning of plant cultivation here and there in the East (Chapman et. al. 1982:118), and the earliest appearance of ceramics in the East. During the Middle Archaic there is increased diversity noted in the tool kit likely reflecting a broad-spectrum hunting and collecting subsistence pattern (Claggett and Cable 1982:687) with a wider variety of site locations (Word et.al. 1981:II-9). Ground stone tools such as atl-atl weights and axes appear at this time. For the Southeast generally Ford (1974) views the less specialized economy permitting a degree of population growth creating smaller band territories (which in turn encouraged or reinforced the eclectic diet).

Late Archaic, 2500-500 B.C. The main diagnostic tool of this period is the broad, square-stemmed Savannah River biface, known as the Susquehannah in the Northeast. These points appear to follow a time-transgressive distributional

cline from south to north (Tuck 1978:38); i.e., the earliest examples are farthest to the south and make their appearance progressively later as one moves north. Soapstone vessels, grooved axes, elaborate ground stone tools and ornaments, the use of native copper, and cultivated cucurbits and sunflower (Chapman and Shea 1981) are also present. Trends initiated during the Middle Archaic continued to influence cultural patterns of the late Archaic, especially the broad-spectrum collecting and hunting, now coupled with the cultigens. The accompanying population growth produced still smaller band territories, a higher degree of sedentism (especially marked along certain rivers and the coast by extensive shell middens), and an increase in the exchange of non-utilitarian objects, likely trade regulators facilitating exchange between culturally circumscribed groups (Ford 1974). The relatively high population density, low mobility and regionally specialized technoeconomic systems generated a diverse archeological record for the late Archaic, too diverse to be summarized here. In consideration, the remainder of this discussion will focus on the southwest Virginia area in particular.

The southwest piedmont of Virginia, like the northwest piedmont of North Carolina, did not experience development of elaborate late Archaic cultural systems. Grooved ground stone axes, atl-atl weights and steatite vessels occur, but non-utilitarian objects, thick shell or earth middens and evidence of interregional trade are rare or absent. Hunting and gathering stations are found in a variety of environmental settings (Holland 1970:115), and larger base camps seem to be more frequent along major water courses. The Gaston Site (Coe 1964) is one example, although located some 250km east of the USRB area.

The Woodland

The Woodland is defined in terms of a ceramic tradition, not a subsistence pattern, but despite this taxonomic impurity it has proved a useful construct in eastern prehistory. Beginning before 1000 B.C., and widespread by 500 B.C., cord, fabric and (later) net-impressed pottery spread across much of the eastern U.S. In most areas ceramic production was attended by sedentary settlement patterns, increased use of cultigens and domesticates, and sometimes increased mortuary ceremonialism most prominently indicated by mound construction. The degree of regional diversity and tempo of cultural change is greater than in the preceding late Archaic, and no attempt is made here to provide a pan-eastern overview of this period. Rather, the following discussion is focused on the piedmont of Virginia and North Carolina.

Early Woodland, ?-A.D. 800. Evidence for a transition from the Archaic to the Woodland has been elusive in the Virginia and North Carolina piedmont. Unlike the mountains (Keel 1976) and the coastal region (Phelps 1983), Woodland sites

dating prior to A.D. 800 are extremely rare in the Piedmont. Claggett and Cable (1982) have reported a "pre-Badin" Woodland occupation on the Haw River of North Carolina with an associated date of ca. 200 B.C. Coe's (1964) Badin and Vincent series pottery, the earliest ceramics at the Doerschuk and Gaston sites, appear to date near A.D. 500. The bow and arrow replaced the atl-atl during the early Woodland, and the ceramic traditions now recognized appear to have been introduced from the north. At present however additional information on this important period in prehistory is lacking.

Middle Woodland, A.D. 800-1200. The Middle Woodland in the Piedmont is marked by pottery of the Yadkin, Uwharrie, Clements and (in Virginia) Grayson wares. Small triangular arrow points usually are abundant in the sites, which typically are located in alluvial flood plains along major water courses. There is no evidence for mound construction or other symbols of complex social organization. Plant cultivation formed part of the subsistence base, with Zea mays present, but the importance of cultigens and domesticates seems to have been low.

Late Woodland, A.D. 1200-contact. This period is marked by ceramics of the Dan River series, sometimes called Wythe in Virginia, along with Clarksville (Evans 1955) and occasionally Radford series pottery (Holland 1970). Sites are numerous, often large and palisaded with evidence of permanent structures. The economy remained one of hunting and gathering augmented by domesticates, and social organization remained egalitarian. There is evidence of trade reaching ultimately to the coast, represented by shell beads and gorgets (usually in burials) and, rarely, elements suggestive of Mississippian cultures to the west. Both the Radford ware and the Mississippian motifs (Word et.al. 1981:V-39) indicate contact across the Blue Ridge front.

Historic. In the 17th century the project area was traversed by several parties of explorers, but little useful ethnographic data is provided by those accounts. Mooney (1894:35) records a Tutelo village in Patrick County in 1671, and the Saura occupied villages on the Dan River in North Carolina near the mouth of the Smith River. Both groups likely were Siouan speakers (Mooney 1894) and, along with the Occaneechi and Saponi, belong to the northern division of that language group. It is likely that these groups or their linguistic and cultural kinsmen are descendants of the late Woodland Indians of the USRB area.

History

Serious historical research, either archeological or architectural, is lacking for the survey area. Thus information gathered during the 1984-85 field seasons on

white settlement in the area represents the first published attempt to begin to establish a data base for these areas. Published sources which were consulted are listed with a brief explanation of their applicability below.

The Phase I and II survey for the Ridgeway Hydoelectric Project (Word et al. 1981), while located on the Smith River, dealt with the area of Henry County located near Martinsville. Thus, the historical development of the area was heavily influenced by the gentle topography and the attendent tobacco cultivation, factors which the USRB survey area does not share. Additionally, the Ridgeway survey was done after the lake inundation, with unknown effects on historic sites and structures.

The John H. Kerr Dam and Reservoir Survey (Garrow 1980), while a good model for historic archeology and architectural history in a more documented area, dealt with a survey area some one hundred miles to the southeast, thus largely negating its pertinence to the mountainous southwest Virginia area.

Published architectural resources which were consulted during this research did not deal directly with the survey area, but some guidance was available from studies in peripheral regions. Swaim (1978:28) co-authored and edited a volume devoted to vernacular architecture in North Carolina. It was found to have general applicability for the survey area in the identification of house types. Glassie (1975) used the structural-functionalist model developed by Levi-Strauss for the analysis of vernacular house types in Middle Virginia (roughly from the Tidewater to the Blue Ridge above the James River). Unfortunately, although Glassie's work is considered definitive for the area he surveyed, southwest Virginia was not included. Again, however, comparative information was gleaned from this source. An earlier Glassie article (1978) followed a more traditional, formalistic analytical methodology in examining the types of the southern mountain cabin. The architectural history of the Roanoke Valley hes been reviewed in detail by Whitwell and Winborne (1982); however, as they state, "...there is little reliable information for the pioneer period" (1982:3). In the case of southwest Virginia, this would have included most of the first half of the nineteenth century. A standard architectural resource, the Historic American Buildings Survey (HABS) was compiled in the 1930's as a WPA project. Although a good source for more economically developed and densely settled areas, it lists only two structures in Patrick County, the courthouse in Stuart and a covered bridge. Finally, Pedigo and Pedigo (1933) have produced a history of Patrick and Henry Counties, but it deals predominately with the Martinsville area where most of the early population and economic development centered.

It is uncertain, due to very scanty documentation, when the first European settlers arrived in what is today Patrick and

Henry counties. Several early English explorers moved through the general area of southwest Virginia and northwest North Carolina, although the exact routes of these adventurers and traders are the subject of some controversy. In 1671 an exploring party under Thomas Batts journeyed from Bermuda Hundred, near present-day Petersburg, to the general area of Patrick County, Virginia or Stokes County, North Carolina before pushing west across the Blue Ridge (Wilson 1983:604). According to Mooney (1894:35), a Tutelo village was located in what is now Patrick County at this time. James Needham and Gabriel Arthur apparently travelled through the Clarksville, Virginia area in 1672, and Dr. Henry Woodward explored the present project area sometime in 1671; unfortunately, records of the latter journey have never been found (Wilson 1983:178). It is known that in 1728 a joint commission of North Carolinians and Virginians moved through the southwestern part of Virginia as they extended the boundary line between their states, then a subject of some dispute (Pedigo and Pedigo 1933:8). One of the North Carolina commissioners reported to the governor that they had gone 50 miles west of any habitation when they reached a point 170 miles west of Currituck Inlet, and that in all probability a generation or two would pass before settlements reached that area. The surveyors were ready to stop there, but Colonel William Byrd of Westover, one of the Virginia commissioners, pressed the others another 70 miles west. Colonel Byrd claimed, incidentally, that the real reason the commissioners wanted to quit was because all of the good liquor had given out (Pedigo and Pedigo 1933:9). Regardless of the motivation involved, if the observance by the Carolina commissioners was correct, settlement at the time was still about 130 km east of present Charity, Virginia. It seems probable, however, that individual hunters, trappers and traders were beginning to move into the general area by the second quarter of the 18th century.

Henry County was formed in October, 1776, by an act which split Pittsylvania County. At that time, 630 citizens pledged an oath of allegiance to the United States and roughly 30 declared themselves Tories. Pedigo and Pedigo (1933:9) suggest, however, that the population at that time was greater than these figures indicate, likely a correct assumption given the dispersed nature of the settlement pattern. Patrick County was split from Henry County on November 26, 1790. Census figures indicate that by 1790 the total population of Henry County was 8,479. This included 1,523 free white males 16 years of age and older; 1,963 free white males under 16; 3,277 free white females; 165 other free persons; and 1,551 slaves. By way of comparison Amelia County, just southwest of Richmond, had 1,709 free white males 16 years and older; 1697 free white males under 16; 3,278 free white females; 106 other free persons; and 11,307 slaves. Thus, while the white population of the two counties was roughly equal, Amelia County had almost ten times as many slaves as did Henry County (National Archives 1960:3). This is another consequence of the relatively

recent settlement of the upper Smith River valley--the process of immigration did not peak until the 1820's (Cash 1941:10), so the area in question was, for most of the antebellum period, a frontier.

The great majority of the settlers in the area were engaged in general farming activities centered around corn agriculture supervised by the women in the household. Men and women and children would have been involved in the day-to-day operation of the homestead (Cash 1941:25). Men "might plow a little, hunt a little, fish a little..." (Cash 1941:25), and already at least some were engaged in production of, and no doubt the consumption of "bust-head," the local corn liquor. Livestock at that time on a typical farm would have included a plow-horse, some mast-fed hogs, and perhaps a few dairy cows along with some poultry.

There were of course exceptions to the above generalized pattern. One of the most notable of these was the R.J. Reynolds homestead in nearby Critz, now maintained as a research station by Virginia Polytechnic Institute. The Reynolds homestead is a product of the crop that would make Henry, and to some extent Patrick counties, known up and down the eastern seaboard: bright tobacco, so called because of its mellow golden color and mild taste.

Tobacco had been raised by American colonists since 1612. The colonists had planted the seeds of Nicotiana tabacum, a milder, larger leafed type than the N. rustica native to North American. N. tabacum is influenced to a great extent by the soil and climatic conditions under which it is grown, with the best yields on loamy sands and sandy loams underlain by clay, clay loams, and clay (Hawks 1970:39). The optimum temperature range during the growing season is 65-70° F at night and day temperatures of 85-90° F (Hawks 1970:34). These are the prevalent summer conditions in the survey area. Flue curing, the process by which the harvested leaves are dried in a tight barn heated by an outside firebox, was in use as early as 1823 by one Louisa County (Virginia) farmer (Hawks 1970:5). However, the Civil War disrupted the economic patterns of Patrick and Henry counties, as well as the rest of the South, and the promise of flue curing was not to be realized soon.

Prior to and immediately following the war, the majority of tobacco was chewed, requiring a heavy, dark leaf grown on relatively fertile lowland. Bright tobacco was used only as a wrapper. After the war cigarette smoking became more popular, and the demand for Henry County tobacco rose rapidly (Hawks 1970:6; Pedigo and Pedigo 1933:25). Patrick County farmers in the survey area apparently never participated in tobacco cultivation to the extent that farmers in the Leatherwood Valley district (approximately 50 km to the east in Henry County) did; (Tilley 1948:12; 1948:513). United States Geological Survey topographic maps indicate that the reason for this probably was, at least in part, the nature of

the terrain. Leatherwood Creek runs through a wide, flat floodplain, behind which rise broad, well-drained terraces sloping at a very shallow angle. The average width of this floodplain, based on 11 measurements made at .5 km intervals in the heart of the Leatherwood district, is .269 km., with a range from .11 to .75 km. The average width of the floodplain on Poplar Camp Creek, on the other hand, was .062 km., based on 11 measurements made at .5 km intervals from the stream's juncture with the Smith River. The range was from zero to .17 km wide. The broad floodplain and gentle terraces of the tobacco district therefore contrast sharply with the very narrow floodplains and steep slopes of the survey area.

Additionally, the rivers in the general survey area all run north and south, rendering them useless as transportation routes east to Danville and Martinsville. Although a stretch of the Smith River was briefly used by several batteaux after blasting sluices in the river bottom (Trout 1978: 53-54), the location of this endeavor was east and downstream of the survey area. Add to the previously mentioned factors the presence of the Blue Ridge escarpment approximately 10 km west of the town of Charity, and it becomes clear that the environmental factors of topography and location militated both against large scale cash crop agriculture (i.e., tobacco), and ready access to the area for settlement. The general impression that emerges is one of a geographic area which, in terms of European/English/American settlement, was, and is, very sparsely inhabited in comparison to the Martinsville and Danville environs to the southeast.

Today many area farmers continue to grow various crops for their own consumption while raising tobacco for sale, thus participating in a mixed subsistence/market economy. Over the past 50 to 75 years, the area economy has evolved until the largest local industries are orchards and logging. One further contributor to the local economy was revealed in a predictable pattern during the field survey: liquor stills (Figure 5c).

The manufacture of moonshine (also referred to in the South as ruckus juice, conversation fluid, corn squeezings, corn, white, white lightening, cove juice, stump whiskey, headache whiskey or blockade whiskey) is an on-going activity in the survey area. The Scotch-Irish who settled much of southern Appalachia brought their knowledge of liquor-making with them when they emigrated, first to Pennsylvania and then down the Shenandoah Valley to the southern colonies. Historically, moonshine was manufactured in relatively small amounts (about 12 gallons per still run). The liquor was distributed to neighbors who knew each other and was of a high quality, being made according to rather strict guidelines concerning the type of corn to be used (white, never yellow), the material used in the still (copper, never ferrous metals which could lead to metal poisoning), and the actual process, which was quite time-consuming. The pre-Prohibition stills were often the "blockade" or "groundhog" varieties, which

utilized a furnace built around the copper still vat, with only the top portion of the vat and its cap exposed. The essence of the system involved boiling the corn mash in the vat and channeling the steam through a coiled copper pipe in a water barrel, which acted as a condenser (Wiggin 1972:324).

The initial enforcement of the laws against moonshining fell to federal agents ("revenuers") and volunteers called "revenue dogs." During Prohibition, however, local sheriffs who often had known the moonshiners since boyhood became the primary enforcement agents. A kind of honor code existed between the two sides; sheriffs seldom made an arrest unless a report had been turned in by volunteers, who were never paid. A fee system usually existed which paid the sheriffs on the basis of whether they caught the still operator, whether they could provide a trial witness, etc. (Wiggin 1972:305).

After Prohibition the U.S. Treasury Department's Alcohol, Tobacco and Firearms Bureau began enforcing the statutes. Production techniques for moonshine had begun to emphasize quantity over quality, and local law enforcement officers were hard-pressed to cope with the problem. Today, the art of making truly high-quality moonshine has largely been lost. Most of the stills encountered in the survey area were the "submarine" type (Huffman, personal communication 1985) which utilize a small fieldstone or cinder block foundation for the fire, a vat of galvanized steel or tin with wooden plank sides, and often an old automobile radiator for a condenser. These vats have an unfortunate tendency to explode when the release valve is plugged, which may be an explanation for the alternative name of "dead man" for this type still. A Richmond, Virginia Treasury agent recalls one case in which the vat exploded, literally blowing the "drones" (the still's attendants) into the surrounding trees (Baxter, personal communication 1985). A single round copper vat, not found in situ, indicates that there were at one time some blockade or groundhog type stills operating in the area.

A generalized predictive model for the survey area indicates that submarine stills are located almost exclusively on small feeder or seasonal streams, rank 1 or 2, in steeply sloping terrain away from the Smith River. The prevalence of such stills is evidence that the local manufacture of "bust-head" is as popular today as it ever was.

Prior to the initiation of fieldwork for the USRB project, several hypotheses were stated dealing with historical developments in the survey area. The settlement pattern noted by Anderson-Green (1978) and Owsley (1949), in which closely related families settled a frontier area after reconnoitering by a family member, cannot be tested due to a lack of primary resources in the Patrick County record office. The paucity is not surprising, given the fact that a) the area in question was a largely illiterate frontier under negligible political control until the post-war period,

and b) the effects of the Civil War on the provenience of documents that might once have been on file is not known.

Based on field observations of the location of homesteads and farms, a pattern of site location can be derived, however. Although the Smith River in many areas has wide terraces seemingly quite suitable for house sites, the historic structures observed almost invariably are situated on an ecotone; that is, an area where two or more grossly defined ecological systems abut. In most cases this means either a ridge-toe with easy access to a floodplain or terrace and slope areas, or, alternatively, at the edge of a river terrace up against a slope area. This pattern likely is a product of the mixed market/subsistence economy prevalent historically and, to an extent, even today in the survey area. Under this system an ecotone would give settlers access to arable bottomlands or terraces (best suited to edible crops such as corn, beans, etc.) as well as slope areas with thinner topsoils underlain by clay (best suited to tobacco farming). An additional benefit of this settlement pattern is easy access to uncleared forest for hunting and logging. A second advantage of this settlement pattern is preservation of the greatest amount of flat land for subsistence crops while remaining near enough to the river to use it for fishing and transportation.

In this regard it should be mentioned that Soil Conservation Service soil series maps for the project area, as well as for the areas adjacent to the north and south, are not available at this writing nor for the forseeable future. This bears directly on another hypothesis which deals with the correlation between soil type and settlement patterning.

Another hypothesis offered prior to field work involved a measurement of the social evolution of the region as reflected in settlement pattern, architecture, and ceramics. Because no excavations were undertaken at historic sites, the association (if there is one) between architectural styles and ceramic types cannot be addressed in this report. A theoretical and methodological framework for studying this issue will be discussed under "Suggestions for Future Research."

On a more particularistic note, a number of individuals in the general Patrick and Henry counties area have made lasting contributions to the development of southwest Virginia. The Bassett family name was brought to America by William Bassett in 1621. His descendants included J.D. and C.C. Bassett, who started the Bassett Furniture Company earlier in this century, and now is one of the largest such firms in the Southeast (Pedigo and Pedigo 1933:91). The Critz family ancestors settled on Spoon Creek in Patrick County in 1747. Hamon Critz commanded a company under General Nathaniel Greene at Guilford Courthouse, and his descendants included Robert C. Critz, who married R.J. Reynolds' sister, Lucy. Several generations of Critz were employed in the management

echelons at R.J. Reynolds Tobacco Company, and thus were involved in the burgeoning bright tobacco industry in southwest Virginia during the late 19th and early 20th centuries (Pedigo and Pedigo 1933:108).

Of the local "plain folk" who had an influence on the general survey area, certainly Richard Joshua Reynolds was one of the best known. He was the son of Harden W. Reynolds, and grew up on the Reynolds farm in what is now Critz, Virginia. His father was a successful tobacco farmer, and in 1876 Richard organized the R.J. Reynolds Tobacco Company in Winston, North Carolina. As one of the two largest tobacco companies in the United States, R.J. Reynolds has exercised a tremendous amount of influence on the economies of southwest Virginia and the Piedmont of North Carolina. The international divisions of the company have become a major force in the world market.

Any summary of local notables should also include a brief description of the Stuart family. Archibald Stuart, a descendant of the Stuart clan of Scotland, settled in Augusta County, Virginia in 1738. One of his sons, Alexander, commanded a regiment under Nathaniel Green at Guilford Courthouse where two horses were shot from under him. He was captured (and later exchanged) by the British. J.E.B. Stuart, a descendant, was born in Patrick County in 1833. He attended West Point, and served on the southwest frontier where he was wounded. In 1859 he bore the surrender order from Lee to John Brown at Harper's Ferry, and during the Civil War made a reputation as the most brilliant cavalry commander of the Confederacy (Pedigo and Pedigo 1933:205). A favorite of newspaper editors on both sides, Stuart became legendary for a raid in which he captured a Union quartermaster post and its mules, then telegraphed the Quartermaster General in Washington demanding the Union supply him with better pack animals. He was mortally wounded at Yellow Tavern in May of 1864, but the Stuart mythos remains part of the local lore of Patrick County.



a



b



c



d

Figure 5: Site types, USRB, Virginia. a, open site 44Pk73, Smith River in background; b, rock shelter 44Pk78; c, still site 44Pk84; d, buried midden, 44Pk9.

CHAPTER THREE: METHODS

Introduction

The purpose of the USRB Archeological Project was to conduct archeological sampling of the 3000 acre proposed impoundment area and an intensive archeological survey of the 400 acre damsite area. Testing was required on those sites found within both areas thought to be eligible for the National Register of Historic Places. Standing structures located within the survey area were required to be inventoried but not assessed in terms of the National Register (Appendix D). Finally, research questions designed to guide future study in the survey area were required (cf. Appendix D).

Set-up Procedure

In order to accomplish the tasks required by the COE, a specific set of methods was implemented. Prior to entry into the field a literature search was carried out in order to familiarize lab personnel with the previous work in the area. In addition, a review of literature, site files and ceramic collections at the Virginia Historic Landmarks Commission (VHLC), Yorktown, Va., was undertaken.

Scholars from other institutions with research interests in the area were contacted in regard to their work, and comments and suggestions regarding the project were solicited. Local collectors were contacted for information concerning site locations, artifact types and private collections.

The Sampling Design

A dual stage sampling design was used for this project in order to provide intensive coverage of the 400 acre damsite area and a sample of the 3000 acre proposed impoundment area. Two superstrata were defined and approached using separate sampling strategies.

Superstratum I: The 3000-Acre Impoundment Area. Superstratum I encompassed all of the approximate 3000 acre impoundment area defined by the Corps of Engineers. The impoundment area was sampled by collecting data from clusters of topographic features, a stratified cluster sampling strategy. Each cluster was defined in order to include as complete an occurrence of the various topographic features as possible. These features included:

1. Floodplain- Any plain or level expanse of land that may be flooded during high water and/or the first contour above the river. This stratum included

levees and backswamps.

2. Alluvial Terraces- Any level or nearly level strip of land with more or less abrupt descent along the margin of a river or stream, and is composed of alluvial deposits of sand, silt or mud.

3. Confluence of the Smith River and its Major Tributaries- This stratum pertained to the area immediately surrounding the meeting of the Smith River and any major tributaries within a radius of 100 m, on either side of the merger and upstream on the tributary.

4. Slopes- All abruptly inclined surfaces adjacent to rivers, streams or alluvial terraces. Ridgetoes and the lower elevations of the interstream uplands were included in this stratum.

5. Uplands- This stratum included any of the higher ground of the region. Ridgetoes, hilltops and saddles were designated as a part of the stratum.

Superstratum I was divided into 11 units (clusters) of topographic features of comparable size (Figure 6). The cluster units were defined on both sides of the Smith River in order to allow the delineation of cultural differences that might have emerged as a result of any socio-cultural boundary created prehistorically by the river. If the Smith River functioned as a boundary between social or cultural groups, or acted as a deterrant to cultural diffusion, variation in the material remains from sampled contemporaneous sites on either side of the river would be noted in the analysis. These clusters were initially defined as follows:

1. Cluster I- The Puppy Creek Drainage, from the upper extent, 1200 foot contour, of the arm, UTM Northing 4073670m, Easting 574880m, dowstream to its merger with the Smith River, UTM Northing 4076530m, Easting 577450m, to points one kilometer on both sides of this confluence, a total of 406 hectares (1002 acres).

2. Cluster II- The Small Creek Drainage, from the upper extent of two separate arms, UTM Northing 4079920m, Easting 574870m and Northing 4079900m, Easting 576020m respectively, downstream to a point 183 meters (600 feet) upstream from the confluence of the stream and Smith River UTM Northing 4078710m, Easting 576505m.

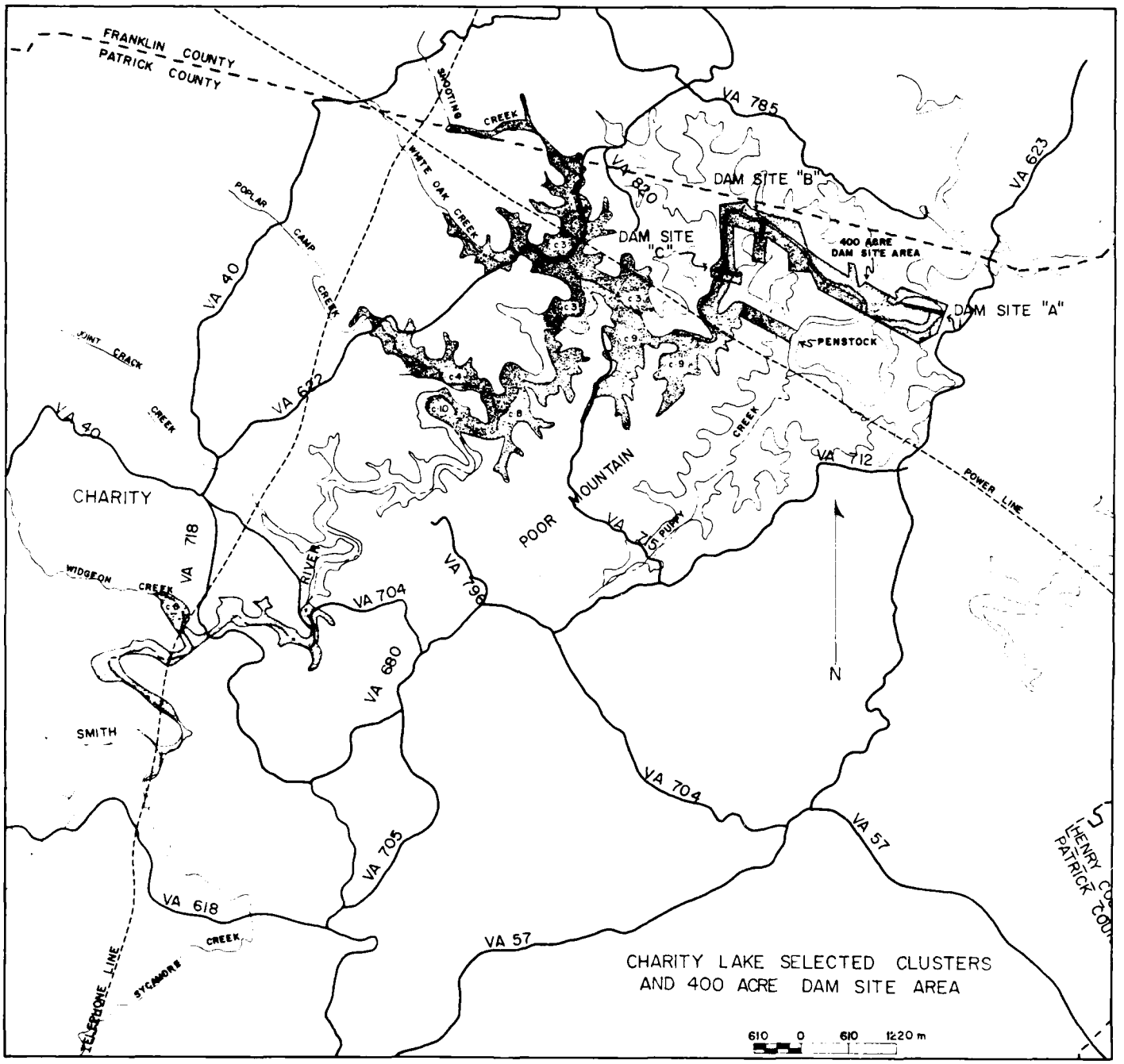


Figure 6. Selected Sampling Clusters and Dam Site Area, USRB, Virginia.

The total area equals 138 hectares (342 acres).

3. Cluster III- The Shooting and White Oak Creeks Drainage, from the upper extents of Shooting and White Oak Creeks, UTM Northing 4079780m, Easting 573000m and Northing 4078589m, Easting 572940m respectively, downstream to its merger with the Smith River, UTM Northing 4077700m, Easting 574719m, to points one kilometer on both sides of this confluence, a total of 231 hectares (571 acres).

4. Cluster IV- The Poplar Camp Creek Drainage, from the upper extent, UTM Northing 4077440m, Easting 571380m, downstream to its merger with the Smith River, UTM Northing 4076100m, Easting 573850m, to points one kilometer on both sides of the confluence. This cluster comprises 119 hectares (294 acres).

5. Cluster V- The Joint Crack Creek Drainage, from the upper extent, UTM Northing 4075070m, Easting 570565m, to its merger with the Smith River, UTM Northing 4074365m, Easting 571624m, to points one kilometer on either side of this confluence. This cluster comprises 89 hectares (220 acres).

6. Cluster VI- The Widgeon Creek Drainage, from the upper extent, UTM Northing 407361m, Easting 568740m, to its merger with the Smith River, UTM Northing 4072890m, Easting 569840m, to points one kilometer on either side of this confluence. The cluster comprises 89 hectares (220 acres).

7. Cluster VII- The Sycamore Creek Drainage, from the upper extent, UTM Northing 4070000m, Easting 569910m, to its merger with the Smith River, UTM Northing 4071530m, Easting 569490m, to points one kilometer on both sides of this confluence. This cluster contains 18 hectares (44 acres).

8. Cluster VIII- An unnamed drainage area across the Smith River from Poplar Camp Creek, from the upper extent, UTM Northing 4074880m, Easting 573970m, to its merger with the Smith River, UTM Northing 4075920m, Easting 573770m, to points one kilometer on either side of this confluence. This cluster contains 83 hectares (205 acres).

9. Cluster IX- An unnamed drainage, from the upper extent, UTM

Northing 4075660m, Easting 575510m, to its merger with the Smith River, UTM Northing 4077000m, Easting 575610m, to points one kilometer on either side of this confluence. This cluster comprises 157 hectares (388 acres).

10. Cluster X- An oxbow area on the south side of the Smith River, UTM Northing 4076050m, Easting 572900m. This cluster comprises 16 hectares (40 acres).

11. Cluster XI- An oxbow area across the Smith River from Puppy Creek, UTM Northing 4076730m, Easting 578150m. This cluster comprises 65 hectares (161 acres).

A total of six of the 11 clusters was selected at random for survey using a table of random numbers. The six clusters selected were clusters III, IV, VIII, IX, and X (Figure 6). The topographic features contained within each cluster were isolated using topographic maps (USGS) and 1=400 series project maps. The hectares/acreage of each topographic feature was calculated using direct measurements from project maps and a Charvoz-Carson compensating polar planimeter (Table VIII). Each topographic feature was then divided into one-hectare sample units using an overlay of Crystalene cross-section tracing paper.

Table VIII: Topographic Features (hectares/acres), USRB

Cluster	Floodplain	Terrace	Confluence	Slope	Upland	Total
III	26/64	17/42	2/5	186/460	0/0	231/571
IV	26/64	19/47	2/5	71/175	2/5	120/296
VI	28/69	26/64	Survey as Flood Plain 0/0	35/86	0/0	89/219
VIII	3/7.5	2/5	2/5	73/180	3/7.5	83/205
IX	4/10	3/7.5	Access/ Denied 0/0	59/146	0/0	66/164
X	3/7.5	3/7.5	0/0	8/20	2/5	16/40
Totals	90/222	70/173	6/15	432/1067	7/18	605/1495

Fifty per cent of each selected cluster was surveyed. This was accomplished by randomly selecting fifty per cent of the

sample units contained within each topographic feature. A total of 304 hectare sample units (750 acres) was surveyed (Table IX).

Table IX: 1-Hectare Sample Units per Topographic Feature (hectares/acres), USRB

Cluster	Floodplain	Alluvial	Confluence	Slope	Upland	Total
III	13/32	9/22	1/2.5	93/230	0/0	116/287
IV	13/32	10/25	1/2.5	35/86	1/2.5	60/148
VI	14/35	13/32	0/0	18/44	0/0	45/111
VIII	2/5	1/2.5	1/2.5	37/91	2/5	43/106
IX	2/5	2/5	Access/ Denied 0/0	30/74	Access/ Denied 0/0	34/84
X	1/2.5	2/5	0/0	4/10	1/2.5	8/20
Totals	45/112	38/94	3/8	217/535	4/10	306/756

A stratified cluster sampling strategy was used for several reasons. This type of sampling has been shown to be an effective method for sampling archeological resources (Matson and Lipe 1975; Schiffer, Sullivan and Klinger 1980:12; Snavely 1977). Two of the most attractive reasons were cost and time-effectiveness. The sampling method was implemented to provide information bearing on the models for the hypotheses posed within the research design and to estimate the number of sites within the project area, the topographic settings associated with phases or periods of prehistoric and historic occupations, and changes in site size and site frequencies through time. The basic problem addressed by the sampling method was that of estimating the characteristics of settlement patterns throughout the span of human occupation within the Upper Smith River drainage. Matson and Lipe (1975) recognized the same effectiveness of a clustered sample on the Cedar Mesa Project, Cedar Mesa, Utah. According to Matson and Lipe,

> "Settlement pattern here refers to the spatial relationships of various kinds of site/activity loci to one another and to environmental features and resources. Gaining information about this kind of spatial structuring of the cultural and environmental data would require sampling at a fairly high rate." (1975: 128-129).

They go on to say:

> "Unfortunately, consideration of time and money precluded sampling the entire region at a high rate, yet we still wished to maintain a focus on the Cedar Mesa region as a whole, that is, to make reliable statements about the archaeology and environment of the whole area, not just a part of it. Therefore, some sort of reduction had to be made in the amount of area actually sampled." (1975: 129).

In the field it was not deemed efficient to randomly move from one quadrant to another; therefore, a stratified cluster sampling design was used. In addition, a stratified cluster sample could make evident variability in the content of neighboring sites located in different environments. The method was not used to sample prehistoric or historic sites, but rather was designed to sample geographical and geomorphic areas (topographic features) believed to be representative of the entire survey area. The survey area was therefore considered as the population, statistically, and the method collected a representative sample of that population so that suggestions concerning the characteristics of the population (e.g. frequency of archeological sites) could be made.

The rate of coverage for each cluster sampled in superstratum I is listed below. Each cluster is divided into the topographic units defined for the area, the number of hectares surveyed, the number of sample units defined, the physical condition of the areas surveyed, and the survey techniques used to assess these areas.

Cluster III: White Oak and Shooting Creeks (Figure 7).

A. Floodplain=12.69 ha=13 sample units
- 6.94 ha (54.7%)=subsurface testing (95 .5m test pits, 6 augers)
- 4.66 ha (36.7%)=slopes>15%, narrow and wet (pedestrian survey)
- .62 ha (4.9%)=disturbed by construction of buildings (no visibility)
- .18 ha (1.4%)=low and wet (water standing)
- .29 ha (2.3%)=60% visibility (road cuts, gullies; surface inspection)

Total: 12.69 ha (100%)
Total sites recorded=5 (2 historic, 3 prehistoric)

B. Terraces=5.21 ha=5 sample units
- 2.00 ha (38.4%)=subsurface testing (21 .5m test pits, 2 augers)
- 2.27 ha (43.6%)=slopes>15% (pedestrian survey)
- .40 ha (7.6%)=low and wet (water standing)
- .54 ha (10.4%)=60% visibility (eroded surfaces, road cuts; surface inspection)

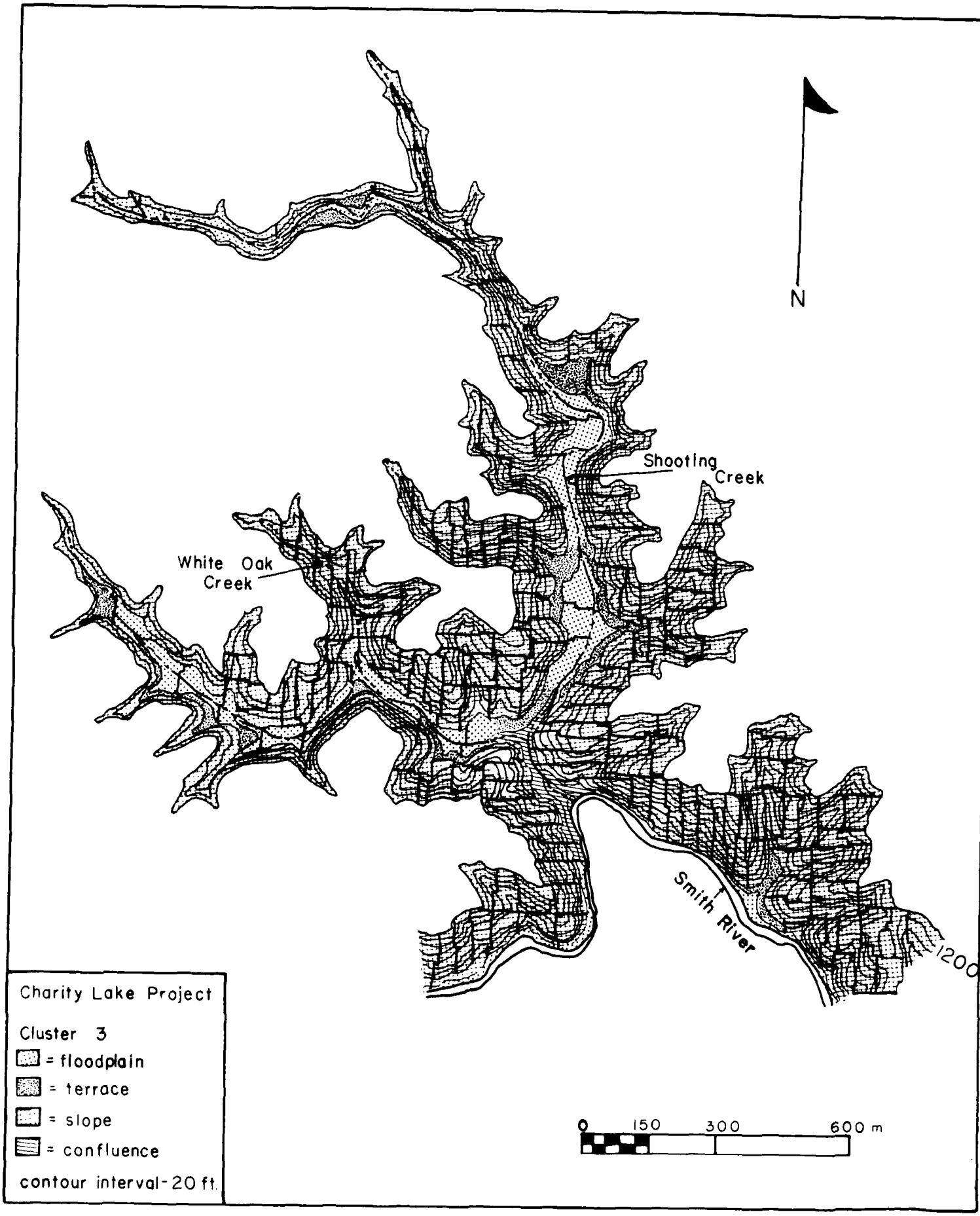


Figure 7. Cluster III Sampling Units, USRB, Virginia.

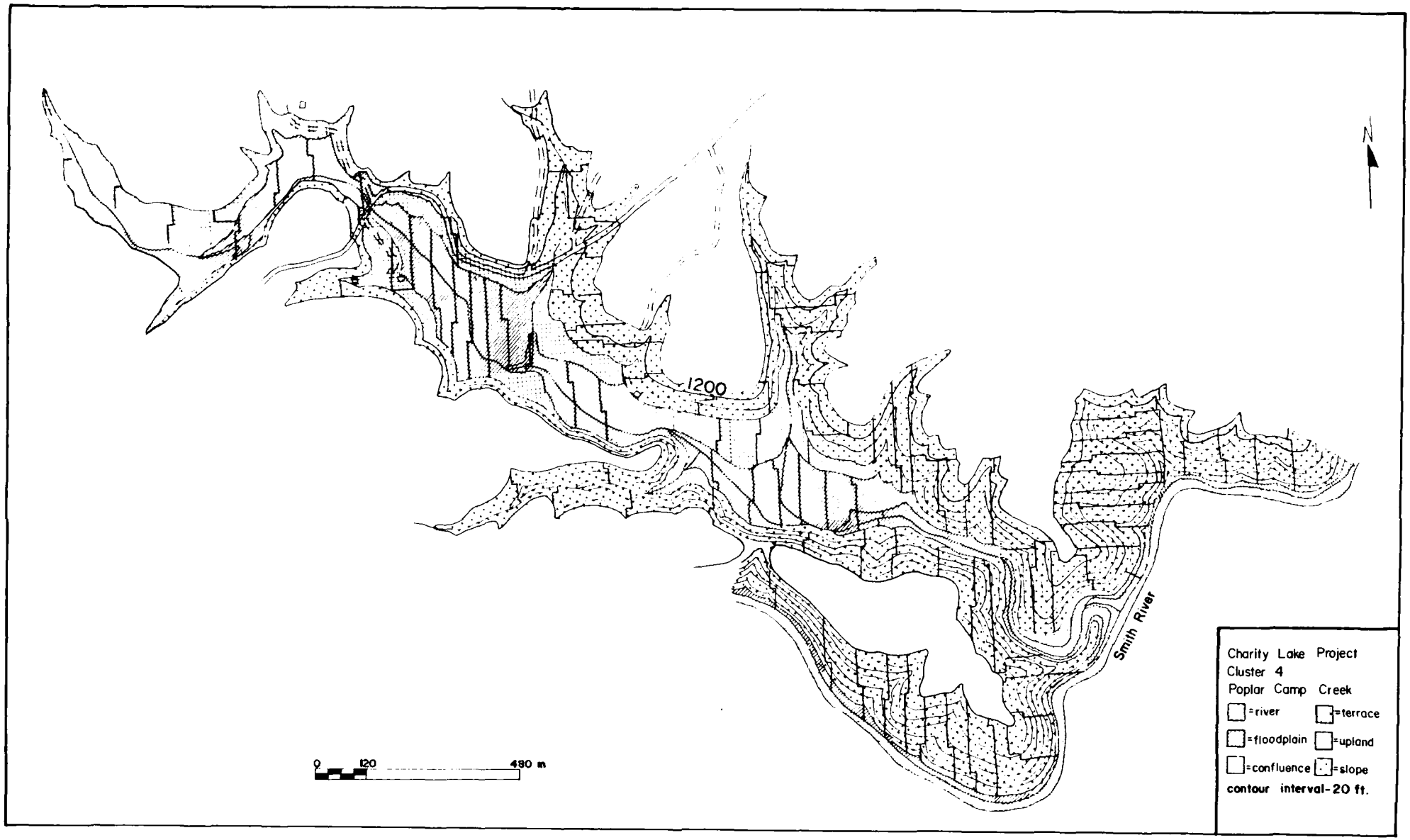


Figure 8. Cluster IV Sampling Units, USRB, Virginia.

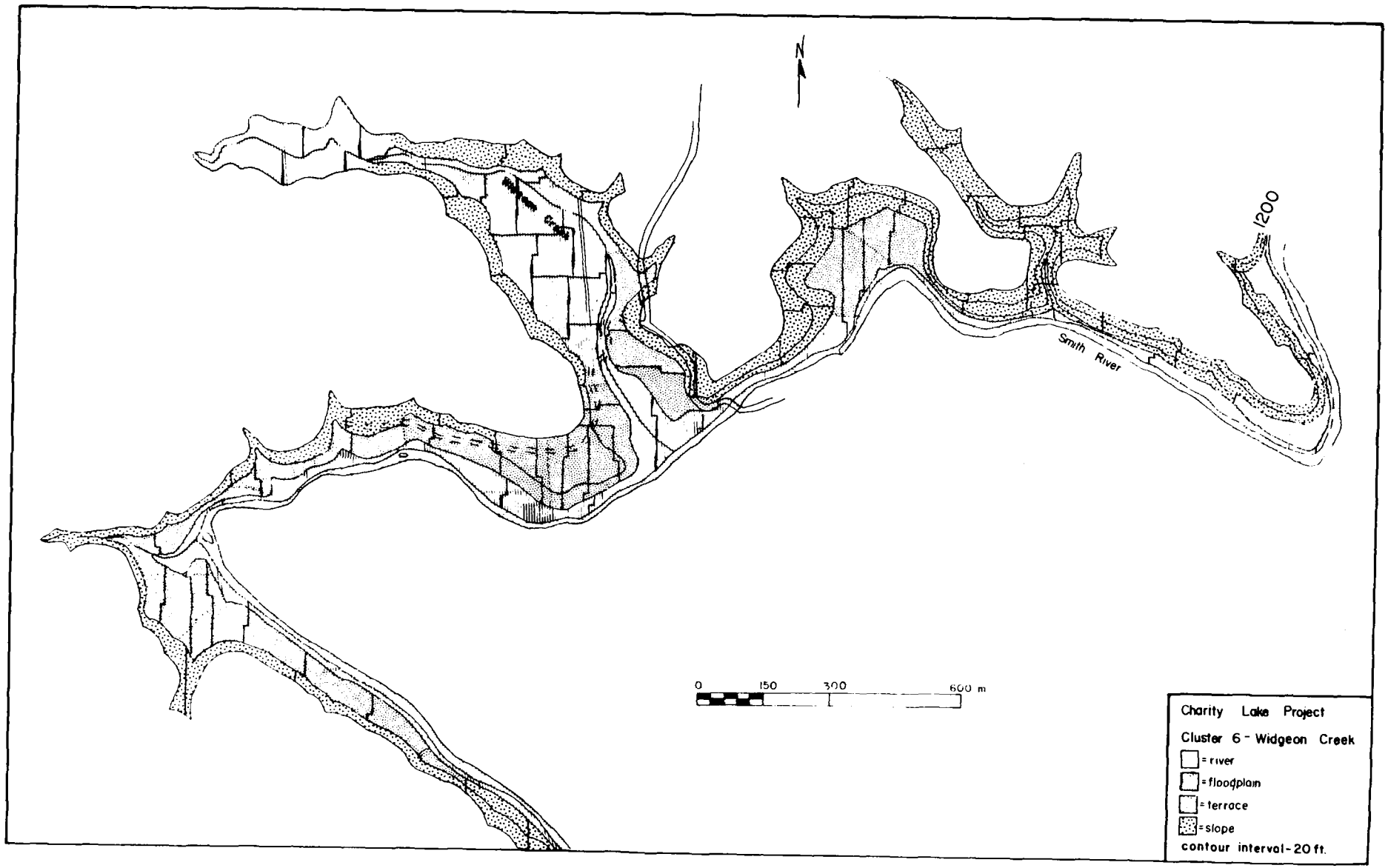


Figure 9. Cluster VI Sampling Units, USRB, Virginia.

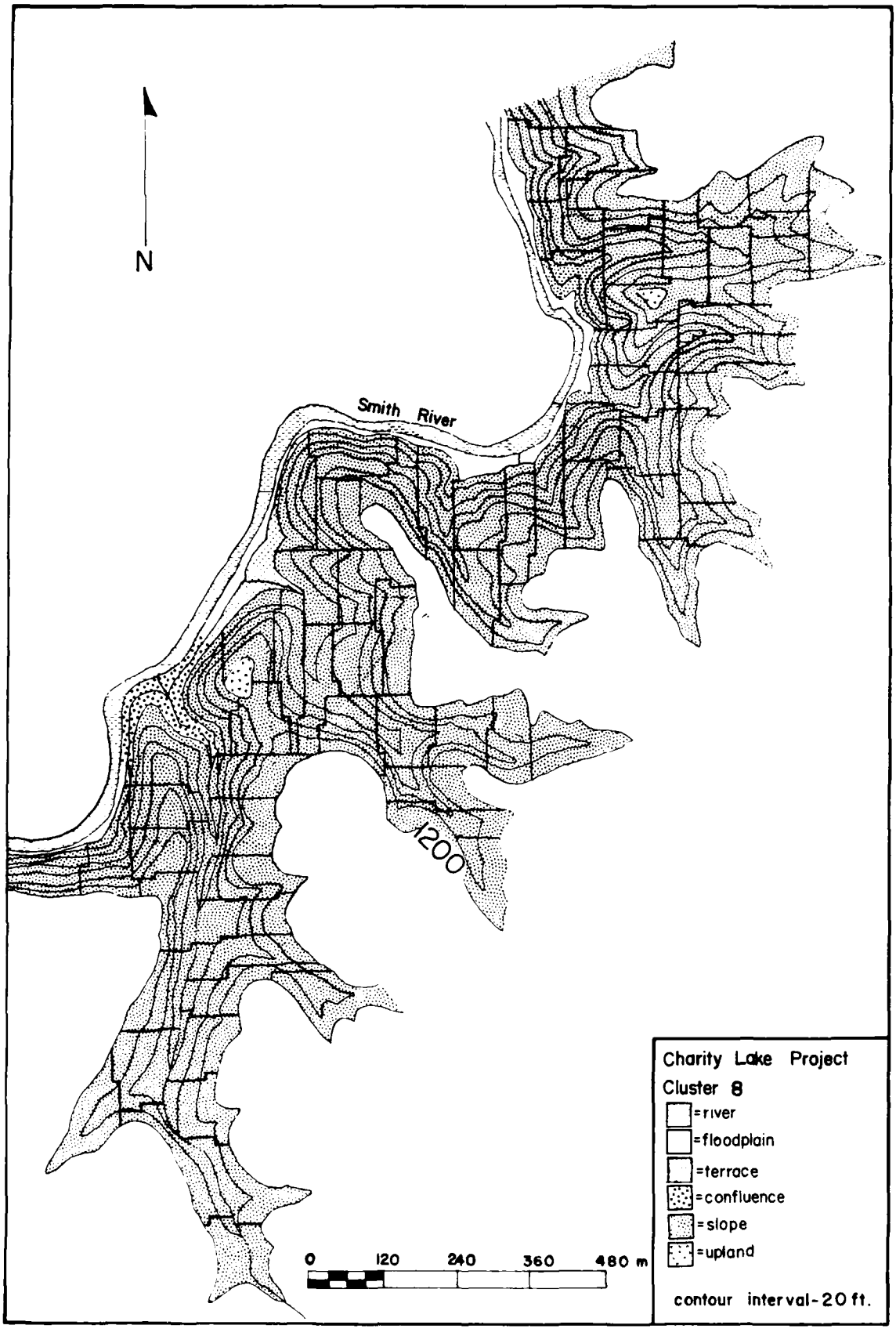


Figure 10. Cluster VIII Sampling Units, USRB, Virginia.

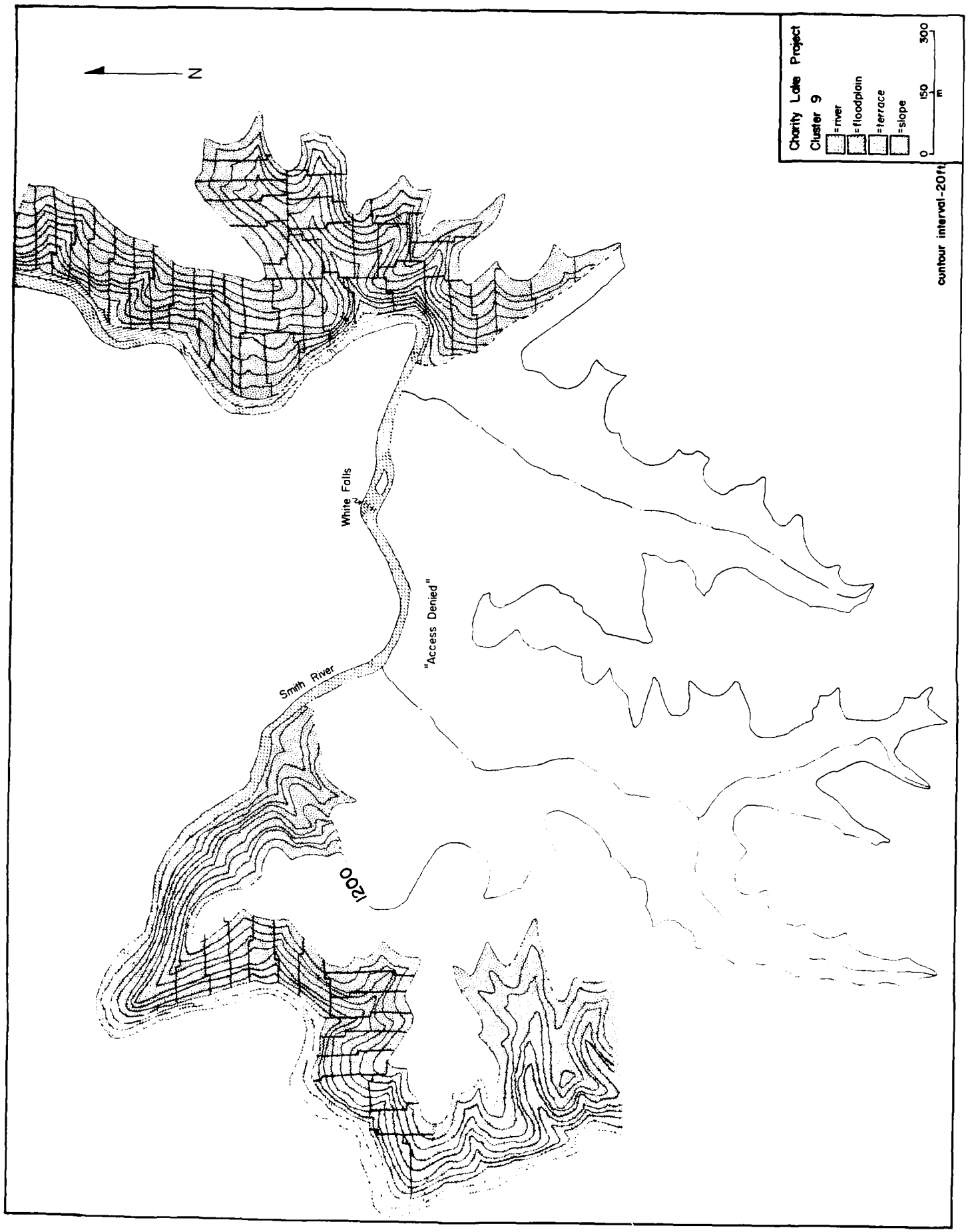


Figure 11. Cluster IX Sampling Units, USRB, Virginia.

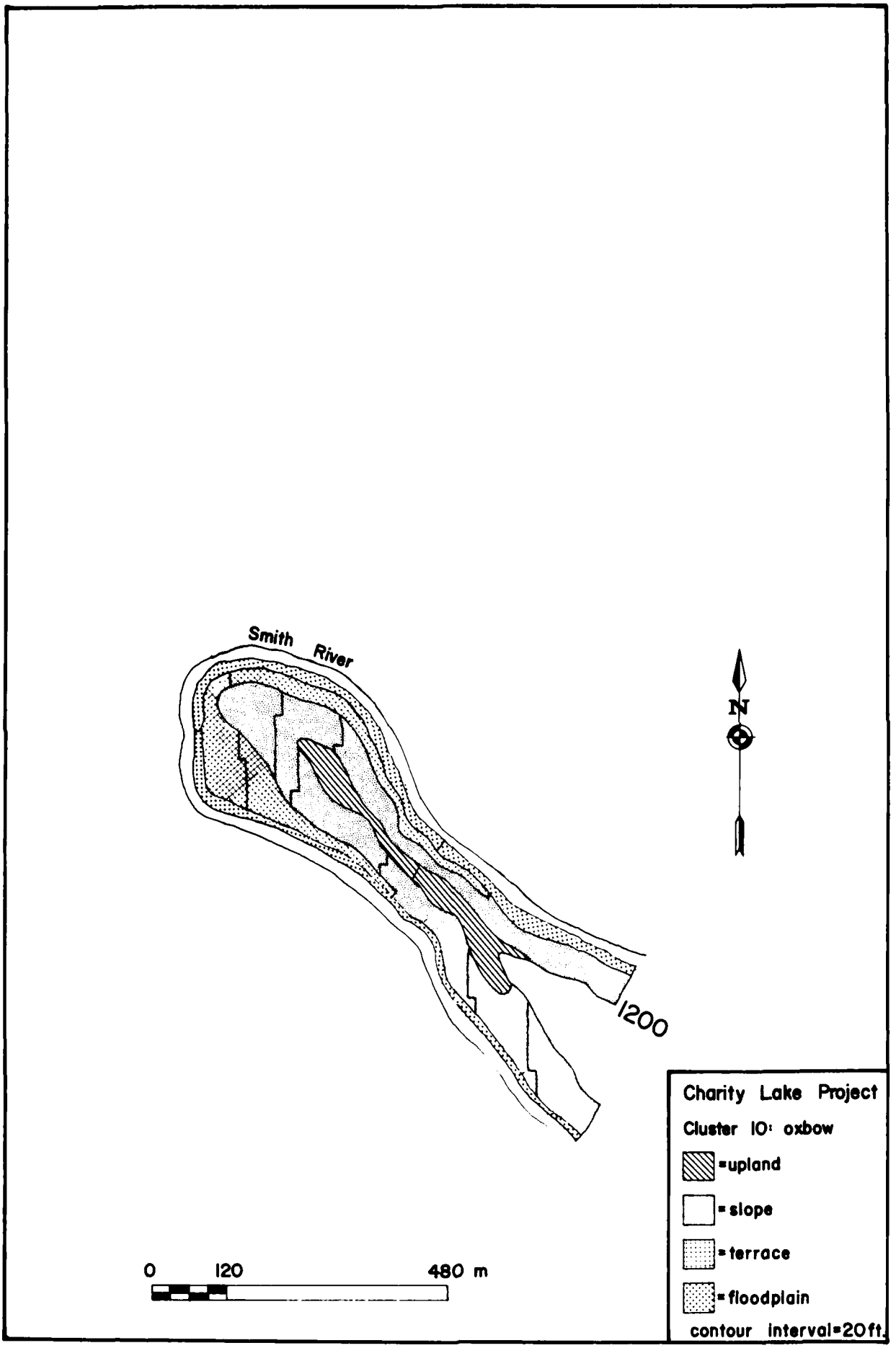


Figure 12. Cluster X Sampling Units, USRB, Virginia.

Total: 5.21 ha (100%)
Total sites recorded=7 (4 historic, 3 prehistoric)

C. Confluences=1 ha=1 sample unit
.77 ha (77%)=subsurface testing (16 .5m test pits, 5 augers)
.23 ha (23%)=slopes>15%, narrow and wet (pedestrian survey)

Total: 1 ha (100%)
Total sites recorded=3 (1 historic, 2 prehistoric)

D. Slopes=93 ha=93 sample units
5.71 ha (6.1%)=subsurface testing (90 .5m test pits, 1 auger)
74.37 ha (80%)=slopes>15% (pedestrian survey)
.25 ha (.3%)=disturbed by hard-surface road (no visibility)
.10 ha (.1%)=low and wet (water standing)
12.57 ha (13.5%)=60% visibility (eroded surfaces, timbered, road cuts, plowed fields, gullies; surface inspection)

Total: 93 ha (100%)
Total sites recorded=28 (22 historic, 6 prehistoric)

E. Uplands=None defined for Cluster III

Total sites, Cluster III=43 (29 historic, 14 prehistoric)

Cluster IV: Poplar Camp Creek (Figure 8).

A. Floodplains=13 ha=13 sample units
6.06 ha (46.6%)=subsurface testing (94 .5m test pits)
1.00 ha (7.7%)=slopes>15% (pedestrian survey)
.98 ha (7.5%)=disturbed by construction (no visibility)
3.02 ha (23.3%)=low, wet (water standing)
1.94 ha (14.9%)=60% visibility (eroded surfaces, road cuts, plowed fields; surface inspection)

Total: 13 ha (100%)
Total sites recorded:7 (0 historic, 7 prehistoric)

B. Terraces=9.06 ha=10 sample units
1.35 ha (14.9%)=subsurface testing (18 .5m test pits)
1.46 ha (16.1%)=slopes>15% (pedestrian survey)
.93 ha (10.3%)=disturbed by construction (no visibility)
1.60 ha (17.7%)=low, wet (water standing)
3.72 ha (41%)=60% visibility (road cuts, timbered, plowed fields; surface inspection)

Total: 9.06 ha (100%)
Total sites recorded=3 (3 historic, 0 prehistoric)

C. Confluences=1 ha=1 sample unit

.36 ha (36%)=slopes>15% (pedestrian survey)
.64 ha (64%)=60% visibility (eroded areas, road cuts; surface inspection)

Total: 1 ha (100%)
Total sites recorded=0

D. Slopes=35 ha=35 sample units
2.88 ha (8.2%)=subsurface testing (70 .5m test pits)
25.30 ha (72.3%)=slopes>15% (pedestrian survey)
1.52 ha (4.3%)=low, wet (standing water)
5.30 ha (15.2%)=60% visibility (eroded surfaces, timbered, road cuts; visual inspection)

Total: 35 ha (100%)
Total sites recorded=10 (5 historic, 5 prehistoric)

E. Uplands=.2 ha=1 sample unit
.19 ha (95%)=subsurface testing (3 .5m test pits)
.01 ha (5%)=60% visibility (road cut; surface inspection)

Total: .2 ha (100%)
Total sites recorded=0

Total sites, Cluster IV=20 (8 historic, 12 prehistoric)

Cluster VI: Widgeon Creek (Figure 9).

A. Floodplain=13.43 ha=14 sample units
8.73 ha (65%)=subsurface testing (96 .5m test pits, 6 augers)
2.64 ha (19.6%)=slopes >15% (pedestrian survey)
2.05 ha (15.3%)=low, wet (standing water)
.01 ha (.1%)=60% visibility (road cuts; surface inspection)

Total: 13.43 ha (100%)
Total sites recorded=4 (0 historic, 4 prehistoric)

B. Terraces=12 ha=13 sample units
10.43 ha (86.9%)=subsurface testing (136 .5m test pits, 33 augers)
.51 ha (4.3%)=slopes>15% (pedestrian survey)
1.06 ha (8.8%)=60% visibility (plowed fields, exposed surfaces, road cuts; visual inspection)

Total: 12 ha (100%)
Total sites recorded=10 (0 historic, 10 prehistoric)

C. Confluences=surveyed as floodplain

D. Slopes=17.29 ha=18 ;sample units
4.35 ha (25.2%)=sursurface testing (51 .5m test pits)
7.65 ha (44.2%)=slopes>15% (pedestrian survey)
.41 ha (2.4%)=disturbed by construction (no

visibility)
.43 ha (2.5%)=low, wet (water standing)
4.45 ha (25.7%)=60% visibility (timbered, eroded surfaces, road cuts; surface inspection)

Total: 17.29 ha (100%)
Total sites recorded=6 (3 historic, 3 prehistoric)

E. Uplands=No uplands were defined for Cluster VI

Total sites, Cluster VI=20 (3 historic, 17 prehistoric)

Cluster VIII: An unnamed drainage area across the Smith River from Poplar Camp Creek (Figure 10).

A. Floodplains=2 ha=2 sample units
.11 ha (5.5%)=subsurface testing (5 .5m test pits, 1 auger)
1.89 ha (94.5%)=slopes>15% (pedestrian survey)

Total: 2 ha (100%)
Total sites recorded=0

B. Terraces=.44 ha=1 sample unit
.44 ha (100%)=60% visibility (eroded surfaces, roadcuts; surface inspection)

Total: .44 ha (100%)
Total sites recorded=0

C. Confluence=1 ha=1 sample unit
.29 ha (29%)=subsurface testing (7 .5m test pits)
.71 ha (71%)=low, wet (water standing)

Total: 1 ha (100%)
Total sites recorded=1 (0 historic, 1 prehistoric)

D. Slopes=37 ha=37 sample units
6.21 ha (16.8%)=subsurface testing (110 .5m test pits)
23.36 ha (63.1%)=slopes>15% (pedestrian survey)
.26 ha (.7%)=low, wet (standing water)
7.17 ha (19.4%)=60% visibility (timbered, eroded surfaces, roadcuts; surface inspection)

Total: 37 ha (100%)
Total sites recorded=16 (12 historic, 4 prehistoric)

E. Uplands=.21 ha=2 sample units
.21 ha (1005)=60% visibility (timbered, roadcuts; surface inspection)

Total: .21 ha (100%)
Total sites recorded=0

Total sites, Cluster VIII=17 (12 historic, 5 prehistoric)

Cluster IX: An unnamed drainage (Figure 11).

A. Floodplains=2 ha=2 sample units
.61 ha (30.5%)=subsurface testing (9 .5m test pits, 5 augers)
1.39 ha (69.5%)=slopes>15% (pedestrian survey)

Total: 2 ha (100%)
Total sites recorded=0

B. Terraces=2 ha=2 sample units
1.31 ha (100%)=subsurface testing (10 .5m test pits, 1 auger)

Total: 1.31 ha (100%)
Total sites recorded=0

C. Confluences=Access denied
D. Slopes=30 ha=30 sample units
3.17 ha (10.6%)=subsurface testing (60 .5m test pits, 9 augers)
24.48 ha (891.6%)=slopes>15% (pedestrian survey)
.19 ha (.6%)=disturbed by powerline
.20 ha (.7%)=low, wet (standing water)
1.96 ha (6.5%)=60% visibility (eroded surfaces, timbered, roadcuts; surface inspection)

Total: 30 ha (100%)
Total sites recorded=9 (5 historic, 4 prehistoric)

E. Uplands=No uplands were defined for Cluster IX

Total sites, Cluster IX=9 (5 historic, 4 prehistoric)

Cluster X: Oxbow (Figure 12).

A. Floodplains=1 ha=1 sample unit
.59 ha (59%)=sursurface testing (3 .5m test pits, 2 augers)
.41 ha (41%)=slopes>15% (pedestrian survey)

Total: 1 ha (100%)
Total sites recorded=0

B. Terraces=2 ha=2 sample units
1.59 ha (79.5%)=subsurface testing (17 .5m test pits, 6 augers)
.41 ha (20.5%)=slopes>15% (pedestrian survey)

Total: 2 ha (100%)
Total sites recorded=1 (0 historic, 1 prehistoric)

C. Confluences=None defined for Cluster X

D. Slopes=4 ha=4 sample units

4.00 ha (100%)=slopes>15% (pedestrian survey)

Total: 4 ha (100%)
Total sites recorded=1 (1 historic, 0 prehistoric)

E. Uplands=1 ha=1 sample unit
.67 ha (67%)=subsurface testing (5 .5m test pits)
.33 ha (33%)=60% visibility (road cuts; surface inspection)

Total: 1 ha (100%)
Total sites recorded=1 (0 historic, 1 prehistoric)

Total sites, Cluster X=3 (1 historic, 2 prehistoric)
Total sites, Superstratum I=112 (58 historic, 54 prehistoric)

Superstratum II- 400 Acre Damsite Area (Figure 2).

Superstratum II: 400 Acre Damsite Area. Superstratum II was comprised of the 400 acre damsite area. This area was assessed for prehistoric and historic sites by a comprehensive pedestrian survey with with 100% coverage. The rate of coverage for Superstratum II is listed below:

A. Floodplains=8.56 ha
.11 ha (1.3%)=subsurface testing (14 profile cuts in river bank)
8.09 ha (94.5%)=slopes>15% (pedestrian survey)
.36 ha (4.2%)=60% visibility (visual inspection)

Total: 8.56 ha (100%)
Total sites recorded=0

B. Terraces=6.62 ha
1.80 ha (27.2%)=subsurface testing (54 .5m test pits, 53 augers)
.61 ha (9.2%)=60% visibility (visual inspection)
4.20 ha (63.6%)=low, wet (standing water)

Total: 8.56 ha (100%)
Total sites recorded=8 (2 historic, 6 prehistoric)

C. Confluences=.9 ha
.90 ha (100%)=slopes >15% (pedestrian survey)

Total: .9 ha (100%)
Total sites recorded=0

D. Slopes=140.52 ha
7.62 ha (5.4%)=subsurface testing (112 .5m test pits)
126.86 ha (90.5%)=slopes >15% (pedestrian survey)
6.04 ha (4.1%)=60% visibility (visual inspection)

Total: 140.52 ha (100%)
Total sites recorded=30 (16 historic, 14 prehistoric)

E. Uplands=3.4 ha
1.34 ha (39.4%)=subsurface testing (9 .5m test pits)
1.83 ha (53.8%)=slopes >15% (pedestrian survey)
.23 ha (6.8%)=60% visibility (visual inspection)

Total: 3.40 ha (100%)
Total sites recorded=2 (1 historic, 1 prehistoric)

Total sites recorded, Superstratum II=40

Total sites, Superstratum I=112
Total sites, Superstratum II=40
Total sites recorded outside survey area=10

Total sites recorded=162

Field Methods

Rights of Entry. Prior to entry onto non-government lands, written permission was obtained by the Corps of Engineers from private landowners to allow pedestrian survey and subsurface testing on the property. Copies of these forms were kept for use by the crew while working in the field. Whenever possible landowners were sought out and notified of the crew's presence, given information concerning the nature of the work, and an estimate of the duration of work on their property. In all areas where access was denied, field maps were so labeled and these areas were avoided. Any complaints made by landowners were reported to the Corps of Engineers.

Pedestrian Survey Techniques. The randomly selected units sampled within the impoundment zone and the 400 acres comprising the alternate damsites were examined by pedestrian survey by persons with previous experience and/or formal training in archaeological/anthropological methods. Selected areas were inspected along one or more transects with crew members advancing at intervals of 30 meters. The number of transects within a particular unit varied according to landform, slope, presence or absence of marsh or standing water, rock outcrops and recent cultural or natural disturbances. For example, the number of transects made on a steep slope were fewer than the number made within a broad floodplain. The ground surface along the transects was visually inspected for signs of cultural activity in places where visibility was estimated to be greater than sixty per cent and the ground slope was estimated to be less than fifteen per cent. Slopes estimated to be fifteen per cent or greater were physically inspected for rock shelters, caves, stills, historic rockpiles and structures, lithic outcrops suitable for aboriginal lithic procurement and aboriginal quarries. Generally slopes of this nature were walked by one

or more crew members who visually inspected the area for cultural resources. No testpits were usually dug within these areas. Any roadcuts encountered along transects were utilized for the surface visibility. These roads were inspected for artifacts and the profiles of the road cuts, when available, were studied for cultural debris, features or any other culturally derived stratigraphy. Where visibility was estimated to be less than sixty percent and/or deemed necessary by supervisory personnel, .5 meter tests (testpits) were made at 30 meter intervals along the transect in areas of high site probability. These areas of "high site probability" were defined on the basis of work done previously in North Carolina's northwest piedmont and the New River Valley (Woodall and Claggett 1974; Woodall 1975; Russell 1982; Spielmann 1976; Robertson and Robertson 1978). In areas of low site probability, i.e. marshes, gullies, areas disturbed by logging, severe erosion and/or recent construction, .5 meter testpits were spread at 70 meter intervals if deemed necessary by the field crew chief.

The .5 meter testpits were dug to a depth sufficient to expose the sub-humus soil. The profiles and floors of these pits were troweled and inspected for stratigraphy and/or culturally derived features. All soil from these holes was sifted through 1/4" mesh screens.

A 3" bucket auger was used to augment shovel tests within areas that exhibited conditions suitable for complex stratigraphy such as floodplains, alluvial terraces and depositional basins. Auger tests were taken to the maximum depths allowed by the water table, parent rock, or the auger itself (2.15 meters). Each stratigraphic change was recorded in terms of color (Munsell color code), texture, compactness, presence/absence of cultural material and the depths of horizons. Auger tests were not made on the sides of slopes or in low, wet or marshy areas. In areas such as floodplains and alluvial terraces that revealed deep deposits of homogeneous sands to 2.5+ meters, auger tests were abandoned when the same deposits were encountered by two or more successive borings.

Site Assessment Techniques. Knowledge of the locations of all previously recorded sites within the project area was acquired from the site files of the Virginia Historic Landmarks Commission (VHLC) before fieldwork was begun. These known sites were plotted on a USGS map to avoid the possibility of assigning a "new site" designation in the field. When a previously recorded site was found within a selected survey unit it was revisited and additional data were collected.

A site has been defined as any manifestation of human cultural remains that has an age greater than fifty years or significant status in the development of the local or regional community. These manifestations may be found in the form of art, artifacts, standing structures or other

culturally manipulated places or things. A site was defined by only one artifact if its context seemed to be relatively undisturbed. Site assessment procedures performed on previously unrecorded sites varied according to location and context. The boundaries of sites revealed by .5 meter testpits in areas of low surface visibility were defined by additional .5 meter testpits. Testpits were placed between 5-10 meters in the cardinal directions from the .5 meter testpit that originally revealed artifacts. If the additional testpits were sterile and only one artifact was initially recovered the site was labeled an "isolated find". If more than one artifact was recovered initially, the .5 meter testpit was treated as a site. If additional artifacts were recovered in subsequent testpits, .5 m testpits continued to be placed at 30 meter intervals until a distance of 30 meters was attained between sterile .5 meter testpits--i.e., until two successive sterile test pits were excavated. Those testpits which revealed artifacts were marked with red pin flags to define the site boundaries and mapped from a known reference point or datum. No additional collections were made.

Sites recovered in areas where the ground surface visibility was greater than 60 per cent were defined by the use of red pin flags to mark the location of each individual artifact. Site boundaries then were defined by the extent of the pin flags. Testpits, .5 m square, were placed in any area adjacent to the site that revealed less than 60% visibility to insure the proper definition of site boundaries. Collections were made in one of several ways. On small, relatively undisturbed sites, with an area of less than approximately 5000 square m, the location of each artifact was plotted on a site map. On larger sites, those with an area greater than 5000 meters, a grid of 10 m squares was superimposed over the pin flags. Each square was mapped and collected separately. On sites with dense concentration of artifacts, e.g. quarry sites, a series of two meter dog-leashes was laid out at 5-10 m intervals across a cardinal axis of the site. The dogleash units were overlaid by a grid of 15 m squares. The location of each individual unit was mapped and collected.

Sites located in caves and rockshelters were assessed by the use of one .5 m testpit. This procedure was implemented in order to allow minimal damage to sites of possible significance. Most of the caves and rockshelters encountered by this survey were relatively small, less than 40 m square in area. It was felt that any extensive testing within these areas would cause unnecessary damage to possible National Register properties.

Sites located in highly disturbed contexts, i.e. obviously redeposited, eroded downslope or in roadcuts, were normally collected in one unit as a general range collection. In accordance with the SOW, no collections were made on historic sites.

A datum was established for each site located. The locations of sites recovered were plotted on field maps and transfered to the appropriate quadrangles of the USGS maps in the laboratory. General site descriptions and locations were recorded in the field. Additional site data recorded for each site included the following information:

1. Soil type (S)- General generic descriptions were made because no formal soil maps are available for the survey area.
2. Distance to local resources (water, etc.).
3. Cultural affiliation.
4. Stratigraphic condition.
5. State of preservation.
6. Areal extent.
7. Elevation.
8. Slope.
9. Exposure.
10. UTM coordinates.
11. Condition of features.

At least one .50 x .75 m testpit was dug in sites which revealed more than ten artifacts on the ground surface except for those sites which revealed obviously disturbed context. On sites found in areas with little or no surface visibility, less than 60% visibility, .50 x .75 meter testpits were dug, when deemed necessary by the field supervisor, to expand existing .5 meter testpits. This was necessary in many cases to inspect stratigraphy, track possible features, or gain access to deep deposits within floodplains and terraces. The .50 x .75 meter testpits were dug and evaluated in the same manner as the .5 meter pits. Photographs were taken and profile drawings were made of those pits with any stratigraphic information of a cultural or geomorphic nature pertinent to the survey.

Historic Site Assessment Technique. Because subsurface testing of historic sites was not included in the scope of work, analysis of such sites was restricted to what could be readily observed. All sites were photographed from four sides, with the exception of stills and small springs where one or two overall photographs were taken. Measurements taken of stills included type of hearth, type of operation or vat, distance to water, and descriptions and

extent of the associated debris. Lastly, the location of the site was plotted using a Brunton compass.

Historic structures other than stills and springs were recorded as follows. The location of the site was recorded using a Brunton compass, and the distance to the nearest water and the extent of the site (based on aboveground evidence) were charted. The width and depth of the foundation was measured, and the material used for the foundation and chimneys, if such existed, was noted. Measurements of the fireplaces were also taken, including hearth height above grade, hearth depth, width, and height, and chimney width and depth. Note was made of nail types and hardware that was readily visible, as well as any obvious architectural features (i.e., log construction, frame and clapboard construction, presence or absence of dormers, windows and doors, etc.). Lastly, photographs were taken of all four sides of the structure.

Four historic cemeteries were located within the general area of the project. These were noted on a U.S. Geological Survey map prior to entry into the field, and subsequently were visited and the following information collected:

(1) Names of interred individuals
(2) Dates of birth and death
(3) Names of spouses and offspring
(4) Maiden names of women
(5) Any other information recorded on the grave markers.

This information was collected in an effort to determine the first-generation families in the survey area and to assess the consanguinity of the past residents.

Site Evaluation Procedures. All sites located as part of this project were evaluated in regard to acceptable regional research goals and the guidelines established by the National Register of Historic Places (36 CFR 60.6). The importance, or significance of any archaeological site found within the survey area was assessed within the context of the following research problems:

1. The chronological sequence of artifact styles found in southwest Virginia was considered an important question. Stratified, multicomponent sites were considered significant.

2. The presence or age of Paleo-Indian remains were considered significant. All identified Paleo-Indian remains were considered significant.

3. The age of Archaic projectile point styles in southwest Virginia was considered an important question. Single-component Archaic sites with intact subsurface features suitable for radiometric age determinations

were considered significant.

4. The formal characteristics of Archaic burial patterns were considered important questions. All Archaic sites with undisturbed subsurface remains which may have included human burials were considered significant.

5. The function (s) of Woodland sites in upland or small backswamp locations were considered important questions. All Woodland sites with evidence of undisturbed subsurface remains were considered significant.

6. The role of historic commercial or residential sites in the evolution and development of the local or regional community was considered an important question. All historic or residential sites with an age greater than 50 years thought to have had a profound role in the development of the local and/or regional area were considered significant.

In addition to these rather specific criteria several more general thematic considerations were maintained. These were especially useful in evaluating sites contributing to a possible historic district. Also these themes, derived from Virginia's cultural resources management plan, allow the more specific criteria to be embedded within a general framework applicable to the entire state. The themes are:

1. Chronology Theme - Crucial to archeological research is the ability to date precisely through such techniques as radiocarbon analysis artifacts and related specimens, deposits, and features noted in surveys and excavations. This theme is concerned with improving the currently limited knowledge available on dating occupation at prehistoric archeological sites within tightly limited time units. Such refinements are made possible by detailed analyses of stylistic variations in especially lithic and ceramic artifacts and the subsequent delineation of those changes over time that are temporally sensitive. While all site types are potentially applicable to this theme, particularly significant are those with well preserved cultural deposits and features.

2. Demography Theme - Key to this theme is the evaluation of changes in population size and distribution over time, factors affecting health and mortality within prehistoric societies, and adaptive responses undertaken as a result of demographic stresses. While the analysis of human skeletal remains from burials in sites is important for such studies, variations in intensity of occupation as manifested in individual site artifact densities and local/regional site densities also can be used as relative measures for identifying population changes and adaptations over time. Accordingly, all prehistoric sites can contribute to this theme.

3. Settlement Patterns Theme - studies related to this theme involve the analysis of different strategies available for the prehistoric utilization of an area in response to subsistence, demographic, socio-political, and religious aspects of a cultural system. Evaluations can take place on two different levels: (1) utilization of space within a settlement and (2) local/regional distribution of settlements as a result of environmental adaptations. All site types are applicable to this theme.

4. Technology Theme - This theme is concerned with the prehistoric utilization of and evolutionary changes in material culture as a society adapts to the physical, biological and cultural environments facing it. Research problems here range from artifact studies on the identification of changing tool types, their various functions, and how they were manufactured to more general issues related to the organization of labor and presence/absence of craft or occupational specialization. Potentially, all sites can contribute to this theme.

5. Subsistence Theme - A society's population size and mechanisms for socio-cultural integration are closely interrelated to its subsistence practices. Accordingly, different strategies that prehistoric societies develop over time to procure, process, and store food are accorded a major role in archeological research. Besides basic studies of site function based on variations in site location, tool types present, and food remains recovered, other research problems under this theme include the reconstruction of past habitats and differences in carrying capacity, studies on energy requirements and efficiency of specific technological systems for obtaining and subsequently using different foods, and investigations into the evolution of specific subsistence strategies over time within and between neighboring regions. All site types are either directly or indirectly related to this theme.

6. Socio-Political Organization Theme - This theme explores types of social integration found within prehistoric societies as reflected, for example, in kinship systems, forms of socio-political leadership, mechanisms of resource distribution, and variations in levels of achieved and ascribed ranking. Related are the documentation and evaluation of adaptive changes over time in such means of social integration. Also covered under this theme are studies on cultural interactions existing between societies as reflected, for example, in trade, intermarriage, alliance formation, warfare, and migration. While all site types are applicable to this theme, particularly important are larger settlements such as base camps, hamlets, and villages which serve as the loci of key aspects of socio-political organization.

7. Religious Organization Theme - Studies related to this

theme focus around prehistoric material manifestations of beliefs in the spiritual world. Research problems here range from the identification and evaluation of forms of religious leadership and how they vary over time and between societies to the analysis of variations in burial practices as reflective of differences in achieved and ascribed statuses. Although all site types can potentially contribute to this theme, burial mounds and caves, base camps, hamlets and villages have been shown to be especially significant here.

Site Testing Procedures

All prehistoric sites considered significant and thought to be eligible for the National Register of Historic Places were tested and evaluated in accordance with the criteria presented in 36CFR60, National Register of Historic Places, Nominations by State and Federal Agencies, and 36CFR800 (Advisory Council on Historic Preservation, Protection of Historic and Cultural Properties).

Testing procedures varied from site to site. Caves and rockshelters were tested using .5 m testpits. These pits were dug in 5-15 cm levels in the absence of culturally derived stratigraphy. Obvious cultural stratigraphy and cultural features were isolated and excavated in separate units. These pits were excavated to rock.

Open-air sites were tested with one or two 1 x 2 m testpits. These pits also were dug in arbitrary levels unless cultural stratigraphy or features deemed otherwise. Pits were excavated 30 cm into sterile soil, and a 3" bucket auger was used to bore below this point to test for deeply buried cultural strata. Additional auger tests were made on certain sites to define site boundaries.

Measurements for all sites tested were made from established datum points. Each testpit was documented by at least one scale profile drawing and photograph. All sites tested were mapped using an alidade and plane table, with excavation units and other subsurface tests plotted.

All data generated by the survey were returned to the Archaeology Laboratories for analysis and temporary curation. Current Virginia state site forms were completed and permanent site number designations were issued for each site encountered as a part of this project.

CHAPTER FOUR: PREHISTORIC CULTURAL RESOURCES

A total of 162 sites was recorded as a result of this project. Forty-eight percent, 78, of these sites revealed prehistoric artifacts. These prehistoric sites include 63 open-air sites, 12 rockshelters and 3 caves. Thirty-two prehistoric sites revealed lithic and ceramic specimens, while 46 produced only lithics.

Fifty-two percent, 84, of the sites were historic components. The historic sites comprised 6 series of rockpiles, 2 rock walls, 5 historic cemeteries, 3 springhouses, 20 structures or foundation lines and 48 liquor stills.

A total of 15 isolated finds were recovered within the project area. All but two of these finds were prehistoric artifacts.

The various prehistoric cultural resources recorded by the survey are described in this section of the report. These descriptions provide a brief summary of the sites located, a statement of project impact, and an inventory of artifacts recovered. A more detailed discussion of certain individual sites and artifacts is presented within the analyses and summary sections of this report. The artifact inventories are listed according to the provenience of the specimens, and the proveniences used consisted of the following categories:

A. Excavation Unit: A subsurface testpit of various dimensions usually either .5 x .5 m, .5 x .75 m or 1 x 2 m.

B. Field Specimen Number: Provenience within an excavation unit, usually a 5, 10 or 15 cm level. The designation 5-2 would mean Excavation Unit 5, Field Specimen 2.

C. General Surface Collection: A non-systematic collection from the site's surface.

D. General Range Collection Unit: A controlled collection unit (e.g. 10-15 m square).

E. Dogleash: A circular unit measuring 2 m in diameter within which all artifacts on the surface are collected.

Finally, for sites with both historic and prehistoric components the description has been placed either in this chapter or the next, depending on which component was perceived as the major one.

Site Descriptions

44Pk73

Archeology Laboratories Site: AL1

44Pk73 was located at the base of a ridgetoe on a beach adjacent to the Smith River. Vegetation was conifers and scrub oak. Debris from the site was located on a small beach created by the Smith River. The site was collected using six 10 m squares. Each artifact was point plotted. Three pits, two .5 m squares and one .5 by .75 m, were dug to determine site dimensions and test for stratigraphy and/or features. The .5 by .75 m pit (Excavation Unit 1), dug within site boundaries, revealed yellow brown sandy clay to 4 cm over hard-packed red clay mixed with hematite. One quartz tertiary flake was recovered at 3 cm below surface in EU 1. No features or culturally derived stratigraphy were noted. Additional pits failed to reveal any cultural materials.

Surface collections revealed a mixture of historic and prehistoric artifacts. Historic ironstone sherds were collected on the surface among the prehistoric artifacts. No artifacts were observed eroding out of the bank above the small beach. The shallow clayey topsoil, the lack of artifacts on a terrace above the site, and the mixed nature of historic and prehistoric artifacts indicate the site has been affected by the forces or erosion and redeposition.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" or "C" be chosen for construction, this site will suffer the effects of wave wash.

1. Soil Type: Yellow brown sandy clay over hard-packed red clay.

2. Distance to Water: Site located on beach created by Smith River.

3. Cultural Affiliation: Historic (post Civil War?); Late Archaic, Early Woodland.

4. Stratigraphic Condition: Shallow topsoil over clay.

5. State of Preservation: No bone recovered. Recent mussel shell collected. Site has been eroded by the Smith River.

6. Areal Extent: 48.09 m northwest-southwest; 6.54 m southeast-northeast.

7. Elevation: 980 feet AMSL

8. Slope: 8 degrees

9. Exposure: South-southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Tertiary flake: quartz
Total: 1

General Range Collection - Point Plot

Collection Unit 1
1-1: Core: quartz
Total: 1

Collection Unit 2
2-1: Primary flake: quartz
2-2: Shatter: quartz
2-3: Sherd, historic ironstone with lead glaze
2-4: Sherd, historic salt glaze
2-5: Sherd, historic salt glaze
2-6: Primary flake: quartz
2-7: Cobble: quartz
2-8: Fire-cracked rock: quartzite
2-9: Hammerstone: Diorite/gabbro
2-10: Primary flake: quartz
2-11: Core: quartz
2-12: Core: quartz

Collection Unit 3
3-1: Projectile point, Savannah River: quartz
3-2: Cobble: quartz
3-3: Primary flake: quartz
3-4: Tertiary flake: quartz
3-5: Primary flake: quartz
3-6: Core: quartz
3-7: Primary flake: quartz
3-8: Flake-blade: quartz
3-9: Sherd, historic ironstone with lead glaze
3-10: Fire-cracked rock: quartz
3-11: Primary flake: quartz
3-12: Sherd, historic ironstone with lead glaze
3-13: Shatter: quartz
3-14: Primary flake: quartz
3-15: Shatter: quartz
3-16: Primary flake: quartz
3-17: Core: quartz
3-18: Sherd, historic ironstone with lead glaze
3-19: Shatter: quartz
3-20: Core: quartz
3-21: Flake-blade: quartz
3-22: Rock fragment: feldspar
3-23: Primary flake: quartz
3-24: Tertiary flake: quartz

3-25: Tertiary flake: quartz

Collection Unit 4
4-1: Primary flake: quartz
4-2: Tertiary flake: quartz
4-3: Rock fragment: quartz
4-4: Primary flake with retouch: quartz
4-5: Primary flake with retouch: quartz
4-6: Rock fragment: quartz
4-7: Core: quartz
4-8: Shatter: quartz
4-9: Tertiary flake: quartz
4-10: Omitted
4-11: Flake-blade: quartz
4-12: Shatter: quartz
4-13: Fire-cracked rock: quartzite
4-14: Flake-blade: quartz
4-15: Flake-blade with retouch: quartz
4-16: Shatter: quartz

Collection Unit 5
5-1: Tertiary flake: quartz
5-2: Shatter: quartz
5-3: Sherd, historic ironstone with lead glaze

Total Artifacts: 58

44Pk74

Archeology Laboratories Site: AL2

44Pk74 was exposed in a dirt roadcut that extended along a ridgetoe from a small house on a ridgetop to the Smith River. The vegetation was conifers, scrub oak, and other hardwoods. The site was divided and collected in two 10 m squares. The artifacts were confined to quartz lithic debris--no diagnostic materials were recovered.

A total of three .5 m square testpits were dug along the roadbed to search for the site dimensions. All testpits were sterile. The testpits consistently revealed reddish-brown sandy clay to 10 cm over red clay.

The area that encompassed 44Pk74 was heavily eroded due to the roadcut and large gulleys which occurred at isolated points along the road. The artifacts had been washed downslope from the ridgetop, and subsequent inspection of the ridgetop failed to produce any additional artifacts.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsites "B" or "C" be chosen for construction, the site will suffer the effect of wave wash.

1. Soil Type: Reddish brown sandy clay over red clay.

2. Distance to Water: 10 m

3. Cultural Affiliation: Unidentified prehistoric.

4. Stratigraphic Condition: Highly eroded

5. State of Preservation: No bone recovered. Site eroded in old roadcut.

6. Areal Extent: 19.4 m north-south; 5.7 m east-west.

7. Elevation: 980 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Core: quartz
3 Shatter: quartz
1 Primary flake: quartz
2 Flake-blades: quartz
1 Projectile point fragment: quartz
Total: 8

General Range Collection Unit 2
2 Cores: quartz
2 Shatter: quartz
Total: 4

Total Artifacts: 12

44Pk75

Archeology Laboratories Site: AL3

44Pk75 was exposed on a beach at the base of the roadcut referred to in 44Pk74. This site produced two quartz flakes lying eight m apart, found in a highly eroded and disturbed area used as a boat landing. No testpits or controlled collections were deemed necessary.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" or "C" be chosen for construction, this site will suffer the effects of wave wash.

1. Soil Type: Reddish brown sandy clay loam over hardpacked red clay.

2. Distance to Water: 10 m

3. Cultural Affiliation: Unidentified prehistoric.

4. Stratigraphic Condition: Highly eroded.

5. State of Preservation: None. Artifacts appear to be eroded downslope.

6. Areal Extent: Two artifacts 8 m north-south; 3 m east-west.

7. Elevation: 980 feet AMSL

8. Slope: 4 degrees

9. Exposure: South-southwest

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Shatter: quartz
1 Tertiary flake: quartz

Total Artifacts: 2

44Pk76

Archeology Laboratories Site: AL 4

44Pk76 was located on the northwest slope of a ridgetoe that overlooks the Smith River. The slope was extremely steep, greater than 15%. Vegetation consisted of hardwoods, oak and hickory, with some conifers. Four quartz artifacts were found on the surface eroding down the side of the slope approximately 5 m apart. A total of three .5 m square testpits were placed on top of the ridgetoe in an effort to establish the point of origin of these flakes. The pits consistently revealed dark brownish gray sandy loam to 12 cm over tan sandy loam to 21 cm over reddish orange sandy clay loam to 28 cm below surface. No additional artifacts were recovered on the surface or in testpits above the slope. No additional testpitting was deemed necessary. The artifacts were collected in one unit.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will suffer no effect from the proposed project.

1. Soil Type: Red sandy brown loam.

2. Distance to Water: 36.5 m east of small feeder of the Smith River. Smith River lies 379 m to the south.

3. Cultural Affiliation: Unidentified prehistoric.

4. Stratigraphic Condition: Highly eroded.

5. State of Preservation: None; artifacts eroded downslope.

6. Areal Extent: 5 m north-south; 1 m east-west

7. Elevation: 1040 feet

8. Slope: 20 degrees

9. Exposure: West

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection
4 Shatter: quartz

Total Artifacts: 4

44Pk78

Archeology Laboratories Site: AL6

44Pk78 was a prehistoric site located within a rockshelter on a slope above the Smith River. The vegetation was a mixed hardwood forest. The ground surface was covered with a thick layer of leaf litter; therefore, no surface visiblity was available. One .5 x .5 m testpit was placed within the shelter to test for cultural deposits and excavated in 5 cm levels. This test revealed a brown sandy loam to 32 cm over a harder brown loam to 50 cm over a very hard brown loam to 65 cm over bedrock (Figure 13).

Artifacts were found from the surface to bedrock, with the density of artifacts found decreasing with depth. Ceramics were found within the brown sandy loam, but no deeper. The ceramics were of an early Late Woodland type dating from 1200-1550 AD. In Field Specimen 7 (30-35 cm below surface), a contracting stem projectile point was found. In Field Specimen 8 (35-40 cm below surface), an unfinished triangular projectile point was recovered. Quartz, chalcedony, felsite, and jasper debris, along with unifaces, bifaces, burins, gravers, scrapers, and fire cracked rock were found throughout the testpit. Below the zone containing ceramics, in a layer of hard brown loam, a Savannah River projectile point was recovered. This Late Archaic component was found

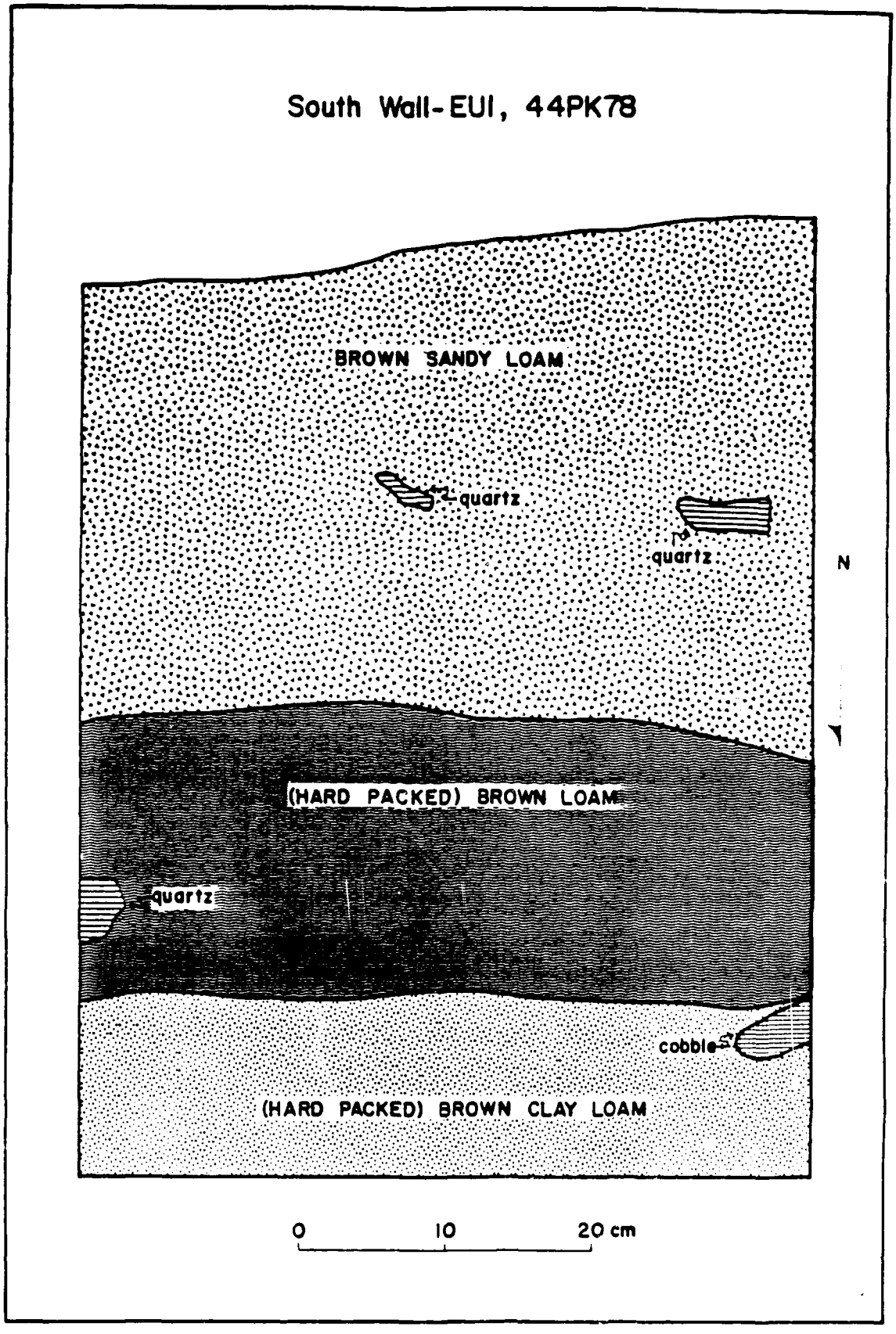
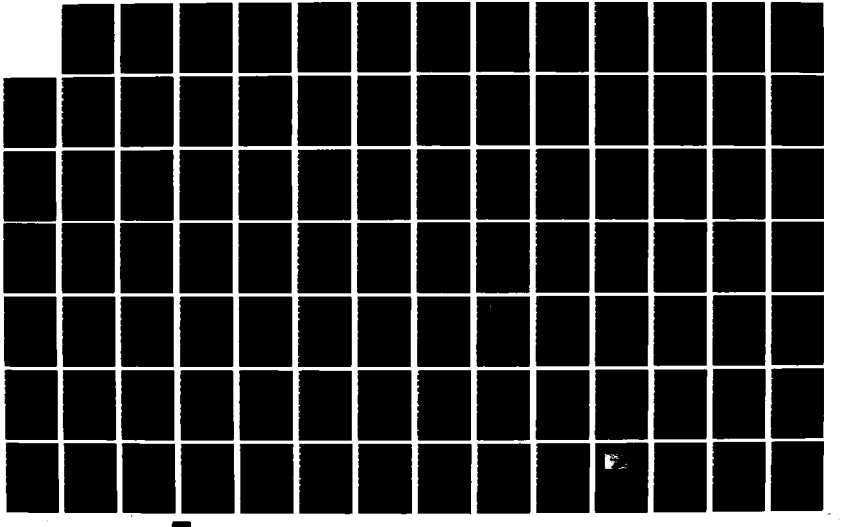
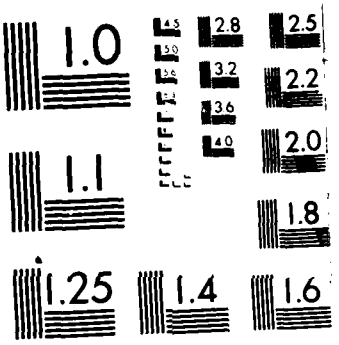


Figure 13. 44Pk78, Profile of Strata, USRB, Virginia.

AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART

underlying an early Late Woodland component which meets Criterion 1, refinement of or establishment of a chronological sequence for southwest Virginia. In addition, this site is also considered an upland Woodland site, meeting requirements of Criterion 5 in determining the significance of the site.

44Pk78 will be affected by flooding in the event that Damsite "A" is chosen for construction. If Damsites "B" or "C" are chosen, then this site will be affected by wave action and erosion.

1. Soil Type: Brown sandy loam over harder brown sandy loam over very hard brown clay/loam.

2. Distance to Water: The Smith River lies 19 m southwest of the the testpit.

3. Cultural Affiliation: Late Archaic to early Late Woodland.

4. Stratigraphic Condition: Excellent. A Late Archaic component is associated with the harder brown loam, while an early Late Woodland component is associated with the brown sandy loam.

5. State of Preservation: Poor, a few bone fragments and a fish scale were recovered.

6. Areal Extent: 2.4 m north-south; 2.6 m east-west.

7. Elevation: 1030 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southwest

10. Condition of Features: Midden undisturbed.

Artifacts Collected

General Surface Collection
- 1 Flake: quartz
- 1 Biface: quartz
- 1 Side-scraper: quartz
- 1 Sherd, crushed quartz: stamped

Total: 4

Excavation Unit 1, Field Specimen 1
- 36 Flakes: quartz
- 4 Flakes: quartzite
- 4 Modified flakes: quartz
- 7 Unifaces: quartz
- 1 Uniface: quartzite
- 5 Bifaces: quartz
- 1 Fishscale

Total: 58

Excavation Unit 1, Field Specimen 2
- 24 Flakes: quartz
- 4 Modified flakes: quartz
- 1 Modified flake: felsite
- 1 Decortification flake: quartz
- 1 Uniface: quartz
- 3 Side-scrapers: quartz
- 1 Blade: quartz
- 1 Blade: chalcedony
- 1 Shatter: quartz
- 1 Bone fragment
- Charcoal: .5 g

Total: 38

Excavation Unit 1, Field Specimen 3
- 1 Core: chalcedony
- 12 Core fragments/shatter: quartz
- 69 Flakes: quartz
- 2 Flakes: chalcedony
- 9 Unifaces: quartz
- 1 Side-scraper: chalcedony
- 5 Bifaces: quartz
- 1 Projectile point, midsection, serrated: quartz
- 5 Fire-cracked rocks: quartzite
- 1 Sherd, quartz tempered: cordmarked

Total: 106

Excavation Unit 1, Field Specimen 4
- 3 Exhausted cores: quartz
- 29 Flakes: quartz
- 3 Flakes: quartzite
- 2 Flakes: felsite
- 4 Modified flakes: quartz
- 2 Gravers: quartz
- 1 Biface: chalcedony
- 2 Fire-cracked rocks: quartzite
- Charcoal: 1.2 g

Total: 46

Excavation Unit 1, Field Specimen 5
- 8 Flakes: quartz
- 2 Modified flakes: quartz
- 1 Fire-cracked rock: quartzite

Total: 11

Excavation Unit 1, Field Specimen 6
- 1 Exhausted core: quartz
- 34 Core frags/shatter: quartz
- 30 Flakes: quartz
- 2 Flakes: felsite
- 1 Flake: chalcedony
- 1 Modified flake: quartz
- 3 Burins: quartz
- 1 Graver: quartz

1 End-scraper: quartz
1 Uniface: quartz
1 Side-scraper: chalcedony
4 Bifaces: quartz
1 Projectile point, triangular: quartz
1 Projectile point, broken tip: quartz
1 Projectile point, mid-section: quartz
8 Fire-cracked rocks: quartzite
1 Sherd, quartz tempered: cordmarked
1 Sherdlet (this term refers to a potsherd with its greatest dimension <12mm.)
Total: 97

Excavation Unit 1, Field Specimen 7
1 Core: quartz
17 Core fragments/shatter: quartz
21 Flakes: quartz
1 Flake: felsite
1 Flake: chalcedony
1 Flake: quartzite
8 Modified flakes: quartz
3 Burins: quartz
1 Side-scraper: quartz
1 Biface: quartz
1 Projectile point, contracting stem: quartz
15 Fire-cracked rocks: quartzite
1 Cobble (manuport): amphibolite
1 Sherd, quartz tempered: cordmarked, eroded
2 Sherdlets
Total: 75

Excavation Unit 1, Field Specimen 8
2 Cores: quartz
24 Core fragments/shatter: quartz
35 Flakes: quartz
2 Flakes: felsite
2 Flakes: chalcedony
2 Flakes: quartzite
11 Modified flakes: quartz
1 Side-scraper: quartz
1 Burin: quartz
2 Unifaces: quartz
5 Bifaces: quartz
12 Fire-cracked rock, quartzite
1 Ground stone fragment: amphibolite
1 Sherd, quartz and sand tempered: net-impressed
1 Sherd, sand tempered: cordmarked
1 Rim sherd, sand tempered: cordmarked
Charcoal: .4 g
Total: 103

Excavation Unit 1, Field Specimen 9
2 Cores: quartz
25 Core fragments/shatter: quartz
29 Flakes: quartz
5 Flakes: chalcedony

3 Flakes: quartzite
7 Modified flakes: quartz
2 Burins: quartz
3 Unifaces: quartz
5 Bifaces: quartz
1 Projectile point, broken tip: quartzite
1 Projectile point, broken tip: felsite
1 Projectile point, triangular, unfinished: chalcedony
1 Projectile point, contracting stem: quartz
10 Fire-cracked rocks: quartzite
1 Sherd, quartz and sand tempered: net-impressed, eroded

Total: 96

Excavation Unit 1, Field Specimen 10
1 Core: quartz
12 Core fragments/shatter: quartz
1 Core fragment/shatter: quartzite
10 Flakes: quartz
1 Flake: jasper
1 Flake: quartzite
1 Flake: chalcedony
4 Side-scrapers: quartz
1 End-scraper: quartz
2 Burins: quartz
1 Uniface: quartz
1 Uniface: quartzite
2 Bifaces: quartz
2 Bifaces: quartzite
1 Projectile point, Savannah River: quartzite
8 Fire-cracked rocks: quartzite

Total: 49

Excavation Unit 1, Field Specimen 11
1 Exhausted core: quartz
16 Core fragments/shatter: quartz
1 Core fragment/shatter: coarse grained unidentified material
3 Flakes: quartz
2 Flakes: quartzite
2 Modified flakes: quartz
1 Modified flake, end-scraper: quartz
1 End-scraper: quartz
1 Side-scraper: quartz
4 Bifaces: quartz
5 Fire-cracked rocks: quartzite

Total: 37

Excavation Unit 1, Field Specimen 12
2 Cores: quartz
17 Core fragments/shatter: quartz
12 Flakes: quartz
4 Flakes: quartzite
3 Modified flakes: quartz
1 Modified flake/side-scraper: quartz
6 Fire-cracked rock: quartzite

Total: 45

Excavation Unit 1, Field Specimen 13
7 Core fragment/shatter: quartz
3 Flakes: quartz
1 Modified flake: quartz
1 Biface: quartz
1 Fire-cracked rock: quartzite
Total: 13

Excavation Unit 1, Field Specimen 14
1 Core: quartz
5 Core fragments/shatter: quartz
5 Flakes: quartz
2 Modified flakes: quartz
1 Burin: quartz
1 Uniface: quartz
Total: 15

Excavation Unit 1, Field Specimen 15
2 Flakes: quartz
1 Fire-cracked rock, nutting stone: quartzite
Total: 3

Total Artifacts: 796

44Pk79

Archeology Laboratories Site: AL 7

44Pk79 was a small rockshelter located on a steep slope overlooking the Smith River. The general area was dominated by large outcrops of granite and steep slopes. Vegetation consisted of mature hardwoods with dogwood, beech and oak dominant. The rockshelter consisted of an overhang of granite which measured 13 m in length by 6 m in depth.

One .5 m square testpit was placed within the rockshelter to test for stratigraphy and features. The pit was excavated in 5 cm levels, and revealed gray sandy soil to 2 cm over yellow brown sandy soil to 40 cm over rock. Quartz artifacts were recovered between 15 cm and 37 cm below the surface, but no features or culturally derived stratigraphy were present.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this unit will suffer no effects from the proposed project.

44Pk79 is one of several rockshelters in the USRB which, as a group, are likely to provide significant data on subsistence, demography, chronology and possibly epidemiology of the prehistoric inhabitants. The undisturbed deposits beneath the rockshelter, when used in tandem with data from

similar rockshelter sites, can address an array of research questions not applicable to the more common open, and consequently disturbed sites of the region.

1. Soil Type: Yellow brown sand.

2. Distance to Water: 14.7 m north of Smith River.

3. Cultural Affiliation: Unidentified prehistoric.

4. Stratigraphic Condition: Homogeneous yellow brown sand

5. State of Preservation: good; little erosion noted.

6. Areal Extent: 1309 meters east-west; 4.09 m north-south

7. Elevation: 1040 feet

8. Slope: 32 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1-3
1 Shatter: quartz
1 Tertiary flake: quartz
Total: 2

Excavation Unit 1-4
1 Shatter: quartz
Total: 1

Excavation Unit 1-6
1 Flake-blade: quartz
1 Tertiary flake: quartz
Total: 2

Total Artifacts: 5

44Pk81

Archeology Laboratories Site: AL9

44Pk81 was located at the base of a ridgetoe that jutted onto an old terrace remnant. The site was defined by debris recovered within two .5 m square testpits dug two m apart. Additional testpits (a total of seven were placed in cardinal directions) failed to produce artifacts. Artifact bearing testpits revealed brown sandy loam mixed with red clay to 5 cm over reddish brown sandy loam mixed with schist and

quartz. Artifacts were recovered at 4 cm below surface. No features or culturally derived stratigraphy were noted. Moderate erosion, as a result of a steep slope, was noted in the area. Numerous gulleys were located within the general area.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" be chosen for construction, this site will suffer secondary effects resulting from construction of the dam and impact as a result of flooding. Should Damsite "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Reddish brown sandy loam over reddish brown loamy clay.

2. Distance to Water: 12.8 m North of Smith River.

3. Cultural Affiliation: Unidentified prehistoric

4. Stratigraphic Condition: Moderate erosion.

5. State of Preservation: No preservation noted.

6. Areal Extent: 2 m separation between artifacts

7. Elevation: 1020 feet AMSL

8. Slope: 100 feetcontours within 200 feet; 80 degrees

9. Exposure: Southwest

10. Condition of Feature: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
Total: 1

Excavation Unit 2
4 Fire-cracked rocks: quartzite.
Total: 4

Total Artifacts: 5

44Pk83

Archeology Laboratories Site: AL11

44Pk83 was located in an open trail on a ridgetop overlooking the Smith River. The site consisted of quartz debris eroding on the ground surface. A minimum of 60%

ground surface visibility was available. Vegetation was mixed hardwoods and conifers.

Site dimensions were 11 m north to south by 5 m east to west. Artifacts were collected in one unit.

The site was situated in an eroded upland environment; numerous gulleys were noted in the area, and red clay was found immediately under a humic root mat.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Red clay

2. Distance to Water: 877.8 m north of Smith River; 268.2 m east of the Smith River feeder stream.

3. Cultural Affiliation: Unidentified prehistoric

4. Stratigraphic Condition: Highly eroded clay; no culturally derived deposits.

5. State of Preservation: Poor; located in road/trail cut.

6. Areal Extent: 11 m north-south; 5 m east-west

7. Elevation: 1170 feet AMSL

8. Slope: 10 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface
- 1 Core: quartz
- 3 Shatter: quartz
- 1 Primary flake: quartz
- 1 Flake-blade: quartz

Total Artifacts: 6

44Pk86

Archeology Laboratories Site: AL14

44Pk86 was a prehistoric site located within a rockshelter at the base of a ridge overlooking the confluence of the

Smith River and a small unnamed stream. The vegetation was that of a riverine environment, including beech, hickory and oak. The shelter consisted of an outcrop of granitic rock forming a natural overhang that measured 6 m east to west, 2 m north to south and 2.7 m in height.

One .5 m square testpit was placed within the shelter to test for cultural deposits. Because of the lack of artifacts (except possible fire-cracked rock on the surface), the testpit was excavated in 15 cm levels. The testpit revealed red micaceous sandy loam mixed with yellow sand to 13 cm below surface over red sandy loam to 20 cm below surface over dark brown loam with charcoal flecks to 40 cm below surface over rock. The layer of dark brown loam encountered at 20 cm was considered a single field specimen unit and was excavated as a whole (Figure 14).

The ground surface revealed fire-cracked rock. Quartz artifacts, gastropod shells and charcoal were recovered between 0-15 cm below surface. The dark brown loam contained quartz artifacts, chalcedony, ceramics, gastropod shells, mussel shell and charcoal.

44Pk86 revealed evidence of undisturbed subsurface remains. The site was considered significant in terms of Item 5 outlined in the site evaluation procedure section of the Methods chapter.

Should Damsites "A" or "B" be chosen for construction, this site will be impacted by flooding. Should Damsite "C" be chosen for construction, this site will suffer no effects from the proposed project.

1. Soil Type: Red micaceous sandy loam over dark brown loam.
2. Distance to Water: 27.9 m north to Smith River; 23.0 m west of a small feeder stream of the Smith River.
3. Cultural Affiliation: Early Archaic, Woodland.
4. Stratigraphic Condition: Evidence of subsurface features; discolored soil and gastropods mixed with artifacts.
5. State of Preservation: Good; gastropods were encountered in deposits.
6. Areal Extent: 2 m north-south; 6 m east-west.
7. Elevation: 1110 feet AMSL.
8. Slope: 13 degrees.
9. Exposure: Southwest.
10. Condition of Features: Good; preserved subsurface midden.

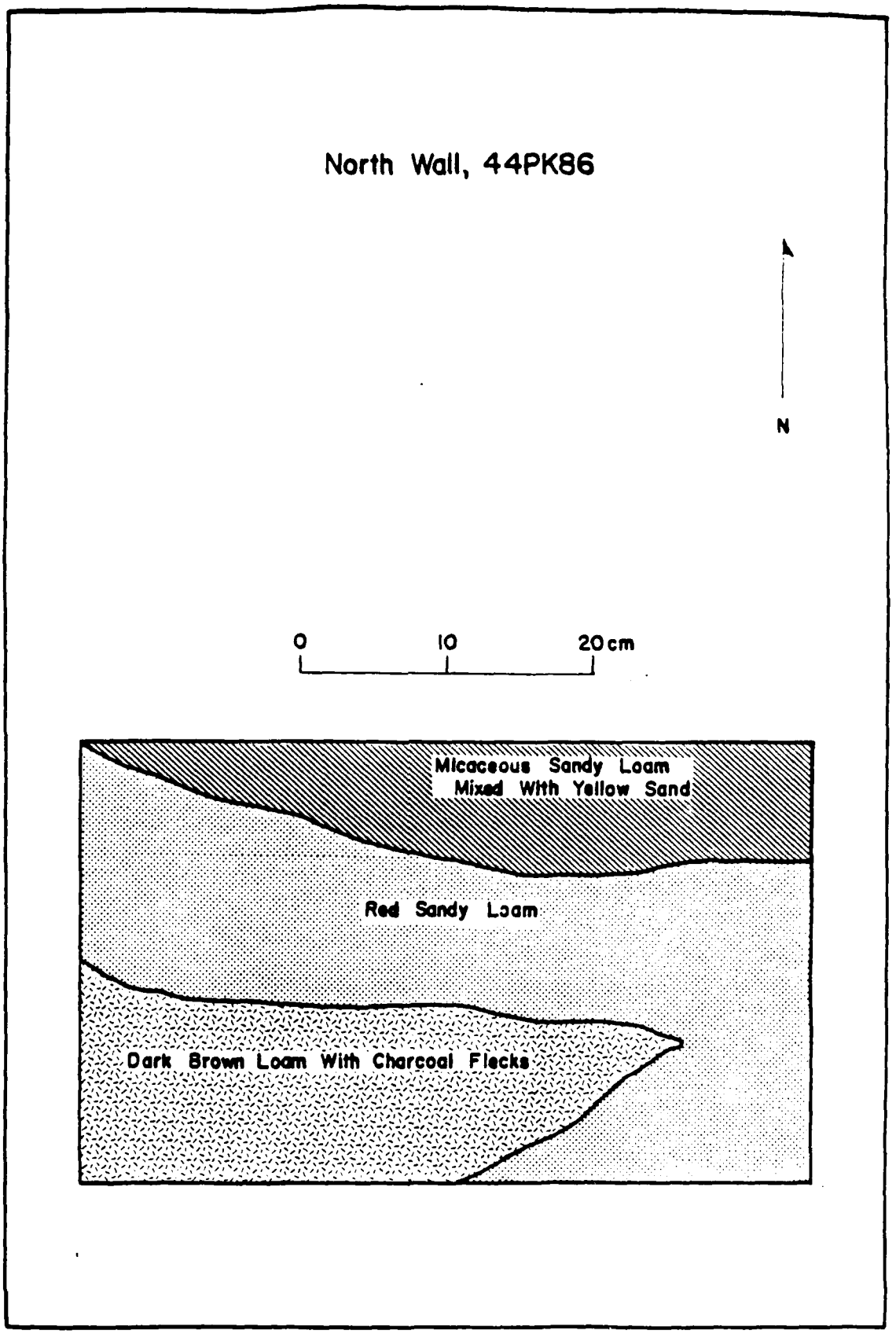


Figure 14. 44Pk86, EU1, Profile of Strata, USRB, Virginia.

Artifacts Collected

General Surface
2 Fragments of sooted roof fall: quartzite
Total: 2

Excavation Unit 1-1
1 Shatter: quartz
1 Primary flake: quartz
2 Flake-blades: quartz
Shell: freshwater gastropods, .85 g
Charcoal: .17 g
Total: 4

Excavation Unit 1-2
4 Shatter: quartz
1 Primary flake with retouch: quartz
1 Primary flake with retouch: chalcedony
1 Flake-blade with retouch: chalcedony
1 Sherd: crushed quartz temper, eroded
Shell: freshwater gastropod, 2.55 g
Shell: freshwater mussel, .3 g
Charcoal: 1.9 g
Total: 8

Total artifacts: 14

44Pk87

Archeology Laboratories Site: AL15

The terrace upon which 44Pk87 was found has undergone alluvial deposition of brown sands on the northeastern side of the site. The southwestern end of the site has suffered moderate erosion from the adjacent slope. An old roadbed was cut through the center of the site, causing slight erosion in that area.

Should Damsite "A" or "B" be selected for construction, this site will be affected by flooding. Should Damsite "C" be selected this site will not be affected.

1. Soil Type: Reddish brown clayey loam over mottled red and brown loamy clay over red clay.

2. Distance to Water: The Smith River is 4 m to the southeast; a small creek is 2 m to the east.

3. Cultural Affiliation: Late Woodland.

4. Stratigraphic Condition: No culturally derived deposits noted.

5. State of Preservation: Minor amounts of poorly preserved bone encountered.

6. Areal Extent: 2.1 m north-south; 1.6 m east-west.

7. Elevation: 980 feet AMSL

8. Slope: 25 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected:

General Surface
- 1 Core with retouch: quartz
- 1 Primary flake with retouch: quartz
- 1 Flake-blade: quartz

Total: 3

Excavation Unit 1
- 2 Cores: quartz
- 48 Shatter: quartz
- 2 Flake-blades: quartz
- 1 Primary flake: quartz
- 5 Tertiary flakes: quartz

Total: 58

Excavation Unit 2
- 35 Shatter: quartz
- 4 Flake, blades: quartz
- 5 Tertiary flakes: quartz

Total: 44

Excavation Unit 3
- Sterile

Excavation Unit 4
- 3 Shatter: quartz
- 1 Primary flake: quartz
- 1 Flake-blade: quartz

Total: 5

Excavation Unit 5
- 7 Shatter: quartz
- 2 Primary flakes: quartz
- 1 Primary flake with retouch: quartz
- 12 Flake-blades: quartz
- 5 Tertiary flake: quartz
- 12 Fire-cracked rocks: quartzite

Total: 39

Excavation Unit 6
- 1 Flake-blade: chalcedony
- 2 Tertiary flakes: felsite
- 1 Tertiary flake: siliceous precipitate

Total: 4

Excavation Unit 7
Bone: 1.6 g, eroded
Charcoal: .01 g

Excavation Unit 8
1 Shatter: quartz
1 Flake-blade: quartz
2 Tertiary flakes: quartz
Total: 4

Excavation Unit 9
2 Shatter: quartz
2 Flake-blades: quartz
Total: 4

Excavation Unit 10
4 Shatter: quartz
1 Flake-blade: quartz
1 Tertiary flake: quartz
1 Core with retouch: chert
1 Flake-blade: quartzite
1 Tertiary flake: chert
Total: 9

Excavation Unit 11
12 Shatter: quartz
3 Primary flakes: quartz
2 Primary flakes with retouch: quartz
3 Flake-blades: quartz
2 Tertiary flakes: quartz
14 Fire-cracked rocks: quartz
1 Shatter: chert
1 Flake-blade: chert
1 Tertiary flake: chert
1 Flake-blade: chalcedony
1 Tertiary flake: quartzite
1 Shatter: felsite
2 Flake-blades: felsite
2 Tertiary flakes: felsite
Total: 46

Excavation Unit 12
1 Shatter: quartz
2 Fire-cracked rock: quartz
Total: 3

Excavation Unit 13
1 Core: quartz
6 Shatter: quartz
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
9 Tertiary flakes: quartz
1 Biface: quartz
5 Fire-cracked rocks

1 Flake-blade with retouch: chalcedony
1 Tertiary flake: chert
8 Sherdlets: 5.4 g
Total: 34

Excavation Unit 14
8 Shatter: quartz
1 Primary flake with retouch: quartz
2 Flake-blades: quartz
4 Tertiary flakes: quartz
2 Fire-cracked rocks: quartz
Total: 17

Excavation Unit 15
1 Core: quartz
11 Shatter: quartz
1 Primary flake: quartz
5 Flake-blades: quartz
6 Tertiary flakes: quartz
22 Fire-cracked rocks: quartz
2 Cobbles: quartz
1 Shatter: quartzite
1 Flake-blade: quartzite
1 Flake-blade: chert
2 Tertiary flakes: chert
1 Flake-blade: chalcedony
2 Tertiary flakes: chalcedony
1 Sherd, quartz sand: fabric impressed, eroded
Total: 57

Total Artifacts: 327

44Pk88

Archeology Laboratories Site: AL16

44Pk88 was a prehistoric lithic scatter located at the base of a steep slope adjacent to the confluence of an intermittent stream and the Smith River. Vegetation consisted of relatively young oak-hickory-beech forest. The site consisted of a concentration of quartz debris visible on the ground surface and extending 47 m upslope. Quartz nodules were found eroding on the surface of the slope with associated exfoliation. Investigations upslope failed to produce any additional artifacts. The artifacts were collected in one unit.

One .5 m square testpit was placed at the base of the slope. The pit immediately revealed red sandy clay with mica. All artifacts were recovered within the first 4 cm of the pit. No culturally derived stratigraphy or features were noted.

The area surrounding 44Pk88 exhibited numerous pieces of exfoliated rock and rock eroded downslope. These processes

have affected the site, as well as an old roadbed through the site which caused moderate erosion. In fact, it is highly likely that all artifacts found have been washed down the slope with a consequent loss of locational integrity.

Should Damsite "A" or "B" be selected for construction, this site will be affected by flooding. Should Damsite "C" be selected there will be no affects from the proposed project.

1. Soil type: Red sandy clay with mica.
2. Distance to Water: Four m north of the Smith River.
3. Cultural Affiliation: Lithic scatter; possible quarry.
4. Stratigraphic Condition: Poor, no culturally derived stratigraphy noted.
5. State of preservation: Highly eroded.
6. Areal extent: 53.9 meters SW to NE; 47 meters SE to NW.
7. Elevation: 1010 feet AMSL
8. Slope: 50 degrees
9. Exposure: Southeast
10. Condition of Features: None noted.

Artifacts Collected

3 Cores: quartz
41 Shatter: quartz
5 Primary flakes: quartz
3 Primary flakes with retouch: quartz
4 Flake-blade: quartz
3 Tertiary flakes: quartz
8 Fire-cracked rocks: 2 quartz, 6 quartzite

Total artifacts: 67

44Pk89

Archeology Laboratories Site: AL17

44Pk89 was a cave located on the south side of a ridge within an outcropping of granitic rock. The vegetation consisted of oak, hickory, dogwood, cedar, and beech in the rock outcrop, with mountain laurel and cedar flanking each side of the cave.

One .5 m testpit was placed within the cave, and excavated

in 5 cm levels. The pit revealed a dark root mat to 5 cm over homogeneous yellow brown sandy soil to 35 cm over rock. The testpit did not reveal any culturally derived stratigraphy or features. Historic and prehistoric artifacts were mixed to 10 cm below surface. No diagnostic artifacts were recovered.

Should Damsites "A" or "B" be selected for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site may suffer from the effects of wave wash.

44Pk89 has been recently utilized for camping by fishermen. (Camping equipment was located inside the cave.) The site has sustained some damage from recent fire pits dug by campers. The area in front of the cave was badly eroded due to the extreme angle of the slope; however, the site itself shows little sign of disturbance other than the minimal damage caused by camping activities. As noted previously for Pk79, these undisturbed caves and rockshelters offer the best opportunity in the USRB region for studying intact archeological remains. Considerations of the data potential of these sites are presented in the final chapter of this report--data recovery is recommended should the site be adversely affected.

1. Soil Type: Yellow brown sand.

2. Distance to Water: Smith River lies 22.5 m to the south

3. Cultural Affiliation: Late Woodland.

4. Stratigraphic Condition: No cultural stratigraphy.

5. State of Preservation: Good, little sign of erosion; some disturbance due to campers.

6. Areal Extent: 2.3 m north-south; 3.5 m east-west

7. Elevation: 1040 feet AMSL

8. Slope: 1.3 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1-1
1 Core: quartz
1 Shatter: quartz
1 Tertiary flake: chert
1 32-caliber rifle cartridge
Charcoal: 1 gram
Total: 4

Excavation Unit 1-2
2 Shatter: quartz
2 Shatter: chert
3 Tertiary flakes: chert
8 Fire-cracked rocks: quartzite
1 Nail: Historic, machined
1 Tack: Historic, machined
Charcoal: 1.3 g
Total: 16

Excavation Unit 1-3
1 Flake-blade: quartz
1 Shatter: chert
3 Flake-blades: chert
1 Flake-blade with retouch: chert
1 Tertiary flake: chert
29 Shatter: quartzite
1 Flake-blade: quartzite
5 Tertiary flake: quartzite
5 Fire-cracked rock: quartzite
1 Cobble: chert
Charcoal: 1.65 g
Total: 48

Excavation Unit 1-4
1 Flake-blade: quartz
1 Tertiary flake: chert
8 Shatter: quartzite
1 Flake-blade: quartzite
Charcoal: 0.9 grams
Total: 11

Excavation Unit 1-5
1 Tertiary flake: chert
5 Fire-cracked rocks: quartzite
Total: 6

Excavation Unit 1-6
1 Core: quartz
1 Shatter: quartz
1 Tertiary flake: chert
2 Fire-cracked rocks: quartzite
Total: 5

Total Artifacts: 90

44Pk90

Archeology Laboratories Site: AL18

44Pk90 was a cave located on the south side of a ridge within an outcropping of granitic rock. The vegetation consisted of oak, hickory, dogwood, cedar, and beech in the general area of the rock outcrop. Mountain laurel and cedar

flanked each side of the cave.

One .5 m testpit was placed within the cave, and excavated in 5 cm levels. The pit revealed dark grayish brown micaceous silty loam with charcoal from a recent camp fire bordered by a tan micaceous sandy silt within the northeastern quadrant of the pit and orange, micaceous, sandy silt within the southeastern quadrant. The recent campfire pit was confined to the southwest quadrant of the testpit. The fire pit and the tan and orange sandy silt disappeared at 15 cm below surface. Tan to yellowish brown micaceous sandy silt was noted across the pit floor at 15 cm below surface. Solid rock was encountered at 20 cm below surface. No culturally derived stratigraphy or features other than the recent campfire were noted.

Artifacts consisted of mixed historic glass and quartz at 2 cm below surface. Prehistoric artifacts were recovered to 20 cm below surface. These artifacts consisted entirely of quartz and chert lithics. No prehistoric ceramics or diagnostic lithics were recovered.

Should Damsite "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site may possibly suffer from the effects of wave wash as a result of the proposed project.

44Pk90 was partially disturbed by a recent campfire pit; however, very little additional disturbance was noted. While no features or cultural stratigraphy were encountered by the single testpit, an aboriginal presence was demonstrated. Because features and/or refuse deposits probably are intact the site is likely to yield important information, particularly when its contents are compared and contrasted with similar sites and with the several open sites in the vicinity. Data recovery is recommended should the site be threatened. This recommendation is more fully defended in the final chapter of this report.

1. Soil Type: Micaceous silty loam over micaceous sandy silt.

2. Distance to Water: Smith River lies 22.5 m to the south

3. Cultural Affiliation: Prehistoric, lithic.

4. Stratigraphic Condition: Cave.

5. State of Preservation: Good, very little erosion; slight disturbance due to camper's firepit.

6. Areal Extent: 4 m north-south; 8.7 m east-west

7. Elevation: 1040 feet AMSL

8. Slope: 1.3 degrees

9. Exposure: South

10. Condition of Features: None noted other than recent firepit.

Artifacts Collected

Excavation Unit 1-1
1 Core with retouch: quartz
1 Shatter: quartz
1 Primary flake: quartz
1 Flake-blade with retouch: quartz
2 Sherds: Historic, clear glass
1 Cigarette filter: plastic
Total: 7

Excavation Unit 1-2
1 Flake-blade: quartz
1 Graver: quartz
1 Burin: quartz
1 Drill: quartz
1 Chipped stone axe/adze: quartz
1 Cobble: quartz
Total: 6

Excavation Unit 1-3
1 Shatter: chert
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
Total: 3

Excavation Unit 1-4
1 Drill: quartz
1 Flake-blade with retouch: quartz
Total: 2

Total Artifacts: 18

44Pk91

Archeology Laboratories Site: AL19

44Pk91 was a prehistoric lithic scatter located on a hilltop overlooking the Smith River. The vegetation consisted of blackberry thickets and pine with an oak understory. Ground surface visibility was high in this area. Quartz artifacts were noted on the ground surface, and these were marked and locations point plotted. One .5 m square testpit revealed red clay immediately, although five quartz artifacts were recovered within the first 3 cm of the pit. No culturally derived stratigraphy or features were noted.

Should Damsites "A" or "B" be chosen for construction, this site will not be affected by the proposed project. The

elevation of the site placed it beyond the limits of the floodpool. Should Damsite "C" be chosen for construction, the site will be destroyed by the actual construction of the dam.

1. Soil Type: Red clay.
2. Distance to Water: The Smith River lies 180 m to the east.
3. Cultural Affiliation: Late Woodland.
4. Stratigraphic Condition: Heavily eroded.
5. State of Preservation: Poor; great deal of erosion.
6. Areal Extent: 15 m north-south; 14 m east-west
7. Elevation: 1240 feet AMSL
8. Slope: 4 degrees
9. Exposure: East
10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
4 Shatter: quartz
1 Tertiary flake: quartz
Total: 5

Point Plot
58 Shatter: quartz
1 Flake-blade: quartz
Total: 59

Total Artifacts: 64

44Pk92

Archeology Laboratories Site: AL20

44Pk92 was a prehistoric site located within a rockshelter on a southwest slope above the Smith River. Vegetation consisted of beech and oak with cedar located to the west of the site. Dense thickets of rhododendron were found above the site.

One .5 m testpit was excavated in 5 cm levels. The pit revealed dark brown silty loam with large quantities of leaf litter and charcoal to 5 cm, over light brown sandy loam with mica flecks to 20 cm, over yellowish brown clayey sand with hematite and mica to 30 cm, over mottled yellow, reddish

brown clayey sand with rust streaks, hematite and mica to 59 cm over rock.

Metal soda bottle caps were recovered at 5 cm below surface. Quartz artifacts were recovered in a homogeneous layer of yellowish brown clayey sand with hematite and mica flecks at 27 cm below surface. No ceramics or diagnostic lithic materials were recovered. No culturally derived stratigraphy or features were found.

Some minor disturbance was noted within the first 5 cm of the rockshelter; however, little disturbance was noted below that point. Little or no erosion has affected the shelter.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen this site will not be affected by the proposed project.

44Pk92 appeared to be relatively undisturbed. Despite the scarcity of artifacts, the likelihood of well-preserved cultural materials and/or artifact patterns is strongly enhanced by the protected setting. Along with other rockshelters containing prehistoric remains, data recovery is recommended.

1. Soil Type: Light brown sandy loam with mica over yellow brown clayey sand loam over yellow/reddish brown clayey sand over rock.

2. Distance to Water: 85 m north of Smith River

3. Cultural Affiliation: Prehistoric, lithic.

4. Stratigraphic Condition: Cultural debris located at 27 cm below surface in yellow and reddish brown clayey sand.

5. State of Preservation: Good; very little erosion.

6. Areal Extent: 15 m north-south; 23 m east-west

7. Elevation: 1080 feet AMSL

8. Slope: 10 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
3 Flake-blades with retouch: quartz

Total Artifacts: 3

44Pk93

Archeology Laboratories Site: AL21

44Pk93 was a prehistoric site located within a rockshelter on top of a ridge overlooking the Smith River. Vegetation consists of cedar and thickets of mountain laurel.

One .5 m testpit was excavated in 10 cm levels. The testpit revealed mottled yellow and tan sandy soil with large quantities of crumbled gneiss and schist to 47 cm over rock. Quartz artifacts were recovered throughout the testpit. No ceramics or diagnostic lithics were found, and no culturally derived stratigraphy or features were noted.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site will not be affected by the proposed project.

44Pk93 appeared to be relatively undisturbed with no erosion noted in the rockshelter. The specimens recovered by the limited testing indicate pronounced useage, however, and intact materials and features can be expected. Data recovery is recommended should the site be threatened by the project.

1. Soil Type: Yellow-tan sand.
2. Distance to Water: Smith River lies 146 m to the southwest.
3. Cultural Affiliation: Prehistoric, lithic.
4. Stratigraphic Condition: Rockshelter.
5. State of Preservation: Good, very little erosion within rockshelter.
6. Areal Extent: 21.3 m northeast-southwest; 1.8 m northwest-southeast
7. Elevation: 1150 feet AMSL
8. Slope: 21 degrees
9. Exposure: South
10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Shatter: quartz
1 Primary flake with retouch: quartz

2 Flake-blades: quartz
2 Tertiary flakes: quartz
Charcoal: .2 grams
Total: 6

Excavation Unit 2
7 Shatter: quartz
1 Primary flake with retouch: quartz
3 Flake-blades: quartz
4 Tertiary flakes: quartz
1 Bifacially worked tanged blade: quartz
7 Fire-cracked rocks: quartzite
Charcoal: 2.4 grams
Total: 23

Excavation Unit 3
1 Shatter: quartz
2 Flake-blades: quartz
Charcoal: 4.9 grams
Total: 3

Total Artifacts: 32

44Pk94

Archeology Laboratories Site: AL22

44Pk94 was a prehistoric lithic scatter located at the base of a ridgetoe at the confluence of two small unnamed feeder streams of the Smith River. Vegetation consisted of dogwood, maple, hickory and oak. The site was dispersed across two terraced areas at the base of the ridgetoe. The ground surface was completely obscured by vegetation, and all artifacts were recovered in three .5 m testpits.

The testpits revealed reddish brown sandy clay loam to 8 cm over reddish brown sandy clay to 26 cm over reddish orange friable clay. Numerous rocks of gneiss/schist, quartzite and quartz were found throughout all pits.

Artifacts were recovered to 8-10 cm below surface within all the pits. No diagnostic lithics or ceramics were recovered, and no culturally derived stratigraphy or features were noted.

Should Damsite "A" be selected for construction, this site will be affected by flooding. Should Damsites "B" or "C" be chosen, it will not be affected by the proposed project.

1. Soil Type: Reddish brown sandy clay loam over reddish brown sandy clay mottled with red clay over orange red clay.

2. Distance to Water: Located at the confluence of two small feeder streams of the Smith River 256 m from

the Smith River. Site is within 5 m of the two merging streams.

3. Cultural Affiliation: Prehistoric, lithic.

4. Stratigraphic Condition: No culturally derived strata noted.

5. State of Preservation: Moderate erosion.

6. Areal Extent: 42.4 m northeast-southwest; 17.6 m northwest-southeast

7. Elevation: 1030 feet AMSL

8. Slope: 12 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Shatter: quartz
1 Ground stone: quartz
Total: 2

Excavation Unit 2
9 Shatter: quartz
1 Flake-blade: quartz
3 Tertiary flakes: quartz
Total: 13

Excavation Unit 3
14 Shatter: quartz
1 Primary flake with retouch: quartz
1 Tertiary flake: quartz
2 Flake-blades: quartzite
Charcoal: 1.35 grams
Total: 18

Total Artifacts: 33

44Pk95

Archeology Laboratories Site: AL23

44Pk95 was a prehistoric lithic scatter located on an upland spur of a ridgetoe that overlooks the Smith River. The vegetation is pine mixed with mountain laurel, oak, hickory and dogwood, with surface visibility limited to areas exposed by tree falls. The site boundaries were principally defined by four .5 m testpits.

The testpits revealed dark brown sandy silt loam to 2 cm over mottled reddish brown sandy clay loam to 10 cm over red sandy clay mixed with hematite and mica.

Quartz and chalcedony debris were found on the ground surface and between 2-10 cm below surface in testpits. One felsic flake was found in a tree fall. No diagnostic lithics or ceramics were recovered, and no culturally derived stratigraphy or features were noted within any testpits.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsites "B" or "C" be selected for construction, this site will not be affected by the proposed project.

1. Soil Type: Dark brown sandy silt loam over yellow brown sandy silt loam over red sandy clay.

2. Distance to Water: 158.5 m northeast of the Smith River.

3. Cultural Affiliation: Prehistoric, lithic.

4. Stratigraphic Condition: Sandy loam overlain by decaying mica schist.

5. State of Preservation: Moderate to little erosion.

6. Areal Extent: 32.8 m north-south; 58.4 m east-west

7. Elevation: 1120-1140 feet AMSL

8. Slope: 80 feet contour within 200 feet

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface
1 End scraper: quartz
1 Flake-blade: quartz
Total: 2

General Surface (Tree fall)
1 Retouched flake: felsite
Total: 1

Excavation Unit 1
2 Retouched flakes: chalcedony
Total: 2

Excavation Unit 2
1 Shatter: quartz
1 Flake-blade: quartz

Total: 2

ExcavationUnit 3
1 Shatter: quartz
1 Fire-cracked rock: quartzite
Total: 2

Total Artifacts: 9

44Pk96

Archeology Laboratories Site: AL24

44Pk96 was located at the confluence of an unnamed stream and the Smith River, on a terrace above a marsh. The vegetation consisted of beech, pine and oak.

The site was recorded using .5 m testpits. No surface visibility was present in this area and testpits were used to define site boundaries. A total of twelve .5 m testpits were dug, and revealed light reddish brown micaceous clayey sand to 24 cm over mottled light reddish brown micaceous clayey sand and dark brown silty sand to 31 cm over dark brown silty sand mottled with yellow sand to 64 cm over yellow sand. Artifacts were concentrated in the dark brown silty sands and the mottled dark brown silty and yellow sands. No artifacts were recovered within the micaceous clayey sands which capped the site. Soil samples were taken from three of the testpits. Chemical analysis revealed ph levels of 4.7 slurry brown, 4.45 slurry orange brown and 4.45 slurry orange brown.

Middle and Late Woodland ceramics were recovered from eight of the testpits along with a variety of lithics, charcoal and charred hickory nutshell. No diagnostic lithics were found. These artifacts were recovered between the surface and 75 cm below ground surface.

One .5 m testpit was expanded to a .75 by .75 m testpit to inspect a possible feature, which proved to be a rodent burrow. No cultural features were noted in any of the testpits. The mottled nature of the deposits in the micaceous clays were the result of colluvium from a large slope to the southwest of the site. The artifact bearing portions of the stratigraphy appeared to have been produced by alluvial action.

44Pk96 will be affected by flooding if Damsite "A" is chosen for construction. Should Damsite "B" be chosen for construction, this site will be affected by secondary effects of physical construction and wave wash. Should Damsite "C" be chosen for construction, this site will be affected by wave wash.

1. Soil Type: Light reddish brown micaceous clayey sand over mottled light reddish brown micaceous clayey sand

and dark brown silty sand over mottled dark brown silty sand and yellow sand.

2. Distance to Water: 42.7 m southwest of Smith River; 10 m west of a branch of the Smith River.

3. Cultural Affiliation: Prehistoric, Middle to Late Woodland.

4. Stratigraphic Condition: Alluvial deposit; site located on terrace at the confluence of the Smith River and feeder stream.

5. State of Preservation: No bone or shell recovered; high incidence of alluvial action.

6. Areal Extent: 61 m northwest-southeast; 70 m northeast-southwest.

7. Elevation: 980-1000 feet AMSL.

8. Slope: six degrees.

9. Exposure: Northeast to east.

10. Condition of Features: None noted.

Artifacts Collected:

Excavation Unit 1-1
- 3 Shatter: quartz
- 1 Flake-blade: quartz
- 1 Tertiary flake: quartz
- 1 Fire-cracked rock: quartzite
- 5 Shatter: quartzite
- 1 Sherd: no temper visible, eroded
- 1 Sherd: no temper visible, net-impressed
- 1 Sherd: quartz temper, net-impressed
- 1 Sherd: quartz temper, fabric
- 9 Sherdlets: 1.4 g

Total: 24

Excavation Unit 1-2
- 2 Shatter: quartz
- 2 Flake-blades: quartz
- 2 Tertiary flakes: quartz
- 23 Fire-cracked rocks: quartzite
- 1 Steatite fragment
- 1 Sherd: quartz sand temper, net-impressed
- 4 Sherds: no temper visible, net-impressed
- 4 Sherds: quartz temper, cordmarked
- 3 Sherds: quartz temper, net-impressed
- 4 Sherdlets: 2.5 g
- Charcoal: .1 g
- Nutshell, hickory: .2 g (charred)

Total: 46

Excavation Unit 3
1 Shatter: quartz
1 Primary flake: quartz
2 Flake-blades: quartz
4 Fire-cracked rocks: quartzite
1 Flake-blade with retouch: chalcedony
1 Retouched flake: chalcedony
1 Sherd: no temper visible, net-impressed
2 Sherds: sand quartz temper, net-impressed
1 Sherd: quartz temper, fabric
Total: 14

Excavation Unit 4-1
1 Shatter: quartz
1 Flake-blade: quartz
4 Fire-cracked rocks: quartzite
1 Retouched flake: felsite
3 Sherds: quartz temper, net-impressed
1 Sherd: quartz temper, cordmarked
1 Sherd: quartz sand temper, net-impressed
1 Sherd: quartz sand temper, cordmarked
4 Sherdlets: 3 g
Charcoal: 1.35 g
Total: 16

Excavation Unit 4-2
1 Shatter: quartz
2 Flake-blades: quartz
Charcoal: .4 g
Total: 3

Excavation Unit 4-3 (Fill outside of rat burrow)
7 Shatter: quartz
1 Sherd: quartz sand temper, net-impressed
Total: 8

Excavation Unit 5
Charcoal: 2.5 g

Excavation Unit 6-1
1 Shatter: quartz
1 Flake-blade with retouch: quartz
1 Fire-cracked rock: quartz
1 Fire-cracked rock: quartzite
2 Sherds: no temper visible, net-impressed
Nutshell: hickory, .05 g
Total: 6

Excavation Unit 6-2
2 Fire-cracked rocks: quartz
1 Sherd: no temper visible, eroded
Total: 3

Excavation Unit 6-3

1 Shatter: quartz
1 Flake-blade: quartz
10 Fire-cracked rocks: quartz
1 Sherd: quartz temper, net-impressed
Total: 13

Excavation Unit 9-1
2 Shatter: quartz
8 Fire-cracked rocks: quartz
1 Sherd: no temper visible, cordmarked
3 Sherds: no temper visible, net-impressed
1 Sherd: quartz temper, net-impressed
4 Sherdlets: 4.6 g
Total: 19

Excavation Unit 11-1
2 Sherds: no temper visible, net-impressed
2 Sherdlets: .6 g
Total: 2

Excavation Unit 11-2
1 Shatter: quartz
1 Flake-blade: quartz
1 Fire-cracked rock: quartzite
1 Flake-blade: quartzite
1 Retouched flake: quartzite
1 Retouched flake: felsite
2 Sherds: quartz temper, smoothed exterior
18 Sherdlets: 2.7 g
Total: 8

Excavation Unit 12-1
1 Shatter: quartz
1 Sherd: no temper visible, net-impressed
Total: 2

Total Artifacts: 184

44Pk102

Archeology Laboratories Site: AL39

44Pk102 was a prehistoric lithic scatter located on a southwest trending ridge top overlooking an intermittant tributary of the Smith River. The general area had been heavily logged, but the remaining trees consisted of a mature oak-hickory forest with some pine. The ridge system upon which the site was found had been heavily logged, and a deeply entrenched access road ran directly through the center of the site resulting in heavy erosion which destroyed any stratigraphy once present.

No testpitting was deemed necessary because of the disturbed nature of the site with ground surface visibility greater than 60%. All artifacts seen on the ground surface

were flagged and collected as one unit.

Artifacts were confined to lithic debris, and the base of one chert triangular point; no ceramics were recovered.

This site will not be affected by the construction of Damsites "A", "B", or "C", however, it will be affected by construction of the penstock associated with Damsite C.

1. Soil Type: Red clay.

2. Distance to Water: The Smith River lies 507 m to the northeast. An unnamed creek lies 100 m to the southeast.

3. Cultural Affiliation: Prehistoric, Middle-Late Woodland.

4. Stratigraphic condition: Highly eroded.

5. State of Preservation: Poor, area logged extensively.

6. Areal Extent: 47.2 m north-south; 20 m east-west.

7. Elevation: 1240 feet AMSL

8. Slope: 1 degree

9. Exposure: South to southeast

10. Condition of Features: No culturally derived features noted.

Artifacts collected

2 Cores: quartz
14 Shatter: quartz
1 Primary flake: quartz
5 Primary flakes with retouch: quartz
7 Flake-blades: quartz
3 Flake-blades with retouch: quartz
6 Tertiary flakes: quartz
1 Retouch flake: siliceous precipitate with feldspar
1 Triangular projectile point: dark chert

Total artifacts: 40

44Pk124

Archeology Laboratories Site: AL43

44Pk124 was a prehistoric lithic scatter located at the base of a ridgetoe overlooking the Smith River. The vegetation consisted of beech, pine and oak. The site was defined by a total of six .5 m square testpits, dug through

humus of decaying pine needles and leaf litter to 2 cm below surface, over brown clayey loam to 9 cm, over mottled brown clayey loam and red clay to 18 cm over red clay.

Quartz lithic debris was recovered between 2-10 cm below surface. One quartz artifact was recovered at 22 cm below surface in red clay. The prehistoric artifacts were mixed with historic materials associated with 44Pk125, and no diagnostic artifacts or ceramics were recovered from the testpits. No culturally derived stratigraphy or features were noted. An old road lies south of the site providing some clear ground, but no additional materials were seen. 44Pk124 had been greatly disturbed by the foundation of an historic structure, 44Pk125.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Brown clayey loam over red clay.

2. Distance to Water: Smith River lies 60.9 m to the northwest.

3. Cultural Affiliation: Prehistoric, period/phase undetermined.

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Poor; road cut has partially impacted the site.

6. Areal Extent: 10 m north-south; 15 m east-west

7. Elevation: 1000 feet AMSL

8. Slope: 21 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
1 Core with retouch: quartz
18 Shatter: quartz
6 Flake-blades: quartz
33 Fire-cracked rocks: quartzite
1 Cut nail: corroded
Total: 60

Excavation Unit 4

1 Pliers: corroded
Total: 1

Excavation Unit 6
Charcoal: 1.2 g

Excavation Unit 9
2 Cores: quartz
1 Primary flake: quartz
1 Flake-blade: quartz
Total: 4

Total Artifacts: 65

44Pk126

Archeology Laboratories Site: AL45

44Pk126 was a prehistoric lithic scatter located on a ridgetoe overlooking the Smith River. The vegetation consisted of pine, beech, and oak with rhododendren thickets downslope. The site was located by two .5 m testpits; ground surface visibility was zero.

Testpits revealed leaf litter, pine needles and brown clayey loam to 2 cm, over brown clayey loam to 11 cm, over orange-red clay. Artifacts, which consisted solely of quartz debitage, were recovered between 2-10 cm below surface. No features or culturally derived stratigraphy were noted. Erosion was negligible.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. should Damsites "B" or "C" by selected there will be no effect on the site.

1. Soil Type: Brown clayey loam over orange/red clay.

2. Distance to Water: The Smith River lies 60.9 m to the northwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Poor, slight erosion in the area.

6. Areal Extent: 5 m north-south; 2 m east-west.

7. Elevation: 1000 feet AMSL

8. Slope: 21 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

1 Core: quartz
4 Shatter: quartz
1 Flake-blade: quartz

Total Artifacts: 6

44Pk128

Archeology Laboratories Site: AL47

44Pk128 was a prehistoric lithic scatter located at the top of a ridgetoe overlooking the Smith River. The vegetation consisted of conifers, mixed hardwoods, oak and maple scrubs, blackberries and rhododendron. Recent logging activities were noted on the site, and a logging road had been built along the eastern end. The road led to the remnant of an historic structure, 44Pk130, located within the boundaries of the site. Moderate erosion had occurred in the area as a result of these disturbances.

The boundary of the site was established by seventeen .5 m testpits and ground surface visibility. One .5 x .75 m testpit was dug in 10 cm levels to test for cultural deposits. That unit showed brown sandy loam to 10 cm, over mottled brown sandy loam and reddish orange clayey sandy loam to 18 cm over reddish orange clay. Quartz artifacts were recovered to a depth of 17 cm below surface. A total of two 2 m dogleashes were collected in an area of extremely high artifact density, but no diagnostic lithics or ceramics were recovered as a result of any of these collections. No subsurface features or complex culturally derived stratigraphy were revealed in the subsurface tests.

This site will be affected by flooding as a result of the proposed project, regardless of the dam site selected.

1. Soil Type: Reddish brown sandy clay over red clay.

2. Distance to Water: The Smith River lies 152 m to the east.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Fair, moderate erosion noted. The site has been impacted by logging and an historic

structure.

6. Areal Extent: 122 m north-south; 52 m east-west

7. Elevation: 1160 feet AMSL

8. Slope: 1 degree

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
6 Shatter: quartz
Total: 6

Excavation Unit 2
6 Shatter: quartz
Total: 6

Excavation Unit 3
2 Cores: quartz
9 Shatter: quartz
Total: 11

Excavation Unit 4
1 Core: quartz
18 Shatter: quartz
Total: 19

Excavation Unit 5
9 Shatter: quartz
1 Flake-blade with retouch: quartz
Total: 10

Excavation Unit 6
6 Shatter: quartz
Total: 6

Excavation Unit 8
1 Shatter: quartz
Total: 1

Excavation Unit 9
7 Cores: quartz
10 Shatter: quartz
Total: 17

Excavation Unit 10 (Sterile)

Excavation Unit 11
1 Shatter: quartz
1 Flake-blade with retouch: chalcedony
Total: 2

Excavation Unit 12
3 Cores: quartz
1 Core with retouch: quartz
109 Shatter: quartz
8 Flake-blades: quartz
3 Flake-blades with retouch: quartz
Total: 124

Excavation Unit 13
1 Core: quartz
6 Shatter: quartz
Total: 7

Excavation Unit 14
11 Cores: quartz
243 Shatter: quartz
3 Primary flakes: quartz
29 Flake-blades: quartz
8 Flake-blades with retouch: quartz
1 Flake-blade: chalcedony
Total: 295

Excavation Unit 15
1 Tertiary flake: quartz
Total: 1

Excavation Unit 18
3 Cores: quartz
290 Shatter: quartz
8 Primary flakes: quartz
4 Primary flakes with retouch: quartz
42 Flake-blades: quartz
7 Flake-blades with retouch: quartz
1 Biface: quartz
Total: 355

Excavation Unit 18-2
163 Shatter: quartz
10 Flake-blades: quartz
1 Fire-cracked rock: quartz
Total: 174

2 m Dogleash 1
1 Core: quartz
20 Shatter: quartz
4 Flake-blades: quartz
2 Flake-blades with retouch: quartz
Total: 27

2 m Dogleash 2
2 Cores: quartz
7 Shatter: quartz
1 Biface: quartz
Total: 10

Total Artifacts: 1071

44Pk129

Archeology Laboratories Site: AL48

44Pk129 was a prehistoric site located in a rockshelter at the base of a ridgetoe overlooking the Smith River. The vegetation consisted of rhododendron and beech with surface visibility available only within the rockshelter. One .5 m testpit was placed within the shelter to test for subsurface features. The testpit revealed brown loamy sand to 30 cm over tan sandy clay to 40 cm over rock. No culturally derived stratigraphy or subsurface features were noted.

All artifacts recovered as a result of surface collection and the testpit were of quartz; all were confined to the first 30 cm within the brown loamy sand with the heaviest concentration between 10-20 cm below surface. No diagnostic lithics or ceramics were recovered.

44Pk129 will be affected by flooding as a result of the proposed project. The outcrop of rock which comprised the shelter ran perpendicular to the slope, and this apparently has channelled runoff water through the shelter, causing a great deal of erosion within the site. Despite this damage, buried materials demonstrably are present and present an opportunity to acquire additional comparative data from this rockshelter. Such data, used with that from other shelters and the open sites nearby, can be applied to several research problems as outlined in the final chapter of this report.

1. Soil Type: Yellowish brown sand.
2. Distance to Water: 24.4 m southwest of the Smith River.
3. Cultural Affiliation: Prehistoric
4. Stratigraphic Condition: Fair, some erosion noted within the rockshelter.
5. State of Preservation: No bone or shell noted.
6. Areal Extent: 11.2 m north-south; 2.2 m east-west
7. Elevation: 1080 feet AMSL
8. Slope: 30 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

Artifacts Collected

7 Cores: quartz
9 Cores with retouch: quartz
7 Shatter: quartz
3 Flake-blades: quartz
9 Flake-blades with retouch: quartz
3 Tertiary Flakes: quartz
2 Fire-cracked rock: quartz
1 Multipurpose tool, flake-blade with graver: quartz
1 Drill: quartz
1 Bifacially modified core fragment; steep angle side-scraper: quartz
Total: 43

Excavation Unit 1, Field Specimen 1
2 Cores: quartz
1 Core with retouch: quartz
4 Shatter: quartz
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
2 Drills: quartz
3 Burins: quartz
2 Bifaces: quartz
Total: 16

Excavation Unit 1, Field Specimen 2
2 Cores: quartz
1 Core with retouch: quartz
1 Primary flake: quartz
6 Primary flakes with retouch: quartz
Total: 10

Excavation Unit 1, Field Specimen 3
1 Bifacial drill, awl: quartz
1 Biface: quartz
Total: 2

Total Artifacts: 71

44Pk116

Archeology Laboratories Site: AL49

44Pk116 was a prehistoric lithic reduction site located on a ridgetoe above the confluence of the Smith River and Poplar Camp Creek. Vegetation consisted of rhododendron, pine and oak. The site revealed a large scatter of quartz exposed by erosion on the ground surface. One extremely heavy concentration of lithic debris was centrally located within the site boundaries and surrounded two large granitic rocks with large veins of quartz. Surface visibility allowed the definition of the site boundaries without the use .5 m testpits. Debris extended downslope below the area of heavy concentration.

The site was collected using a series of twelve 15 m

collection units, with general range collections made within these squares. The area which contained the heavy concentration of lithic debris was collected using three 2 m dogleashes spaced 5 m apart. Because of the extremely heavy concentration of debris, these 2 m units were collected by selecting only those bits of debris that were completely eroded onto the ground surface. The 2 m dogleashes were not included within any of the 15 m collection units.

One .5 x .75 m testpit was placed within the site boundaries to test for subsurface features and was excavated in 10 cm levels. The testpit revealed reddish-orange sandy clay mixed heavily with quartz debris to 8 cm below surface over red clay mixed with quartz debris. The testpit was dug to 30 cm, but artifacts were recovered only to 22 cm below surface. No culturally derived stratigraphy or features were noted. The only tool found was an aborted quartz triangular projectile point.

The site will be affected by flooding from the proposed project regardless of the dam site location.

1. Soil Type: Red clay.

2. Distance to Water: The Smith River lies 60.9 m northwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No intact cultural stratigraphy

5. State of Preservation: Good, only moderate erosion.

6. Areal Extent: 59.6 m north-south; 75 m east-west.

7. Elevation: 1160 feet AMSL

8. Slope: 32 degrees

9. Exposure: Scutheast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1, Field Specimen 1
- 11 Cores: quartz
- 5 Cores with retouch: quartz
- 580 Shatter: quartz
- 6 Primary flakes: quartz
- 3 Primary flakes with retouch: quartz
- 60 Flake-blades: quartz
- 7 Flake-blades with retouch: quartz
- 43 Tertiary flakes: quartz
- 102 Fire-cracked rocks: quartz

Total: 817

Excavation Unit 1, Field Specimen 2
5 Cores: quartz
2 Cores with retouch: quartz
512 Shatter: Quartz
2 Primary flakes with retouch: quartz
1 Primary flake: quartzite
56 Flake-blades: quartz
11 Flake-blades with retouch: quartz
31 Tertiary flakes: quartz
17 Fire-cracked rocks: quartz
Total: 637

Excavation Unit 1, Field Specimen 4
20 Shatter: quartz
3 Flake-blades: quartz
1 Flake-blade with retouch: quartz
2 Tertiary flakes: quartz
Total: 26

Dogleash 1
20 Cores: quartz
1 Core with retouch: quartzite
49 Shatter: quartz
1 Primary flake: quartz
2 Primary flakes with retouch: quartz
10 Flake-blades: quartz
4 Flake-blades with retouch: quartz
Total: 87

Dogleash 2
50 Cores: quartz
8 Cores with retouch: quartz
257 Shatter: quartz
7 Primary flakes: quartz
3 Primary flakes with retouch: quartz
23 Flake-blades: quartz
6 Flake-blades with retouch: quartz
1 Tertiary flake: quartz
2 End scrapers: quartz
1 Aborted triangular projectile point: quartz
3 Bifaces, basal segments: quartz
1 Biface segment: quartz
Total: 362

Dogleash 3
19 Cores: quartz
1 Core with retouch. quartz
83 Shatter: quartz
2 Primary flakes with retouch: quartz
3 Flake-blades: quartz
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
2 Fire-cracked rocks: quartz
2 Awl/drills: quartz

Total: 113

General Range Collectior Unit 1
3 Cores: quartz
Total: 3

General Range Collection Unit 2
45 Cores: quartz
13 Cores with retouch: quartz
214 Shatter: quartz
7 Primary flakes: quartz
21 Primary flakes with retouch: quartz
47 Flake-blades: quartz
25 Flake-blades with retouch: quartz
15 Tertiary flakes: quartz
1 End scraper: quartz
1 Bifacial blade segment: quartz
3 Thumbnail scrapers: quartz
2 Bifaces, blade segments: quartz
1 Biface, basal segment: quartz
Total: 395

General Range Collection Unit 3
11 Cores: quartz
2 Shatter: quartz
1 Primary flake: quartz
Total: 14

General Range Collection Unit 4
5 Cores: quartz
1 Flake-blade: quartz
Total: 6

General Range Collection Unit 5
3 Cores: quartz
54 Shatter: quartz
7 Primary flakes: quartz
9 Primary flakes with retouch: quartz
42 Flake-blades: quartz
11 Flake-blades with retouch: quartz
Total: 126

General Range Collection Unit 6
13 Cores: quartz
5 Cores with retouch: quartz
78 Shatter: quartz
6 Primary flakes with retouch: quartz
2 Flake-blades: quartz
19 Tertiary flakes: quartz
Total: 123

General Range Collection Unit 7
6 Cores: quartz
10 Shatter: quartz
1 Primary flake with retouch: quartz
3 Flake-blades: quartz

Total: 20

General Range Collection Unit 8
8 Cores: quartz
74 Shatter: quartz
28 Flake-blades: quartz
6 Flake-blades with retouch: quartz
Total: 116

General Range Collection Unit 9
1 Shatter: quartz
1 Flake-blade with retouch: quartz
Total: 2

General Range Collection Unit 10
2 Fire-cracked rocks: quartz
Total: 2

General Range Collection Unit 11
5 Cores: quartz
5 Shatter: quartz
3 Flake-blades: quartz
Total: 13

Total Artifacts: 2,862

44Pk131

Archeology Laboratories Site: AL51

44Pk131 was a prehistoric rockshelter site located along a ridgetoe to the southwest of the Smith River in a stand of rhododendron, oak and beech. One quartz artifact was noted on the ground surface. Very little erosion was present within the shelter, although some roof fall was observed. Preservation generally was good.

A .5 m testpit was placed within the rockshelter to test for subsurface features. The pit was excavated in 10 cm levels, and revealed dark micaceous sandy loam to 9 cm below surface. Mussel shell fragments and charcoal were recovered between 0-10 cm below surface but no diagnostic lithics or ceramics were found. Also, no culturally derived stratigraphy or features were noted within the testpit.

This site would be flooded by construction of any of the three dams.

Although no diagnostic artifacts or features were discovered by our limited testing, artifacts and organic materials were buried to a depth of 30 cm. As stated previously, the preservation of intact cultural patterns in such rockshelters is likely and promises to provide significant information on a range of research questions.

1. Soil Type: Dark brown sandy micaceous loam, becomes gritty to rock.

2. Distance to Water: The Smith River lies 168 m to the southwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigrapy noted; artifacts recovered to 30 cm below surface.

5. State of Preservation: Good, no erosion noted.

6. Areal Extent: 3.05 m north-south; 5.8 m east-west.

7. Elevation: 1120 AMSL

8. Slope: 23 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

General Surface
1 Core, heat treated: quartz
Total: 1

Excavation Unit 1, Field Specimen 1
1 Flake-blade: quartz
Total: 1

Excavation Unit 1, Field Specimen 3
2 Fire-cracked rocks: quartz
Total: 2

Total Artifacts: 4

44Pk132

Archeology Laboratories Site: AL52

44Pk132 was a prehistoric lithic scatter located across a ridgetoe overlooking the Smith River. The vegetation consisted of mixed hardwoods and conifers. The site was defined by four .5 m testpits and patches of 60% ground surface visibility. The testpits consistently revealed reddish brown clays to an average depth of 4 cm, over reddish brown mottled clays to an average depth of 19 cm, over red clays.

Artifacts consisted solely of quartz debitage, and no culturally derived stratigraphy or features were noted in

testpits. Heavy erosion and red clay were seen in areas where 60% ground surface visibility was available. This site will be flooded should any of the dam sites be used for construction.

1. Soil Type: Reddish brown loamy clay over reddish brown mottled clay over red clay.

2. Distance to Water: The Smith River lies 116 m to the northeast.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy was noted.

5. State of Preservation: Poor to fair, moderate erosion noted.

6. Areal Extent: 57.6 m north-south; 60 m east-west.

7. Elevation: 1160 AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Primary flake: quartz
1 Flake-blade: quartz
2 Fire-cracked rocks: quartz
Total: 4

Excavation Unit 4
1 Core: quartz
1 Shatter: quartz
1 Flake-blade: quartz
Total: 3

Excavation Unit 5
1 Shatter: quartz
Total: 1

Excavation Unit 6
1 Shatter: quartz
4 Flake-blades: quartz
2 Fire-cracked rocks: quartz
Total: 7

Total artifacts: 15

44Pk133

Archeology Laboratories Site: AL53

44Pk133 was a prehistoric site located on a terrace above the Smith River. The general area which encompasses the site consists of a terrace created by the scouring action of the Smith River and a small backswamp. The terrace is raised, almost like a levee, as a result of these actions. The area located between the terrace and the river shows evidence of old channels and scoured areas. The vegetation consisted of mixed hardwoods and conifers. No surface visibility was available, so .5 m testpits were used to determine the site boundaries. A total of nineteen .5 m testpits and eight auger tests were dug to define site boundaries, to test for subsurface features, and to document the general geomorphology of the area. These tests revealed brown silty sands over gray black silts and layers of decaying vegetation interspersed with sand and pebbles in the channeled areas between the terrace and river. The backswamp revealed moist sandy clay loams set in low relief. The testpits on the terrace revealed humus and sand to 6 cm over brown mottled sandy loam to 36 cm, over mottled orange and reddish brown silty loam to 48 cm over mottled grayish brown and black sitly sand with bits of hematite to 1.32 m, over dark yellowish brown coarse sand to 2 m over water. In general the testpits indicated severe disturbance due to channeling and scouring by the river--culturally derived stratigraphy or features were not present.

Artifacts were recovered between 8-36 cm below surface and consisted of quartz, chalcedony, felsite, and quartzite debris and ceramics. No diagnostic lithics were recovered.

1. Soil Type: Mottled sandy loam, over mottled silty loam, over mottled silty sand, over coarse sand, over water.

2. Distance to Water: The Smith River lies within 10 m of the northern edge of the site.

3. Cultural Affiliation: Prehistoric; Early, Late Woodland

4. Stratigraphic Condition: Highly disturbed due to alluvial actions.

5. State of Preservation: Poor, majority of the area scoured by the Smith River.

6. Areal Extent: 243.8 m northwest-southeast; 76.2 m northeast-southwest.

7. Elevation: 1080 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface
1 Primary flake: chalcedony
Total: 1

Excavation Unit 1
1 Flake-blade with retouch: quartz
1 Flake-blade with retouch: felsite
Charcoal: 1.1 g
Total: 2

Excavation Unit 2
1 Flake-blade: quartz
Total: 1

Excavation Unit 3
2 Shatter: quartz
2 Flake-blades: quartz
Total: 4

Excavation Unit 4
1 Retouch flake: quartz
1 Core: chalcedony
5 Flake-blades: chalcedony
4 Retouched flakes: chalcedony
1 Core: quartz
2 Cores with retouch: quartz
9 Shatter: quartz
5 Flake-blades: quartz
9 Tertiary flakes: quartz
1 Fire-cracked rock: quartz
Total: 38

Excavation Unit 6
10 Flake-blades: quartz
2 Steatite fragments
1 Sherd: crushed quartz with fine sand and hornblende; eroded
2 Sherdlets: 1.6 g
Charcoal: .4 g
Total: 15

Excavation Unit 13
1 Flake-blade: chalcedony
Charcoal: .9 g
Total: 1

Excavation Unit 14
1 Primary flake: quartzite
Total: 1

Excavation Unit 15
1 Shatter: quartz
1 Shatter: quartzite
1 Flake-blade: quartz
1 Fire-cracked rock: quartz
Charcoal: .1 g
Total: 4

Excavation Unit 16
4 Shatter: quartz
1 Flake-blade: quartz
5 Fire-cracked rocks: quartz
Total: 10

Total Artifacts: 77

44Pk134

Archeology Laboratories Site: AL54

44Pk134 was a prehistoric lithic scatter located on a ridgetoe overlooking a flood plain of Poplar Camp Creek. The vegetation included oak, pine, and beech. The site was defined through .5 m testpits and isolated patches of ground surface visibility. A total of five .5 m testpits were dug to determine site boundaries. The pits consistently revealed reddish brown loamy clay to 6 cm, over red clay.

All artifacts were quartz debris. No diagnostic lithics or ceramics were recovered. No culturally derived stratigraphy or features were noted.

The site will be flooded should a dam be constructed at any of the three alternative locations.

1. Soil Type: Red clay.

2. Distance to Water: Poplar Camp Creek lies 182 m to the south.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Eroded.

5. State of Preservation: Poor, site eroded.

6. Areal Extent:Site defined by artifacts within one .5 m testpit.

7. Elevation: 1150 feet AMSL

8. Slope: 8 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
5 Shatter: quartz
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz

Total Artifacts: 7

44Pk136

Archeology Laboratories Site: AL56

44Pk136 was a prehistoric site located on a small terraced area of an unmarked feeder stream of Poplar Camp Creek. The vegetation consisted of oak, beech and dogwood.

The site consisted of two pieces of quartz lithic debris recovered within a .5 m testpit. No ground surface visibility was available within the general area. A total of four additional .5 m testpits were placed within 10 m on cardinal points to define site boundaries. No additional artifacts were recovered. The testpit revealing the artifacts contained reddish brown loamy clay to 21 cm, over heavily mottled reddish brown loamy clay and red clay. No diagnostic lithics or ceramics were found. No culturally derived stratigraphy or features were noted. Recent timbering on an adjacent hill had stimulated runoff and minor erosion of the site. This site will be affected by flooding should any of the damsite locations be used.

1. Soil Type: Reddish brown loamy clay over heavily mottled reddish brown loamy clay, over red clay.

2. Distance to Water: 42.7 m south of feeder branch of Poplar Camp Creek.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Fair, some erosion noted in the area.

6. Areal Extent: Site defined by artifacts within one .5 m testpit.

7. Elevation: 1180 feet AMSL

8. Slope: 24 degrees

9. Exposure: North

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
2 Flakes: quartz

Total Artifacts: 2

44Pk137

Archeology Laboratories Site: AL57

44Pk137 was a prehistoric site located on a slightly terraced area on a south face slope along a feeder stream of Poplar Camp Creek. The vegetation consisted of beech and pine.

The site was defined by .5 m testpits. No surface visibility was available. A total of nine .5 m testpits were dug to determine the site boundaries, only three of which contained artifacts. The pits consistently revealed brown sandy clay to an average depth of 6 cm, over sterile red clay. Additional testpits upslope failed to produce artifacts.

All artifacts were quartz debris. No diagnostic lithics or ceramics were recovered. No culturally derived stratigraphy or features were noted. Erosion was minimal.

This site will be affected by flooding if any of the dams are built.

1. Soil Type: Brown sandy clay over red clay.

2. Distance to Water: 24.4 m north of a feeder branch of Poplar Camp Creek.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived strata noted.

5. State of Preservation: Poor, area somewhat steep and eroded.

6. Areal Extent: 8 m north-south; 8 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 18 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
7 Shatter: quartz
2 Fire-cracked rocks: quartz
Total: 10

Excavation Unit 5
3 Shatter: quartz
1 Fire-cracked rocks: quartz
Total: 4

Excavation Unit 7
1 Shatter: quartz
Total: 1

Excavation Unit 10
2 Shatter: quartz
2 Fire-cracked rocks: quartz
Total: 4

Excavation Unit 12
1 Shatter: quartz
1 Flake-blade: quartz
Total: 2

Total Artifacts: 21

44Pk140

Archeology Laboratories Site: AL60

44Pk140 was a prehistoric site located on a terrace and adjacent floodplain of Poplar Camp Creek. The entire area was in pasture; therefore, no ground surface visibility was available. Thirty-three .5 m testpits were used to define the site boundaries. The testpits on the terrace consistently revealed brown clayey loam to an average depth of 19 cm, over mottled brown clayey loam and orange-yellow clay to an average depth of 26 cm, over yellowish orange clay. The testpits on the floodplain revealed mottled yellowish brown sandy clay loam with streaks of hematite to an average depth of 29 cm, over hard-packed mottled yellowish orange clay with streaks of hematite. Auger tests were used to augment .5 m testpits on the floodplain. These tests revealed mottled yellowish orange sandy clay with coarse sandy grit and mica mixed with hematite streaks to an average depth of 62 cm, over mottled gray sandy clay to an average depth of 73 cm, over predominantly gray clayey sand to an average depth of 94 cm, over water at an average depth of 1.01 m below ground surface.

Artifacts were recovered within nine of the .5 m testpits. The artifacts consisted of lithic debris and one small eroded potsherd. No diagnostic lithics or ceramics were recovered as a result of the testpitting. No culturally derived stratigraphy or features were noted.

This site is located in an area which will be inundated by all three project alternatives.

1. Soil Type: Brown clayey loam over mottled brown clayey loam and yellow orange clay over yellow orange clay.

2. Distance to Water: The site lies within 30 m of a feeder stream of the Smith River.

3. Cultural Affiliation: Late Archaic, Early Woodland.

4. Stratigraphic Condition: No distinct culturally derived deposits were noted.

5. State of Preservation: Good to fair, some alluvial action noted in the area.

6. Areal Extent: 16.8 m north-south; 11.5 m east-west.

7. Elevation: 1100-1120 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 3
2 Shatter: quartz
2 Flake-blades: quartz
1 Flake-blade: siliceous breccia
Total: 5

Excavation Unit 5
1 Fire-cracked rock: quartz
Total: 1

Excavation Unit 7
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
1 Fire-cracked rock: quartz
Total: 3

Excavation Unit 8
3 Shatter: quartz
3 Flake-blades: quartz
Total: 6

Excavation Unit 11
    3 Shatter: quartz
Total: 3

Excavation Unit 20
    1 Shatter: quartz
    1 Flake-blade: Siliceous precipitate
Total: 2

Excavation Unit 21
    3 Flake-blades: quartz
    1 Flake-blade: felsite
    2 Fire-cracked rocks: quartz
    1 Sherd: eroded
Total: 7

Excavation Unit 28
    1 Shatter: quartz
Total: 1

Excavation Unit 29
    1 Shatter: quartz
Total: 1

Excavation Unit 30
    1 Shatter: quartz
    1 Flake-blade: quartz
    1 Fragmant of biface, midsection: quartz
Total: 3

Total Artifacts: 31

44Pk141

Archeology Laboratories Site: AL61

44Pk141 was a prehistoric site located on a terrace and floodplain of Poplar Camp Creek. The entire area was in pasture and no general surface visibility was available. A total of eight .5 m testpits were dug to determine the boundaries of the site. These testpits consistently revealed well-drained but mottled reddish brown and brown clayey sand to 34 cm, over yellowish orange clay.

Artifacts were recovered within six of the .5 m testpits. The artifacts recovered included lithic debris and ceramics. No diagnostic lithics were recovered, and no culturally derived stratigraphy or features were noted. The area surrounding 44Pk141 had been previously plowed, and as a result some artifacts apparently had eroded off the terrace onto the floodplain.

This site will be flooded by any of the three alternative dam sites.

1. Soil Type: Reddish brown mottled clayey sand.

2. Distance to Water: 65 m to northeast of the confluence of Poplar Camp Creek and an unnamed branch.

3. Cultural Affiliation: Early, Late Woodland.

4. Stratigraphic Condition: No culturally-derived deposits were noted.

5. State of Preservation: Fair; alluvial action noted in the area.

6. Areal Extent: 77 m north-south; 54 m east-west

7. Elevation: 1100 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
2 Shatter: quartz
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
1 Sherd: crushed quartz, quartz sand: net-impressed
2 Sherds: crushed quartz, micaceous sand: eroded
Total: 7

Excavation Unit 2
1 Tertiary flake: quartz
Total: 1

Excavation Unit 3
2 Flake-blades: quartz
Total: 2

Excavation Unit 4
1 Flake-blade: quartz
Total: 1

Excavation Unit 5
1 Tertiary flake: quartz
Total: 1

Excavation Unit 7
1 Shatter: quartz
1 Flake-blade: quartz
Total: 2

Total Artifacts: 14

44Pk142

Archeology Laboratories Site: AL62

44Pk142 was a prehistoric site located on a slight rise in the floodplain along Poplar Camp Creek. All cultural materials recovered were visible on the ground surface. The surface visibility was due to recent cultivation or grading. At the time of the assessment, the area surrounding the site was open with a new growth of grass beginning.

The location of each artifact was marked with red flags to determine the site boundaries. Surface visibility was augmented by a total of five .5 m testpits dug to insure the integrity of visually-derived site boundary determinations. One historic ceramic sherd was recovered within one of these pits. One .5 by .75 m testpit revealed hard-packed red clay with hematite and fragments of quartzite to 11 cm. No artifacts were recovered, and no subsurface features were noted. The testpit was not extended to a depth beyond 11 cm, because of the hard-packed, sterile nature of the soil and the large amount of erosion and apparent disturbance within the area. A total of eleven 10 m collection units were superimposed over the area encompassed by the flags. Each unit was collected separately. All artifacts collected were quartz, felsite or chalcedony. No ceramics were found.

The area surrounding the site has undergone severe disturbance due to erosion. Conversation with the steward of this property revealed that this area had once been used as a landing strip for a private aircraft, and some grading had taken place. The site would be flooded by any of the three alternative damsites.

1. Soil Type: Red clay.
2. Distance to Water: 30.5 m south to Poplar Camp Creek.
3. Cultural Affiliation: Early Archaic, Early, Late Woodland.
4. Stratigraphic Condition: Poor; red clay immediately below surface.
5. State of Preservation: Heavy erosion; area previously plowed.
6. Areal Extent: 42 m east-west; 51 m north-south
7. Elevation: 1140 feet AMSL
8. Slope: 1 degree

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 5
1 Sherd, historic: iron oxide glaze
Total: 1

General Range Collection Unit 1
1 Core: quartz
1 Shatter: quartz
2 Flake-blades: quartz
Total: 4

General Range Collection Unit 2
1 Shatter: quartz
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
1 Unidentified multi-purpose tool: quartz
Total: 4

General Range Collection Unit 3
1 Core: quartz
3 Shatter: quartz
Total: 4

General Range Collection Unit 4
1 Core: quartz
1 Primary flake: quartz
Total: 2

General Range Collection Unit 5
3 Shatter: quartz
1 Flake-blade: felsite
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
Total: 6

General Range Collection Unit 6
1 Shatter: quartz
1 Primary flake with retouch: quartz
Total: 2

General Range Collection Unit 7
1 Core: quartz
1 Flake-blade: felsite
2 Flake-blades: quartz
Total: 4

General Range Collection Unit 8
4 Flake-blades: quartz
1 Projectile point, unidentified stemmed: quartz
Total: 5

General Range Collection Unit 9
    1 Shatter: quartz
    1 Primary flake with retouch: quartz
    1 Flake-blade: chalcedony
Total: 3

General Range Collection Unit 10
    1 Core with retouch: quartz
    1 Shatter: quartz
Total: 2

General Range Collection Unit 11
    1 Tertiary flake: quartz
Total: 1

Total Artifacts: 38

44Pk143

Archeology Laboratories Site: AL63

44Pk143 was a prehistoric site on the floodplain at the confluence of an unnamed feeder stream and Poplar Camp Creek. The entire area was in pasture; therefore, no ground surface visibility was available. A total of twenty-four .5 m testpits were dug to determine the boundaries of the site. These pits revealed brown clayey sand to 30 cm over mottled reddish orange and brown clayey sand. Auger tests were used to augment the .5 m testpits. The auger tests revealed moist, yellowish red clayey sand below the mottled clayey sands to 47 cm below surface, over yellowish red moist clay mottled with sands, decaying schist, hematite and gravel to 60 cm, over increasingly moist yellowish red clayey sand mottled with decayed hematite and gray sand to 75 cm, over water at 1.15 m below ground surface. No culturally-derived stratigraphy or features were noted in testpits or auger tests. Artifacts, which were recovered from 19 .5 m testpits, included quartz, quartzite, felsite, chert, siliceous precipitate, and ground stone lithic materials as well as ceramics.

This site is in a location which will be inundated by all three project alternatives.

1. Soil Type: Brown clayey sand over mottled reddish orange and brown clayey sand.

2. Distance to Water: Poplar Camp Creek lies 22.9 m to the south.

3. Cultural Affiliation: Late Archaic, Early Late Woodland.

4. Stratigraphic Condition: Good, some alluviation and erosion noted.

5. State of Preservation: Good.

6. Areal Extent: 123 m north-south; 135 m east-west.

7. Elevation: 1140 feet AMSL

8. Slope: 1 degree

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Shatter: quartz
1 Flake-blade: chert
Total: 2

Excavation Unit 2
1 Flake-blade: quartz
1 Sherd, fine sand: net-impressed
Total: 2

Excavation Unit 3
1 Primary flake: quartzite
1 Biface, partial: felsite
Total: 2

Excavation Unit 5
1 Primary flake: quartz
1 Flake-blade: quartz
Total: 2

Excavation Unit 6
1 Flake-blade: quartz
1 Tertiary flake: quartz
1 Sherd, fine sand: net-impressed
1 Sherdlet, .4 g: unidentified
Total: 4

Excavation Unit 7
1 Tertiary flake: chert
1 Ground stone, adze/hoe: quartz
2 Tertiary flakes: quartz
2 Sherds, fine sand with slight amount of crushed quartz: net-impressed
Total: 6

Excavation Unit 10
1 Sherdlet: unidentified
Total 1

Excavation Unit 11
5 Shatter: quartz

2 Shatter: quartzite
3 Primary flakes: quartzite
4 Flake-blades: quartz
1 Flake-blade: chert
1 Flake-blade: quartzite
1 Tertiary flake: chert
4 Fire-cracked rocks: quartz
2 Sherds, quartz/sand: net-impressed
1 Sherd, crushed quartz: net-impressed
1 Sherd, eroded with no visible temper: net-impressed
Charcoal: .1 g
Total: 25

Excavation Unit 12
1 Shatter: quartz
3 Fire-cracked rocks: quartz
2 Sherds, crushed quartz with fine sand: net-impressed
3 Sherds, quartz/sand: net-impressed
Total: 9

Excavation Unit 13
2 Shatter: quartz
2 Flake-blades: quartz
1 Flake-blade: siliceous precipitate
1 Tertiary flake: quartz
Total: 6

Excavation Unit 14
1 Tertiary flake: quartz
2 Shatter: quartzite
Total: 3

Excavation Unit 15
1 Flake-blade: quartz
Total: 1

Excavation Unit 17
1 Sherd, quartz/sand: net-impressed
Total: 1

Excavation Unit 18
1 Core: quartz
1 Flake-blade: quartz
1 Fire-cracked rock: quartz
1 Flake-blade: quartzite
1 Flake-blade: felsite
2 Sherds, sand: net-impressed
3 Sherdlets: 1.7 g
Total: 10

Excavation Unit 19
1 Sherd, quartz/sand: net-impressed
Charcoal: .3 g
Total: 1

Excavation Unit 20

1 Shatter: quartz
1 Flake-blade: chert
1 Sherd, fine sand with occasional crushed quartz: net-impressed
1 Sherd, micaceous sand: net-impressed
Total: 4

Excavation Unit 22
1 Sherd, quartz/sand: net-impressed
Total: 1

Excavation Unit 23
1 Primary flake: quartzite
1 Sherd, micaceous sand: net-impressed
Total: 2

Excavation Unit 24
3 Shatter: quartz
2 Flake-blades: chert
1 Flake-blade: chalcedony
2 Retouch flakes: chalcedony
8 Fire-cracked rocks: quartz
2 Sherds, quartz/sand: net-impressed
1 Sherd, quartz/sand: brushed
1 Sherd, crushed quartz: net-impressed
Total: 22

Total Artifacts: 105

44Pk144

Archeology Laboratories Site: AL64

44Pk144 was a prehistoric site located on the floodplain of Poplar Camp Creek. The entire site area was in pasture at the time of survey, and therefore no ground surface visibility was available. Ten .5 m testpits were dug to determine the boundaries of the site. These tests revealed reddish-brown sandy clay to 35 cm below surface, over red sandy clay mixed with hematite. No culturally derived stratigraphy or features were revealed in these tests. Also, the site has been partially disturbed to the north and west by past road construction.

Four of the .5 m testpits, however, did contain cultural materials between depths of 5-20 cm below surface. All artifacts consisted of quartz debris, and no diagnostic lithics or ceramics were recovered.

The site is located immediately below the 1200 foot contour interval where it would be inundated by all three project alternatives, with the added threat of wave washing during low water intervals.

1. Soil Type: Reddish brown sandy clay, over red sandy

clays mixed with hematite.

2. Distance to Water: The site lies 7.6 m northeast of Poplar Camp Creek.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Fair, moderate erosion.

6. Areal Extent: 32 m north-south; 63 m east-west

7. Elevation: 1140 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southwest

10. Condition of Feature: None noted.

Artifacts Collected

Excavation Unit 3
1 Core: quartz
7 Shatter: quartz
1 Primary flake: quartz
Total: 9

Excavation Unit 5
3 Shatter: quartz
Total: 3

Excavation Unit 7
1 Shatter: quartz
Total: 1

Excavation Unit 8
2 Shatter: quartz
Total: 2

Total Artifacts: 15

44Pk145

Archeology Laboratories Site: AL65

44Pk145 was a prehistoric site located upstream on an unnamed branch of Poplar Camp Creek within a grove of white pine. Ground surface visibility at the site location was limited by a thick mat of organic materials and pine needles. The pine grove which covers the site is a tree farm which has been previously plowed and planted. The trees exhibit approximately 12 to 15 years of growth.

Nine testpits were dug to determine the site's boundaries and revealed a natural stratigraphy of reddish-brown sandy silt loam to 6 cm below surface, over red sandy clay. No culturally derived strata or features were revealed in these tests.

Five of the .5 m testpits revealed cultural materials which were recovered within 10 cm of the ground surface. These artifacts included lithic materials of chert and quartz; none were diagnostic. Also, one ceramic sherd was recovered.

This site will be affected by flooding should any of the three damsites be chosen for construction.

1. Soil Type: Reddish gray and brown silty sand over gray silty sand.

2. Distance to Water: The site lies 18.3 m northwest of Poplar Camp Creek.

3. Cultural Affiliation: Prehistoric, Middle Woodland.

4. Stratigraphic Condition: No culturally derived strata were noted.

5. State of Preservation: Fair, moderate erosion was evident.

6. Areal Extent: 48.2 m north-south; 41.6 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 1 degree

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Flake-blade with retouch: quartz
Total: 1

Excavation Unit 4
1 Flake-blade: quartz
1 Sherd, crushed quartz: net-impressed
Total: 2

Excavation Unit 5
1 Flake-blade: chert
1 Tertiary flake: chert
Total: 2

Excavation Unit 7

1 Flake-blade: chert
Total: 1

Excavation Unit 8
1 Flake-blade: quartz
Total: 1

Total Artifacts: 8

44Pk148

Archeology Laboratories Site: AL68

44Pk148 was a prehistoric site located on a floodplain of Poplar Camp Creek. All cultural materials recovered were visible on the ground surface, which had been cleared by recent cultivation and grading. Conversations with the land steward revealed that the area which includes the site had been graded at one time for use as a landing strip for a privately-owned airplane.

Cultural debris was limited to a very small area and included quartz and felsite, collected in one unit; no testpitting was deemed necessary. The soil was very eroded, red sandy clay. No diagnostic lithics or ceramics were recovered.

This site will be affected by flooding if a dam is built on any of the three alternative locations.

1. Soil Type: Red, sandy clay loam.

2. Distance to Water: 7.6 m north of Poplar Camp Creek.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Poor; heavy erosion in the area.

5. State of Preservation: Poor; eroded.

6. Areal Extent: 1.2 m north-south; 5.1 m east-west

7. Elevation: 1140 feet AMSL

8. Slope: 5 degrees

9. Exposure: Southwest

10. Condition of Features: None present.

Artifacts Collected

General Range Collection Unit 1
5 Shatter: quartz

1 Flake-blade: quartz
1 Flake-blade: felsite
Total: 7

Total Artifacts: 7

44Pk154

Archeology Laboratories Site: AL74

44Pk154 was a prehistoric site located within a rock shelter overlooking the Smith River. The vegetation consisted of beech in front of the rock shelter and rhododendron on either side. The floor of the rockshelter was sand and provided 100% visibility. Artifacts were present on the ground surface.

One .5 x .75 m testpit was excavated in 10 cm levels within the rock shelter to test for cultural stratigraphy and/or features. The testpit was excavated until bedrock covered the floor of the testpit. Artifacts were recovered from the ground surface to 20 cm below surface.

The testpit revealed a grey brown, highly micaceous sand between 5 to 12 cm below surface over a highly micaceous yellow brown sand to solid rock across the floor of the pit at 46 cm below ground surface. The majority of the pit floor past 10 cm below surface was obscured due to roof fall. The upper 10 cm of the pit revealed lithic and ceramic artifacts, gastropods, freshwater mussels, charred bone and fire-cracked rocks. A .22 caliber rifle cartridge was located at 4 cm below surface, and a small ball of lead was also recovered within the first 10 cm. A recent campfire within the shelter suggested modern use by hunters. The testpit continued to yield artifacts to 16 cm below surface, but the third and fourth levels were sterile.

44Pk154 revealed a distinct cultural level within the first 12 cm of the testpit (Figure 15). Very little disturbance was noted within this level beyond the effects of roof fall. The historic rifle cartridge and the remnants of a campfire were the only evidence of recent occupation within the shelter.

1. Soil Type: Micaceous sand over rock.

2. Distance to Water: The Smith River is 24.8 m to the west.

3. Cultural Affiliation: Prehistoric, Middle Woodland, Early Late Woodland.

4. Stratigraphic Condition: Culturally derived strata noted.

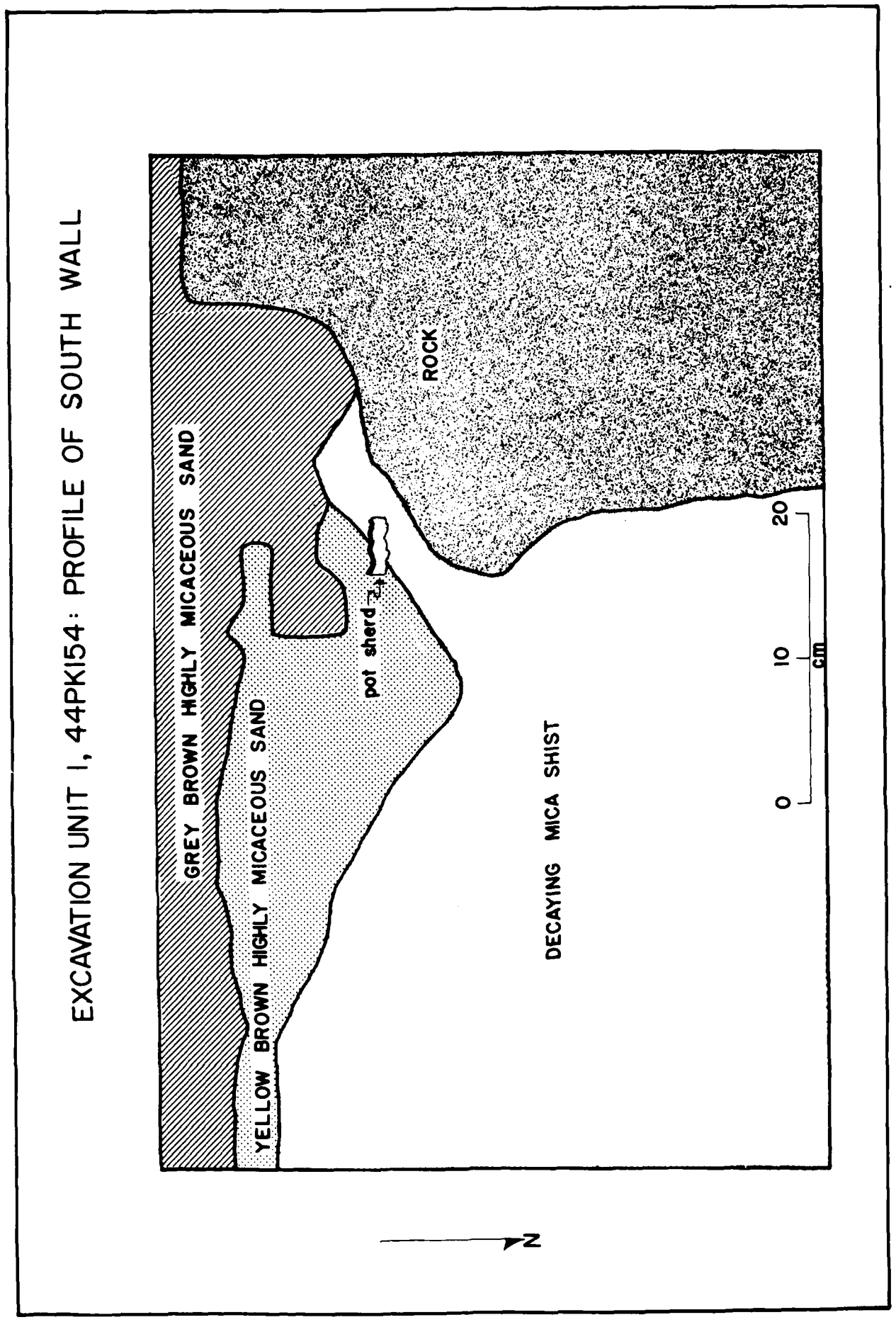


Figure 15. 44Pk154, EU1, Profile of Strata, USRB, Virginia.

5. State of Preservation: Good; some roof fall present.

6. Areal Extent: 45.8 m north-south; 7.5 m east-west

7. Elevation: 1070 feet AMSL

8. Slope: 16 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
- 1 Core: quartz
- 10 Shatter: quartz
- 12 Flake-blades: quartz
- 1 Tertiary flake: quartz
- 1 Fire-cracked rock: quartz
- 1 Primary flake: quartzite
- 1 Flake-blade: chert
- 1 Flake-blade: chalcedony
- 1 Retouched flake: siliceous precipitate
- 1 Sherd, fine sand: net-impressed

Total: 30

Excavation Unit 1, Field Specimen 1
- 32 Shatter: quartz
- 2 Primary flakes: quartz
- 15 Flake-blades: quartz
- 2 Flake-blades with retouch: quartz
- 2 Fire-cracked rocks: quartz
- 1 Cobble: quartz
- 1 Shatter: quartzite
- 1 Shatter: chalcedony
- 1 Primary flake with retouch: quartzite
- 2 Flake-blades: chert
- 11 Flake-blades: chalcedony
- 4 Retouched flakes: chalcedony
- 1 Retouched flake: chert
- 1 Sherd, quartz sand: plain
- 1 Sherd, crushed quartz: cord-marked
- 1 Sherd, crushed quartz, quartz sand and micaceous sand: net-impressed
- 1 Sherdlet: .08 g
- 1 22 caliber rim fire cartridge
- Bone: 4.2 g
- Charcoal: 4.7 g
- Gastropods: 3.8 g
- Shell: 1.2 g
- Lead: .7 g

Total: 80

Excavation Unit 1, Field Specimen 2
- 4 Flake-blades: quartz

1 Tertiary flake: argillite
3 Fire-cracked rocks: quartz
Shell: .1 g
Charcoal: .1 g
Total: 8

Total Artifacts: 118

44Pk159

Archeology Laboratories Site: AL79

44Pk159 was a prehistoric site located within a rockshelter along an unnamed feeder stream of the Smith River. The surrounding vegetation consisted of rhododendron, but visibility within the rockshelter was 100%.

One .5 m testpit was excavated by 10 cm levels within the rockshelter. This test revealed yellowish brown clayey micaceous sand to 47 cm below surface over rock. The entire deposit appeared to be homogeneous and no culturally derived stratigraphy or features were noted. Slight erosion occurred in the general area surrounding the site, but the interior of the rockshelter appeared unaffected. Only one piece of quartz debris, which was not diagnostic, was recovered from the testpit at approximately 30 cm below surface.

44Pk159 will be flooded as a result of dam construction at any of the three alternative damsites.

1. Soil Type: Clayey micaceous sand over rock.

2. Distance to water: An unnamed drainage is located 27 m to the north of the rockshelter.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy was noted.

5. State of Preservation: Fair, some erosion noted.

6. Areal Extent: 3 m north-south; 20.3 m east-west.

7. Elevation: 1110 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1

1 Core: quartz

Total Artifacts: 1

44Pk161

Archeology Laboratories Site: AL81

44Pk161 was a prehistoric site located within a rockshelter on the first terrace of a small unnamed feeder stream of the Smith River. The vegetation surrounding the site area consisted of rhododendron. Surface visibility within the site was zero due to a heavy accumulation of leaf litter.

One .5 m testpit was excavated within the rockshelter in 10 cm levels. This test revealed yellowish brown, micaceous, clayey sand to 16 cm below surface over rock. The entire deposit was homogeneous, and no culturally derived stratigraphy or features were noted. No erosion was apparent within the rockshelter. A total of seven artifacts was recovered from the first 10 cm of the testpit. These include quartz, felsite, and chalcedony lithic materials, none of which are diagnostic. No ceramic artifacts were recovered.

44Pk161 will be affected by flooding by construction on any of the three damsite locations.

1. Soil Type: Micaceous clayey sand over rock.
2. Distance to Water: An unnamed drainage is located 30 m to the north of the site.
3. Cultural Affiliation: Prehistoric, Early Archaic.
4. Stratigraphic Condition: No culturally derived stratigraphy was noted.
5. State of Preservation: Good, no erosion was noted.
6. Areal Extent: 6.8 m north-south; 18.8 m east-west.
7. Elevation: 1130 feet AMSL
8. Slope: 9 degrees
9. Exposure: Northwest
10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
1 Primary flake with retouch: felsite
1 Primary flake with retouch: chalcedony

4 Flake-blades: quartz
Total: 7

Total Artifacts: 7

44Pk162

Archeology Laboratories Site: AL82

44Pk162 was a prehistoric site located on a sandy terrace overlooking the confluence of the Smith River and an unnamed drainage. The vegetation consisted of beech and oak. The site was discovered by the use of .5 m testpits--ground surface visibility was obscured by vegetation in this area. Six .5 m testpits were dug to define the site boundaries, and these revealed dark gray brown silty sand to 12 cm, over yellowish brown sand to 26 cm, over red sand. No culturally derived stratigraphy or features were noted, and both artifacts were found within the upper 5 cm of one testpit. No diagnostic lithics or ceramics were recovered.

This site will be affected by flooding should any of the three damsite locations be selected for construction use.

1. Soil Type: Silty sand over sand.

2. Distance to Water: The confluence of the Smith River and an unnamed drainage was located 29.3 m northwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: The stratigraphy resulted from alluvial action.

5. State of Preservation: Poor; artifacts were redeposited by water.

6. Areal Extent: The artifacts were limited to one 50 x 50 cm testpit.

7. Elevation: 1060 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

1 Shatter: quartz
1 Tertiary flake: quartz

Total Artifacts: 2

44Pk172

Archeology Laboratories Site: AL92

44Pk172 was a prehistoric site, a quartz lithic scatter, exposed in an old roadbed near Shooting Creek. The vegetation consisted of rhododendron, beech and oak. Good ground surface visibility was available in the general area.

Artifacts on the ground surface were marked with pin flags, and two 10 m squares were imposed over the flagged area and collected separately. One .5 m square testpit placed within the site to test for subsurface features revealed brown sandy loam to 8 cm, over yellowish brown loamy clay to 14 cm over a dense layer of naturally exfoliated quartz nodules. No culturally derived stratigraphy or features were noted. Artifacts were recovered to 10 cm below ground surface and consisted solely of quartz debris. No diagnostic lithics or ceramics were found.

An old road bed had been cut through the ridgetoe upon which the site is located. This road had severely altered the site, with numerous artifacts eroded down its bed.

The site is located in an area that will be inundated should any of the three damsites be selected for construction.

1. Soil Type: Sandy loam over loamy clay over rock.
2. Distance to Water: Shooting Creek is 95 m to the south.
3. Cultural Affiliation: Prehistoric
4. Stratigraphic Condition: Eroded.
5. State of Preservation: Poor; disturbed by road construction.
6. Areal Extent: 15 m north-south; 8 m east-west
7. Elevation: 1150 feet AMSL
8. Slope: 10 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Core: quartz
2 Shatter: quartz

2 Primary flakes: quartz
3 Flake-blades: quartz
Total: 8

General Range Collection Unit 2
2 Cores: quartz
10 Primary flakes: quartz
2 Primary flakes with retouch: quartz
8 Flake-blades: quartz
Total: 22

Excavation Unit 1
1 Core: quartz
4 Shatter: quartz
3 Primary flakes: quartz
Total: 8

Total Artifacts: 38

44Pk174

Archeology Laboratories Site: AL94

44Pk174 was a prehistoric site located on a terraced area at the base of a ridgetoe near Shooting Creek. The vegetation consisted of beech and oak.

The site yielded quartz artifacts from two .5 m testpits. Four additional .5 m pits were dug to determine site boundaries, but all four were sterile. The artifact-bearing testpits revealed brown silty micaceous sand to 36 cm over reddish brown clayey sand to water at 69 cm below surface. Artifacts were recovered at 8 cm below surface and between 36-68 cm below surface. No culturally derived stratigraphy or features were noted. No diagnostic lithics or ceramics were recovered.

The materials found in 44Pk174 have probably resulted from erosional redeposition. Two large gulleys emptied into the area and a severely eroded ridgetoe was located directly above the site. This site will be affected by flooding as a result of dam construction at any of the three alternative locations.

1. Soil Type: Silty micaceous sand over clayey sand over water.

2. Distance to Water: Shooting Creek was located 20 m to the south.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Result of colluvial action.

5. State of Preservation: Poor; site has been affected

by colluviation or colluvial processes.

6. Areal Extent: Artifacts were limited to two 50 x 50 testpits.

7. Elevation: 1120 feet AMSL

8. Slope: 6 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 4, Field Specimen 1 = 8 cm below surface
1 Primary flake: quartz
Total: 1

Excavation Unit 4, Field Specimen 2 = 36-68 cm below surface
3 Primary flakes: quartz
2 Primary flakes with retouch: quartz
3 Flake-blades with retouch: quartz
1 Biface fragment: quartz
1 Side scraper: quartz
Total: 10

Total Artifacts: 11

44Pk175

Archeology Laboratories Site: AL95

44Pk175 was a prehistoric site located on a terrace at the base of a ridgetoe above a floodplain on the east bank of Shooting Creek. The vegetation consisted of oak, beech, dogwood and rhododendron. Some surface visibility was available at the site, and a grid of seven 10 m squares was laid out within the area and surface collections taken from each of these units. A total of six .5 m testpits were dug to determine the site boundaries. One of these tests was dug in 10 cm levels and revealed mottled tan and yellow sandy clay to 15 cm over mottled reddish gray sandy loam to 21 cm over moist, light brown clay mixed with decaying schist. A buried "A" soil horizon was noted within the subsurface tests, but no culturally derived stratigraphy or features were discovered.

Artifacts were recovered between the surface and 22 cm below surface. These artifacts included quartz, chalcedony, quartzite, chert and felsite lithic debris and ceramics.

Shooting Creek had channeled through and scoured a portion of the terrace on which 44Pk175 was located. The buried soil horizon revealed in the subsurface tests was very hard packed

and laden with organics apparently as a result of standing water. In addition an old road trace was located along the upslope portion of the terrace.

This site will be affected by flooding if dam construction occurs on any of the alternative locations.

1. Soil Type: Sandy clay over sandy loam over mottled clay over decaying rock.

2. Distance to Water: Shooting Creek is located 37 m to the north.

3. Cultural Affiliation: Prehistoric, Late Archaic, Middle and Late Woodland.

4. Stratigraphic Condition: Disturbed as a result of alluvial action.

5. State of Preservation: Poor, Shooting Crek had cut through the middle of the site. Subsurface tests revealed flooding. An old road bed was located through the western edge of the site.

6. Areal Extent: 41.4 m north-south; 17.1 m east-west.

7. Elevation: 1090 feet AMSL

8. Slope: 6 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Shatter: quartz
1 Primary flake: quartz
Total: 2

General Range Collection Unit 2
2 Cores: quartz
3 Shatter: quartz
1 Primary flake: quartzite
3 Flake-blades: chalcedony
1 Tertiary flake: chalcedony
1 Sherd, crushed quartz: brushed
Total: 11

General Range Collection Unit 3
1 Core: chert
2 Flake-blades: chalcedony
1 Flake-blade: chert
1 Retouched flake: chert
2 Cores: quartz

2 Shatter: quartz
4 Flake-blades: quartz
1 Projectile point, Savannah River: felsite
1 Biface: chalcedony
Total: 15

General Range Collection Unit 4
1 Core: quartz
10 Shatter: quartz
1 Flake-blade: quartz
1 Core: chalcedony
21 Flake-blades: chalcedony
1 Flake-blade with retouch: chalcedony
3 Tertiary flakes: chalcedony
Total: 38

General Range Collection Unit 5
2 Shatter: quartz
Total: 2

General Range Collection Unit 6
1 Core with retouch: quartz
1 Retouched flake: chalcedony
Total: 2

General Range Collection Unit 7
1 Core: chalcedony
1 Flake-blade: chalcedony
1 Flake-blade with retouch: chalcedony
3 Shatter: quartz
3 Flake-blades: quartz
1 Bifacial thumbnail scraper: quartz
Total: 10

Excavation Unit 1
Sterile

Excavation Unit 2, Field Specimen 1
1 Shatter: quartz
1 Biface: quartz
1 Drill: quartz
Total: 3

Excavation Unit 2, Field Specimen 2
Sterile

Excavation Unit 2, Field Specimen 3
12 Shatter: quartz
1 Flake-blade: quartz
1 Primary flake with retouch: chalcedony
5 Flake-blades: chalcedony
3 Fire cracked rocks: quartz
3 Sherds, crushed quartz: simple stamped
Total: 25

Excavation Unit 2, Field Specimen 4

Sterile

Excavation Unit 3
Sterile

Excavation Unit 4
Sterile

Excavation Unit 5
1 Shatter: quartz
Total: 1

Excavation Unit 6
Sterile

Total Artifacts: 109

44Pk178

Archeology Laboratories Site: AL98

44Pk178 was a prehistoric site located on the floodplain of Shooting Creek, in the midst of a white pine tree farm. No surface visibility was present and a total of fifteen .5 m testpits were used to determine the extent of the site. These tests revealed reddish brown silty sand to 9 cm over a grayish brown silty loamy sand to 44 cm over yellow-brown sandy clay. An auger test was used for deeper testing, and revealed yellow-brown coarse sand clay at 63 cm over mottled brownish yellow coarse sandy clay, gray sand clay and brownish yellow clay at 1.22 m over brownish yellow clay at 1.36 m over gray clay at 1.51 m over water at 1.67 m below surface. The subsurface tests also revealed a buried "A" soil horizon, but no culturally derived stratigraphy or features were noted.

Six of the testpits produced artifacts from the buried soil zone between 13-36 cm below surface. The artifacts included quartz lithic debris and ceramics, but no diagnostic lithic materials. This site will be affected by flooding as a result of construction at any of the proposed damsites.

1. Soil Type: Silty sand, over silty loamy sand, over sandy clay over clay.

2. Distance to Water: Shooting Creek is located 20 m to the east.

3. Cultural Affiliation: Prehistoric, Early Late Woodland.

4. Stratigraphic Condition: The site revealed a buried "A" soil horizon.

5. State of Preservation: Poor; State Road 622 crosses and has disturbed the site, and the area has been

cultivated.

6. Areal Extent: 90 m north-south; 85 m east-west.

7. Elevation: 1050 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
1 Core: quartz
Total: 1

Excavation Unit 1
2 Bifaces: quartz
Total: 2

Excavation Unit 2
1 Shatter: quartz
2 Sherds, fine sand: net-impressed
1 Sherd, quartz sand: eroded
Total: 4

Excavation Unit 3
Sterile

Excavation Unit 4
Sterile

Excavation Unit 5
Sterile

Excavation Unit 6
Sterile

Excavation Unit 7
Sterile

Excavation Unit 8
Sterile

Excavation Unit 9
2 Sherds, quartz sand: eroded
Total: 2

Excavation Unit 10
Sterile

Excavation Unit 11
Artifacts recovered but lost.

Excavation Unit 12
Artifacts recovered but lost.

Excavation Unit 13
Sterile

Excavation Unit 14
Sterile

Excavation Unit 15
Sterile

Total Artifacts: 9

44Pk186

Archeology Laboratories Site: AL106

44Pk186 was a prehistoric site located near the base of a ridgetoe at the confluence of two seasonal streams. The vegetation was conifers, mixed hardwoods, dogwood, beech, and oak. As a result of this vegetation and other ground cover, surface visibility was almost zero within the site area. All artifacts were recovered from one .5 m square testpit. This subsurface test revealed a yellow-brown clayey sand to 16 cm below surface over orange brown sandy clay. Artifacts were confined to the first 8 cm below surface within the testpit. Four additional .5 m tests were made at 10 m intervals from the artifact bearing testpit along the cardinal directions. No additional artifacts, culturally derived stratigraphy or features were found. The artifacts which were recovered consisted totally of quartz debris lacking any diagnostic characteristics.

This site will be affected by flooding should a dam be constructed at any of the proposed damsites.

1. Soil Type: Yellow-brown clayey sand over orange-brown sandy clay.

2. Distance to Water: A small spring is located 15 m to the west of the site.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Natural stratigraphy, no culturally derived deposits.

5. State of Preservation: No organic cultural debris was recovered.

6. Areal Extent: The site was located within a .5 m testpit.

7. Elevation: 1180 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
3 Flake-blades: quartz
charcoal: .6 g

Total Artifacts: 3

44Pk191

Archeology Laboratories Site: AL111

44Pk191 was a prehistoric site located on a terrace at the confluence of the Smith River and an unnamed feeder stream. The vegetation consisted of dogwood and beech--ground surface visibility was very poor and .5 m testpits were used to define the site dimensions.

A total of eight .5 m testpits was dug with artifacts being recovered from four of these tests. Two or the testpits were expanded, one to .5 x .75 m and another to .75 x .75 m, in order to determine the nature of the artifact bearing stratigraphy within the site.

The .5 x .75 m testpit revealed mottled yellow-brown sand and gray-brown sandy loam to 47 cm, over mottled yellow-brown and dark gray-brown sands to 68 cm, over reddish brown sand at 1 m below surface. Artifacts were distributed between 27-83 cm below surface with fire-cracked rock being recovered at 1 m below surface. An auger test was made to probe for deeply buried deposits. This test revealed reddish brown sand to 1.2 m over mottled reddish brown, tan and gray sand to 1.7 m over orange-red coarse sand with hematite fragments continuing beyond 2.1 m below surface. No additional artifacts were collected as a result of this test.

The .75 x .75 m testpit revealed mottled yellow-brown sand and gray-brown sandy loam to 41 cm, over mottled yellow-brown and gray-brown sand to 70 cm, over reddish brown sand to 1.3 m below surface. Artifacts were distributed between 62 cm and 1.27 m below surface. A second auger test was made beginning at 1.3 m below surface. This test revealed reddish brown sand continuing beyond 2 m below surface.

As indicated by the dispersion of artifacts within the mottled soils, the site appeared to have been disturbed by water action in the past. No culturally derived stratigraphy or intact features were noted within any of the testpits.

This site will be flooded should a dam be built on any of the proposed locations.

1. Soil Type: Sandy loam over sand.

2. Distance to Water: A small unnamed feeder stream of the Smith River lies witin 5 m to the west of the site. The Smith River lies 30 m to the south.

3. Cultural Affiliation: Prehistoric, Late Woodland.

4. Stratigraphic Condition: The site's stratigraphy had been been disturbed by water: mottled sandy loams over mottled sands.

5. State of Preservation: Poor, the site had been disturbed by water. No bone or shell were present.

6. Areal Extent: 96.6 m northwest-southeast; 17.5 m southwest-northeast.

7. Elevation: 1130 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Range Collection
1 Sherd, crushed quartz: net-impressed
Total: 1

Excavation Unit 1
1 Flake-blade: quartz
1 Flake-blade: siliceous precipitate porphyritic
Total: 2

Excavation Unit 2
1 Primary flake: quartz
1 Primary flake with retouch: quartz
3 Flake-blades: quartz
29 Flake-blades with retouch: quartz
25 Tertiary flakes: quartz
1 Biface fragement: quartz
1 Sherd, crushed quartz and quartz/sand: brushed, eroded
Total: 61

Excavation Unit 4
1 Shatter: quartz
Total: 1

Excavation Unit 8

5. State of Preservation: Good; some roof fall present.

6. Areal Extent: 45.8 m north-south; 7.5 m east-west

7. Elevation: 1070 feet AMSL

8. Slope: 16 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
- 1 Core: quartz
- 10 Shatter: quartz
- 12 Flake-blades: quartz
- 1 Tertiary flake: quartz
- 1 Fire-cracked rock: quartz
- 1 Primary flake: quartzite
- 1 Flake-blade: chert
- 1 Flake-blade: chalcedony
- 1 Retouched flake: siliceous precipitate
- 1 Sherd, fine sand: net-impressed

Total: 30

Excavation Unit 1, Field Specimen 1
- 32 Shatter: quartz
- 2 Primary flakes: quartz
- 15 Flake-blades: quartz
- 2 Flake-blades with retouch: quartz
- 2 Fire-cracked rocks: quartz
- 1 Cobble: quartz
- 1 Shatter: quartzite
- 1 Shatter: chalcedony
- 1 Primary flake with retouch: quartzite
- 2 Flake-blades: chert
- 11 Flake-blades: chalcedony
- 4 Retouched flakes: chalcedony
- 1 Retouched flake: chert
- 1 Sherd, quartz sand: plain
- 1 Sherd, crushed quartz: cord-marked
- 1 Sherd, crushed quartz, quartz sand and micaceous sand: net-impressed
- 1 Sherdlet: .08 g
- 1 22 caliber rim fire cartridge
- Bone: 4.2 g
- Charcoal: 4.7 g
- Gastropods: 3.8 g
- Shell: 1.2 g
- Lead: .7 g

Total: 80

Excavation Unit 1, Field Specimen 2
- 4 Flake-blades: quartz

1 Tertiary flake: argillite
3 Fire-cracked rocks: quartz
Shell: .1 g
Charcoal: .1 g
Total: 8

Total Artifacts: 118

44Pk159

Archeology Laboratories Site: AL79

44Pk159 was a prehistoric site located within a rockshelter along an unnamed feeder stream of the Smith River. The surrounding vegetation consisted of rhododendron, but visibility within the rockshelter was 100%.

One .5 m testpit was excavated by 10 cm levels within the rockshelter. This test revealed yellowish brown clayey micaceous sand to 47 cm below surface over rock. The entire deposit appeared to be homogeneous and no culturally derived stratigraphy or features were noted. Slight erosion occurred in the general area surrounding the site, but the interior of the rockshelter appeared unaffected. Only one piece of quartz debris, which was not diagnostic, was recovered from the testpit at approximately 30 cm below surface.

44Pk159 will be flooded as a result of dam construction at any of the three alternative damsites.

1. Soil Type: Clayey micaceous sand over rock.

2. Distance to water: An unnamed drainage is located 27 m to the north of the rockshelter.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: No culturally derived stratigraphy was noted.

5. State of Preservation: Fair, some erosion noted.

6. Areal Extent: 3 m north-south; 20.3 m east-west.

7. Elevation: 1110 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1

1 Core: quartz

Total Artifacts: 1

44Pk161

Archeology Laboratories Site: AL81

44Pk161 was a prehistoric site located within a rockshelter on the first terrace of a small unnamed feeder stream of the Smith River. The vegetation surrounding the site area consisted of rhododendron. Surface visibility within the site was zero due to a heavy accumulation of leaf litter.

One .5 m testpit was excavated within the rockshelter in 10 cm levels. This test revealed yellowish brown, micaceous, clayey sand to 16 cm below surface over rock. The entire deposit was homogeneous, and no culturally derived stratigraphy or features were noted. No erosion was apparent within the rockshelter. A total of seven artifacts was recovered from the first 10 cm of the testpit. These include quartz, felsite, and chalcedony lithic materials, none of which are diagnostic. No ceramic artifacts were recovered.

44Pk161 will be affected by flooding by construction on any of the three damsite locations.

1. Soil Type: Micaceous clayey sand over rock.

2. Distance to Water: An unnamed drainage is located 30 m to the north of the site.

3. Cultural Affiliation: Prehistoric, Early Archaic.

4. Stratigraphic Condition: No culturally derived stratigraphy was noted.

5. State of Preservation: Good, no erosion was noted.

6. Areal Extent: 6.8 m north-south; 18.8 m east-west.

7. Elevation: 1130 feet AMSL

8. Slope: 9 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
1 Primary flake with retouch: felsite
1 Primary flake with retouch: chalcedony

4 Flake-blades: quartz
Total: 7

Total Artifacts: 7

44Pk162

Archeology Laboratories Site: AL82

44Pk162 was a prehistoric site located on a sandy terrace overlooking the confluence of the Smith River and an unnamed drainage. The vegetation consisted of beech and oak. The site was discovered by the use of .5 m testpits--ground surface visibility was obscured by vegetation in this area. Six .5 m testpits were dug to define the site boundaries, and these revealed dark gray brown silty sand to 12 cm, over yellowish brown sand to 26 cm, over red sand. No culturally derived stratigraphy or features were noted, and both artifacts were found within the upper 5 cm of one testpit. No diagnostic lithics or ceramics were recovered.

This site will be affected by flooding should any of the three damsite locations be selected for construction use.

1. Soil Type: Silty sand over sand.

2. Distance to Water: The confluence of the Smith River and an unnamed drainage was located 29.3 m northwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: The stratigraphy resulted from alluvial action.

5. State of Preservation: Poor; artifacts were redeposited by water.

6. Areal Extent: The artifacts were limited to one 50 x 50 cm testpit.

7. Elevation: 1060 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

1 Shatter: quartz
1 Tertiary flake: quartz

Total Artifacts: 2

44Pk172

Archeology Laboratories Site: AL92

44Pk172 was a prehistoric site, a quartz lithic scatter, exposed in an old roadbed near Shooting Creek. The vegetation consisted of rhododendron, beech and oak. Good ground surface visibility was available in the general area.

Artifacts on the ground surface were marked with pin flags, and two 10 m squares were imposed over the flagged area and collected separately. One .5 m square testpit placed within the site to test for subsurface features revealed brown sandy loam to 8 cm, over yellowish brown loamy clay to 14 cm over a dense layer of naturally exfoliated quartz nodules. No culturally derived stratigraphy or features were noted. Artifacts were recovered to 10 cm below ground surface and consisted solely of quartz debris. No diagnostic lithics or ceramics were found.

An old road bed had been cut through the ridgetoe upon which the site is located. This road had severely altered the site, with numerous artifacts eroded down its bed.

The site is located in an area that will be inundated should any of the three damsites be selected for construction.

1. Soil Type: Sandy loam over loamy clay over rock.
2. Distance to Water: Shooting Creek is 95 m to the south.
3. Cultural Affiliation: Prehistoric
4. Stratigraphic Condition: Eroded.
5. State of Preservation: Poor; disturbed by road construction.
6. Areal Extent: 15 m north-south; 8 m east-west
7. Elevation: 1150 feet AMSL
8. Slope: 10 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Core: quartz
2 Shatter: quartz

2 Primary flakes: quartz
3 Flake-blades: quartz
Total: 8

General Range Collection Unit 2
2 Cores: quartz
10 Primary flakes: quartz
2 Primary flakes with retouch: quartz
8 Flake-blades: quartz
Total: 22

Excavation Unit 1
1 Core: quartz
4 Shatter: quartz
3 Primary flakes: quartz
Total: 8

Total Artifacts: 38

44Pk174

Archeology Laboratories Site: AL94

44Pk174 was a prehistoric site located on a terraced area at the base of a ridgetoe near Shooting Creek. The vegetation consisted of beech and oak.

The site yielded quartz artifacts from two .5 m testpits. Four additional .5 m pits were dug to determine site boundaries, but all four were sterile. The artifact-bearing testpits revealed brown silty micaceous sand to 36 cm over reddish brown clayey sand to water at 69 cm below surface. Artifacts were recovered at 8 cm below surface and between 36-68 cm below surface. No culturally derived stratigraphy or features were noted. No diagnostic lithics or ceramics were recovered.

The materials found in 44Pk174 have probably resulted from erosional redeposition. Two large gulleys emptied into the area and a severely eroded ridgetoe was located directly above the site. This site will be affected by flooding as a result of dam construction at any of the three alternative locations.

1. Soil Type: Silty micaceous sand over clayey sand over water.

2. Distance to Water: Shooting Creek was located 20 m to the south.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Result of colluvial action.

5. State of Preservation: Poor; site has been affected

by colluviation or colluvial processes.

6. Areal Extent: Artifacts were limited to two 50 x 50 testpits.

7. Elevation: 1120 feet AMSL

8. Slope: 6 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 4, Field Specimen 1 = 8 cm below surface
1 Primary flake: quartz
Total: 1

Excavation Unit 4, Field Specimen 2 = 36-68 cm below surface
3 Primary flakes: quartz
2 Primary flakes with retouch: quartz
3 Flake-blades with retouch: quartz
1 Biface fragment: quartz
1 Side scraper: quartz
Total: 10

Total Artifacts: 11

44Pk175

Archeology Laboratories Site: AL95

44Pk175 was a prehistoric site located on a terrace at the base of a ridgetoe above a floodplain on the east bank of Shooting Creek. The vegetation consisted of oak, beech, dogwood and rhododendron. Some surface visibility was available at the site, and a grid of seven 10 m squares was laid out within the area and surface collections taken from each of these units. A total of six .5 m testpits were dug to determine the site boundaries. One of these tests was dug in 10 cm levels and revealed mottled tan and yellow sandy clay to 15 cm over mottled reddish gray sandy loam to 21 cm over moist, light brown clay mixed with decaying schist. A buried "A" soil horizon was noted within the subsurface tests, but no culturally derived stratigraphy or features were discovered.

Artifacts were recovered between the surface and 22 cm below surface. These artifacts included quartz, chalcedony, quartzite, chert and felsite lithic debris and ceramics.

Shooting Creek had channeled through and scoured a portion of the terrace on which 44Pk175 was located. The buried soil horizon revealed in the subsurface tests was very hard packed

and laden with organics apparently as a result of standing water. In addition an old road trace was located along the upslope portion of the terrace.

This site will be affected by flooding if dam construction occurs on any of the alternative locations.

1. Soil Type: Sandy clay over sandy loam over mottled clay over decaying rock.

2. Distance to Water: Shooting Creek is located 37 m to the north.

3. Cultural Affiliation: Prehistoric, Late Archaic, Middle and Late Woodland.

4. Stratigraphic Condition: Disturbed as a result of alluvial action.

5. State of Preservation: Poor, Shooting Crek had cut through the middle of the site. Subsurface tests revealed flooding. An old road bed was located through the western edge of the site.

6. Areal Extent: 41.4 m north-south; 17.1 m east-west.

7. Elevation: 1090 feet AMSL

8. Slope: 6 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Shatter: quartz
1 Primary flake: quartz
Total: 2

General Range Collection Unit 2
2 Cores: quartz
3 Shatter: quartz
1 Primary flake: quartzite
3 Flake-blades: chalcedony
1 Tertiary flake: chalcedony
1 Sherd, crushed quartz: brushed
Total: 11

General Range Collection Unit 3
1 Core: chert
2 Flake-blades: chalcedony
1 Flake-blade: chert
1 Retouched flake: chert
2 Cores: quartz

2 Shatter: quartz
4 Flake-blades: quartz
1 Projectile point, Savannah River: felsite
1 Biface: chalcedony
Total: 15

General Range Collection Unit 4
1 Core: quartz
10 Shatter: quartz
1 Flake-blade: quartz
1 Core: chalcedony
21 Flake-blades: chalcedony
1 Flake-blade with retouch: chalcedony
3 Tertiary flakes: chalcedony
Total: 38

General Range Collection Unit 5
2 Shatter: quartz
Total: 2

General Range Collection Unit 6
1 Core with retouch: quartz
1 Retouched flake: chalcedony
Total: 2

General Range Collection Unit 7
1 Core: chalcedony
1 Flake-blade: chalcedony
1 Flake-blade with retouch: chalcedony
3 Shatter: quartz
3 Flake-blades: quartz
1 Bifacial thumbnail scraper: quartz
Total: 10

Excavation Unit 1
Sterile

Excavation Unit 2, Field Specimen 1
1 Shatter: quartz
1 Biface quartz
1 Drill: quartz
Total: 3

Excavation Unit 2, Field Specimen 2
Sterile

Excavation Unit 2, Field Specimen 3
12 Shatter: quartz
1 Flake-blade: quartz
1 Primary flake with retouch: chalcedony
5 Flake-blades: chalcedony
3 Fire cracked rocks: quartz
3 Sherds, crushed quartz: simple stamped
Total: 25

Excavation Unit 2, Field Specimen 4

Sterile

Excavation Unit 3
Sterile

Excavation Unit 4
Sterile

Excavation Unit 5
1 Shatter: quartz
Total: 1

Excavation Unit 6
Sterile

Total Artifacts: 109

44Pk178

Archeology Laboratories Site: AL98

44Pk178 was a prehistoric site located on the floodplain of Shooting Creek, in the midst of a white pine tree farm. No surface visibility was present and a total of fifteen .5 m testpits were used to determine the extent of the site. These tests revealed reddish brown silty sand to 9 cm over a grayish brown silty loamy sand to 44 cm over yellow-brown sandy clay. An auger test was used for deeper testing, and revealed yellow-brown coarse sand clay at 63 cm over mottled brownish yellow coarse sandy clay, gray sand clay and brownish yellow clay at 1.22 m over brownish yellow clay at 1.36 m over gray clay at 1.51 m over water at 1.67 m below surface. The subsurface tests also revealed a buried "A" soil horizon, but no culturally derived stratigraphy or features were noted.

Six of the testpits produced artifacts from the buried soil zone between 13-36 cm below surface. The artifacts included quartz lithic debris and ceramics, but no diagnostic lithic materials. This site will be affected by flooding as a result of construction at any of the proposed damsites.

1. Soil Type: Silty sand, over silty loamy sand, over sandy clay over clay.

2. Distance to Water: Shooting Creek is located 20 m to the east.

3. Cultural Affiliation: Prehistoric, Early Late Woodland.

4. Stratigraphic Condition: The site revealed a buried "A" soil horizon.

5. State of Preservation: Poor; State Road 622 crosses and has disturbed the site, and the area has been

cultivated.

6. Areal Extent: 90 m north-south; 85 m east-west.

7. Elevation: 1050 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
1 Core: quartz
Total: 1

Excavation Unit 1
2 Bifaces: quartz
Total: 2

Excavation Unit 2
1 Shatter: quartz
2 Sherds, fine sand: net-impressed
1 Sherd, quartz sand: eroded
Total: 4

Excavation Unit 3
Sterile

Excavation Unit 4
Sterile

Excavation Unit 5
Sterile

Excavation Unit 6
Sterile

Excavation Unit 7
Sterile

Excavation Unit 8
Sterile

Excavation Unit 9
2 Sherds, quartz sand: eroded
Total: 2

Excavation Unit 10
Sterile

Excavation Unit 11
Artifacts recovered but lost.

Excavation Unit 12
Artifacts recovered but lost.

Excavation Unit 13
Sterile

Excavation Unit 14
Sterile

Excavation Unit 15
Sterile

Total Artifacts: 9

44Pk186

Archeology Laboratories Site: AL106

44Pk186 was a prehistoric site located near the base of a ridgetoe at the confluence of two seasonal streams. The vegetation was conifers, mixed hardwoods, dogwood, beech, and oak. As a result of this vegetation and other ground cover, surface visibility was almost zero within the site area. All artifacts were recovered from one .5 m square testpit. This subsurface test revealed a yellow-brown clayey sand to 16 cm below surface over orange brown sandy clay. Artifacts were confined to the first 8 cm below surface within the testpit. Four additional .5 m tests were made at 10 m intervals from the artifact bearing testpit along the cardinal directions. No additional artifacts, culturally derived stratigraphy or features were found. The artifacts which were recovered consisted totally of quartz debris lacking any diagnostic characteristics.

This site will be affected by flooding should a dam be constructed at any of the proposed damsites.

1. Soil Type: Yellow-brown clayey sand over orange-brown sandy clay.

2. Distance to Water: A small spring is located 15 m to the west of the site.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Natural stratigraphy, no culturally derived deposits.

5. State of Preservation: No organic cultural debris was recovered.

6. Areal Extent: The site was located within a .5 m testpit.

7. Elevation: 1180 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
3 Flake-blades: quartz
charcoal: .6 g

Total Artifacts: 3

44Pk191

Archeology Laboratories Site: AL111

44Pk191 was a prehistoric site located on a terrace at the confluence of the Smith River and an unnamed feeder stream. The vegetation consisted of dogwood and beech--ground surface visibility was very poor and .5 m testpits were used to define the site dimensions.

A total of eight .5 m testpits was dug with artifacts being recovered from four of these tests. Two or the testpits were expanded, one to .5 x .75 m and another to .75 x .75 m, in order to determine the nature of the artifact bearing stratigraphy within the site.

The .5 x .75 m testpit revealed mottled yellow-brown sand and gray-brown sandy loam to 47 cm, over mottled yellow-brown and dark gray-brown sands to 68 cm, over reddish brown sand at 1 m below surface. Artifacts were distributed between 27-83 cm below surface with fire-cracked rock being recovered at 1 m below surface. An auger test was made to probe for deeply buried deposits. This test revealed reddish brown sand to 1.2 m over mottled reddish brown, tan and gray sand to 1.7 m over orange-red coarse sand with hematite fragments continuing beyond 2.1 m below surface. No additional artifacts were collected as a result of this test.

The .75 x .75 m testpit revealed mottled yellow-brown sand and gray-brown sandy loam to 41 cm, over mottled yellow-brown and gray-brown sand to 70 cm, over reddish brown sand to 1.3 m below surface. Artifacts were distributed between 62 cm and 1.27 m below surface. A second auger test was made beginning at 1.3 m below surface. This test revealed reddish brown sand continuing beyond 2 m below surface.

As indicated by the dispersion of artifacts within the mottled soils, the site appeared to have been disturbed by water action in the past. No culturally derived stratigraphy or intact features were noted within any of the testpits.

This site will be flooded should a dam be built on any of the proposed locations.

1. Soil Type: Sandy loam over sand.

2. Distance to Water: A small unnamed feeder stream of the Smith River lies witin 5 m to the west of the site. The Smith River lies 30 m to the south.

3. Cultural Affiliation: Prehistoric, Late Woodland.

4. Stratigraphic Condition: The site's stratigraphy had been been disturbed by water: mottled sandy loams over mottled sands.

5. State of Preservation: Poor, the site had been disturbed by water. No bone or shell were present.

6. Areal Extent: 96.6 m northwest-southeast; 17.5 m southwest-northeast.

7. Elevation: 1130 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Range Collection
1 Sherd, crushed quartz: net-impressed
Total: 1

Excavation Unit 1
1 Flake-blade: quartz
1 Flake-blade: siliceous precipitate porphyritic
Total: 2

Excavation Unit 2
1 Primary flake: quartz
1 Primary flake with retouch: quartz
3 Flake-blades: quartz
29 Flake-blades with retouch: quartz
25 Tertiary flakes: quartz
1 Biface fragement: quartz
1 Sherd, crushed quartz and quartz/sand: brushed, eroded
Total: 61

Excavation Unit 4
1 Shatter: quartz
Total: 1

Excavation Unit 8

1 Core: quartz
5 Shatter: quartz
1 Primary flake: quartz
5 Flake-blades: quartz
1 Flake-blade: felsite
1 Flake-blade: quartzite
1 Tertiary flake: quartz
17 Fire-cracked rocks: quartz
1 Cobble: quartz
1 Projectile point, triangular: chert
1 Sherd, silty clay with no visible temper,leached: net-impressed, eroded
Total: 35

Total Artifacts: 100

44Pk195

Archeology Laboratories Site: AL115

44Pk195 was a prehistoric site located on a terrace above the confluence of the Smith River and a major drainage. The site lay in a stand of mixed hardwoods and, because surface visibility was severely limited, four .5 m testpits were dug to determine the site boundaries. These tests revealed dark brown silty loam sand to 22 cm below surface, over light brown silty sand to 33 cm, over red micaceous clay (Figure 16). An auger test was used to augment the .5 m testpits, and this revealed yellowish red, highly micaceous sand at 69 cm below surface which became very coarse and mixed with schist and quartzite at 1.15 m, over rock at 1.97 m below surface. These subsurface tests revealed a culturally derived stratum within the site stratigraphy, but no intact cultural features were noted. One .5 m test pit was expanded to .5 x .75 m to further evaluate this cultural stratum. Artifacts, which were recovered between 0-30 cm below surface, consisted of quartz, chert, and felsite lithic debris, ceramics, charcoal and bone.

The area surrounding the site appeared to have received very little disturbance in the past, the only possible exception provided by a still (44Pk196) located within the boundaries of 44Pk195. Bits of charcoal from this still were found mixed with debris recovered from a testpit placed in that general area, but little additional disturbances in other areas of the site were noted. This site also appeared to have been only marginally affected by erosion, although it will be flooded by construction at any of the proposed damsite locations.

1. Soil Type: Silty loam sand over silty sand over micaceous clay over coarse micaceous sand over rock.

2. Distance to Water: The confluence of the Smith River and a major drainage is located 16.8 m to the southwest.

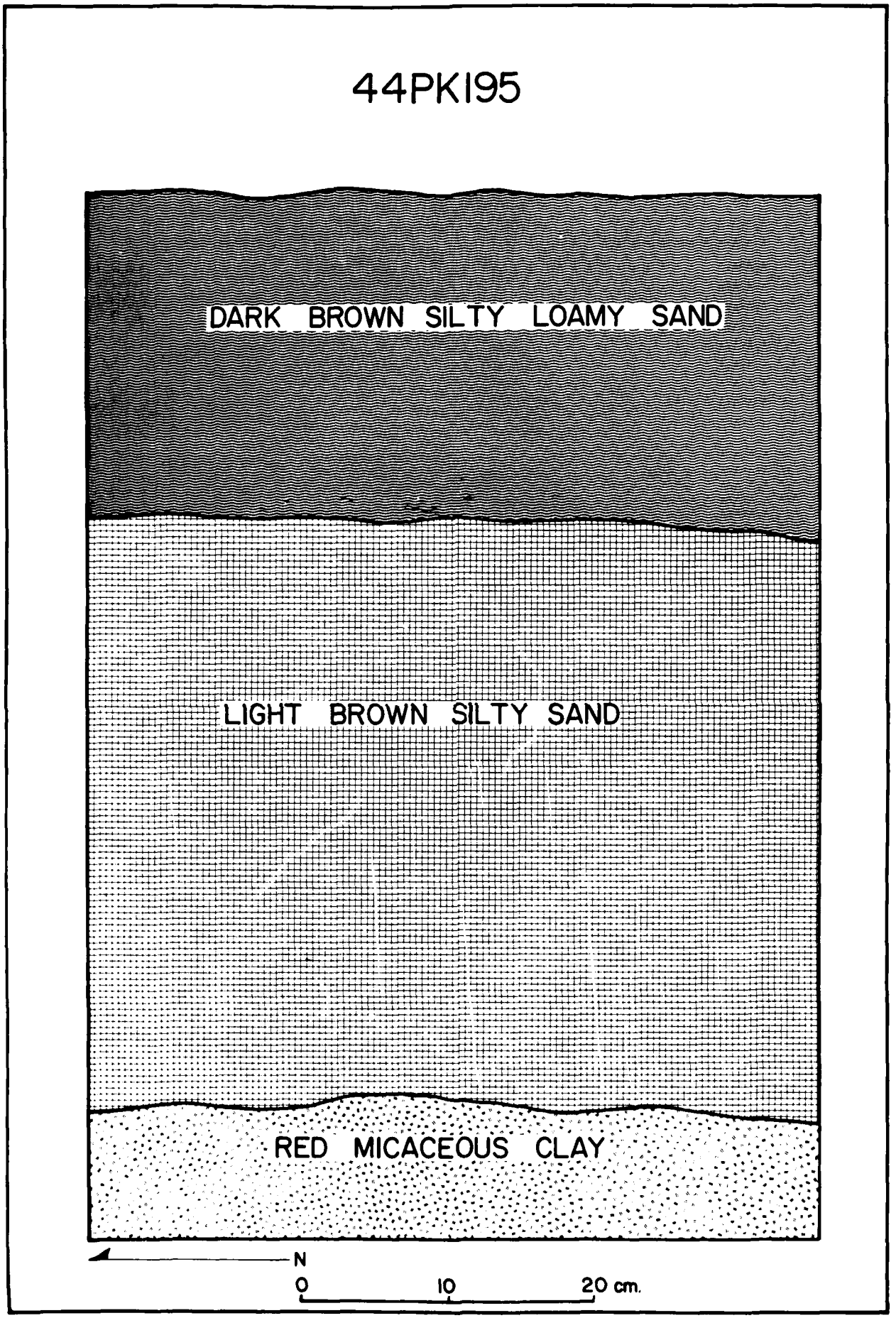


Figure 16. 44Pk 195, EU2, Profile of Strata, USRB, Virginia.

3. Cultural Affiliation: Prehistoric, Late Archaic, early Late Woodland.

4. Stratigraphic Condition: Culturally derived strata were noted.

5. State of Preservation: Good, very little disturbance within the site.

6. Areal Extent: 13 m north-south; 30 m east-west.

7. Elevation: 1030 feet AMSl

8. Slope: 5 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
- 2 Cores: quartz
- 7 Shatter: quartz
- 16 Flake-blades: quartz
- 4 Tertiary flakes: quartz
- 1 Biface: quartz
- 13 Fire-cracked rocks: quartz
- 1 Core: chalcedony
- 1 Primary flake: chalcedony
- 1 Flake-blade: chert
- 2 Retouched flakes: chert
- 2 Sherds, quartz sand: net-impressed, eroded
- 1 Tooth, deer (Odocoileus virginianus)
- Charcoal: 6.7 g

Total: 51

Excavation Unit 2, Field Specimen 1
- 11 Shatter: quartz
- 1 Primary flake: quartz
- 7 Flake-blades: quartz
- 5 Fire-cracked rocks: quartz
- 1 Sherd, fine sand: eroded
- 1 Sherd, quartz sand: net-impressed
- 1 Sherd, quartz sand: cord-marked, eroded
- 1 Sherd, crushed quartz, fine sand: net-impressed
- 1 Sherd, crushed quartz: net-impressed, eroded
- 1 Sherd, crushed quartz, silty: net-impressed
- 1 Sherdlet: .3 g
- Charcoal: 5.3 g

Total: 40

Excavation Unit 2, Field Specimen 2
- 2 Cores: quartz
- 5 Shatter: quartz

2 Primary flakes: quartz
3 Flake-blades: quartz
9 Fire-cracked rocks: quartz
1 Biface: felsite
Total: 22

Excavation Unit 2, Field Specimen 3
1 Shatter: quartz
5 Flake-blades: quartz
1 Cobble: quartz
Total: 7

Excavation Unit 3, Field Specimen 1
20 Shatter: quartz
5 Flake-blades: quartz
1 End scraper: quartz
16 Fire-cracked rocks: quartz
1 Primary flake: quartzite
2 Flake-blades: quartzite
2 Retouched flakes: felsite
1 Flake-blade: chalcedony
1 Retouched flake: chalcedony
1 Sherd, fine sand: eroded
1 Sherd, crushed quartz: net-impressed
Total: 51

Excavation Unit 3, Field Specimen 2
3 Shatter: quartz
3 Flake-blades: quartz
1 Fire-cracked rock: quartz
1 Triangular projectile point: chert
4 Sherds, quartz sand: net-impressed
1 Sherd, quartz sand: eroded
4 Sherdlets: 1.1 g
Total: 17

Excavation Unit 4
1 Flake-blade: quartz
Total: 1

Total Artifacts: 189

44Pk197

Archeology Laboratories Site: AL117

44Pk197 was a prehistoric site located on a terrace and floodplain along the northeast bank of Shooting Creek. The vegetation of the site area consisted of mixed hardwoods. Surface visibility was poor, and thus the site boundaries were defined by eight .5 m testpits. Three of these tests contained artifacts.

One testpit, Excavation Unit 3, revealed mottled brown and gray micaceous silty sands. Artifacts were recovered at 94

cm below surface within this pit. Excavation Unit 5 revealed mottled brown and orange loamy silty clay to 64 cm, over dark brown silty loamy sand. Artifacts were recovered at 85 cm below surface. Excavation Unit 1 revealed mottled brown and gray highly micaceous sandy clay to 30 cm below surface, over mottled red and brown silty sand to 1.1 m below surface. Artifacts were recovered at 30 cm below surface within this test unit.

Excavation Unit 1 was subjected to further testing with an auger which revealed dark brown silty sandy clay at 1.35 m over dark brown silty sand mottled with mica to 2.17 m below surface. No additional artifacts were found within the auger test. Also no culturally derived stratigraphy or features were discovered within any of the excavation units. Recovered artifacts consisted only of ceramics, and the majority of these were from in mottled sands which suggest disturbance by water within the site.

The site is located in an area which would be inundated by all three project alternatives.

1. Soil Type: Sandy clays over silty sand.

2. Distance to Water: Shooting Creek lies 6 m to the southwest of the site.

3. Cultural Affiliation: Prehistoric, early Late Woodland.

4. Stratigraphic Condition: Disturbed by alluvial action; soils are mottled.

5. State of Preservation: Poor, the site has been disturbed by water. No bone or shell were present, but some charcoal remained.

6. Areal Extent: 18.1 m north-south; 5 m east-west.

7. Elevation: 1030 feet AMSL

8. Slope: 4 degrees

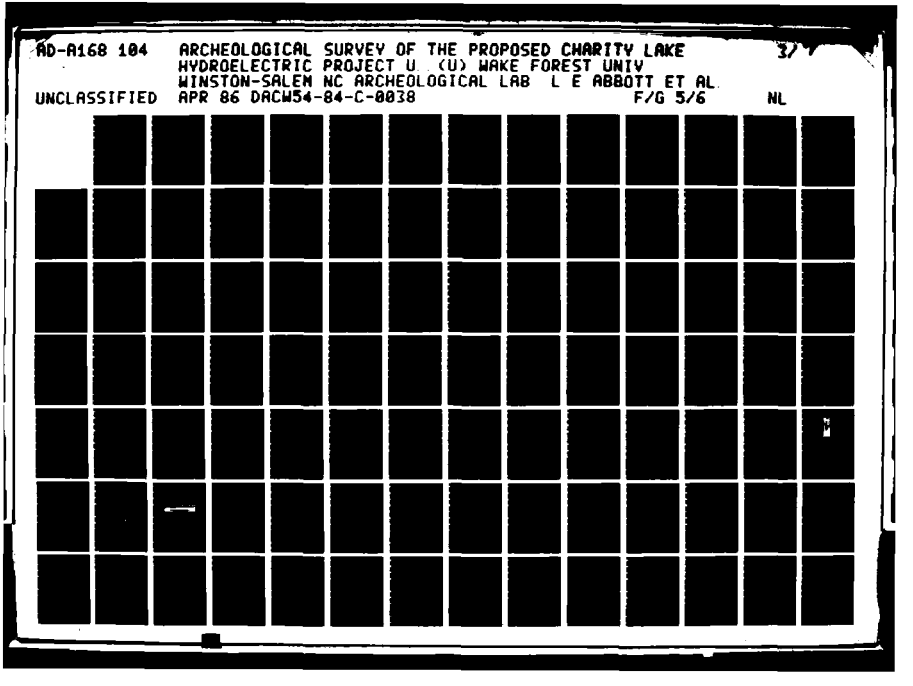
9. Exposure: South

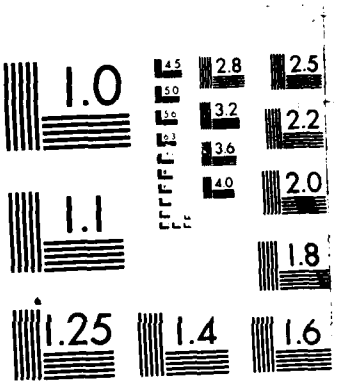
10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
2 Sherds, quartz sand: net-impressed, eroded
2 Sherdlets: 1.8 g
Charcoal: 48.3 g
Total: 4

Excavation Unit 3
1 Sherd, quartz sand: net-impressed


AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL
UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

Total: 1

Excavation Unit 5
2 Sherds, quartz sand: net-impressed
2 Sherdlets: .5 g
Total: 4

Total Artifacts: 9

44Pk198

Archeology Laboratories Site: AL118

44Pk198 was a prehistoric site located in a rockshelter on a small terrace above an unnamed feeder stream of the Smith River. One .5 m testpit, placed within the rockshelter, revealed brown sandy loam to 5 cm over tan sand to 25 cm below surface, where rock was encountered. Quartz artifacts, including a Middle Archaic projectile point, were recovered between 5 and 25 cm below surface. No culturally derived stratigraphy or features were noted, but if such are present they likely remain undisturbed.

This site will be flooded by any of the three project alternatives.

1. Soil Type: Sandy loam over sand.

2. Distance to Water: The Smith River lies 15 m to the south.

3. Cultural Affiliation: Prehistoric, Middle Archaic.

4. Stratigraphic Condition: No culturally derived stratigraphy noted. Natural strata were revealed within the .5 m testpit.

5. State of Preservation: Good, very little erosion.

6. Areal Extent: Undetermined

7. Elevation: 1030 feet AMSL

8. Slope: 16 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Flake-blade: quartz
1 Triangular biface: quartz
1 Projectile point, Guilford: quartz

Total Artifacts: 3

44Pk204

Archeology Laboratories Site: AL124

44Pk204 was a prehistoric site located on a ridgetoe west of an unnamed feeder stream of White Oak Creek. The site lay in a pasture of mixed grasses, providing partial ground surface visibility, and the site boundaries were defined by five .5 m testpits. These tests revealed an eroded context of mottled red and brown clayey loam to 29 cm, over mottled red clay. Three of the five testpits contained artifacts but no culturally derived stratigraphy or features. All artifacts recovered were quartz debris.

This site would be flooded by all three project alternatives.

1. Soil Type: Red and brown clayey loam over red clay.

2. Distance to Water: An unnamed drainage of White Oak Creek lies 14 m to the northeast.

3. Cultural Affiliation: Prehistoric, Middle Archaic.

4. Stratigraphic Condition: Eroded, mottled clayey loams and red clay.

5. State of Preservation: No bone or shell were noted. Little of the original context remains intact.

6. Areal Extent: 16.8 m north-south; 13.3 m east-west.

7. Elevation: 1140 feet AMSL

8. Slope: 10 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection
3 Cores: quartz
1 Adze: quartz
Total: 4

Excavation Unit 1
2 Primary flakes: quartz
2 Flake-blades: quartz
Total: 4

Excavation Unit 3
1 Shatter: quartz
1 Flake-blade: quartz
1 Scraper: quartz
Total: 3

Excavation Unit 5
2 Shatter: quartz
1 Flake-blade: quartz
Total: 3

Total Artifacts: 14

44Pk205

Archeology Laboratories Site: AL125

44Pk205 was a prehistoric site located on a ridgetoe overlooking an unnamed feeder stream of White Oak Creek. Vegetation consisted of mixed grasses; the area had been previously plowed but left fallow and returned to pasture. Surface visibility was 100% within a small garden plot adjacent to the pasture, and artifacts in this area were collected as one unit.

Four .5 m testpits were dug to determine the site boundaries, and revealed brown loamy sandy clay to 18 cm, over red coarse sandy clay. Artifacts were recovered within one of these tests but no culturally derived stratigraphy or features were noted. The artifacts were quartz debris and one Archaic projectile point (with a broken and missing stem); no ceramics were present.

This site will be flooded should any of the three damsites be chosen for construction.

1. Soil Type: Brown loamy sandy clay over coarse sandy clay.

2. Distance to Water: An unnamed feeder stream of White Oak Creek lies 32.9 m to the east.

3. Cultural Affiliation: Archaic

4. Stratigraphic Condition: Eroded, site was located at the base of a steep slope. Some small gulleys were noted through the area.

5. State of Preservation: No bone or shell were recovered. Little of the original context of the site remained intact.

6. Areal Extent: 9.8 m north-south; 11.9 m east-west.

7. Elevation: 1140 feet AMSL

8. Slope: 10 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection
4 Cores: quartz
1 Shatter: quartz
4 Flake-blades: quartz
1 Flake-blade with retouch: quartz
1 Triangular biface: quartz
1 Projectile point (Archaic): quartz
Total: 12

Excavation Unit 3
2 Shatter: quartz
1 Flake-blade: quartz
2 Flake-blades with retouch: quartz
2 Bifaces, broken: quartz
1 Sidescraper: quartz
Total: 8

Total Artifacts: 20

44PK206

Archeology Laboratories Site: AL126

44Pk206 was a prehistoric site located on a floodplain along an unnamed feeder stream of White Oak Creek. This area had recently been cultivated and 100% visibility was available. Each artifact was flagged in situ and its location plotted on a map using 10 m square units. One .5 x .75 m testpit was placed in the area of highest artifact density to test for complex stratigraphy or features. This test revealed dark brown sandy clay loam to 32 cm, over mottled orange-brown friable sandy clay and dark brown sandy clay loam to 52 cm below surface. An auger test then was used and showed dark brown clayey sand mottled with gray and brown coarse sand, hematite, schist and quartzite at 80 cm, over dark brown silty clay sand mottled with highly micaceous orange brown sandy clay to 90 cm below surface where rock was encountered. No culturally derived stratigraphy or features were noted. Artifacts included quartz, felsite, chalcedony and chert lithic debris, a Late Archaic (Savannah River) projectile point and Early Woodland ceramics.

This site will be inundated by dam construction at any of the three alternative locations.

1. Soil Type: Brown sandy clay loam over silty clay sand

over sandy clays.

2. Distance to Water: An unnamed drainage of White Oak Creek lies 5 m to the east.

3. Cultural Affiliation: Prehistoric, Late Archaic, Middle-Late Woodland.

4. Stratigraphic Condition: Disturbed by recent cultivation and road construction within the site area.

5. State of Preservation: No bone or shell recovered.

6. Areal Extent: 58.1 m north-south; 36.4 m east-west.

7. Elevation: 1090 feet AMSL

8. Slope: 8 degrees

9. Exposure: East

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection - Point Plot

Collection Unit 1
1-1: 1 Shatter: quartz
Total: 1

Collection Unit 2
2-2: 1 Shatter: quartz
2-3: 1 Biface: quartz
2-4: 1 Primary flake: quartz
Total: 3

Collection Unit 3
3-5: 1 Tertiary flake: quartz
Total: 1

Collection Unit 4
4-6: 1 Flake-blade: quartz
Total: 1

Collection Unit 5
5-7: 1 Flake-blade: quartz
Total: 1

Collection Unit 6
6-8: 1 Retouch flake: chert
6-9: 1 Crude biface: quartz
Total: 2

Collection Unit 7
7-10: 1 Biface: quartz

7-11: 1 Flake-blade: quartz
7-12: 1 Projectile point, unidentified: quartz
7-13: 1 Side/end scraper: quartz
7-14: 1 Flake-blade: quartz
7-15: 1 Tertiary flake: quartz
7-16: 1 Shatter: quartz
7-17: 1 End scraper: quartz
7-18: 1 Flake-blade: quartz
Total: 9

Collection Unit 8
8-19: 1 Ovate biface: chalcedony
8-20: 1 Flake-blade: quartz
8-21: 1 Tertiary flake: quartz
8-22: 1 Flake-blade: quartz
8-23: 1 Flake-blade with retouch: quartz
8-24: 1 End scraper: quartz
8-25: 1 Primary flake: quartzite
8-26: 1 Spall: quartz
8-27: 1 Flake-blade with retouch: quartz
8-28: 1 Tertiary flake: quartz
8-29: 1 Flake-blade: quartz
8-30: 1 Projectile point, unidentified: quartz
8-31: 1 Flake-blade with retouch: quartz
8-32: 1 Flake-blade: quartz
8-33: 1 Sherd, crushed quartz: plain, brushed
8-34: 1 Sherd, crushed quartz: plain, brushed
8-35: 1 Sherd, crushed quartz: plain, brushed
8-36: 1 Shatter: quartz
8-37: 1 Sherd, crushed quartz: plain, eroded
8-38: 1 Sherd, cursched quartz, quartz sand: brushed
8-39: 1 Flake-blade with retouch: quartz
8-40: 1 Sherd, crushed quartz: brushed
8-41: 1 Sherd, crushed quartz, fine sand: plain
8-42: 1 Sherd, crushed quartz: brushed
8-43: 1 Discarded non-cultural debris
8-44: 1 Flake-blade with retouch: chert
8-45: 1 Flake-blade with retouch: quartz
8-46: 1 Tertiary flake: Siliceous aphanitic rock
8-47: 1 Flake-blade with retouch: quartz
8-48: 1 Core: chalcedony
8-49: 1 Sherd, crushed quartz, hornblende: fine fabric
8-50: 1 Flake-blade: quartz
8-51: 1 Flake-blade with retouch: chalcedony
8-52: 1 Bifacial knife: quartz
Total: 34

Collection Unit 9
9-53: 1 Side scraper: quartz
9-54: 1 Shatter: quartz
9-55: 1 Flake-blade with retouch: quartz
Total: 3

Collection Unit 10
10-56: 1 Flake-blade: quartz
10-57: 1 Flake-blade: quartz

10-58: 1 Tertiary flake: chert
Total: 3

Collection Unit 11
11-59: 1 Projectile point, unidentified: chalcedony
11-60: 1 Core with retouch: quartz
11-61: 1 Core: chalcedony
11-62: 1 Discarded non-cultural debris
Total: 4

Collection Unit 12
12-63: 1 Flake-blade with retouch: quartz
12-64: 1 Flake-blade with retouch: quartz
12-65: 1 Flake-blade with retouch: quartz
12-66: 1 Primary flake with retouch: quartz
12-67: 1 Flake-blade: quartz
12-68: 1 Shatter: chalcedony
12-69: 1 Triangular biface: chalcedony
12-70: 1 Primary flake: chalcedony
12-71: 1 Primary flake with retouch: quartz
12-72: 1 Tertiary flake: quartz
Total: 10

Collection Unit 13
13-73: 1 Flake-blade: quartz
Total: 1

Collection Unit 14
14-74: 1 Biface: quartz
Total: 1

Collection Unit 15
15-75: 1 Crude biface: quartz
Total: 1

Collection Unit 16
16-1: 1 Biface: chalcedony
16-2: 1 Oval biface: chalcedony
16-3: 1 End scraper: quartz
Total: 3

Excavation Unit 1
1 Shatter: quartz
1 Primary flake: chalcedony
1 Sherd, quartz sand: eroded
Total: 3

Total Artifacts: 81

44Pk210

Archeology Laboratories Site: AL130

44Pk210 was a prehistoric site located at the base of a ridgetoe on the floodplain of White Oak Creek. Vegetation

consisted of mixed grasses, a pasture providing no surface visibility, and 12 .5 m testpits were used to determine site boundaries. These tests revealed brown sandy clay loam to 20 cm over reddish orange sandy clay. No culturally derived stratigraphy or features were noted, while artifacts were recovered within four of these subsurface tests between 4-13 cm below surface. The artifacts consisted solely of quartz debris.

This site will be flooded by any of the three project alternatives.

1. Soil Type: Sandy clay loam over sandy clay.

2. Distance to Water: White Oak Creek lies 21.4 m to the southwest.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Slightly eroded.

5. State of Preservation: No bone or shell recovered. Little of the original site context remains intact.

6. Areal Extent: 30 m northwest-southeast; 13.6 m northeast-southwest.

7. Elevation: 1130 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Shatter: quartz
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
1 Triangular biface: quartz
Total: 5

Excavation Unit 4
1 Retouched flake tool: quartz
1 Biface: quartz
Total: 2

Excavation Unit 5
3 Tertiary flakes: quartz
Total: 3

Excavation Unit 10
1 Drill/awl: quartz

Total: 1

Total Artifacts: 11

44Pk213

Archeology Laboratories Site: AL133

44Pk213 was a prehistoric site located in a rockshelter on a slope above the Smith River. The vegetation consisted of rhododendron, and the ground surface was covered with a thick layer of leaf litter allowing no surface visibility. One .5 m testpit was dug within the shelter to test for cultural deposits. This test revealed light brown highly micaceous sandy loam to 10 cm over dark brown highly micaceous loam to 18 cm over orange-brown highly micaceous sandy clay to 48 cm below surface over rock (Figure 17). Numerous fragments of mica schist and quartzite were recovered throughout the testpit.

The majority of artifacts were found in the layer of dark brown highly micaceous loam between 10-18 cm below surface and no artifacts were recovered past 30 cm below surface. While intact subsurface features were not noted, a generalized midden was present. The artifacts include quartz, magnetite, chalcedony and feldspar debris; no diagnostic lithics or ceramics were present. The deposits seemed little affected by erosion or other disturbances.

44Pk213 would be flooded by all the project alternatives. 44Pk214, a cave adjacent to 44Pk213, revealed ceramics and artifacts of similiar lithic materials. Because of the close proximity of these sites and the possibility that they may represent the same occupation(s), coupled with the probable presence of undisturbed remains, the two sites in tandem are likely to yield significant information on task-specific stone tool loci, features and (possibly) organic materials related to those tasks. In addition the recommendations provided in the final section of this report for the USRB rockshelters are applicable to 31Pk213.

1. Soil Type: Sandy loam over sandy clay

2. Distance to Water: The Smith River lies 29.6 m to the north.

3. Cultural Affiliation: Lithic

4. Stratigraphic Condition: Artifact bearing midden present below sandy loam.

5. State of Preservation: Little disturbance noted.

6. Areal Extent: 18.9 m east-west; 7 m north-south.

44PK213

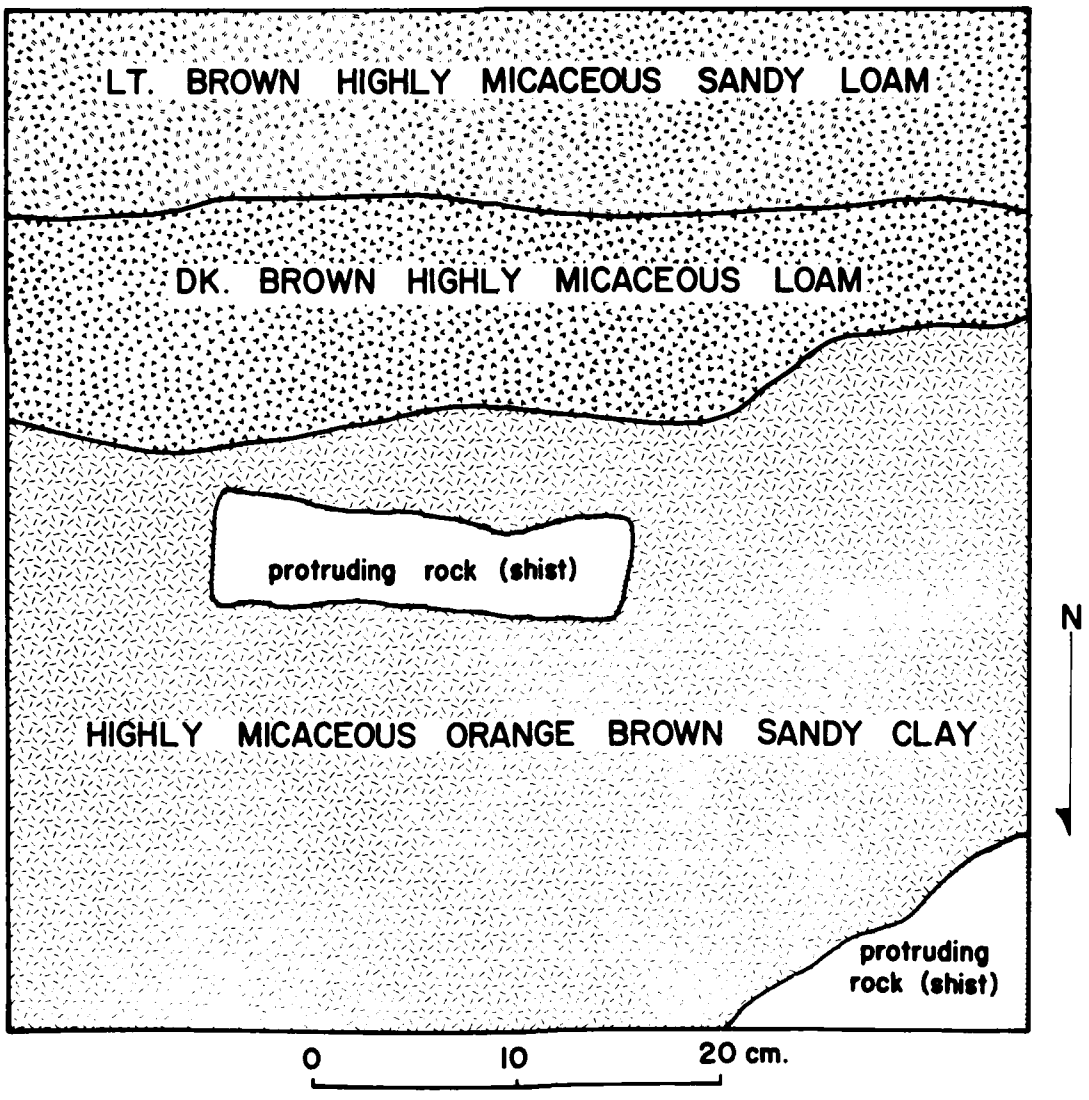


Figure 17. 44Pk213, Profile of Strata, USRB, Virginia.

7. Elevation: 1060 feet AMSL

8. Slope: 4 degrees

9. Exposure: Northeast

10. Condition of Features: Midden undisturbed.

Artifacts Collected

Excavation Unit 1, Field Specimen 1
- 1 Core: quartz
- 3 Shatter: quartz
- 1 Flake-blade: quartz
- 2 Flake-blades with retouch: quartz
- 1 Drill/awl: quartz
- 1 Fire-cracked rock: quartz

Total: 9

Excavation Unit 1, Field Specimen 2
- 2 Cores with retouch: quartz
- 1 Shatter: quartz
- 1 Shatter: feldspar
- 2 Shatter: chalcedony
- 13 Flake-blades: chalcedony
- 1 Flake-blade with retouch: quartz
- 15 Flake-blades with retouch: chalcedony
- 13 Retouched flakes: chalcedony
- 1 Biface: quartz
- 1 Burin: quartz
- 1 Thumbnail scraper: magnetite
- 3 Fire-cracked rocks: quartz
- 1 Fire-cracked rock: quartzite

Total: 55

Excavation Unit 1, Field Specimen 3
- 1 Shatter: quartz
- 2 Flake-blades: chalcedony
- 1 Drill: quartz

Total: 4

Total Artifacts: 68

44Pk214

Archeology Laboratories Site: AL134

44Pk214 was a prehistoric site located within a cave on a slope overlooking the Smith River, surrounded by rhododendron thickets. One .5 m testpit was dug in 10 cm levels to test for subsurface material, and revealed light brown micaceous sand to 10 cm over yellowish brown micaceous clayey sand to 55 cm over rock. No culturally derived stratigraphy or features were noted.

Artifacts were recovered to 30 cm below surface and included quartz, quartzite and chalcedony debris and ceramics. No diagnostic lithics were found.

44Pk214 would be flooded as a result of construction at any of the damsite alternatives.

1. Soil Type: Micaceous sand over micaceous clayey sand.

2. Distance to Water: The Smith River was located 29.6 m to the north.

3. Cultural Affiliation: Prehistoric, Late Woodland.

4. Stratigraphic Condition: No culturally derived stratigraphy noted.

5. State of Preservation: Good; little disturbance noted.

6. Areal Extent: 9.9 m north-south; 6.3 m east-west

7. Elevation: 1050 feet AMSL

8. Slope: 32 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1, Field Specimen 1
1 Flake-blade: quartz
1 End/side scraper: quartz
1 Side scraper: quartz
10 Flake-blades: chalcedony
1 Fire-cracked rock: quartzite
Total: 14

Excavation Unit 1, Field Specimen 2
1 Flake-blade: quartz
Total: 1

Excavation Unit 1, Field Specimen 3
3 Shatter: quartz
1 Flake-blade: chalcedony
2 Flake-blades with retouch: chalcedony
1 Sherd, fine sand: net-impressed
Total: 7

Total Artifacts: 22

44Pk217

Archeology Laboratories Site: AL137

44Pk217 was a prehistoric site located at the confluence of two seasonal streams. The vegetation consisted of mixed hardwoods and the western edge of the site had been badly eroded by the action of the streams. One prehistoric potsherd was found eroded down the bank of one of the streams. The bank was profiled and inspected for additional artifacts, cultural stratigraphy or features, but no evidence of any cultural activity beyond the isolated sherd was found. The surface visibility above the stream's bank was minimal and .5 m testpits were dug to define the site boundaries. These pits revealed reddish brown silty clay sand to 86 cm, over reddish brown sandy silty clay to 1.01 m below surface. Auger tests revealed reddish brown sandy silty clay mottled with hematite to 1.38, over reddish brown silty clay mottled with hematite to 1.59 m over yellowish red silty clay mottled with hematite to 1.74 m, over reddish brown sandy silt clay at 1.9 m below surface.

One felsite primary flake was recovered in an auger test at 1.9 m below surface. The .5 m testpit, within which the auger test was made, was expanded to a 1 x 2 m testpit to test for deeply buried deposits. One additional artifact was recovered within the 1 x 2 m pit at 1.45 m below surface. The pit was dug to 2.01 m below surface into yellowish red clay and further tested by auger to 2.51 m below surface to rock. An additional auger was placed within the pit to 3.11 m below surface to water. No culturally derived stratigraphy or features were revealed by the testpit. Seven additional auger tests were made in the area in an effort to define any site boundaries, but no evidence of any cultural activities were encountered.

In sum, only two artifacts were recovered by subsurface tests in this site, both found deeply buried in reddish-brown clay. The depth of the artifacts possibly resulted from the action of roots. One fairly large root run was located adjacent to the felsite flake recovered.

44Pk217 will be affected by flooding as a result of dam construction at any of the project alternatives.

1. Soil Type: Silty clay sand over sandy loam over dense clay.

2. Distance to Water: The confluence of two seasonal streams is 10 m to the south of this site.

3. Cultural Affiliation: Prehistoric, possibly Middle Woodland.

4. Stratigraphic Condition: Natural strata revealed within testpits; no culturally derived levels.

5. State of Preservation: No bone or shell noted.

6. Areal Extent: 8 m north-south; 1 m east-west

7. Elevation: 1130 feet AMSL

8. Slope: 8 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Range Collection
1 Sherd, crushed quartz: cord-marked
Total: 1

Excavation Unit 1
1 Primary flake: felsite
1 Fire-cracked rock: quartzite
Total: 2

Total Artifacts: 3

44Pk219

Archeology Laboratories Site: AL139

44Pk219 was a prehistoric site located at the head of a feeder stream of the Smith River, at the merging of two erosional gullies. The vegetation consisted of mixed scrub hardwoods. No surface visibility was available in the area and the site was defined by seven .5 m testpits. The artifact bearing pits revealed brown micaceous sandy clay. No culturally derived stratigraphy or features were noted.

Artifacts were recovered between 8 to 16 cm below surface in two pits. These consist of two flakes, one of quartz and the other chalcedony. No diagnostic lithics or ceramics were recovered.

44Pk219 had been disturbed by severe erosion. The area is heavily gullied, stimulated by logging activities east of the site. Should Damsite "A" or "B" be chosen for construction, this site would be affected by occasional flooding dependent on the level of the lake. Should Damsite "C" be chosen for construction, the site would be flooded.

1. Soil Type: Micaceous clayey loamy sand over micaceous sandy clay.

2. Distance to Water: The head of an unnamed drainage of the Smith River lies 30 m to the southwest of the site.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Natural stratigraphy resulting from erosion. No culturally derived deposits.

5. State of Preservation: No bone or shell noted. Most of the site has been eroded.

6. Areal Extent: 1 m north-south; 5 m east-west

7. Elevation: 1150 feet AMSL

8. Slope: 16 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Tertiary flake: chalcedony
Total: 1

Excavation Unit 4
1 Flake-blade with retouch: quartz
Total: 1

Total Artifacts: 2

44Pk222

Archeology Laboratories Site: AL142

44Pk222 was a prehistoric site located on a ridgetoe overlooking the Smith River. The vegetation consisted of mixed hardwoods, but good surface visibility was present because of sparse undergrowth. Artifacts visible on the surface were marked with red pin flags and collected in a series of nine 10 m square collection units.

One .5 by .75 cm testpit was placed in the center of the concentration of artifacts to test for subsurface features. The pit revealed brown black sandy loam to 2 cm over reddish brown clayey sand to 25 cm over mottled reddish brown clayey sand and red clay. No culturally derived stratigraphy or features were revealed. Two quartz artifacts were recovered at 8 and 17 cm below surface.

Two projectile points were recovered on the surface; one is a Middle Archaic Guilford point, the other is unidentified. Felsite and quartz debris were also recovered, but no ceramics were found.

This site will be inundated by all three project alternatives.

1. Soil Type: Sandy loam over clayey sand over clay.

2. Distance to Water: The Smith River was located 93.8 m to the west of the site.

3. Cultural Affiliation: Prehistoric, Middle Archaic.

4. Stratigraphic Condition: Natural stratigraphy noted. Eroded slope.

5. State of Preservation: Poor; slope has been affected by erosion.

6. Areal Extent: 22.75 m north-south; 39.5 m east-west

7. Elevation: 1060 feet AMSL

8. Slope: 3 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
Sterile

General Range Collection Unit 2
1 Flake-blade: felsite
Total: 1

General Range Collection Unit 3
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
Total: 2

General Range Collection Unit 4
1 Core: quartz
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
1 Projectile point, aborted: felsite
Total: 4

General Range Collection Unit 5
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
Total: 2

General Range Collection Unit 6
1 Core with retouch: quartz
1 Flake-blade with retouch: quartz

Total: 2

General Range Collection Unit 7
2 Flake-blades: quartz
Total: 2

General Range Collection Unit 8
1 Core with retouch: quartz
1 Flake-blade with retouch: quartz
1 Graver: quartz
1 Projectile Point, Guilford: felsite
Total: 4

General Range Collection Unit 9
1 Flake-blade with retouch: quartz
Total: 1

Excavation Unit 1
1 Flake-blade with retouch: quartz
1 Formal tool: quartz
Total: 2

Total Artifacts: 20

44Pk223

Archeology Laboratories Site: AL143

44Pk223 was a prehistoric site located on a terrace near the confluence of the Smith River and Widgeon Creek. The site was discovered in a potato field and 100% visibility was available within the area under cultivation. A total of 11 .5 m testpits were dug to define site boundaries, and these tests consistently revealed reddish brown clayey sand to 17 cm below surface. Auger tests revealed yellowish red, slightly sandy clay at 38 cm over mottled yellowish red sandy clay and reddish yellow sandy silt at 1 m below surface, where cobbles were encountered. The auger tests were continued and at 1.33 m below surface water was encountered. No culturally derived stratigraphy or features were encountered within any of these tests, but artifacts were recovered within three of the testpits. A point plot collection method was used to recover artifacts on the surface with each artifact being marked and plotted on a site map before collection. Artifacts collected from the surface included chalcedony, chert, quartz and felsite lithic debris as well as ceramics.

One .5 x .75 m testpit was placed adjacent to the potato field to test for cultual stratigraphy and features. This testpit revealed a grayish brown sandy silt which became clayey with depth, over a dark yellowish brown clayey sandy silt over gritty sand and pebbles at 77 cm below surface. Artifacts were recovered between 0-75 cm below surface.

44Pk223 would be affected by occasional flooding should Damsites "A" or "B" be chosen for construction. If, however, Damsite "C" should be chosen for construction, this site will completely inundated.

1. Soil Type: Sandy silt over clayey sandy silt over sandy silt over coarse sand and pebbles.

2. Distance to Water: Widgeon Creek is located 15 m to the east.

3. Cultural Affiliation: Prehistoric, Middle-Late Woodland. Possible Early Archaic presence.

4. Stratigraphic Condition: Disturbed by cultivation and alluvial action.

5. State of Preservation: Poor, no evidence of intact stratigraphy or features.

6. Areal Extent: 62 m north-south; 68 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

General Site Point Plot
Artifact #
1: 1 Sherdlet: .6 g
2: 1 Flake-blade: quartz
3: 1 Tertiary flake: chert
4: 1 Fire-cracked rock: quartz
5: 1 Sherd, crushed quartz: net-impressed
6: 1 Flake-blade: chert
7: 1 Fire-cracked rock: quartz
8: 1 Flake-blade with retouch: quartz
9: 1 Fire-cracked rock: quartz
10: 1 Shatter: chert
11: 1 Tertiary flake: quartz
12: 1 Flake-blade with retouch: chert
13: 1 Celt, chipped: felsite
14: 1 Core: chalcedony
15: 1 Fire-cracked rock: quartzite
16: 1 Tertiary flake: quartz
17: 1 Shatter: quartz
18: 1 Tertiary flake: quartz
19: 1 Flake-blade with retouch: quartz
20: 1 Tertiary flake: quartz
21: 1 Fire-cracked rock: quartz
22: 1 Irregular biface: quartz

23: 1 Fire-cracked rock: quartz
24: 1 Fire-cracked rock: quartz
25: 1 Flake-blade: quartz
26: 1 Core with retouch: quartz
27: 1 Flake-blade: quartz
28: 1 Flake-blade with retouch: siliceous rock
29: 1 Flake-blade: chert
30: 1 Projectile point, Pee Dee Pentagonal: chert
31: 1 Flake-blade with retouch: chert
32: 1 Flake-blade: quartz
33: 1 Tertiary flake: quartz
34: 1 Retouched flake: chert
35: 1 Flake-blade with retouch: quartz
36: 1 Flake-blade: Massive siliceous rock
37: 1 Sherd, quartz sand: eroded
38: 1 Discard
39: 1 Biface fragment: quartz
40: 1 Flake-blade: quartz
41: 1 Graver: quartz
42: 1 Shatter: quartz
43: 1 Flake-blade with retouch: quartz
44: 1 Sherd, quartz sand: eroded
45: 1 Shatter: quartz
46: 1 Flake-blade with retouch: chert
47: 1 Shatter: quartz
48: 1 Flake-blade with retouch: chert
49: 1 Sherd, crushed quartz and quartz sand: eroded
50: Bone, 3 g
51: 1 Flake-blade with retouch: quartz
52: 1 Retouched flake: chert
53: 1 Flake-blade: quartz
54: 1 Flake-blade with retouch: quartz
55: 1 Flake-blade with retouch: massive siliceous rock
56: 1 Burin, side scraper: quartz
57: 1 Shatter: quartz
58: 1 Sherd, quartz sand, micaceous sand: net-impressed
59: 1 Flake-blade with retouch: quartz
60: 1 Core: felsite
61: 1 Tertiary flake: quartz
62: 1 Tertiary flake: quartz
63: 1 Shatter: quartz
64: 1 Flake-blade with retouch: quartz
65: 1 Core with retouch: quartz
66: 1 Flake-blade with retouch: quartz
67: 1 Shatter: quartz
68: 1 Sherd, crushed quartz, fine sand: net-impressed
69: 1 Sherd, crushed quartz: net-impressed
70: 1 Flake-blade with retouch: quartz
71: 1 Sherd, fine sand: net-impressed
72: 1 Primary flake with bifacial edge: chalcedony
73: 1 Sherd, crushed quartz, quartz sand: net-impressed
74: 1 Flake-blade: quartz
75: 1 Sherd, fine sand: net-impressed
76: 1 Sherd, crushed quartz: net-impressed
77: 1 Tertiary flake: chalcedony
78: 1 Tertiary flake: quartz

79: 1 Sherd, crushed quartz: cord-marked
80: 1 Shatter: quartz
81: 1 Tertiary flake: quartz
82: 1 Flake-blade: quartz
83: 1 Sherdlet: 1 g
84: 1 Core with retouch: quartz
85: 1 Tertiary flake: quartz
86: 1 Shatter: quartz
87: 1 Shatter: quartz
88: 1 Shatter: quartz
89: 1 Aborted Archaic projectile point: chalcedony
90: 1 Flake-blade with retouch: quartz
91: 1 Shatter: quartz
92: 1 Sherd, crushed quartz, quartz sand: net-impressed
93: 1 Core: quartz
94: 1 Tertiary flake: quartz
95: 1 Fire-cracked rock: quartz
96: 1 Biface fragment: quartz
97: 1 Sherd, fine sand, mica sand with occasional quartz: cord-marked
98: 1 Sherdlet: .8 g
99: 1 Shatter: quartz
100: Charcoal: .07 g
101: 1 Tertiary flake: quartz
102: 1 Sherd, fine sand, mica sand with occasional quartz: cord-marked
103: 1 Fire-cracked rock: quartz
104: 1 Flake-blade: chert
105: 1 Side scraper: quartz
106: 1 Core: quartz
107: 1 Sherdlet: 2 g
108: 1 Sherd, fine sand, mica sand with occasional quartz: net-impressed
109: 1 Retouch flake: chert
110: 1 Sherd, crushed quartz: net-impressed
111: 1 Biface fragment: quartz
112: 1 Flake-blade with retouch: quartz
113: 1 Tertiary flake: quartz
114: 1 Shatter: quartz
115: 1 Flake-blade: chert
116: 1 Flake-blade: chert
117: 1 Discard
118: 1 Core: chert, heat treated
119: 1 Sherd, crushed quartz, quartz sand: net-impressed
120: 1 Adze: quartz
121: 1 Sherd, crushed quartz, quartz sand: net-impressed
122: 1 Retouched flake: siliceous rock
123: 1 Fire-cracked rock: quartz
124: 1 Retouched flake: chert
125: 1 Sherd, quartz sand: net-impressed
126: 1 Primary flake with retouch: felsite
127: 1 Flake-blade: siliceous rock
128: 1 Sherd, fine sand: net-impressed
129: 1 Aborted projectile point: quartz
130: 1 Sherd, quartz sand: net-impressed
131: 1 Sherd, quartz sand: net-impressed

132: 1 Drill: quartz
133: 1 Sherd, quartz sand, mica sand: cord-marked
134: 1 Flake-blade with retouch: quartz
135: 1 Flake-blade with retouch: quartz
136: 1 Sherd, crushed quartz: net-impressed
137: 1 Shatter: quartz
138: 1 Shatter: quartz
139: 1 Fire-cracked rock: quartz
140: 1 Flake-blade: quartz
141: 1 Tertiary flake: siliceous rock
142: 1 End and side scraper, burin: quartz
143: 1 Shatter: quartz
144: 1 Graver: quartz
145: 1 Drill: quartz
146: 1 Sherd, quartz sand, mica sand: fabric impressed
147: 1 Core with retouch: quartz
148: 1 Shatter: quartz
149: 1 Drill: quartz
150: 1 Tertiary flake: quartz
151: 1 Biface: quartz
152: 1 Flake-blade with retouch: chalcedony
153: 1 Flake-blade with retouch: quartz
154: 1 Sherd, quartz sand: net-impressed
155: 1 Scraper: quartz
156: 1 Graver: quartz
157: 1 Retouched flake: siliceous rock
158: 1 Retouched flake: chert
159: 1 Drill: chalcedony
160: 1 Tertiary flake: quartz
161: 1 Shatter: Chert
162: 1 Biface: quartz
163: 1 Burin: quartz
164: 1 Flake-blade with retouch: quartz
165: 1 Flake-blade: chert
166: 1 Tertiary flake: chert
167: 1 Tertiary flake: quartz
168: 1 Biface: quartz
169: 1 Sherd, crushed quartz: cord-marked
170: 1 sherd, crushed quartz, crushed feldspar: cord-marked
171: 1 Flake-blade with retouch: quartz
172: 1 Flake-blade with retouch: quartz
173: 1 Graver: quartz
174: 1 Tertiary flake: quartz
175: 1 Tertiary flake: quartz
176: 1 Flake-blade: quartz
177: 1 Tertiary flake: chert
178: 1 Tertiary flake: quartz
179: 1 Tertiary flake: quartz
180: 1 Tertiary flake: quartz
181: 1 Tertiary flake: quartz
182: 1 Flake-blade with retouch: quartz
183: 1 Fire-cracked rock: quartz
184: 1 Biface: quartz
Total: 184

Excavation Unit 1, Field Specimen 1
1 Sherd, fine sand: net-impressed
1 Shatter: quartz
2 Tertiary flakes: quartz
1 Tertiary flake: chert
1 Fire-cracked rock: quartz
Total: 6

Excavation Unit 1, Field Specimen 2
1 Fire-cracked rock: quartz
1 Projectile point, Kirk Corner Notched: chert
Total: 2

Excavation Unit 1, Field Specimen 3
1 Sherd, micaceous sand: net-impressed
1 Sherdlet: .1 g
1 Tertiary flake: chert
3 Fire-cracked rocks: quartz
Total: 6

Excavation Unit 1, Field Specimen 4
1 Sherd, micaceous sand: net-impressed, eroded
1 Sherd, crushed quartz, quartz sand: smoothed
Total: 2

Excavation Unit 1, Field Specimen 5
6 Sherds, crushed quartz, fine sand: net-impressed, eroded
3 Sherdlets: 3.6 g
2 Fire-cracked rocks: quartz
Total: 11

Excavation Unit 1, Field Specimen 7
1 Sherd, micaceous sand: fabric impressed
1 Flake-blade with retouch: quartz
Total: 2

Excavation Unit 5
1 Tertiary flake: quartz
Total: 1

Excavation Unit 8
1 Sherdlet: 1.2 g
1 Fire-cracked rock: quartz
Total: 2

Excavation Unit 11
1 Sherd, fine sand, no visible temper: net-impressed
Total: 1

Total Artifacts: 217

44Pk224

Archeology Laboratories Site: AL144

44Pk224 was a prehistoric site located on a terraced area upstream from the Smith River on Widgeon Creek. It lay in a white pine tree farm, with some mixed grasses and blackberries. Ground surface visiblility was very limited in the area, and 17 .5 m testpits and one .5 x .75 m testpit were dug to define site boundaries. These tests revealed dark reddish gray slightly clayey loam to 19 cm over dark mottled yellow brown clayey sandy loam to 48 cm over mottled brown loamy clay to 61 cm over brown clay to 99 cm over water at 2.28 m below surface. No culturally derived stratigraphy or features were noted.

Artifacts were recovered within 4 of the 17 testpits between 15 to 54 cm below surface. These included chert, quartz and felsite lithic debris, fire-cracked rock and Middle Woodland ceramics.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by periodic flooding during extremely high power pool levels. Should Damsite "C" be chosen, it will be inundated.

1. Soil Type: Clayey loam over mottled clayey sandy loam over mottled clay.

2. Distance to Water: An unnamed drainage of Smith River is located 18 m to the southeast.

3. Cultural Affiliation: Prehistoric, Middle Late Woodland.

4. Stratigraphic Condition: Disturbed, soils mottled by alluviation.

5. State of Preservation: Poor, no evidence of intact subsurface features.

6. Areal Extent: 122 m north-south; 50.4 m east-west

7. Elevation: 1260 feet AMSL

8. Slope: 8 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1, Field Specimen 1 (.5 x .75 m unit)
1 Shatter: quartz
1 Flake-blade: quartz
2 Tertiary flakes: quartz
5 Fire-cracked rocks: quartz
Total: 9

Excavation Unit 1, Field Specimen 2
1 Shatter: quartz
1 Shatter: chalcedony
1 Flake-blade: chalcedony
3 Tertiary flakes: quartz
1 Tertiary flake: chalcedony
10 Fire-cracked rock: quartz
1 Sherdlet: 3.4 g
Total: 18

Excavation Unit 1, Field Specimen 3
4 Tertiary flakes: quartz
8 Fire-cracked rocks: quartz
1 Triangular biface: quartz
Total: 13

Excavation Unit 2
3 Shatter: quartz
1 Flake-blade with retouch: quartz
4 Fire-cracked rocks: quartz
1 Sherd, crushed quartz, quartz sand: net-impressed
1 Sherdlet: 2.1 g
Total: 10

Excavation Unit 10
1 Core with retouch: chert
2 Flake-blades: felsite
1 Flake-blade: chert
1 Retouched flake: chert
2 Retouched flakes: siliceous rock
Total: 7

Excavation Unit 14
1 Sherd, quartz sand: net-impressed
1 Sherd, crushed quartz: net-impressed
Total: 2

Total Artifacts: 59

44Pk225

Archeology Laboratories Site: AL145

44Pk225 was a prehistoric site located on a small terraced area at the base of a ridgetoe overlooking the Smith River. The vegetation consisted of mixed grasses and walnut trees, but the general area had been cultivated in the past and a small garden plot was located down slope from the site. A road had been cut through the site and visibility was greater than 60% in this roadcut and in adjacent eroded areas.

Six .5 m testpits were used to determine site boundaries, augmented with auger tests. These tests revealed dark brown slightly clayey sandy loam to 37 cm over reddish gray sandy loam to 46 cm over mottled brown sandy loam to 1.01 m over

yellow brown silty sand to 1.22 m over mottled brown silty sand to 2.07 m below surface over water. No culturally derived stratigraphy or features were noted. Artifacts were recovered to 30 cm below surface within one of the .5 m testpits as well as on the ground surface. These specimens included quartz and chalcedony lithic debris, one felsite projectile point and Middle Woodland ceramics. The artifacts on the surface were collected using a point plot method with their findspots recorded on a site map.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by periodic flooding in the event of high power pool levels. Should Damsite "C" be chosen, the site will be flooded.

1. Soil Type: Brown clayey sandy loam over sand loam over silty sand.

2. Distance to Water: An unnamed drainage lies 8.5 m to the west.

3. Cultural Affiliation: Prehistoric, Middle Woodland, Late Woodland.

4. Stratigraphic Condition: Disturbed by cultivation, road construction and erosion.

5. State of Preservation: Poor, most of the artifacts were eroded onto the surface.

6. Areal Extent: 24 m north-south; 6 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 4 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

Artifacts Collected

General Surface Point Plot
Artifact #

1: 1 Projectile point, stemmed Woodland: felsite
2: 1 Shatter: quartz
3: 1 Flake-blade with retouch: quartz
4: 1 Flake-blade: quartz
5: 1 Tertiary flake: quartz
6: 1 Tertiary flake: quartz
7: 1 Shatter: quartz
8: 1 Core: quartz
9: 1 Tertiary flake: quartz
10: 1 Core: quartz
11: 1 Tertiary flake: quartz

12: 1 Sherd, quartz sand: eroded
13: 1 Sherd, crushed quartz, fine sand: net-impressed
Total: 13

Excavation Unit 1, Field Specimen 1
1 Shatter: quartz
Total: 1

Excavation Unit 1, Field Specimen 2
1 Core: quartz
2 Shatter: quartz
1 Shatter: chalcedony
1 Tertiary flake: quartz
2 Sherds, fine clay, no visible temper: net-impressed
1 Sherd, fine sand: net-impressed
Total: 8

Excavation Unit 1, Field Specimen 3
1 Sherd, fine sand: net-impressed
Total: 1

Total Artifacts: 23

44Pk167

Archeology Lboratories Site: AL146

44Pk167 was a prehistoric site located on a terraced area upstream from Widgeon Creek on the south bank of the Smith River. The vegetation consisted of mixed grasses, blackberry thickets and white pines. The site was limited to artifacts recovered within one .5 m testpit. Four additional .5 m testpits were dug to locate site boundaries, but each unit was sterile and no ground surface visibility was available. The artifact bearing unit revealed brown sand to 47 cm, over yellow-brown sand over water and gravel at 2.4 m below surface. Artifacts were in yellow-brown sand between 90-95 cm below surface and consisted of Middle Woodland ceramics. No lithic debris was recovered.

Should Damsites "A" or "B" be chosen for construction the area surrounding the site would be periodically affected by flooding as a result of high water levels. Should Damsite "C" be chosen for construction, this site will be inundated.

1. Soil Type: Sand.

2. Distance to Water: The Smith River is located 20 m to the north.

3. Cultural Affiliation: Prehistoric, Middle Woodland.

4. Stratigraphic Condition: Alluvial deposition, thick layers of sand.

5. State of Preservation: Poor, artifacts were probably redeposited.

6. Areal Extent: Artifacts confined to one .5 m testpit.

7. Elevation: 1150 feet AMSL

8. Slope: 2 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
2 Sherds, crushed quartz: net-impressed
1 Sherd, crushed quartz: cord-marked
3 Sherdlets: 3.3 g

Total Artifacts: 6

44Pk170

Archeology Laboratories Site: AL149

44Pk170 was a prehistoric site located on a terrace on the north side of the Smith River. The vegetation was mixed hardwoods and American holly providing no surface visibility, and 24 .5 m testpits were used to determine site boundaries. Eleven of these units contained artifacts. One .5 x .75 m testpit, dug to test for cultural stratigraphy and features, revealed dark brown sandy loam to 10 cm, over dark brown sandy clay to 27 cm, over dense brown sandy clay continuing at 40 cm below surface. An auger test was used to augment the stratigraphic test and showed the brown sandy clay continuing to 1.6 m, over white clay to 1.7 m, over an impenetrable stratum of pebbles. No culturally derived stratigraphy or features were observed.

Artifacts were recovered between 0-30 cm below surface and included felsite, chert and quartz lithic debris, prehistoric and historic ceramics, brick fragments and fire-cracked rocks. The historic artifacts were found evenly mixed with the prehistoric, and brick fragments were found throughout the .5 x .75 m testpit. An historic potsherd was found at 24 cm below surface, suggesting that the site area has been subjected to severe disturbances, possibly extensive plowing, in the past. 44Pk170 was located in close proximity to 44Pk168 and 44Pk169 and activites at those two sites appear to have had an affect upon the preserved context of 44Pk170.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by only periodic flooding in the event of high water levels. Should Damsite "C" be chosen for

construction, this site will be completely flooded.

1. Soil Type: Sandy loam over sandy clay over clay.

2. Distance to Water: An unnamed drainage is located 45 m to the west.

3. Cultural Affiliation: Early Archaic, Middle-Late Woodland, Historic.

4. Stratigraphic Condition: Disturbed, prehistoric components heavily mixed with historic artifacts.

5. State of Preservation: Poor.

6. Areal Extent: 43 m north-south; 42 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1, Field Specimen 1
- 2 Shatter: quartz
- 1 Primary flake with retouch: quartz
- 1 Flake-blade: quartz
- 5 Flake-blades with retouch: quartz
- 1 Biface tip: chalcedony
- 1 Projectile point, Kirk Corner Notched: chert, heat-treated
- 3 Burins: quartz
- 9 Fire-cracked rocks: quartz
- 1 Sherd, fine sand: eroded
- 2 Sherds, quartz sand: net-impressed, eroded
- 3 Sherdlets: 3.2 g
- 21 Chinking fragments

Total: 50

Excavation Unit 1, Field Specimen 2
- 1 Sherd, crushed quartz, quartz sand: net-impressed, eroded

Total: 1

Excavation Unit 1, Field Specimen 3
- 2 Shatter: quartz
- 3 Flake-blades with retouch: quartz
- 1 Flake-blade with retouch: felsite
- 2 Tertiary flakes: quartz
- 1 Biface: quartz
- 1 Projectile point, unidentified: quartz
- 1 Unidentified tool: chalcedony

1 Graver: quartz
1 Burin: quartz
7 Fire-cracked rocks: quartz
1 Cobble
13 Hand-made brick fragments
Charcoal: 1.4 g
Total: 34

Excavation Unit 1, Field Specimen 4
2 Fire-cracked rocks: quartz
Total: 2

Excavation Unit 2
1 Shatter: quartz
1 Tertiary flake: quartz
1 Biface: quartz
1 Burin: quartz
Total: 4

Excavation Unit 3
1 Burin: quartz
1 Fire-cracked rock: quartz
3 Sherdlets: .9 g
Total: 5

Excavation Unit 5
1 Fire-cracked rock: quartz
Total: 1

Excavation Unit 6
1 Burin: jasper
1 Multiple tool: quartz
1 Projectile point fragment: quartz
4 Fire-cracked rocks: quartz
Total: 7

Excavation Unit 11
1 Flake-blade with retouch: quartz
1 Drill: quartz
3 Fire-cracked rocks: quartz
Total: 5

Excavation Unit 12
1 Core with retouch: quartz
1 Sherd, quartz sand: net-impressed, eroded
1 Sherdlet: .2 g
Total: 3

Excavation Unit 17
1 Core: quartz
Total: 1

Total Artifacts: 116

44Pk171

Archeology Laboratories Site: AL150

44Pk171 was a prehistoric site located on a terrace above the Smith River. The vegetation consisted of mixed hardwoods, and surface visibility was high over a large portion of the site. A grid of 80 10 m square collection units was superimposed over the site and used to provide provenience for surface specimens. A total of 18 .5 m testpits were used to determine the site boundaries; only 8 contained artifacts. In addition to these testpits, four .5 x .75 m testpits were dug in 10 cm levels to test for cultural stratigraphy or features. Each of the .5 x .75 m testpits was deepened by the use of an auger test to gain additional information concerning the stratigraphy below the lowest levels within the test pits. The information provided by each of these stratigraphic tests was as follows:

Excavation Unit 1: Dark reddish brown loam to 30 cm, over dark reddish brown loam mixed with orange sandy clay to 40 cm, over orange clay. The pit was extended to 70 cm below surface. Artifacts were recovered between 0-42 cm below surface and one intrusive artifact was located between 50-60 cm below surface.

Excavation Unit 2: Dark brown loam to 13 cm, over grayish brown loam to 28 cm, over reddish brown silty clay to 40 cm, over mottled dark reddish brown clayey loam to 50 cm, over strong brown sandy clay to 1.06 m, over reddish yellow clay to 1.3 m, over reddish yellow clay mottled with light brown sandy clay to 1.7 m below surface, over reddish yellow clay mottled with reddish yellow sand. Artifacts were recovered within this testpit between 0-47 cm below surface.

Excavation Unit 3: Dark brown sandy loam, becoming clayey at 17 cm, to 27cm, over reddish brown clayey loam mottled with dark brown clayey sandy loam to 37 cm, over reddish brown sandy clayey loam to 57 cm, over reddish brown sandy clayey loam mottled with dark brown clayey sandy loam over cobbles at 69 cm to 1.12 m, over yellowish orange sandy clay to 1.3 m, over strong brown sandy clay mixed with gravel to 1.49 m below surface, over cobbles. Artifacts were recovered between 0-36 cm below surface and one intrusive artifact was recovered at 45 cm below surface.

Excavation Unit 4: Reddish brown sandy clay loam to 20 cm, over mottled red clay and reddish brown sandy clay loam to 40 cm, over reddish orange clay continuing at 2.1 m below surface. Artifacts were recovered within this testpit between 0-30 cm below surface.

Artifacts collected within all testpits, both .5 m and .5 x .75 m, included quartz, felsite, chert, and chalcedony lithic debris, diagnostic projectile points and ceramics. No culturally derived stratigraphy or features were noted within any of the testpits excavated.

The terrace which encompasses the site has experienced extensive recent alteration: a house, trailer, barn and various outbuildings have been situated along the southern portion of the site. The southwestern corner has recently been trenched and graded for a septic field, and a sawmill had been previously located on the southeastern section of the terrace. Also, numerous road cuts crossed the general area of the site and three garden plots were being cultivated within the boundaries of the terrace. In addition to the above disturbances, the entire terrace area has been timbered at some time in the past. These disturbances have largely destroyed the integrity of the site as judged by our investigations.

Dam construction at any of the project's alternative locations will inundate this site.

1. Soil Type: Loam over sandy clay over clay.

2. Distance to Water: The Smith River was located 32 m south of the site.

3. Cultural Affiliation: Prehistoric: Repeated occupation from Early Archaic through Late Woodland.

4. Stratigraphic Condition: No culturally derived deposits remained intact.

5. State of Preservation: Disturbed by timbering and construction.

6. Areal Extent: 120 m north-south; 190 m east-west.

7. Elevation: 1130-1180 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
    1 Tertiary flake: quartz
    1 Sherd, fine sand: net-impressed
Total: 2

General Range Collection Unit 2
    1 Core with retouch: quartz
Total: 1

General Range Collection Unit 3
    1 Sherd, quartz sand: net-impressed
Total: 1

General Range Collection Unit 4
    1 Flake-blade: quartz
Total: 1

General Range Collection Unit 5
    1 Core with retouch: quartz
    1 Retouched flake: felsite
Total: 2

General Range Collection Unit 6
    1 Core: quartz
    1 Primary flake: felsite
    1 Flake-blade with retouch: quartz
    1 Burin: quartz
    1 Fire-cracked rock: quartz
    1 Sherd, crushed quartz, mica sand: net-impressed
    3 Sherds, quartz sand: eroded
    3 Sherds, fine sand: net-impressed
Total: 12

General Range Collection Unit 7
    2 Primary flakes with retouch: quartz
    1 Flake-blade: chert
    1 Sherd, fine sand: net-impressed
    1 Amethyst crystal
Total: 5

General Range Collection Unit 8
    1 Flake-blade with retouch: quartz
Total: 1

General Range Collection Unit 9
    1 Flake-blade with retouch: quartz
    2 Sherds, fine sand: net-impressed
    1 Sherd, quartz sand: net-impressed
Total: 4

General Range Collection Unit 10
    2 Shatter: quartz
    1 Projectile point, Woodland triangular: jasper
    1 Sherd, fine sand: net-impressed
    1 Sherd, silty leached: net-impressed
Total: 5

General Range Collection Unit 11
    1 Projectile point, Pee Dee Triangular: quartz
Total: 1

General Range Collection Unit 12
    1 Core: quartz
    1 Core with retouch: quartz
    1 Shatter: quartz
    1 Flake-blade with retouch: quartz
    1 Perforator: quartz
    1 Drill: chert

1 Fire-cracked rock: quartz
5 Sherds, quartz sand: net-impressed
1 Sherd, fine sand: net-impressed
3 Sherdlets: 3.4 g
Total: 15

General Range Collection Unit 13
1 Flake-blade: quartz
Total: 1

General Range Collection Unit 14
2 Shatter: quartz
1 Burin: quartz
1 Fire-cracked rock: sandstone
1 Sherd, crushed quartz, fine sand: net-impressed
2 Sherds, quartz sand: net-impressed
Total: 7

General Range Collection Unit 15
1 Tertiary flake: quartz
1 Fire-cracked rock: quartz
Total: 2

General Range Collection Unit 16
1 Sherd, crushed quartz, quartz sand, mica sand: net-impressed
1 Sherd, fine sand: net-impressed
2 Sherdlets: 1.2 g
Total: 4

General Range Collection Unit 17
1 Core: quartz
1 Primary flake with retouch: quartz
1 Tertiary flake: quartz
1 Sherd, quartz sand: eroded
3 Sherds, fine sand, occasional quartz: net-impressed
1 Sherd, fine sand: net-impressed
Total: 8

General Range Collection Unit 18
2 Sherds, fine sand, occasional quartz: net-impressed
5 Sherds, fine sand: net-impressed
2 Sherdlets: 1.8 g
Total: 9

General Range Collection Unit 19
1 Core: quartz
2 Cores with retouch: quartz
2 Shatter: quartz
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
4 Flake-blades with retouch: quartz
2 Tertiary flakes: quartz
2 Burins: quartz
1 Fire-cracked rock: quartz
3 Sherds, crushed quartz, silty

17 Sherds, quartz sand: net-impressed
15 Sherds, fine sand, occasional quartz: net-impressed
29 Sherds, fine sand: net-impressed
Total: 80

General Range Collection Unit 20
2 Cores: quartz
3 Shatter: quartz
2 Primary flakes with retouch: quartz
1 Flake-blade: quartz
2 Flake-blades with retouch: quartz
1 Tertiary flake: quartz
1 Burin: quartz
1 Fire-cracked rock: quartz
1 Sherd, quartz sand, mica sand: net-impressed
1 Sherd, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
4 Sherdlets: 2.3 g
Total: 21

General Range Collection Unit 21
1 Core with retouch: quartz
1 Primary flake with retouch: quartz
1 Flake-blade with retouch: quartz
1 Biface: quartz
1 Cobble: heated
1 Sherd, silty, leached: net-impressed
1 Sherd, crushed quartz, silty: net-impressed
8 Sherds, quartz sand: net-impressed
6 Sherds, fine sand, occasional quartz: net-impressed
3 Sherds, fine sand: net-impressed
7 Sherdlets: 6 g
Total: 31

General Range Collection Unit 22
1 Core with retouch: quartz
1 Shatter: quartz
1 Flake-blade: quartz
3 Flake-blades with retouch: quartz
2 Tertiary flakes: quartz
1 Burin: quartz
3 Gravers: quartz
1 Side/End scraper, burin: quartz
1 Projectile point, Archaic nondescript: aphanitic siliceous rock
11 Sherds, quartz sand: net-impressed
8 Sherds, fine sand, occasional quartz: net-impressed
18 Sherds, fine sand: net-impressed
2 Sherds, fine sand: eroded
1 Sherd, fine sand: plain, smoothed
10 Sherdlets: 10.7 g
Total: 64

General Range Collection Unit 23
1 Core with retouch: quartz
3 Primary flakes with retouch: quartz

1 Flake-blade: quartz
4 Flake-blades with retouch: quartz
4 Tertiary flakes: quartz
2 Burins: quartz
1 Multiple tool: chalcedony
1 Nondescript tool: quartz
1 Projectile point, nondescript: chalcedony
2 Fire-cracked rocks: quartz
10 Sherds, quartz sand: net-impressed
8 Sherds, fine sand, occasional quartz: net-impressed
14 Sherds, fine sand: net-impressed
9 Sherdlets: 7.6 g
Total: 61

General Range Collection Unit 24
1 Core: quartz
1 Core with retouch: quartz
4 Shatter: quartz
1 Flake-blade: quartz
3 Flake-blades with retouch: quartz
5 Tertiary flakes: quartz
1 Burin: aphanitic siliceous rock
1 Biface: quartz
1 Side scraper/burin: quartz
1 Perforator: quartz
1 Sherd, crushed quartz, quartz sand, fine sand: net-impressed
1 Sherd, crushed quartz, mica sand: net-impressed
1 Sherd, crushed quartz, fine sand: net-impressed
5 Sherds, quartz sand: net-impressed
13 Sherds, fine sand: net-impressed
14 Sherdlets: 17.6 g
Total: 54

General Range Collection Unit 25
1 Flake-blade with retouch: quartz
2 Sherdlets: 2.9 g
Total: 3

General Range Collection Unit 26
1 Core with retouch: quartz
3 Shatter: quartz
2 Flake-blades with retouch: quartz
2 Tertiary flakes: quartz
1 Biface: quartz
1 Projectile point, unidentified: medium grain siliceous rock
1 Projectile point, contracting stem: aphanitic siliceous rock
2 Sherds, quartz sand: net-impressed
2 Sherds, fine sand, occasional quartz: net-impressed
7 Sherds, fine sand: net-impressed
4 Sherdlets: 3.5 g
Total: 26

General Range Collection Unit 27

1 Core with retouch: quartz
1 Shatter: quartz
1 Flake-blade: quartz
1 Biface: quartz
1 Burin: quartz
1 Projectile point, Woodland triangular: aphanitic siliceous rock
2 Fire-cracked rocks: quartz
1 Cobble: heated
2 Sherds, silty, leached: net-impressed
1 Sherd, crushed quartz, fine sand: eroded
5 Sherds, quartz sand: eroded
2 Sherds, fine sand: net-impressed
4 Sherdlets: 3.7 g
Total: 23

General Range Collection Unit 28
1 Core: quartz
2 Shatter: quartz
1 Primary flake with retouch: quartz
2 Flake-blades: quartz
1 Tertiary flake: quartz
2 Burins: quartz
1 Projectile point, Uwharrie: quartz
2 Fire-cracked rocks: sandstone
1 Sherd, crushed quartz, mica sand: net-impressed
13 Sherds, fine sand, occasional quartz: eroded
3 Sherds, fine sand, occasional quartz: net-impressed
21 Sherds, fine sand: net-impressed
10 Sherdlets: 7.2 g
Total: 60

General Range Collection Unit 29
1 Primary flake: biotite granite gneiss
1 Flake blade: biotite granite gneiss
2 Flake-blades with retouch: quartz
1 Burin: quartz
1 Sherd, mica sand: net-impressed
3 Sherds, quartz sand: eroded
2 Sherds, fine sand, occasional quartz: net-impressed
3 Sherdlets: 4.6 g
Total: 14

General Range Collection Unit 30
1 Shatter: quartz
1 Sherd, crushed quartz, silty: net-impressed
3 Sherds, crushed quartz, fine sand: net-impressed
2 Sherds, fine sand: net-impressed
2 Sherds, fine sand: eroded
3 Sherdlets: 2.9 g
Total: 12

General Range Collection Unit 31
Sterile

General Range Collection Unit 32

Sterile

General Range Collection Unit 33
Sterile

General Range Collection Unit 34
1 Core with retouch: quartz
2 Flake-blades with retouch: quartz
1 Tertiary flake: quartz
1 Burin: quartz
1 Multiple tool: chalcedony
1 Sherd, crushed quartz, silty: net-impressed
1 Sherd, crushed quartz, fine sand: eroded
4 Sherds, quartz sand: net-impressed
4 Sherds, quartz sand: eroded
1 Sherd, quartz sand: plain
1 Sherd, fine sand, occasional quartz: net-impressed
5 Sherds, fine sand: net-impressed
5 Sherds, fine sand: eroded
1 Sherd, fine sand: plain
8 Sherdlets: 8.1 g
Total: 36

General Range Collection Unit 35
1 Core: quartz
3 Cores with retouch: quartz
3 Shatter: quartz
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
5 Flake-blades with retouch: quartz
1 Tertiary flake: quartz
1 Perforator: quartz
1 Graver: chalcedony
1 Burin/graver: chert
1 Multiple tool: chalcedony
1 Burin: quartz
2 Sherds, crushed quartz, fine sand: net-impressed
7 Sherds, quartz sand, mica sand: net-impressed
8 Sherds, fine sand, occasional quartz: eroded
3 Sherds, fine sand, occasional quartz: net-impressed
27 Sherds, fine sand: net-impressed
19 Sherdlets: 18.9 g
Total: 86

General Range Collection Unit 36
2 Cores with retouch: quartz
1 Shatter: quartz
2 Primary flakes with retouch: quartz
1 Flake-blade with retouch: quartz
1 Micro-burin: quartz
1 Burin/side scraper: quartz
1 Fire-cracked rock: sandstone
6 Sherds, quartz sand, mica sand: net-impressed
6 Sherds, quartz sand: net-impressed
5 Sherds, fine sand, occasional quartz: net-impressed
1 Sherd, fine sand: net-impressed

7 Sherds, fine sand: eroded
1 Sherd, fine sand: plain
5 Sherdlets: 4.2 g
Total: 40

General Range Collection Unit 37
1 Primary flake: quartz
1 Flake-blade: quartz
1 Sherd, quartz sand, mica sand: net-impressed
3 Sherds, fine sand: net-impressed
Total: 6

General Range Collection Unit 38
1 Shatter: quartz
3 Fire-cracked rocks: quartz
21 Sherds, mica sand: net-impressed
1 Sherd, silty, leached: net-impressed
1 Sherd, crushed quartz, silty: net-impressed
40 Sherds, quartz sand: net-impressed
37 Sherds, fine sand, occasional quartz: net-impressed
44 Sherds, fine sand: net-impressed
1 Sherd, fine sand: cord marked
50 Sherdlets: 59.9 g
Total: 199

General Range Collection Unit 39
3 Cores: quartz
9 Cores with retouch: quartz
3 Shatter: quartz
4 Primary flakes with retouch: quartz
1 Flake-blade: quartz
5 Flake-blades with retouch: quartz
5 Tertiary flakes: quartz
4 Bifaces: quartz
2 Multiple tools: quartz
1 Side scraper: quartz
7 Burins: quartz
7 Drills: quartz
2 Gravers: quartz
1 Micro-burin: quartz
5 Fire-cracked rocks: quartz
9 Fire-cracked rocks: sandstone
1 Fire-cracked rock: greenstone
1 Drill: chert
1 Drill: chalcedony
1 Projectile point, triangular: aphanitic siliceous breccia
1 Projectile point, Kirk Stemmed: siliceous breccia
1 Projectile point, triangular: chalcedony
26 Sherds, crushed quartz, mica sand: net-impressed
2 Sherds, crushed quartz, quartz sand: net-impressed
6 Sherds, crushed quartz, silty: net-impressed
2 Sherds, crushed quartz, sitly: cord marked
54 Sherds, quartz sand: net-impressed
54 Sherds, fine sand, occasional quartz: net-impressed
92 Sherds, fine sand: net-impressed

2 Sherds, fine sand: cord marked
1 Sherd, fine sand: eroded
1 Sherd, fine sand: plain, burnished
50 Sherdlets: 61.3 g
Total: 364

General Range Collection Unit 40
1 Core: quartz
1 Core with retouch: quartz
2 Shatter: quartz
1 Biface/wedge: quartz
2 Sherds, quartz sand, mica: net-impressed
1 Sherd, quartz sand, mica: plain
1 Sherd, quartz sand: net-impressed
3 Sherds, quartz sand, occasional quartz: net-impressed
2 Sherds, fine sand: net-impressed
1 Sherdlet: .9 g
Total: 15

General Range Collection 41
3 Cores with retouch: quartz
1 Shatter: quartz
1 Primary flake: quartz
2 Primary flakes with retouch: quartz
1 Flake-blade: quartz
3 Flake-blades with retouch: quartz
5 Tertiary flakes: quartz
5 Burins: quartz
1 Multiple tool: quartz
1 Flake-blade/wedge: quartz
1 Drill: quartz
1 Multiple tool: chert
1 Projectile point, nondescript: chert
2 Multiple tools: chalcedony
10 Sherds, quartz sand, mica sand: net-impressed
2 Sherds, crushed quartz, mica sand: net-impressed
1 Sherd, crushed quartz, quartz sand: net-impressed
3 Sherds, crushed quartz, silty: net-impressed
32 Sherds, quartz sand: net-impressed
21 Sherds, fine sand, occasional quartz: net-impressed
38 Sherds, fine sand: net-impressed
1 Sherd, fine sand: cord marked
1 Sherd, fine sand: plain
1 Pipe stem, fragment: clay
14 Sherdlets: 16.4 g
Total: 152

General Range Collection Unit 42
1 Core, cobble: chert
3 Shatter: quartz
3 Primary flakes with retouch: quartz
1 Flake-blade: quartz
2 Flake-blades with retouch: quartz
2 Tertiary flakes: quartz
2 Burins: quartz
4 Gravers: quartz

2 Drills: quartz
1 Drill: jasper
1 Projectile point, triangular: chalcedony
2 Fire-cracked rocks: quartz
5 Fire-cracked rocks: sandstone
1 Fragment: steatite
1 Sherd, mica sand: net-impressed
5 Sherds, crushed quartz, silty: net-impressed
1 Sherd, crushed quartz, silty: cord marked
12 Sherds, quartz sand: net-impressed
1 Sherd, quartz sand: cord marked
31 Sherds, fine sand, occasional quartz: net-impressed
1 Sherd, fine sand, occasional quartz: cord marked
34 Sherds, fine sand: net-impressed
9 Sherdlets: 11.8 g
Bone, unidentified mammal: .2 g
Total: 128

General Range Collection Unit 43
1 Primary flake with retouch: quartz
2 Flake-blades with retouch: quartz
1 Cobble fragment with cortex and multiple bits: quartz
1 Drill: quartz
4 Sherds, mica sand: net-impressed
1 Sherd, crushed quartz, silty: cord marked
1 Sherd, quartz sand: net-impressed
3 Sherds, fine sand, occasional quartz: net-impressed
5 Sherds, fine sand: net-impressed
3 Sherdlets: 4.3 g
Total: 22

General Range Collection Unit 44
2 Sherds, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
2 Sherds, fine sand: net-impressed
2 Sherdlets: 3 g
Total: 7

General Range Collection Unit 45
2 Cores with retouch: quartz
1 Shatter: quartz
1 Primary flake with multiple bits: quartz
1 Snapped biface/wedge: quartz
1 Snapped biface/wedge with burin: quartz
1 Graver: aphanitic siliceous rock
1 Sherd, quartz sand: net-impressed
3 Sherds, quartz sand: net-impressed
6 Sherds, fine sand: net-impressed
1 Sherdlet: 1.2 g
Total: 17

General Range Collection Unit 46
Sterile

General Range Collection Unit 47
Sterile

General Range Collection Unit 48
    1 Core with retouch: quartz
    1 Shatter: quartz
    2 Flake-blades with retouch: quartz
    1 Tertiary flake: quartz
    3 Burins: quartz
    1 Graver: quartz
    2 Sherds, mica sand: net-impressed
    1 Sherd, quartz sand: net-impressed
    2 Sherdlets: 1.8 g
Total: 14

General Range Collection Unit 49
    1 Core with retouch: quartz
    5 Shatter: quartz
    2 Primary flakes with retouch: quartz
    3 Flake-blades with retouch: quartz
    5 Tertiary flakes: quartz
    2 Drills: quartz
    1 Burin: quartz
    1 Multiple tool: quartz
    2 Gravers: chert
    1 Micro-graver: chert
    1 Multiple tool: quartz
    1 Sherd, quartz sand: net-impressed
Total: 25

General Range Collection Unit 50
    1 Core with retouch: quartz
    1 Shatter: quartz
    1 Flake-blade: quartz
    1 Flake-blade with retouch: quartz
Total: 4

General Range Collection Unit 51
    1 Core with retouch: quartz
    1 Tertiary flake: quartz
    1 Graver: quartz
    1 Sherd, mica sand: net-impressed
    3 Sherds, fine sand: net-impressed
Total: 7

General Range Collection Unit 52
    3 Cores with retouch: quartz
    2 Shatter: quartz
    1 Primary flake with retouch: quartz
    2 Flake-blades with retouch: quartz
    1 Tertiary flake: quartz
    1 Burin: quartz
    1 Perforator: quartz
    1 Sherd, mica sand: net-impressed
    1 Sherd, quartz sand: net-impressed
    1 Sherd, fine sand: net-impressed
    1 Sherd, fine sand: fabric impressed
Total: 15

General Range Collection Unit 53
    1 Core with retouch: quartz
    1 Flake-blade with retouch: quartz
    2 Tertiary Flakes: quartz
    2 Burins: quartz
    1 Graver: quartz
    1 Projectile point, triangular: quartz
    1 Sherd, mica sand: net-impressed
Total: 9

General Range Collection Unit 54
    1 Burin: quartz
    1 Projectile point, triangular: chert
    2 Sherds, crushed quartz, mica sand: net-impressed
Total: 4

General Range Collection Unit 55
    3 Shatter: quartz
    1 Flake-blade: quartz
    1 Multi-purpose tool: quartz
    1 Micro-burin: quartz
    1 Burin: quartz
    1 Sherd, quartz sand: net-impressed
    1 Sherd, fine sand, occasional quartz: net-impressed
    3 Sherds, fine sand: net-impressed
Total: 12

General Range Collection Unit 56
    1 Core with retouch: quartz
    1 Shatter: quartz
    1 Flake-blade with retouch: quartz
    4 Tertiary Flakes: quartz
    1 Snapped biface/wedge: quartz
    2 Burins: quartz
    1 Graver: quartz
    1 Sherd, mica sand: net-impressed
    1 Sherd, fine sand, occasional quartz: net-impressed
    4 Sherds, fine sand: net-impressed
Total: 17

General Range Collection Unit 57
    1 Core with retouch: quartz
    2 Shatter: quartz
    1 Flake-blade with retouch: quartz
    2 Drills: quartz
    3 Burins: quartz
    3 Sherds, quartz sand: net-impressed
    5 Sherds, fine sand: net-impressed
    1 Sherdlet: 1.1 g
Total: 18

General Range Collection Unit 58
    2 Shatter: quartz
    2 Primary flakes with retouch: quartz
    2 Flake-blades with retouch: quartz

1 Tertiary flake: quartz
1 Burin: quartz
1 Sherd, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
2 Sherds, fine sand: net-impressed
2 Sherdlets: 2 g
Total: 14

General Range Collection Unit 59
1 Core with retouch: quartz
1 Projectile point, triangular: quartz
Total: 2

General Range Collection Unit 60
1 Core: quartz
5 Shatter: quartz
1 Primary flake: quartz
3 Flake-blades: quartz
2 Flake-blades with retouch: quartz
2 Tertiary flakes: quartz
1 Drill: quartz
1 Burin: aphanitic siliceous rock
1 Burin: chert
1 Graver: aphanitic siliceous rock
1 Micro-burin: quartz
4 Burins: quartz
2 Sherds, fine sand, occasional quartz: net-impressed
4 Sherds, fine sand: net-impressed
2 Sherdlets: 1.2 g
Total: 31

General Range Collection Unit 61
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
1 Drill: quartz
2 Sherds, quartz sand: net-impressed
3 Sherds, fine sand, occasional quartz: net-impressed
4 Sherds, fine sand: net-impressed
1 Sherdlet: 2 g
Total: 13

General Range Collection Unit 62
1 Core with retouch: quartz
1 Shatter: quartz
1 Primary flake: quartz
1 Drill: quartz
1 Burin: quartz
1 Multiple tool: chert
1 Sherd, fine sand: net-impressed
Total: 7

General Range Collection Unit 63
1 Shatter: quartz
1 Primary flake with retouch: quartz
2 Flake-blades: quartz
1 Flake-blade with retouch: quartz

1 Chipped adze/wedge: quartz
1 Drill: quartz
1 Multiple tool: quartz
1 Sherd, quartz sand: net-impressed
2 Sherds, fine sand, occasional quartz: net-impressed
3 Sherds, fine sand: net-impressed
Total: 14

General Range Collection Unit 64
1 Primary flake with retouch: quartz
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
1 Snapped biface/wedge: quartz
1 Drill: quartz
1 Graver: quartz
2 Sherds, mica sand: net-impressed
Total: 8

General Range Collection Unit 65
1 Sherd, fine sand, occasional quartz: net-impressed
5 Sherds, fine sand: net-impressed
1 Sherdlet: 1.3 g
Total: 7

General Range Collection Unit 66
2 Flake-blades with retouch: quartz
1 Graver: quartz
4 Sherds, fine sand: net-impressed
Total: 7

General Range Collection Unit 67
Sterile

General Range Collection Unit 68
Sterile

General Range Collection Unit 69
Sterile

General Range Collection Unit 70
Sterile

General Range Collection Unit 71
1 Tertiary flake: quartz
3 Drills: quartz
1 Fire-cracked rock: quartz
1 Sherd, crushed quartz, silty: net-impressed
1 Sherd, quartz sand: net-impressed
5 Sherds, fine sand, occasional quartz: net-impressed
5 Sherds, fine sand: net-impressed
3 Sherdlets: 4 g
Total: 20

General Range Collection Unit 72
1 Core with retouch: quartz
1 Shatter: quartz

2 Flake-blades: quartz
1 Knife: quartz
2 Sherds, quartz sand: net-impressed
2 Sherds, fine sand: net-impressed
2 Sherdlets: 2.1 g
Total: 11

General Range Collection Unit 73
1 Primary flake with retouch: quartz
2 Flake-blades: quartz
1 Flake-blade with retouch: quartz
3 Drills: quartz
1 Biface/wedge: quartz
1 Projectile point, triangular: chalcedony
3 Burins: quartz
1 Nondescript tool: quartz
1 Multiple tool: chert
4 Sherds, quartz sand: net-impressed
3 Sherds, fine sand, occasional quartz: net-impressed
Total: 21

General Range Collection Unit 74
1 Core with retouch: quartz
1 Biface/multiple tool: quartz
1 Biface: quartz
1 Burin: quartz
1 Drill: quartz
1 Graver: chert
1 Sherd, silty leached: plain
1 Sherd, quartz sand: net-impressed
3 Sherds, fine sand: net-impressed
Total: 11

General Range Collection Unit 75
3 Flake-blades with retouch: quartz
1 Tertiary flake: quartz
3 Sherds, quartz sand: net-impressed
Total: 7

General Range Collection Unit 76
2 Pebbles: quartz
1 Sherd, fine sand, occasional quartz: net-impressed
Total: 3

General Range Collection Unit 77
1 Drill: quartz
3 Sherds, mica sand: net-impressed
Total: 4

General Range Collection Unit 78
1 Sherd, quartz sand: net-impressed
1 Sherd, fine sand: net-impressed
Total: 2

General Range Collection Unit 79
Sterile

General Range Collection Unit 80
    1 Biface: aphanitic siliceous rock
Total: 1

Excavation Unit 1, Field Specimen 1
    1 Core: quartz
    1 Multiple tool: quartz
    2 Drills: quartz
    1 Fire-cracked rock: quartz
    1 Cobble: quartz
    1 Flake-blade with retouch: felsite
    2 Sherds, crushed quartz, micaceous sand: net-impressed
    4 Sherds, crushed quartz, fine sand: net-impressed
    8 Sherds, quartz sand: net-impressed
    6 Sherds, fine sand: net-impressed
    1 Sherd, crushed quartz, silty: cord-marked
   16 Sherdlets: 12.8 g
Total: 44

Excavation Unit 1, Field Specimen 2
    1 Flake-blade with retouch: quartz
    2 Multiple tools: quartz
    1 Graver: quartz
    2 Fire-cracked rocks: quartz
    1 Retouched flake: felsite
    1 Side and end scraper: aphanitic siliceous rock
    1 Sherd, crushed quartz, micaceous sand: net-impressed
    4 Sherds, crushed quartz, fine sand: net-impressed
    6 Sherds, quartz sand: net-impressed
    1 Sherd, fine sand: net-impressed
    2 Sherds, fine sand: cord marked
    2 Sherds, fine sand: eroded
    1 Sherdlet: 1 g
Total: 25

Excavation Unit 1, Field Specimen 3
    1 Primary flake with retouch: felsite
    1 Tertiary flake: quartz
    6 Fire-cracked rocks: quartz
    1 Pebble: quartz
    1 Projectile point, Woodland: aphanitic siliceous rock
    1 Sherd, crushed quartz, micaceous sand: net-impressed
    2 Sherds, crushed quartz: net-impressed
    6 Sherds, quartz sand: net-impressed
    8 Sherds, fine sand: net-impressed
    1 Sherd, fine sand: eroded
    4 Sherdlets: 2.9 g
Total: 32

Excavation Unit 1, Field Specimen 4
    1 Sherdlet: 1.6 g
Total: 1

Excavation Unit 1, Field Specimen 5
    1 Sherd, quartz sand: net-impressed

Total: 1

Excavation Unit 1, Field Specimen 6
1 Multiple tool: quartz
Total: 1

Excavation Unit 1, Field Specimen 7
Sterile

Excavation Unit 1, Surface
1 Sherd, quartz sand: net-impressed
Total: 1

Excavation Unit 2, Field Specimen 1
1 Flake-blade with retouch: quartz
1 Flake-blade: felsite
1 Tertiary flake: quartz
1 Biface: quartz
1 Graver: quartz
1 Burin: quartz
3 Fire-cracked rocks: quartz
1 Sherd, crushed quartz: cord marked
1 Sherd, quartz sand, mica sand: net-impressed
1 Sherd, fine sand: net-impressed
Total: 12

Excavation Unit 2, Field Specimen 2
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
1 Multiple tool: quartz
1 Burin/graver: quartz
1 Graver: quartz
4 Micro-gravers: quartz
1 Micro-graver: quartzite
1 Fire-cracked rock: quartz
1 Sherd, fine clay, leached: net-impressed
1 Sherd, crushed quartz, quartz sand: net-impressed
2 Sherds, crushed quartz: cord marked
1 Sherd, crushed quartz: eroded
1 Sherd, quartz sand: net-impressed
2 Sherds, fine sand: eroded
2 Sherdlets: .6 g
Total: 21

Excavation Unit 2, Field Specimen 3
1 Primary flake with retouch: quartz
2 Flake-blades: chert
1 Flake-blade with retouch: felsite
1 Graver: quartzite
1 Graver and drill: quartz
2 Micro-gravers: quartz
1 Burin: quartz
1 Burin: fine grain siliceous rock
1 Primary flake: ground steatite
1 Sherd, crushed quartz: net-impressed
1 Sherd, crushed quartz, fine sand: net-impressed

8 Sherdlets: 8.5 g
Total: 21

Excavation Unit 2, Field Specimen 4
1 Retouched flake: chert
2 Micro-gravers: quartz
Total: 3

Excavation Unit 3, Field Specimen 1
3 Shatter: quartz
2 Tertiary flake: quartz
1 Fire-cracked rock: sandstone
4 Fire-cracked rocks: quartz
1 Sherd, crushed quartz and mica: eroded
4 Sherds, quartz sand: net-impressed
2 Sherds, fine sand: net-impressed
7 Sherdlets: 4.9 g
Total: 24

Excavation Unit 3, Field Specimen 2
3 Shatter: quartz
1 Primary flake with retouch: quartz
2 Flake-blades with retouch: quartz
1 Flake-blade with retouch: chert
1 Tertiary flake: quartz
2 Retouched flake: felsite
1 Drill: quartz
15 Fire-cracked rocks: quartz
1 Double graver: quartz
6 Sherds, quartz sand: net-impressed
1 Sherd, fine sand: eroded
8 Sherdlets: 8.5 g
Total: 42

Excavation Unit 3, Field Specimen 3
1 Core with retouch: quartz
1 Shatter: quartz
2 Flake-blades: felsite
1 Flake-blade with retouch: chert
1 Flake-blade with retouch: felsite
1 Graver: quartz
1 Multiple tool: quartz
7 Fire-cracked rocks: quartz
1 Cobble
3 Sherds, quartz sand: eroded
3 Sherds, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
2 Sherds, fine sand: net-impressed
18 Sherdlets: 6.2 g
Total: 43

Excavation Unit 3, Field Specimen 4
1 Primary flake with retouch: felsite
1 Drill: aphanitic siliceous rock
1 Fire-cracked rock: quartz
1 Sherd, fine sand, occasional quartz: net-impressed

2 Sherds, fine sand: net-impressed
Total: 6

Excavation Unit 3, Field Specimen 5
1 Graver: quartz
Total: 1

Excavation Unit 4, Field Specimen 1
6 Shatter: quartz
2 Primary flakes with retouch: quartz
3 Flake-blades: felsite
2 Flake-blades with retouch: quartz
1 Flake-blade with retouch: chert
1 Flake-blade with retouch: felsite
1 Burin: quartz
1 Drill: quartz
19 Fire-cracked rocks: quartz
1 Fire-cracked rock: sandstone
4 Sherds, mica sand: net-impressed
1 Sherd, crushed quartz, silty: net-impressed
3 Sherds, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
10 Sherds, fine sand: net-impressed
13 Sherdlets: 12.1 g
Total: 69

Excavation Unit 4, Field Specimen 2
2 Shatter: quartz
1 Burin: quartz
25 Fire-cracked rocks: quartz
1 Fire-cracked rock: sandstone
3 Sherds, mica sand: net-impressed
2 Sherds, quartz sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
10 Sherds, fine sand: net-impressed
8 Sherdlets: 8.7 g
Total: 53

Excavation Unit 4, Field Specimen 3
1 Core with retouch: quartz
1 Nondescript tool: quartz
1 Sherd, mica sand: net-impressed
2 Sherdlets: 1.6 g
Total: 5

Excavation Unit 5
1 Multiple tool, graver and burin: quartz
2 Fire-cracked rocks: quartz
1 Sherd, quartz sand: net-impressed
Total: 4

Excavation Unit 6
1 Primary flake with retouch: quartz
1 Biface, wedge: quartz
Total: 2

Excavation Unit 9
    1 Sherd, fine sand, occasional quartz: net-impressed
Total: 1

Excavation Unit 10
    3 Sherdlets: 1.2 g
Total: 3

Excavation Unit 13
    1 Sherd, crushed quartz, silty: net-impressed
    1 Sherdlet: .5 g
Total: 2

Excavation Unit 14
    1 Burin: quartz
Total: 1

Total Artifacts: 2328

44Pk226

Archeology Laboratories Site: AL151

44Pk226 was a prehistoric site located on a terrace overlooking Widgeon Creek. The vegetation consisted of mixed hardwoods, but a measure of ground surface visibility was available on the west side of the site due to a road cut. A series of six .5 m testpits were dug to determine the site boundaries. These pits revealed brown sandy loam to 30 cm over clayey sand to 50 cm over coarse sand and gravel. An auger test struck water at 67 cm below ground surface. No cultural stratigraphy or features were noted. Artifacts, quartz debris and ceramics, were recovered to 30 cm below surface in three of the .5 m testpits.

Should Damsite "A" or "B" be chosen for construction, this site will be affected only periodically by flooding and wave wash. Should Damsite "C" be chosen the site will be flooded.

1. Soil Type: Sandy loam over clay sand over sand and gravel.

2. Distance to Water: Widgeon Creek is located 30 m to the northeast.

3. Cultural Affiliation: Prehistoric, Middle Woodland.

4. Stratigraphic Condition: Disturbed by alluviation and road construction.

5. State of Preservation: Poor.

6. Areal Extent: 10 m north-south; 5.5 m east-west

7. Elevation: 1160 feet AMSL

8. Slope: 8 degrees

9. Exposure: East

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
8 Sherdlets: 6.4 g
1 Fire-cracked rock: quartz
Total: 9

Excavation Unit 3
1 Core with retouch: quartz
Total: 1

Excavation Unit 5
1 Core: quartz
Total: 1

Total Artifacts: 11

44Pk227

Archeology Laboratories Site: AL152

44Pk227 was a prehistoric site located in the floodplain on the west side of Widgeon Creek. The vegetation included mixed conifers and hardwoods with numerous raspberry thickets, providing no surface visibility. The site boundaries were determined by seven .5 m testpits which revealed brown sandy silt loam to 62 cm over mottled brown, gray and rust sandy clay silt. No culturally derived stratigraphy or features were noted.

All artifacts were recovered in three .5 m testpits between 17 and 32 cm below surface, and these consisted solely of quartz and felsite debris, probably redeposited by Widgeon Creek.

Should Damsite "A" or "B" be chosen for construction, this site will experience only periodic flooding and wave wash as a result of high water levels. Should Damsite "C" be chosen for construction, the site will be inundated.

1. Soil Type: Sandy silt loam over mottled sandy clay silt.

2. Distance to Water: Widgeon Creek is located 83 m to the east.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Disturbed as a result of alluvial action.

5. State of Preservation: Poor.

6. Areal Extent: 6 m north-south; 15 m east-west

7. Elevation: 1170 feet AMSL

8. Slope: 10 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Core: quartz
Total: 1

Excavation Unit 3
1 Shatter: quartz
1 Flake-blade: quartz
1 Tertiary flake: quartz
Total: 3

Excavation Unit 4
1 Flake-blade: chalcedony
1 Flake-blade with retouch: chalcedony
Total: 2

Total Artifacts: 6

44Pk230

Archeology Laboratories Site: AL153

44Pk230 was a prehistoric site located on a slight rise on the floodplain of Widgeon Creek. The vegetation consisted of mixed conifers and hardwoods with numerous raspberry thickets, allowing no surface visibility. The site boundaries were determined by a series of seven .5 m testpits. These pits revealed brown, slightly clayey sandy silt to 46 cm over reddish brown, hard-packed sandy clay. No culturally derived stratigraphy or features were noted.

Artifacts were recovered within three of the testpits between 19 and 26 cm below surface. These consisted of ceramics and fire-cracked rocks; no diagnostic lithics were recovered.

This site will only periodically be affected by flooding should Damsite "A" or "B" be chosen for construction. Should Damsite "C" be chosen for construction, it will be flooded.

1. Soil Type: Clayey sandy silt over sandy clay.

2. Distance to Water: Widgeon Creek is located 86 m to the east.

3. Cultural Affiliation: Prehistoric, early Late Woodland.

4. Stratigraphic Condition: Disturbed as a result of alluvial action.

5. State of Preservation: Poor.

6. Areal Extent: 3 m north-south; 26 m east-west

7. Elevation: 1170 feet AMSL

8. Slope: 1 degree

9. Exposure: Northeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Sherd, fine sand: cord-marked, eroded
Total: 1

Excavation Unit 2
1 Sherd, crushed quartz, micaceous sand: net-impressed, eroded
Total: 1

Excavation Unit 3
1 Primary flake: quartz
Total: 1

Total Artifacts: 3

44Pk231

Archeology Laboratories Site: AL154

44Pk231 was a prehistoric site located on a gradual slope overlooking Widgeon Creek, in dense scrub growth mixed with conifers. Surface visibility was very poor, and site boundaries were defined by a series of 16 .5 m testpits. These pits revealed reddish brown sandy clay immediately becoming hard-packed at 20 cm below surface over red sandy clay. No culturally derived stratigraphy or features were noted.

Artifacts were recovered within nine of the pits between 15

and 23 cm below surface, and included felsite, chert, chalcedony and quartz debris, steatite and ceramics.

Should Damsites "A" or "B" be chosen for construction, this site will not be affected by the proposed project. Should Damsite "C" be chosen for construction, this site will possibly be affected periodically by wave wash during high water levels.

1. Soil Type: Sandy clay over clay.

2. Distance to Water: Widgeon Creek was located 50 m to the south.

3. Cultural Affiliation: Prehistoric, possibly Late Archaic, Early Woodland.

4. Stratigraphic Condition: Eroded.

5. State of Preservation: Poor; disturbed from timbering and erosion.

6. Areal Extent: 81 m north-south; 36 m east-west

7. Elevation: 1210 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Flake-blade with retouch: quartz
Total: 1

Excavation Unit 2
1 Tertiary flake: quartz
Total: 1

Excavation Unit 4
1 Flake-blade: chert
Total: 1

Excavation Unit 7
1 Flake-blade: chalcedony
Total: 1

Excavation Unit 9
1 Core: quartz
Total: 1

Excavation Unit 10
1 Fire-cracked rock: chalcedony

Total: 1

Excavation Unit 11
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
1 Biface: felsite
Total: 3

Excavation Unit 13
1 Flake-blade: quartz
1 Tertiary flake: quartz
2 Flake-blades: siliceous rock
1 Retouched flake: siliceous rock
Total: 5

Excavation Unit 14
2 Shatter: quartz
1 Tertiary flake: siliceous rock
1 Fragment: steatite
1 Sherdlet: .9 g
Total: 5

Total Artifacts: 19

44Pk232

Archeology Laboratories Site: AL155

44Pk232 was a prehistoric site located on a slight rise in the floodplain of Widgeon Creek, at its confluence with an unnamed drainage. The vegetation consisted of dense tangles of weeds mixed with thickets of raspberries -- surface visibility was almost zero. Eight .5 m testpits were dug to determine the site boundaries. These revealed brown sandy silt to 55 cm, over mottled dark brown sandy clay with rust and gray streaks. No culturally derived stratigraphy or features were noted.

Artifacts were found in five of the testpits between 3 and 37 cm below surface, and included chert, quartz, jasper and felsite debris and ceramics. No diagnostic lithics were found.

Should Damsite "A" or "B" be chosen for construction, this site will be only periodically affected by flooding during periods of high water levels. Should Damsite "C" be chosen, this site will be covered by water.

1. Soil Type: Sandy silt over mottled sandy clays.

2. Distance to Water: Widgeon Creek was located 9.8 m to the south.

3. Cultural Affiliation: Prehistoric, Middle Woodland, Late Woodland.

4. Stratigraphic Condition: Disturbed due to alluvial action.

5. State of Preservation: Poor.

6. Areal Extent: 21 m north-south; 30 m east-west

7. Elevation: 1190 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 3
1 Primary flake with retouch: siliceous rock
Total: 1

Excavation Unit 4
1 Flake-blade: quartz
1 Flake-blade: chert
1 Flake-blade with retouch: quartz
1 Graver: quartz
1 Sherd, quartz sand: net-impressed
1 Sherdlet: 1.4 g
1 Flake-blade: brown jasper
Total: 7

Excavation Unit 5
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
Total: 2

Excavation Unit 6
1 Tertiary flake: siliceous rock
2 Burins: quartz
1 Fire-cracked rock: quartz
1 Sherd, crushed quartz, quartz sand: net-impressed
Total: 5

Excavation Unit 8
1 Drill: quartz
1 Fire-cracked rock: quartz
Total: 2

Total Artifacts: 17

44Pk233

Archeology Laboratories Site: AL156

44Pk233 was a prehistoric site located in a recently logged area adjacent to Widgeon Creek. The vegetation was mixed grasses and wildflowers, with most of the site exposed in an old logging road and a cleared staging area. 100% ground surface visibility was available in this area south of Widgeon Creek, but the same area has experienced severe erosion with red clay exposed on the ground surface.

Three .5 m testpits were dug north of the logging road in order to define the site boundaries. These pits revealed red sandy clay to 8 cm over red clay. All of these pits were sterile. The site was not point-plotted because of the disturbance evident in the area. Artifacts were collected in ten 10 m square collection units, and include quartz, chert, chalcedony and felsite debris.

Should Damsite "A" or "B" be chosen for construction, this site will be affected only periodically by flooding during extreme water levels. Should Damsite "C" be chosen the site will be affected by flooding.

1. Soil Type: Red clay.

2. Distance to Water: Widgeon Creek was located 23.3 m to the south of this site.

3. Cultural Affiliation: Prehistoric, Middle Woodland.

4. Stratigraphic Condition: Heavily eroded.

5. State of Preservation: Poor; site highly disturbed by erosion.

6. Areal Extent: 8.8 m north-south; 79 m east-west

7. Elevation: 1200 feet AMSL

8. Slope: 7 degrees

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

General Range Collection Unit 1
1 Sherd, fine clay, no visible temper: eroded surface, holes where temper has leached out
Total: 1

General Range Collection Unit 2
1 Flake-blade with retouch: quartz
1 Tertiary flake: quartz
Total: 2

General Range Collection Unit 3

1 Core with retouch: quartz
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
1 Drill: chert
Total: 4

General Range Collection Unit 4
1 Flake-blade with retouch: quartz
Total: 1

General Range Collection Unit 6
1 Flake-blade: chert
1 Sherd, crushed quartz, quartz sand: cord-marked, eroded
Total: 2

General Range Collection Unit 7
1 Shatter: quartz
1 Primary flake with retouch: quartz
1 Flake-blade: quartz
1 Tertiary flake: quartz
1 Shatter: chert
1 Retouched flake: chert
Total: 6

General Range Collection Unit 8
1 Core with retouch: chert
1 Flake-blade: chert
1 Flake-blade with retouch: chalcedony
1 Flake with retouch: chert
Total: 4

General Range Collection Unit 9
1 Flake-blade with retouch: quartz
1 Core: chert
2 Flake-blades: chert
1 Flake-blade: siliceous rock
2 Flakes with retouch: chert
1 Flake with retouch: siliceous rock
Total: 8

General Range Collection Unit 10
1 Flake-blade: quartz
Total: 1

Total Artifacts: 29

44Pk234

Archeology Laboratories Site: AL157

44Pk234 was a prehistoric site located on a slight rise in the floodplain of the Smith River, near its confluence with Widgeon Creek. The vegetation consisted of mixed grasses and composite wildflowers. No surface visibility was available within the area surrounding the site, and boundaries were

determined by a series of ten .5 m testpits. These revealed yellow brown silty sand to 29 cm, over grayish brown silty sand to 1.05 m over coarse mottled tan sand. No culturally derived stratigraphy or features were noted.

Artifacts were recovered within seven testpits between 3 and 33 cm below surface. These include jasper, quartz and chert debris, ceramics and fire-cracked rocks. No diagnostic lithics were found.

Should Damsite "A" or "B" be chosen for construction, this site will be affected only periodically by flooding as a result of high water levels. Should Damsite "C" be chosen for construction, the site will be inundated.

1. Soil Type: Silty sand over coarse sands.

2. Distance to Water: The Smith River was located 150 m to the south.

3. Cultural Affiliation: Prehistoric, Middle Woodland.

4. Stratigraphic Condition: Natural alluvial deposition.

5. State of Preservation: Poor; artifacts are mixed in alluvium with no distinct cultural zones.

6. Areal Extent: 255 m northwest-southeast; 30 m northeast-southwest

7. Elevation: 1170 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Tertiary flake: jasper
1 Sherd, crushed quartz: net-impressed, eroded
Total: 2

Excavation Unit 2
1 Biface: quartz
Total: 1

Excavation Unit 3
1 Core: quartz, heated
1 Sherd, quartz sand, hornblende: net-impressed, eroded
Total: 2

Excavation Unit 4
1 Flake-blade: siliceous rock

2 Sherdlets: 2 g
Total: 3

Excavation Unit 5
1 Flake-blade: chert
1 Flake-blade: siliceous rock
1 Flake-blade with retouch: siliceous rock
1 Flake with retouch: chert
1 Fire-cracked rock: quartzite
1 Coil fragment: orange clay
2 Sherdlets: .7 g
Total: 8

Excavation Unit 7
1 Flake with retouch: chert
Total: 1

Excavation Unit 10
2 Shatter: quartz
2 Gravers: quartz
6 Tertiary flakes: quartz
1 Shatter: siliceous rock
1 Flake-blade: agate/jasper, heated
1 Fire-cracked rock: quartzite
1 Sherdlet: .6 g
Total: 14

Total Artifacts: 31

44Pk235

Archeology Laboratories Site: AL158

44Pk235 was a prehistoric site located on a rise within a terrace overlooking the Smith River. The vegetation was mixed grasses (the site was used as a cow pasture). Surface visibility was very poor, and nine .5 m testpits were dug to define the site boundaries. These showed hard-packed brown sandy loam to 16 cm over reddish brown clayey sand to 44 cm, over reddish brown sandy clay to 75 cm below ground surface. An auger test was made to check for the presence of deeply buried remains, but only showed reddish brown sandy clay continuing to 1.28 m, over yellow brown sand and clay to 1.64 m below surface over inpenetrable rock. No culturally derived stratigraphy or features were noted.

Artifacts were recovered within four of the pits to a depth of 35 cm below surface. These consist of chert, chalcedony, and quartz debris and a Middle Archaic projectile point. No ceramics were found.

Should Damsite "A" or "B" be chosen for construction, this site will be affected only periodically by flooding during high water levels. Should Damsite "C" be chosen for construction, this site will be inundated.

1. Soil Type: Sandy loam over clayey sand over sandy clay over sand and clay.

2. Distance to Water: The Smith River was located 23 m to the southwest.

3. Cultural Affiliation: Prehistoric, Middle Archaic.

4. Stratigraphic Condition: Natural stratigraphy noted. No culturally derived deposits noted.

5. State of Preservation: Poor; artifacts have possibly eroded in from upslope.

6. Areal Extent: 135 m northeast-southwest; 30 m northwest-southeast

7. Elevation: 1150 feet AMSL

8. Slope: 1 degree

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Flake-blade: chalcedony
2 Flakes with retouch: chert
2 Flakes with retouch: chalcedony
1 Burin: quartz
3 Shatter: quartz
1 Flake-blade: quartz
1 Tertiary flake: quartz
Total: 11

Excavation Unit 3
1 Core: quartz
4 Shatter: quartz
1 Primary flake with retouch: chert
Total: 6

Excavation Unit 4
1 Projectile point, Guilford: siliceous rock
Total: 1

Excavation Unit 7
1 Flake-blade with retouch: quartz
Total: 1

Total Artifacts: 19

44Pk236

Archeology Laboratories Site: AL159

44Pk236 was a prehistoric site at the base of a small hill on a terrace overlooking the Smith River. The area supported mixed grasses and was being used as a cow pasture, allowing no ground surface visibility. Seven .5 m testpits were dug to determine the site boundaries. These pits revealed brown sandy clay to 22 cm over red sandy clay. Additional subsurface tests showed mottled brown clayey loam and reddish brown loamy clay between 40 and 52 cm below surface over mottled yellowish brown clay and gray sandy clay. No culturally derived stratigraphy or features were noted. 44Pk236 is located within a terraced area that had been scoured in the past by the Smith River. Subsurface tests indicated a great deal of topsoil from the slopes surrounding this terrace had eroded onto the area, and artifacts recovered likely washed into the area from upslope.

Artifacts were found within four pits to 13 cm below surface, and consisted of chert, felsite and quartz debris. No diagnostic lithics or ceramics were recovered.

Should Damsite "A" or "B" be chosen for construction, this site will be only periodically affected by flooding during high water levels. Should Damsite "C" be chosen for construction, this site will be flooded.

1. Soil Type: Sandy clay over mottled clayey loam over mottled clay and sand.

2. Distance to Water: The Smith River was located 15 m southeast of the site.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: Alluvial deposits overlain by colluvium.

5. State of Preservation: Poor; artifacts eroded into the area.

6. Areal Extent: 65 m north-south; 30 m east-west

7. Elevation: 1150 feet AMSL

8. Slope: 1 degree

9. Exposure: South

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
1 Retouched flake: chert

Total: 1

Excavation Unit 1
1 Primary flake with retouch: quartz
1 Flake-blade: felsite
1 Tertiary flake: quartz
1 Tertiary flake: chert
Total: 4

Excavation Unit 3
1 Primary flake with retouch: quartz
Total: 1

Excavation Unit 4
1 Flake-blade with retouch: quartz
Total: 1

Excavation Unit 6
1 Primary flake: siliceous rock
1 Flake-blade: quartz
2 Fire-cracked rocks: quartz
Total: 4

Total Artifacts: 11

44Pk237

Archeology Laboratories Site: AL160

44Pk237 was a prehistoric site located on the floodplain of an unnamed drainage of the Smith River. The vegetation was conifers and mixed hardwoods which allowed no ground surface visibility. Six .5 m testpits were dug to determine site boundaries. These pits revealed brown clayey sand to 21 cm over red sandy clay mottled with hematite. No culturally derived stratigraphy or features were noted, and the soil was very rocky.

Artifacts were recovered within three testpits between 0 to 20 cm below ground surface, including quartz and felsite debris and an isolated historic potsherd. No diagnostic lithics or prehistoric ceramics were recovered.

Should Damsite "A" or "B" be chosen for construction, this site will be affected only periodically by flooding. Should Damsite "C" be chosen for construction, this site will be inundated.

1. Soil Type: Clayey sand over sandy clay.

2. Distance to Water: An unnamed drainage of the Smith River was located 20 m to the west of the site.

3. Cultural Affiliation: Prehistoric, historic

4. Stratigraphic Condition: Natural colluvial stratigraphy.

5. State of Preservation: Poor.

6. Areal Extent: 15 m northwest-southeast; 10 m northeast-southwest

7. Elevation: 1190 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Tertiary flake: siliceous rock
1 Tertiary flake: felsite
1 Triangular biface: quartz
Total: 3

Excavation Unit 5
1 Primary flake with retouch: quartz
Total: 1

Excavation Unit 7
1 Sherd, historic: pearlware
Total: 1

Total Artifacts: 5

44Pk242

Archeology Laboratories Site: AL162

44Pk242 was a prehistoric site located on a small sand bar at a sharp bend in the Smith River, in an area which had been generally disturbed by alluvial action and land clearing activities. The vegetation consisted only of small amounts of mixed grasses and raspberry bushes -- a majority of the area surrounding the site has been cleared and converted into a campground, and surface visibility was good. Six .5 m testpits were dug to determine the site boundaries. These revealed homogeneous reddish brown sand to 90 cm, over sand and pebbles to 1.69 m, over brown sand with rust streaks continuing past 2 m below surface. No culturally derived stratigraphy or features were present.

Artifacts were found in three of the testpits between 20 and 80 cm below surface. These consist of quartz and felsite debris and ceramics. No diagnostic lithics were recovered.

The site would be inundated by all three project alternatives.

1. Soil Type: Homogeneous sand over sand and pebbles over mottled sands.

2. Distance to Water: The Smith River was located 22 m to the southeast.

3. Cultural Affiliation: Prehistoric, early Late Woodland.

4. Stratigraphic Condition: Disturbed as a result of alluviation and land clearing activities.

5. State of Preservation: Poor; artifacts probably washed into the point bar.

6. Areal Extent: 15 m north-south; 15 m east-west

7. Elevation: 1150 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
1 Shatter: quartz
1 Primary flake with retouch: siliceous rock
2 Flake-blades: siliceous rock
1 Flake-blade: quartz
1 Flake-blade with retouch: quartz
1 Retouched flake: quartz
Total: 7

Excavation Unit 2
1 Shatter: quartz
Total: 1

Excavation Unit 3
1 Sherdlet: .4 g
Total: 1

Total Artifacts: 9

44Pk9

44Pk9 was the only previously recorded site within the boundaries of the survey area on file with the Virginia Historic Landmarks Commission. This site was originally recorded in 1966 by Mr. R. P. Gravely, Jr. of Martinsville, Virginia and was revisited in 1973. The site was on the tip

of a small peninsula extending into the Smith River, at the base of a large Pleistocene terrace system. The soil was described by Gravely as sandy clay to 38 cm over an old "A" soil horizon. Ceramics, which included sand and crushed quartz tempered, knot and net-impressed, cord and fabric marked, corncob impressed and smoothed surface wares, were noted over a large portion of the site. Stone celts, "grubbing tools," picks, a chert serrated triangular projectile point and a white quartzite scraper were also collected. Shell fragments, burned deer bone and bits of antler were reported on the surface.

One shallow bowl-shaped feature was excavated by Gravely. It measured 1.2 m by 1.1 m by 46 cm in depth and contained ash, charcoal, sherds, cracked stone and burned animal bone. Gravely described 44Pk9 as a medium sized village site. The Smith River was 15 m east of the site.

This site was relocated by the Charity Lake fieldcrew and tested using a bucket auger, profiles along the bank of the Smith River, and two 1 m by 2 m test pits (Figure 18). The site dimensions were 140 m on the east to west axis and 82 m on the north-south axis.

The east to west axis was determined by 7 of 11 profiles cut into the shoreline bordering the present level of Philpott Lake (Figure 18), which has largely inundated the old bed of the Smith River at this point. These profiles revealed recent alluvium overlying culturally derived strata in Profiles 2 - 7, and recent alluvium overlying red/brown clayey colluvium and culturally derived strata in Profiles 8 - 10. Profile 11 revealed eroded colluvial soils only. The profiles also revealed two distinct middens, beginning with an upper cultural layer ("dark sand") in Profile 2, and overlapping a very dark sand cultural layer in Profile 3 (Figure 19). This lower midden stratum then continues to the west as far as profile 10. The two midden strata are embedded within a rather complex series of alluvial and colluvial soils, the complexity due, no doubt, to cutting and filling by the Smith River combined with occasional colluvial wash from the slope to the south.

The north to south axis of the site was determined by a series of auger tests (Figure 18). These tests were used to track the cultural strata across the terrace toward the base of the slope. Auger tests 34-37, 47-50 and 53-55 did not reveal cultural strata and are not illustrated. The ground surface south of Profiles 1 and 2 was too wet to allow auger testing. Of the auger points plotted in Figure 18 actual tests were made only in the following units:

Auger Test Point #

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 32, 33, 34, 36, 37, 38, 40, 42, 44, 46, 52

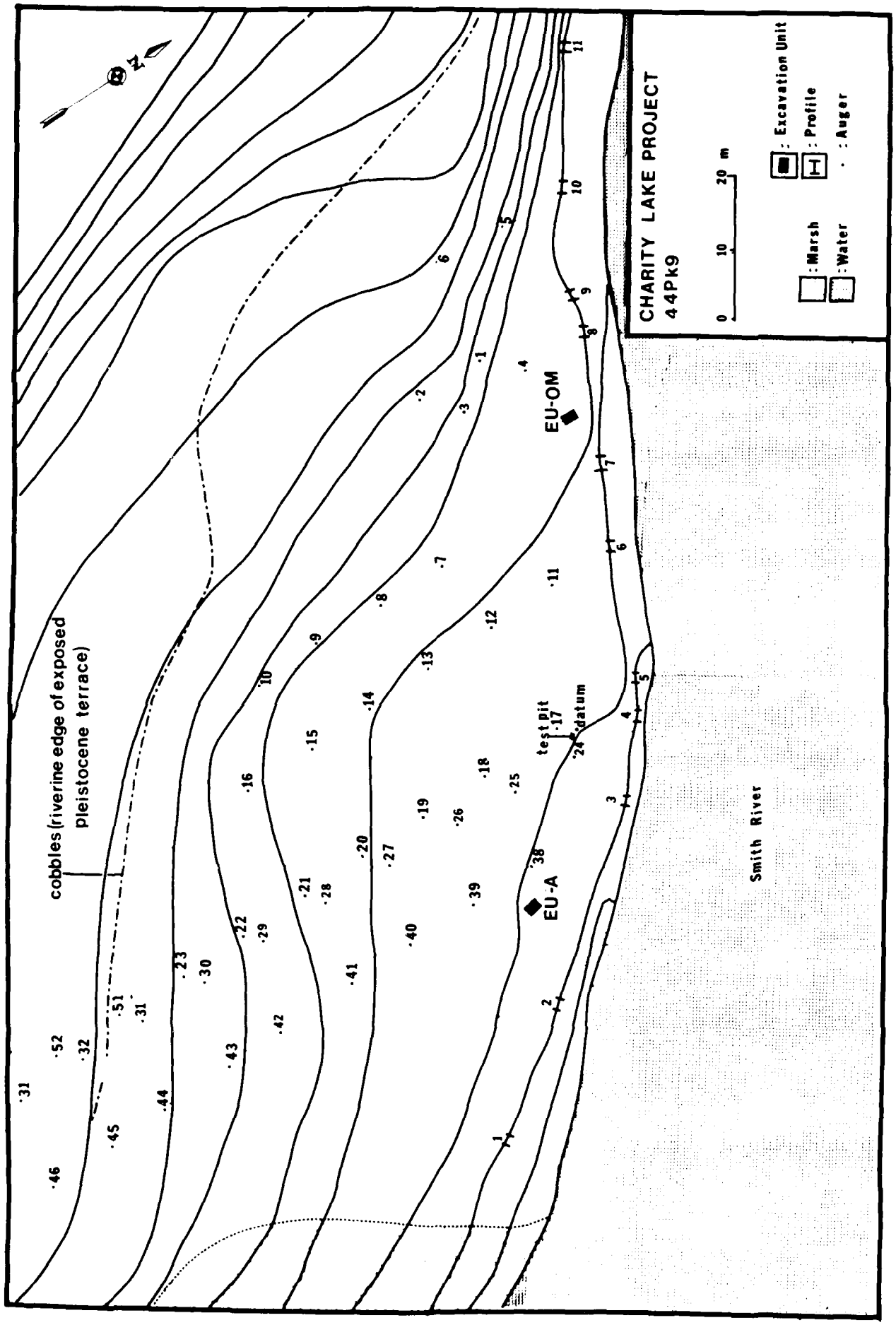
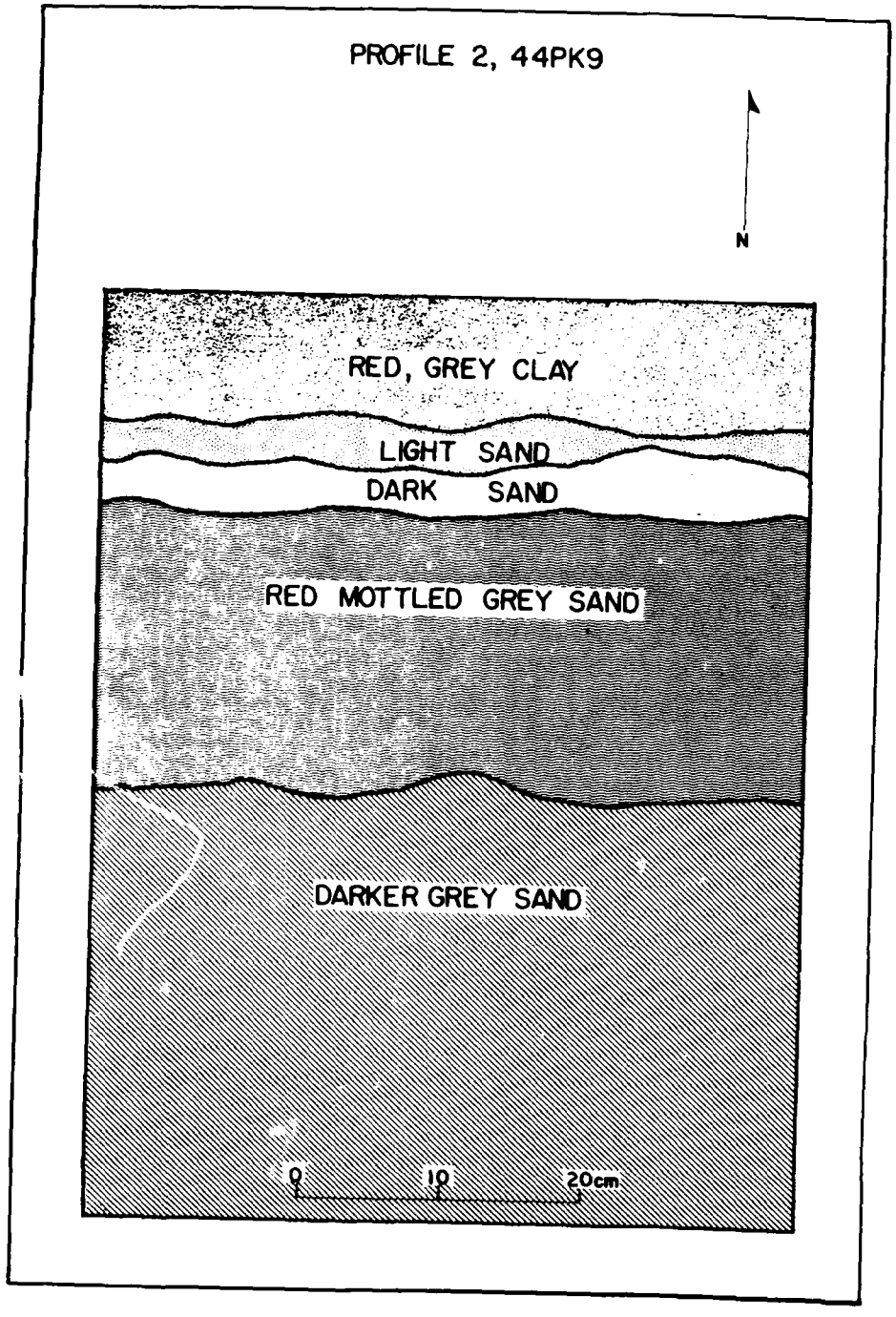


Figure 18. Site Map, 44Pk9, USRB, Virginia.



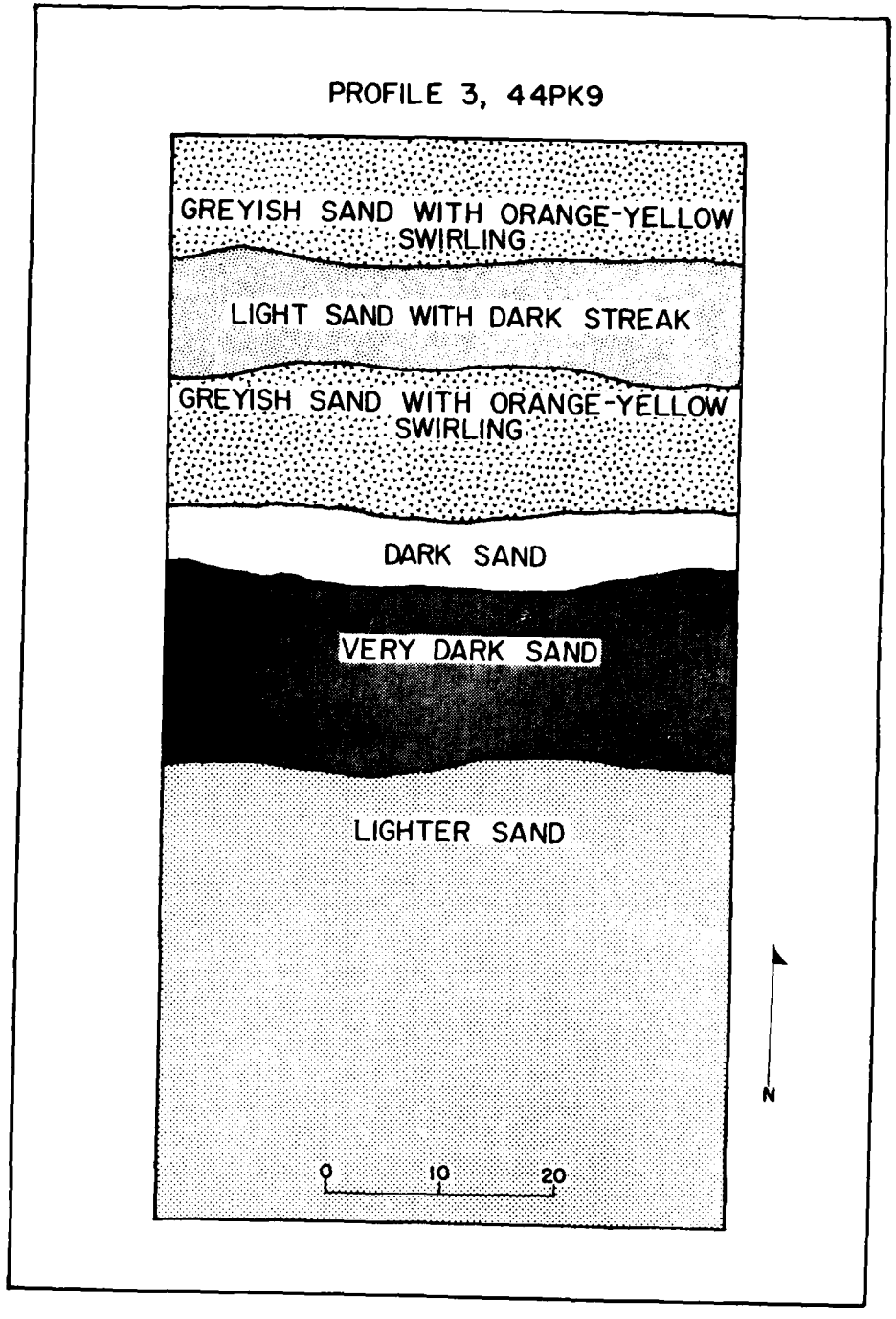


Figure 19. Profiles of Shoreline Cutbank, 44Pk9, USRB, Virginia.

Soil pH tests were made on selected samples from the auger tests (Table X).

Table X. Soil pH, 44Pk9 Auger Tests, USRB

Auger #	ph
3	4.50
4	4.25
6	4.85
7	4.80
8	4.65
12	4.45
13	4.50
14	5.55
15	4.20
16	3.80
17	4.40
18	4.60
20	4.60
23	4.40
25	4.75
27	4.60
31	4.35
32	4.60
33	4.40
34	4.40
37	5.70

The mean pH from these samples is 4.37.

One 50 x 75 cm testpit initially was dug southeast of Profile 4. This pit revealed sterile clay silt mixed with decaying vegetation to 35 cm over sterile mottled gray sandy clay silt to 52 cm over dark sandy soil (midden) with sherds, lithics, and some faunal material. This pit was closed at 75 cm below surface, at a point where the soil was lighter in color and more moist with diminishing quantities of artifacts. 44Pk9 was further tested using two 1 x 2 m test units, EU A and EU OM (Figure 18). These units were dug in 10 cm levels or stratigraphically as determined by features encountered, with all pit fill screened through .25 inch mesh.

Excavation Unit A revealed numerous layers of recent alluvium over a dark gray, hard-packed midden (Figure 20). A hard-packed red clay feature was located in the northern end of the unit 3 cm below the top of the midden, extending across the entire northern portion of the unit and disappearing into the three walls. A large quantity of ceramics was recovered from this unit and have been discussed in detail in the ceramic analysis portion of this report. In addition to ceramics, a wide range of lithics also were recovered. Two distinct types of fire-cracked rocks were found at levels within the midden 20 cm apart and possibly indicate the remnants of two hearths. Excavation Unit A was

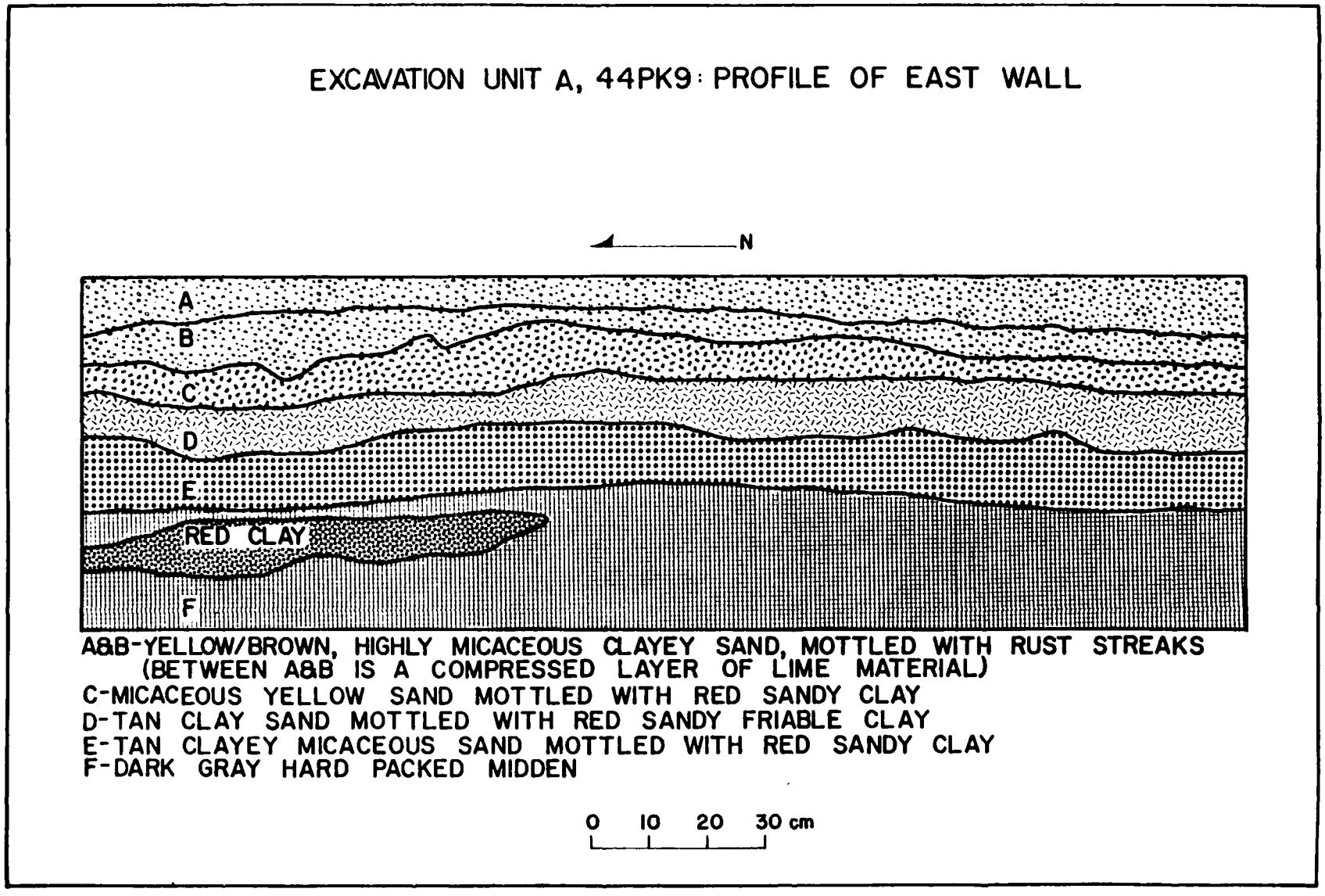


Figure 20. 44Pk9, EUA, Profile of Strata, USRB, Virginia.

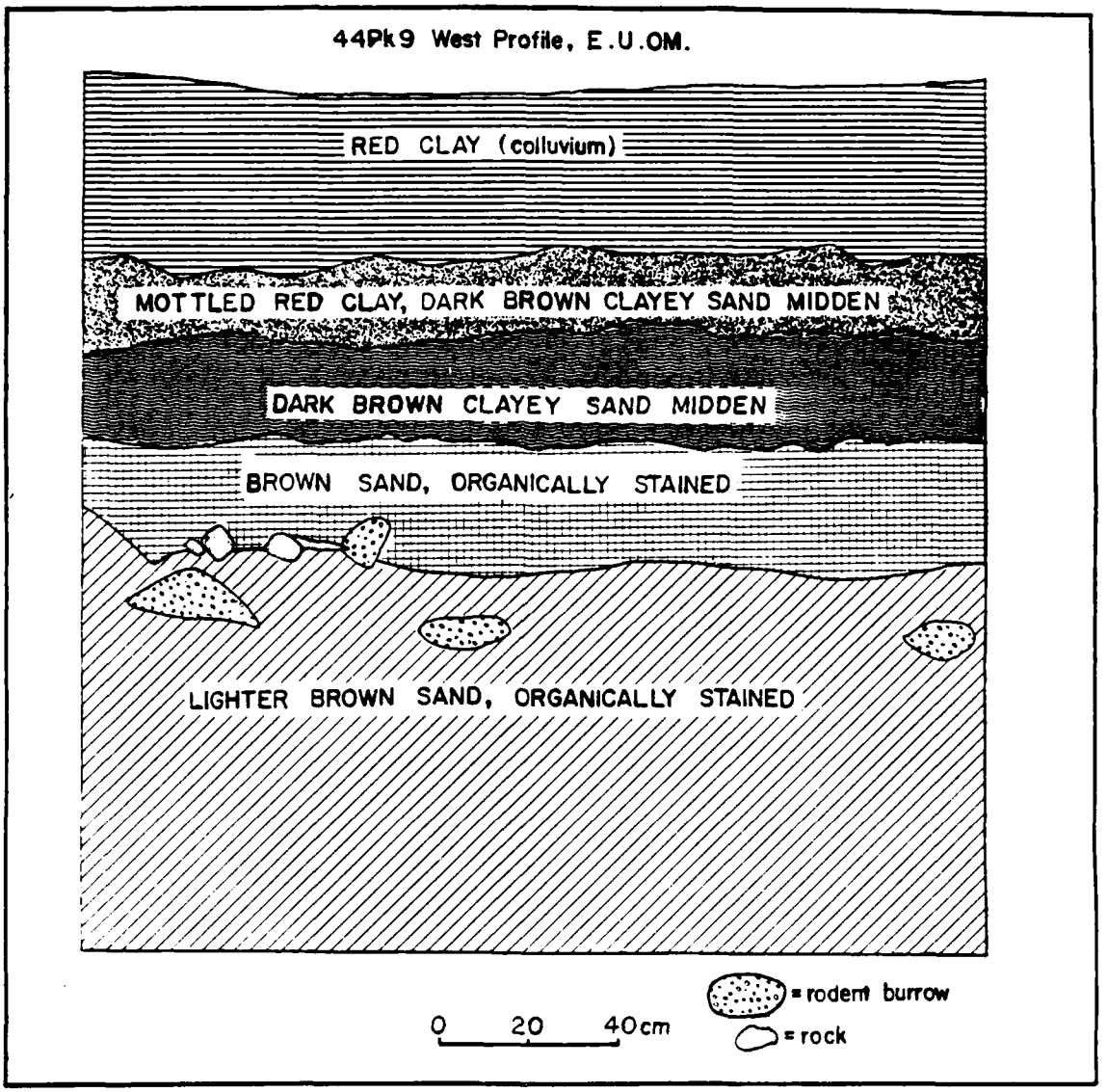


Figure 21. 44Pk9, EU-OM, Profile of Strata, USRB, Virginia.

dug to 60 cm below surface but was not completed due to an increase in the level of Philpott Lake which inundated the area and made further excavation impossible. The midden exposed in this unit is represented in the profiles as the upper or later unit. A C-14 sample from EU A's midden (FS6)was dated to 740±90 radiocarbon years (Beta-14053), corrected to A.D. 1202 (Damon, Ferguson, Long and Wallik 1974).

Excavation Unit OM revealed recent colluvium overlying a midden of mottled clay and clayey sand. A dark brown clayey sand midden was encountered beneath the colluvial overburden (Figure 21). No intact features were noted other than the possible remnants of a hearth located within the midden. Numerous rodent borrows were noted throughout the excavation unit. The unit was excavated to 1.96 m in depth to light brown sand with traces of rodent borrows. Most of the artifacts from this unit were lithics as opposed to the high incidence of ceramics from EU A. The upper portion and lower portion of this midden yielded two C-14 dates: 1060±90 (Beta-14054) and 1440±100 (Beta-14055) radiocarbon years, respectively. These dates are corrected to A.D. 960 and A.D. 540 (Damon, Ferguson, Long and Wallick 1974). Excavation Unit OM was not excavated beyond 1.96 m as a result of seepage from Philpott Lake.

Faunal preservation was poor. A few fragments of bone were recovered from Excavation Unit A; however, the numerous rodent borrows in Excavation Unit OM suggest a once-rich midden. Soil tests on samples for various levels of both units revealed an average pH of 4.65 (Table XI).

Table XI. Soil pH, 44Pk9, Excavation Units, USRB

EU-Level	ph
A-2	4.60
A-4	4.35
A-4	4.40
A-5	4.40
OM-3	4.15
OM-5	4.65
OM-7	4.75
OM-8	4.70
OM-9	4.80
OM-11	5.10
OM-13	5.25

44Pk9 reveals two intact midden deposits and subsurface features of an upland Woodland site similiar to the hamlets discussed by Gardner (1981) and Taylor (1984). At present the site is being severly affected by the oscillating water levels of Philpott Lake and erosion caused by the increase in the width of the Smith River channel. A 1939 map shows the

the Smith River at Pk9 was located below the 960 foot AMSL contour; presently the lake level fluctuates between 971.5 - 973.5 feet AMSL (R. Lewis, Personal Communication).

On August 21, 1985 the site was 60-70% inundated by a rise in the level of Philpott Lake due to heavy rains. The level of the lake was reported to have risen to 977 feet AMSL on that day (R. Lewis, Personal Communication). General range collections were made in the early summer of 1985 on the narrow beach between the bank and water line, during a period of low water levels. These collections recovered numerous artifacts eroded out of context less than 2 m from the bank. Presently it is impossible to determine how much of the site has been destroyed by Philpott Lake; however, the increase in the width of the Smith River may have destroyed as much as 32,000 square m of the site by erosion.

1. Soil Type: Red clay over sand, recent alluvium over sand.

2. Distance to Water: Philpott Lake is adjacent to the site.

3. Cultural Affiliation: Middle-Late Woodland.

4. Stratigraphic Condition: Culturally derived strata were noted in testpits.

5. State of Preservation: A portion of the site remains intact; however, the action of Philpott Lake greatly jeopordizes the survival of this site.

6. Areal Extent: 82 m north-south; 140 m east-west.

7. Elevation: 975-978 feet AMSL

8. Slope: 1 degree

9. Exposure: Northeast

10. Condition of Features: Intact cultural features present, condition good.

Artifacts Collected

Excavation Unit 1, Field Specimen 1
- 3 Flake-blades: quartz
- 2 Fire-cracked rocks: quartz
- 1 Sherd, crushed quartz, silty: cordmarked
- 1 Sherd, quartz sand: net-impressed
- 4 Sherds, sand, occasional quartz: net-impressed
- 2 Sherds, fine sand: net-impressed
- 2 Sherds, fine sand: cordmarked

Total: 15

Profile 2, General Range Collection
1 Tertiary flake: quartz
10 Fire-cracked rocks: quartz
1 Sherd, crushed quartz, fine sand: eroded
Total: 12

Profile 3, General Range Collection
37 Shatter: quartz
1 Shatter: felsite
3 Primary flakes: quartz
2 Primary flakes: quartzite
1 Primary flake with retouch: quartzite
1 Primary flake with retouch: chalcedony
18 Flake-blades: quartz
2 Flake-blades: chalcedony
7 Tertiary flakes: quartz
1 Projectile point, nondescript: quartz
2 Bifaces: quartz
14 Fire-cracked rocks: quartz
1 Cobble: quartz
1 Adze/hoe: ground stone
1 Fragment, pipe bowl: fine sand
1 Sherd, quartz sand: eroded
1 Sherdlet: 1.4 g
17 Sherds, fine sand: net-impressed
1 Sherd, fine sand: cordmarked
1 Sherd, fine sand: plain
6 Sherds, fine sand: eroded
3 Sherds, fine sand, occasional crushed quartz: net-impressed
1 Sherd, fine sand, occasional crushed quartz: cordmarked
77 Sherds, quartz sand: net-impressed
8 Sherds, quartz sand: eroded
3 Sherds, crushed quartz, fine sand: net-impressed
6 Sherds, crushed quartz, fine sand: eroded
2 Sherds, crushed quartz: net-impressed
4 Sherds, crushed quartz: cordmarked
1 Sherd, no visible temper: cordmarked
4 Sherdlets: 1.4 g
Total: 164

Profile 4, General Range Collection
1 Shatter: quartz
3 Flake-blades: quartz
1 Flake-blade: chert
1 Stemmed projectile point: flow-banded felsite
6 Fire-cracked rocks: quartz
2 Sherds, fine sand, occasional crushed quartz: net-impressed
Total: 14

Profile 5, General Range Collection
1 Core: quartz
9 Shatter: quartz
1 Primary flake: quartz

5 Flake-blades: quartz
1 Flake-blade: quartzite
4 Tertiary flakes: quartz
1 Fire-cracked rock: quartz
1 Cobble: quartz
Charcoal: 3.75 g
5 Sherds, fine sand: net-impressed
1 Sherd, fine sand, occasional quartz: net-impressed
1 Sherd, fine sand, occasional quartz: cordmarked
Total: 30

Profile 6, General Range Collection
2 Shatter: quartz
3 Flake-blades: quartz
1 Tertiary flake: quartz
1 Tertiary flake: chalcedony
1 Tertiary flake: quartzite
1 Biface: quartz
1 Drill: quartz
2 Fire-cracked rocks: quartz
1 Sherd, fine sand: net-impressed
Total: 13

Profile 7, General Range Collection
1 Core: quartz
5 Shatter: quartz
1 Flake-blade: chalcedony
1 Flake-blade with retouch: quartz
1 Flake-blade with retouch: chalcedony
2 Sherds, fine sand, occasional crushed quartz: net-impressed
1 Sherd, fine sand, occasional crushed quartz: cordmarked
1 Sherd, crushed quartz, micaceous sand: net-impressed
Total: 13

Profile 8, General Range Collection
1 Shatter: quartz
1 Primary flake: quartz
3 Primary flakes: quartzite
4 Flake-blades: quartz
1 Flake-blade: quartzite
1 Biface: quartz
Total: 11

Profile 9, General Range Collection
1 Shatter: quartz
1 Flake-blade: quartz
3 Tertiary flakes: quartz
Total: 5

Excavation Unit A, Field Specimen 1
10 Shatter: quartz
15 Flake-blades: quartz
28 Fire-cracked rocks: quartz
3 Sherds, fine sand: net-impressed

3 Sherds, fine sand: eroded
4 Sherds, fine sand, occasional quartz: net-impressed
19 Sherds, quartz sand: net-impressed
1 Sherd, quartz sand: cordmarked
5 Sherds, quartz sand: eroded
2 Sherds, crushed quartz, fine sand: net-impressed
2 Sherds, crushed quartz, fine sand: eroded
1 Sherd, no visible temper: net-impressed
26 Sherdlets: 14.0 g
Charcoal: .15 g
Bone: 2.4 g
Total: 119

Excavation Unit A, Field Specimen 2
1 Flake-blade: quartz
6 Fire-cracked rocks: quartz
3 Sherds, quartz sand: net-impressed
2 Sherds, fine sand: eroded
3 Sherdlets: 2.7 g
Total: 15

Excavation Unit A, Field Specimen 3
4 Shatter: quartz
1 Flake-blade: quartz
27 Fire-cracked rocks: quartz
1 Sherd, fine sand: net-impressed
5 Sherds, quartz sand: net-impressed
1 Sherd, quartz sand: eroded
7 Sherdlets: 3.9 g
Total: 46

Excavation Unit A, Field Specimen 4
50 Shatter: quartz
1 Primary flake: quartzite
1 Primary flake with retouch: quartzite
1 Primary flake with retouch: chalcedony
11 Flake-blades: quartz
4 Flake-blades: quartzite
1 Flake-blade with retouch: chert
1 Flake-blade with retouch: chalcedony
4 Tertiary flakes: quartz
1 Tertiary flake: quartzite
1 Tertiary flake: chert
1 Projectile point, triangular: chalcedony
2 Bifaces: quartz
1 Uniface: quartz
164 Fire-cracked rocks: quartz
18 Sherds, fine sand: net-impressed
13 Sherds, fine sand: eroded
2 Sherds, fine sand: plain
7 Sherds, fine sand, occasional crushed quartz: net-impressed
3 Sherds, fine sand, occasional crushed quartz: eroded
1 Sherd, fine sand, occasional crushed quartz: plain
26 Sherds, quartz sand: net-impressed
1 Sherd, quartz sand: cordmarked

31 Sherds, quartz sand: eroded
8 Sherds, crushed quartz, fine sand: net-impressed
3 Sherds, crushed quartz, fine sand: eroded
1 Sherd, crushed quartz, silty: net-impressed
1 Sherd, no visible temper: net-impressed
5 Sherds, micaceous sand: net-impressed
17 Sherdlets: 13.9 g
Total: 381

Excavation Unit A, Field Specimen 5
1 Core: quartz
10 Shatter: quartz
4 Flake-blades: quartz
1 Projectile point: quartz
1 Shatter: quartzite
3 Flake-blades: quartzite
1 Cobble: quartzite
21 Sherds, fine sand: net-impressed
1 Sherd, fine sand: eroded
5 Sherds, fine sand, occasional crushed quartz: net-impressed
1 Sherd, fine sand, occasional crushed quartz: plain
5 Sherds, quartz sand: net-impressed
Total: 54

Excavation Unit A, Field Specimen 6
2 Cores: quartz
27 Shatter: quartz
11 Flake-blades: quartz
3 Flake-blade with retouch: quartz
5 Tertiary flakes: quartz
68 Fire-cracked rocks: quartz
1 Fragment: steatite
1 Primary flake: quartzite
4 Flake-blades: quartzite
1 Retouched flake: quartzite
1 Flake-blade with retouch: jasper
1 Sherd, strap handle fragment, fine sand: notched
1 Sherd, pipe bowl fragment, fine clay, no visible temper
12 Sherds, fine sand: net-impressed
1 Sherd, fine sand: cordmarked
2 Sherds, fine sand: eroded
15 Sherds, fine sand, occasional crushed quartz: net-impressed
15 Sherds, quartz sand: net-impressed
11 Sherds, quartz sand: eroded
2 Sherds, crushed quartz with fine sand: net-impressed
1 Sherd, crushed quartz with fine sand: cordmarked
2 Sherds, crushed quartz with fine sand: plain
6 Sherds, crushed quartz: net-impressed
1 Sherd, crushed quartz, quartz sand: cordmarked
64 Sherdlets: 34.8 g
Total: 258

Excavation Unit OM, Colluvial Zone
9 Shatter: quartz

11 Flake-blades: quartz
6 Fire-cracked rocks: quartz
1 Flake-blade: jasper
1 Sherd, quartz sand: net-impressed
1 Sherd, crushed quartz, silty: net-impressed
1 Sherd, crushed quartz, quartz sand: net-impressed
1 Sherd, crushed quartz, fine sand: cordmarked
5 Sherdlets: 2.3 g
Charcoal: 1.75 g
Total: 36

Excavation Unit OM, Mottled Colluvium/Midden Zone
1 Shatter: quartz
3 Sherdlets: 1.8 g
Charcoal: .15 g
Total: 4

Excavation Unit OM, Field Specimen 1
1 Core: quartz
24 Shatter: quartz
1 Primary flake: quartz
1 Shatter: chalcedony
2 Primary flakes with retouch: quartz
7 Flake-blades: quartz
1 Flake-blade: quartzite
7 Tertiary flakes: quartz
5 Fire-cracked rocks: quartz
Charcoal: .85 g
Total: 49

Excavation Unit OM, Field Specimen 2
20 Shatter: quartz
1 Primary flake with retouch: quartz
1 Primary flake: quartzite
14 Flake-blades: quartz
2 Flake-blades: felsite
4 Flake-blades: jasper
1 Flake-blade with retouch: quartz
12 Tertiary flakes: quartz
1 Tertiary flake: felsite
2 Fire-cracked rocks: quartz
1 Projectile point, triangular: chalcedony
2 Sherds, fine sand: net-impressed
4 Sherds, fine sand, occasional crushed quartz: net-impressed
4 Sherds, fine sand, occasional crushed quartz: eroded
2 Sherds, no visible temper: net-impressed
18 Sherdlets: 10.9 g
Charcoal: .7 g
Total: 89

Excavation Unit OM, Field Specimen 3
33 Shatter: quartz
27 Flake-blades: quartz
7 Tertiary flakes: quartz
13 Fire-cracked rocks: quartz

2 Cobbles: quartz
2 Flake-blades: quartzite
3 Flake-blades: felsite
1 Flake-blade: jasper
2 Tertiary flakes: chert
3 Tertiary flakes: felsite
1 Biface: quartz
2 Sherds, fine sand: net-impressed
1 Sherd, quartz sand: net-impressed
1 Sherd, quartz sand: cordmarked
2 Sherds, crushed quartz: cordmarked
1 Sherd, crushed quartz: plain
9 Sherds, crushed quartz, quartz sand: net-impressed
1 Sherd, crushed quartz, quartz sand: cordmarked
1 Sherd, crushed quartz, quartz sand: eroded
4 Sherds, smoothed: net-impressed
1 Sherd, smoothed: cordmarked
1 Sherd, smoothed: eroded
13 Sherdlets: 7.4 g
Charcoal: 3.5 g
Total: 131

Excavation Unit OM, Field Specimen 4
8 Shatter: quartz
30 Flake-blades: quartz
5 Tertiary flakes: quartz
1 Shatter: chalcedony
1 Primary flake: quartzite
3 Flake-blades: chalcedony
1 Tertiary flake: felsite
1 Projectile point, contracting stem: felsite
17 Fire-cracked rocks: quartz
11 Cobbles: quartz
1 Sherd, quartz sand: net-impressed
2 Sherds, crushed quartz, fine sand: net-impressed
1 Sherd, no visible temper: net-impressed
3 Sherdlets: 2.9 g
Total: 85

Excavation Unit OM, Field Specimen 5
2 Flake-blades: quartzite
Charcoal: 1.5 g
Total: 2

Excavation Unit OM, Field Specimen 6
1 Sherd, crushed quartz, quartz sand: cordmarked
Charcoal: .1 g
Total: 1

Excavation Unit OM, Field Specimen 7
Charcoal: .1 g

Excavation Unit OM, Field Specimen 8
Sterile

Excavation Unit OM, Field Specimen 9

19 Fire-cracked rocks: quartz
1 Cobble: quartz
2 Shatter: quartz
7 Flake-blades: quartz
4 Tertiary flakes: quartz
Charcoal: .25 g
Total: 33

Excavation Unit OM, Field Specimen 10
1 Shatter: quartz
1 Tertiary flake: quartz
1 Primary flake: felsite
1 Flake-blade: quartzite
1 Flake-blade: felsite
1 Tertiary flake: chalcedony
5 Fire-cracked rocks: quartz
9 Cobbles: quartz
2 Sherdlets: 1.1 g
Charcoal: .15 g
Total: 22

Excavation Unit OM, Field Specimen 11
1 Shatter: quartz
2 Flake-blades: quartz
1 Tertiary flake: quartz
4 Fire-cracked rocks: quartz
1 Biface: quartz
Total: 9

Excavation Unit OM, Field Specimen 12
1 Shatter: quartz
Charcoal: .25 g
Total: 1

Excavation Unit OM, Field Specimen 13
2 Shatter: quartz
1 Primary flake: quartz
1 Tertiary flake: quartz
1 Fire-cracked rock: quartz
1 Cobble: quartz
1 Sherdlet: .8 g
Total: 7

Total Artifacts: 1617

Isolated Finds

A total of 15 isolated artifacts were recovered either within .5 m testpits or on the ground surface during the survey. In all cases, further subsurface testing failed to produce any additional artifacts, and environmental factors did not warrant the designation of site numbers. These artifacts are listed below.

CL-IF#1: Primary flake with retouch: quartz

CL-IF#2: Flake-blade with retouch: quartz
CL-IF#3: Flake-blade with retouch: quartz
CL-IF#4: 20 Fragments: blue glass
CL-IF#5: Primary flake with retouch: quartz
CL-IF#6: Shatter: quartz
CL-IF#7: Tertiary flake: quartz
CL-IF#8: Sherd, blue transfer: ironware
CL-IF#9: Tertiary flake: quartz
CL-IF#10: Flake-blade: quartz
CL-IF#11: Shatter: chert
CL-IF#12: Biface: quartz
CL-IF#13: Drill: jasper
CL-IF#14: Projectile point, Kirk corner-notched: aphanitic siliceous rock
CL-IF#15: Tertiary flake: quartz

Additional Sites Recorded

In addition to the sites discovered as a part of the formal survey, three prehistoric sites were recorded by the Corps of Engineers, Wilmington District. These sites are included here in the report, but were not used to measure site density within the project area.

44Pk228

Archeology Laboratories Site: COE1

44Pk228 was a prehistoric site located on a ridgetop north of Joint Crack Creek. The site area consisted of 50% forest coverage and 50% pasture with collections made within the forested portion. Artifacts consisted of quartz debris and two Middle Archaic projectile points, one of which was made of a weathered jasper material while the other was of quartz. No ceramics were recovered.

44PK228 will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed stream lies 346 m to the west of the site.

3. Cultural Affiliation: Prehistoric, Middle Archaic.

4. Stratigraphic Condition: None noted.

5. State of Preservation: Unknown.

6. Areal Extent: Undetermined.

7. Elevation: 1500 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southwestern

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
1 Core fragment: quartz
18 Shatter: quartz
9 Flake-blades: quartz
6 Retouched flakes: quartz
1 Projectile point: quartz
1 Projectile point: jasper

Total Artifacts: 36

44Fr139

Archeology Laboratories Site: COE2

44Fr139 was a prehistoric site on a ridgetop north of the Smith River. The site yielded only surface artifacts, including quartz debris and one Savannah River projectile point.

Should Damsites "A" or "B" be chosen for construction, this site will be affected periodically by flooding during high water levels. If Damsite "C" is constructed, the site will be unaffected.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed creek lies 154m to the west of the site.

3. Cultural Affiliation: Prehistoric, Late Archaic.

4. Stratigraphic Condition: None noted.

5. State of Preservation: Unknown.

6. Areal Extent: Undetermined.

7. Elevation: 1150 feet AMSL

8. Slope: 1 degree

9. Exposure: Southwestern

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
6 Flakes: quartz
3 Burins: quartz
2 End scrapers: quartz

6 Side scrapers: quartz
9 Retouched flakes: quartz
3 Unifaces: quartz
9 Bifaces: quartz
1 Projectile point, Savannah River: quartz

Total Artifacts: 39

44Fr149

Archeology Laboratories Site: COE3

44Fr149 was a prehistoric site located on a small terrace at the confluence of an unnamed stream and Shooting Creek. Artifacts were collected on the surface only and consisted of quartz debris with no diagnostic lithic or ceramics.

This site will not be affected by construction or flooding resulting from the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek lies 62 m east of the site.

3. Cultural Affiliation: Prehistoric

4. Stratigraphic Condition: None noted.

5. State of Preservation: Unknown.

6. Areal Extent: Undetermined.

7. Elevation: 1240 feet AMSL

8. Slope: 0.33 degrees

9. Exposure: Southeastern

10. Condition of Features: None noted.

Artifacts Collected

General Surface Collection
1 Exhausted core: quartz
5 Spalls: quartz
2 Primary flakes: quartz
5 Flake-blades: quartz

Total Artifacts: 13

CHAPTER FIVE: HISTORIC CULTURAL RESOURCES

Using the same format as in the preceding chapter, this chapter deals with sites of the historic period. The great bulk of these were abandoned or destroyed liquor stills, all very similar both in regard to contents and siting. These are described first, followed by historic structures, rock piles and rock walls, and finally cemeteries. The Scope of Work did not call for testing on historic sites, and thus our recommendations (found in Chapter 9) are based largely on architecture or other visible indicators rather than a site's artifactual contents. As previously, site dimensions are given in the metric system. In instances where a structure's integrity is sufficiently preserved for accurate estimation of the original plan, linear measures are also given in the English system in hopes of detecting any consistencies of structure size or ratio of length/width used in the area.

Site Descriptions: Liquor Stills

44Pk84

Archeology Laboratories Site: AL12

44Pk84 was an historic still adjacent to an access road on a ridgetop north of the Smith River. Vegetation was mixed hardwoods dominated by oak and hickory. The site consisted of five "dead-man" submarine style vats measuring 2.5 m by 1.3 m in size (Wigginton 1972), placed on concrete blocks. Numerous pieces of metal pipe and lengths of PVC conduit accompanied these vats. Empty cans of dry yeast lay in large piles around the site. A length of black PVC conduit ran northwest to the base of the ridge to a small creek. Two-gallon metal cans and plastic milk jugs littered the creek bank.

The entire operation had been destroyed, probably by government officials. Axe cuts were present on the surface of the vats and containers, and containers along the creek were broken open and widely dispersed. The entire operation apparently had been recently abandoned.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" or "C" be chosen, this site will not be affected.

1. Soil Type: Not noted.

2. Distance to Water: 646.2 m north of the Smith River; 97.5 m east of the Smith River feeder stream.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: None noted.

5. State of Preservation: Fair; site probably destroyed by ATF officials. Vats still intact but axed.

6. Areal Extent: Site composed of five metal vats measuring 2.5 by 1.3 m in size. Associated debris extends 97.5 m downslope to the feeder stream noted above.

7. Elevation: 1090 feet AMSL

8. Slope: 28 degrees

9. Exposure: West

10. Condition of Feature: Fair

No artifacts were collected.

44Pk85

Archeology Laboratories Site: AL13

44Pk85 was an historic still located on the west bank of a small feeder stream of the Smith River. The site consisted of one foundation constructed of naturally occurring fieldstone, a sheet metal "dead man style" vat and assorted fragments of metal wash tubs and unidentified pieces of metal. The foundation measured 2.5 m in length, 1.3 m in width and 18 cm in height. The operation had been destroyed recently.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsite "B" or "C" be chosen it will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Small feeder of Smith River is 3 m to the west. Smith River lies 95 m to the south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: Not noted.

5. State of Preservation: Poor; operation destroyed.

6. Areal Extent: 23 m northeast-southwest; 8 m northwest-southeast

7. Elevation: 1040 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southwest

10. Condition of Features: Poor

No artifacts were collected.

44Pk117

Archeology Laboratories Site: AL25

44Pk117 was an historic still located on the west bank of an unnamed stream which flows into the Smith River. The vegetation consisted of mixed hardwoods. The site contained metal wash tubs, two-gallon tin cans, pipe and other hardware associated with a hearth constructed of naturally occurring fieldstone. No collections or subsurface tests were made.

Should Damsite "A" be chosen for consruction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Adjacent to a small feeder stream of the Smith River; the Smith River lies 256 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Very poor; sheet metal, jars and jugs remain only. Site was abandoned.

6. Areal Extent: 1.2 m north-south; 9.4 m east-west.

7. Elevation: 1040 feet AMSL

8. Slope: 23 degrees.

9. Exposure: Northwest.

10. Condition of Features: Most of the still was destroyed.

No artifacts were collected.

44Pk118

Archeology Laboratories Site: AL26

44Pk118 was an historic still located on the east bank of an unnamed feeder stream of the Smith River. The site consisted of glass jars, jugs and twisted sheet metal in association with a foundation constructed of naturally occurring fieldstone. No collections or subsurface tests

were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 256 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Very poor; sheet metal, jars and jugs remain only. Site was abandoned.

6. Areal Extent: 1.2 m north-south; 9.4 m east-west

7. Elevation: 1040 feet AMSL

8. Slope: 23 degrees

9. Exposure: Northwest

10. Condition of Features: Most of the still was destroyed.

No artifacts were collected.

44Pk119

Archeology Laboratories Site: AL27

44Pk119 was an historic still located along an unnamed stream above its confluence with the Smith River. The vegetation consisted of mixed hardwoods. The site contained "dead-man" or submarine style vats in association with a foundation of naturally occurring fieldstone. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 190 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; components of the operation were scattered 15 m downstream.

6. Areal Extent: 4 m northwest-southeast; 15 m northeast-southwest

7. Elevation: 1000 feet AMSL

8. Slope: 20 degrees

9. Exposure: Northwest

10. Condition of Features: Most of still was destroyed.

No artifacts were collected.

44Pk120

Archeology Laboratories Site: AL28

44Pk120 was an historic still located upstream along the west bank of an unnamed feeder stream of the Smith River. The remains consisted of a hearth built using naturally occurring fieldstone. No additional debris was found in association with this structure. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 48.3 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, very little remains of actual operation.

6. Areal Extent: .9 m north-south; .8 m east-west.

7. Elevation: 980 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: Very little of the site remains intact

No artifacts were collected.

44Pk121

Archeology Laboratories Site: AL29

44Pk121 was an historic still located along the east bank of an unnamed feeder stream of the Smith River. The operation had been set up adjacent to a large outcrop of granitic rock. The vegetation consisted of mountain laurel, oak, and beech. The site consisted of two hearths constructed of naturally occurring fieldstone approximately three m apart with two-gallon metal cans in association. No collection or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted

2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 160 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair; site consists of two foundations for "dead-man" style vats.

6. Areal Extent: 10 m north-south; 5 m east-west

7. Elevation: 1040 feet AMSL

8. Slope: 22 degrees

9. Exposure: Southeast

10. Condition of Features: Very little of the site remains intact.

No artifacts were collected.

44Pk122

Archeology Laboratories Site: AL30

44Pk122 was an historic still located along the east bank

of an unnamed feeder stream of the Smith River. The vegetation consisted of mountain laurel, oak and beech. The site contained a "dead-man" or submarine style vat on top of a foundation constructed of naturally occurring fieldstone. Barrel hoops and 2 two-gallon tin cans were associated with the foundation. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted
2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 146 m to the southwest.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Fair, still vat remains on top of fieldstone foundation.
6. Areal Extent: 2.1 m southwest-northeast; 1.7 m southeast-northwest
7. Elevation: 1020 feet AMSL
8. Slope: 18 degrees
9. Exposure: East
10. Condition of Features: Axe cuts evident in vat; site was abandoned.

No artifacts were collected.

44Pk97

Archeology Laboratories Site: AL31

44Pk97 was an historic still associated with 44Pk80, a historic structure with an outbuilding. The still was located 2 m from the northeastern corner of the structure, at the base of a ridgetoe in a stand of oak and beech. The site consisted of one hearth constructed of naturally occuring fieldstone. Remnants of a sheet metal vat (probably "deadman" or submarine style), a barrel, a two-gallon tin container and barrel hoops were in association with the hearth. All of the hardware showed signs of axe cuts. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsite "B" or "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 42.7 m to the southeast. A small feeder stream of the Smith River is 18.3 m to the southeast.

3. Cultural Affiliation: Historic.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor. Only the fieldstone hearth remains.

6. Areal Extent: 1.9 m northeast-southwest; 1.4 m northwest-southwest

7. Elevation: 1020 feet AMSL

8. Slope: 13 degrees

9. Exposure: Southwest

10. Condition of Features: Very little of the original operation remains. Site was abandoned.

No artifacts were collected.

44Pk98

Archeology Laboratories Site: AL32

44Pk98 was an historic still located in the mouth of a gulley at the base of a large ridge. The vegetation was an oak and beech forest that had been heavily logged. The site consisted of a round copper vat (groundhog type) which exhibited numerous riveted copper patches over axe cuts. Because of the unique nature and isolated context of this still, the vat was collected as an artifact.

The copper vat was apparently rolled down slope through a gulley as a result of logging activities. The location of the hearth or other associated features and artifacts is unknown--these probably have been destroyed by the logging on the heights above the findspot. The proposed project will have no effect upon this site.

1. Soil Type: Not noted.

2. Distance to Water: 30.4 m southwest of the Smith River.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: N/A.

5. State of Preservation: Fair. Copper vat is battered, shows signs of damage and repair.

6. Areal Extent: Isolated find

7. Elevation: 980 feet AMSL

8. Slope: 85 degrees

9. Exposure: Northeast

10. Condition of Features: Fair. Vat is intact, but battered. Condition of the copper is tarnished.

Artifacts Collected

1 Groundhog style vat: copper

44Pk99

Archeology Laboratories Site: AL33

44Pk99 was an historic still located on a terrace above the confluence of an unnamed creek and the Smith River. The site consisted of a hearth constructed of naturally occurring fieldstone. Numerous two-gallon tin cans containing axe cuts were found in association with the hearth foundation. No collections or subsurface tests were made.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site will possibly be affected by wave wash.

1. Soil Type: Not noted.

2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 30.4 meters to the west.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, all the hardware showed evidence of axe marks.

6. Areal Extent: 9.3 m north-south; 20.7 m east-west.

7. Elevation: 1020 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southwest

10. Condition of Features: Poor, site was abandoned.

No artifacts were collected.

44Pk100

Archeology Laboratories Site: AL34

44Pk100 was an historic still located at the base of a ridge along an unnamed feeder stream of the Smith River. The vegetation consisted of oak and beech. The site contained a hearth, constructed of naturally occurring fieldstone and built into a steep hillside, surrounded by barrel hoops, broken glass, "Mason" jars, and a steel rod. No collections or subsurface tests were made.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 293 m to the west. An unnamed creek lies 6 m to the north.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, rock slump has occurred as a result of site location on a steep slope.

6. Areal Extent: 8.4 m north-south; 2.5 m east-west

7. Elevation: 1060 feet AMSL

8. Slope: 18 degrees

9. Exposure: Northwest

10. Condition of Freatures: Poor, the site was abandoned.

No artifacts were collected.

44Pk123

Archeology Laboratories Site: AL35

44Pk123 was an historic still located on the northwestern bank of an unnamed feeder stream of the Smith River; surrounding vegetation consisted of mixed hardwoods. The site contained two "deadman" or submarine style vats set on cinder block hearths. Associated debris included plastic and metal jugs and sheet metal conduit components of the vats. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsites "B" or "C" be used this site will not be affected by the proposed project.

1. Soil Type: Not Noted.
2. Distance to Water: Adjacent to a small feeder stream of the Smith River. The Smith River lies 305 m to the northeast.
3. Cultural Affiliation: Historic
4. Stratigraphic condition: No testpits were dug.
5. State of Preservation: Good, vats remain on foundations.
6. Areal Extent: 2.1 m north-south; 1.5 m east-west.
7. Elevation: 1020 feet AMSL
8. Slope: 72 degrees
9. Exposure: Northwest
10. Condition of Features: Good, site was abandoned.

No artifacts were collected.

44Pk240

Archeology Laboratories Site: AL38

44Pk240 was an historic still located within the boundaries of 44Pk9. The vegetation consisted of beech, pine, and dogwood. The site revealed two concrete block foundations for an apparent "deadman" or submarine style setup. Two types of cement blocks were used in the construction, one measuring 19.5 cm x 39.8 cm x 19.0 cm, the other 19.5 cm x 42 cm x 9.5 cm. The foundations were located amid piles of cans, plastic containers and glass jars while large amounts of rubbish were located within the general area. No collections or subsurface tests were made.

Should Damsite "A" be chosen for construction, this site will be flooded. Should Damsites "B" or "C" be chosen for construction, this site would be affected by wave wash as a

result of the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 75 m to the north.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair, foundations had fallen down.

6. Areal Extent: 3.4 m north-south; 7.5 m east-west.

7. Elevation: 980 feet AMSL

8. Slope: 1 degree

9. Exposure: Northeast

10. Condition of Features: Fair, still had been abandoned.

No artifacts were collected.

44Pk103

Archeology Laboratories Site: AL40

44Pk103 was an historic still site located on a small terraced area in a cove on a small tributary of the Smith River. The vegetation was mainly an oak and beech forest. Some timbering had occured upslope from this site.

The site consisted of one foundation constructed of naturally occurring fieldstone. Rusted wash tubs, assorted glass bottles, and a sheet metal remnant of a "deadman" or submarine style vat were found in association with this foundation.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. This site will also be affected by constructio activities related to the dam's penstock.

1. Soil Type: Not noted.

2. Distance to Water: 1.9 m to a small feeder stream of the Smith River.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, still destroyed.

6. Areal Extent: 3.46 m north-south; 9.1 m east-west

7. Elevation: 108 feet AMSL

8. Slope: 40 degrees

9. Exposure: Southeast

10. Condition of Features: Poor, debris scattered widely, still destroyed.

No artifacts were collected.

44Pk104

Archeology Laboratories Site: AL42

44Pk102 was an historic still site located at the confluence of the Smith River and an unnamed stream on the river's north bank. The still was located beside a small spring which had been walled. The vegetation consisted of an oak-beech forest.

Two foundations were constructed of native fieldstone. Metal washtubs, assorted glass bottles and the rock springhouse were associated with the foundations. One foundation was located beside and slightly below the springhouse, and the second was 2.3 m above the springhouse. A single piece of black "PVC" pipe was placed in an opening provided by the springhouse into the spring.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. This site will also be affected by activities associated with the penstock construction.

1. Soil Type: Not noted.

2. Distance to Water: 6.1 m to a small feeder stream of the Smith River. The Smith River lies 36.6 m to the southeast.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

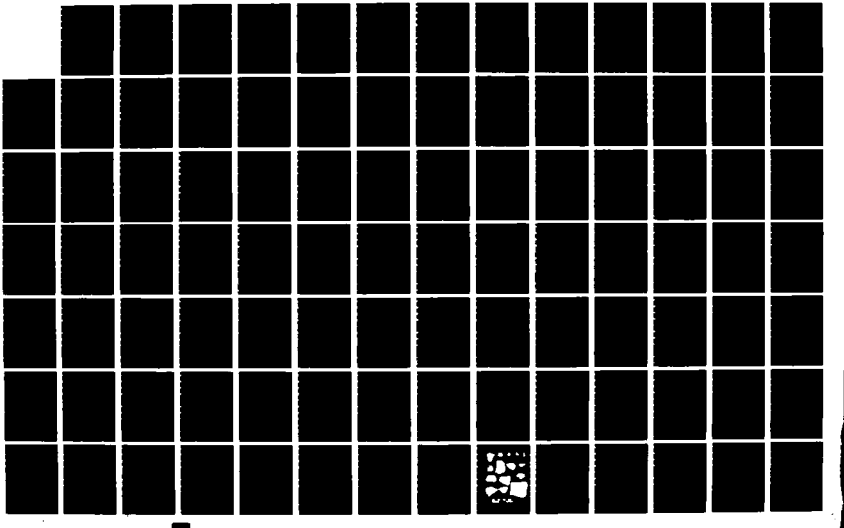
5. State of Preservation: Poor, only fieldstone foundations and small springhouse remain.

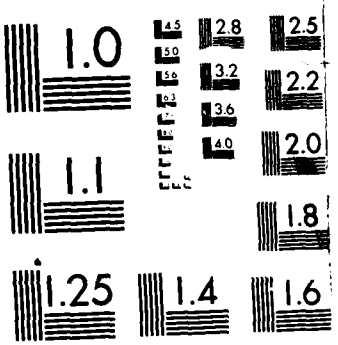
6. Areal Extent: 30 m northwest-southeast; 5.2 m northeast-southwest.

7. Elevation: 980 feet AMSL

AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL 4/7

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

8. Slope: 18 degrees

9. Exposure: Southwest

10. Condition of Features: Poor; no working components of the still remain.

No artifacts were collected.

44Pk127

Archeology Laboratories Site: AL46

44Pk127 was an historic still site located adjacent to a small intermittent stream of the Smith River. The site consisted of a foundation constructed of naturally occurring fieldstones. No debris was found in association with this hearth.

This site will be flooded as a result of the proposed project, regardless of the damsite selected.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 50.8 m to the south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, fieldstone foundation remains only.

6. Areal Extent: 1.5 m north-south; 1.5 m east-west.

7. Elevation: 1110 feet AMSL

8. Slope: 50 degees

9. Exposure: East

10. Condition of Features: Poor, still completely destroyed or removed.

No artifacts were collected.

44Pk138

Archeology Laboratories Site: AL59

44Pk139 was an historic still site located on a small terraced area along an unnamed drainage of Poplar Camp Creek.

The vegetation consisted of beech, oak, dogwood and maple.

The site contained a hearth constructed of cinder blocks. Associated debris was limited to the remnants of a sheet metal "deadman" or submarine style vat.

No collections or subsurface tests were made on this site. A portion of the cinder block hearth had been removed. In addition, the vat had been destroyed. This site will be flooded by any of the three dams under consideration.

1. Soil Type: Not noted.
2. Distance to Water: 18.3 m east of a feeder branch of Poplar Camp Creek.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, cinder block foundation and associated debris.
6. Areal Extent: 5 m north-south; 5 m east-west.
7. Elevation: 1140 feet AMSL
8. Slope: 15 degrees
9. Exposure: Southwest
10. Condition of Features: Still destroyed, cinder block foundation remains, associated metal debris scattered.

No artifacts were collected.

44Pk150

Archeology Laboratories Site: AL70

44Pk150 was an historic still located on a small terraced area above a floodplain on the Smith River. The vegetation consisted of beech, sycamore and oak. The site contained a hearth constructed of naturally occurring fieldstone and a metal crossbar in the foundation. No additional debris was noted in association with this still.

No collections or subsurface tests were made. An old roadbed was located below the still site; no erosion, however, has affected the site.

This site will be flooded by any of the three project damsite locations.

1. Soil Type: Not noted.

2. Distance to Water: Smith River lies 27.7 m to the southeast. An unnamed creek lies 3.3 m to the northeast.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, still hardware removed.

6. Areal Extent: 1.9 m northwest-southeast; 1.3 m northeast-southwest

7. Elevation: 1070 feet AMSL

8. Slope: 32 degrees

9. Exposure: Northwest

10. Condition of Features: Poor; site was abandoned.

No artifacts were collected.

44Pk151

Archeology Laboratories Site: AL71

44Pk151 was an historic still site located at the confluence of two small, unnamed streams which flow into the Smith River. The vegetation consisted of beech, oak and dogwood. The site contained a hearth constructed of naturally occurring fieldstone, remnants of a sheet metal "deadman" or submarine style vat, and an assortment of rusted tin cans.

No collections or subsurface tests were made. This site will be affected by flooding should any of the three damsite locations be used.

1. Soil Type: Not noted.

2. Distance to Water: Smith River lies 27.7 m to southeast. An unnamed creek lies 3.3 m to the northeast.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, operation destroyed.

6. Areal Extent: 2 m length; 1.2 m width

7. Elevation: 1130 feet AMSL

8. Slope: 10 degrees

9. Exposure: Southwest

10. Condition of Features: Poor; associated debris included galvanized tin vats, tin cans and glass jugs.

No artifacts were collected.

44Pk153

Archeology Laboratories Site: AL73

44Pk153 was an historic still site located downstream from the confluence of two unnamed streams that flow into the Smith River. The vegetation consisted of beech, oak and pine. The site was a hearth constructed of naturally occurring fieldstone and an old car axle. The axle was used, in all probability, to support the vat above the hearth. No additional debris was noted in association with the hearth.

No collections or subsurface tests were made. This site will be flooded as a result of dam construction at any of the alternative locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage is located 4.5 m to the northwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; the site was abandoned.

6. Areal Extent: The foundation measured 2.6 m in length, 1.8 m in width and .2 m in height. An old axle was located 4.5 m to the northwest.

7. Elevation: 1120 feet AMSL

8. Slope: 8 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk156

Archeology Laboratories Site: AL76

44Pk156 was an historic still site located on a creek bank of a small feeder stream of the Smith River. The vegetation consisted of beech and oak. The site contained a hearth constructed of naturally occurring fieldstone and sheet metal from a vat, probably "deadman" or submarine style.

No collections or subsurface tests were made. This site will be affected by flooding should any of the damsite locations be selected.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage is located 12.3 m to the south.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor; the site was abandoned.
6. Areal Extent: Foundation = 1.4 m in length and 1.2 m in width. Debris extended 4.5 m to the west of the foundation.
7. Elevation: 1140 feet AMSL
8. Slope: 2 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk160

Archeology Laboratories Site: AL80

44Pk160 was an historic still located on the first terrace of an unnamed feeder stream of the Smith River. The site vegetation consisted primarily of rhododendron. Site elements included a hearth constructed of naturally occurring fieldstone with a "deadman" or submarine style vat positioned on top of the still foundation. Two barrel hoops and a separate piece of sheet metal also were found in association with the hearth and vat. The vat had numerous axe cuts on its surface, probably from state or federal officials. No surface collections or subsurface tests were made at the site.

This site will be affected by flooding regardless of damsite location.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage of the Smith River is located 5.4 m to the north of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site had been destroyed.

6. Areal Extent: 4.5 m northwest-southeast; 7.5 m northeast-southwest.

7. Elevation: 1120 feet AMSL

8. Slope: 16 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk163

Archeology Laboratories Site: AL83

44Pk163 was an historic still located on a terraced area within a cove of an unnamed feeder creek of the Smith River. The vegetation was beech, oak and dogwood. The site consisted of a hearth made of naturally occurring fieldstone, with barrel hoops and assorted pieces of sheet metal strewn along the creek for 58 m. A metal flywheel was associated with the hearth. The sheet metal pieces exhibit numerous axe cuts which probably result from the action of state or federal officials.

No collections or subsurface tests were made. This site will be flooded should a dam be constructed on any of the proposed damsites.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage of the Smith River was located within 1 m of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; the operation was destroyed.

6. Areal Extent: The foundation measured 3 m in length and 1.5 m in width. Debris was spread 58 m northeast-southwest.

7. Elevation: 1200 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Fr141

Archeology Laboratories Site: AL87

44Fr141 was an historic still site located on a terraced area overlooking Shooting Creek. The vegetation consisted of beech and oak, and the site was a hearth constructed of naturally occurring fieldstone with a "deadman" or submarine style vat. Metal buckets, a short length of metal pipe, one metal wash tub, metal two-gallon cans, mason jars and various unidentified pieces of metal were found in association.

No collections or subsurface tests were made. The site will be affected by flooding should any of the damsites be chosen for construction.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek is located 33 m to the south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; the site was abandoned.

6. Areal Extent: Foundation = 2.6 m in length, 1.7 m in width and .05 m in height. Debris extended 29.9 m north-south, 29.4 m east-west.

7. Elevation: 1140 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Fr142

Archeology Laboratories Site: AL88

44Fr142 was an historic still located on the bank of an unnamed feeder stream of Shooting Creek. The vegetation consisted of rhododendron. The site included a hearth constructed of naturally occurring fieldstone, the remnant of a "deadman" or submarine style vat, and two large tin cans.

No collections or subsurface tests were made. This site will be flooded by any of the three proposed damsites.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage is located 3.5 m east of the site.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor; the site was abandoned.
6. Areal Extent: Foundation = 2.1 m in length, .7 m in width, .4 m in height.
7. Elevation: 1190 feet AMSL
8. Slope: 8 degrees
9. Exposure: Northeast
10. Condition of Features: None noted.

No artifacts were collected.

44Fr143

Archeology Laboratories Site: AL89

44Fr143 was an historic still site located along the bank of an unnamed feeder stream of Shooting Creek. The vegetation consisted of rhododendron. The site had a hearth constructed of naturally occurring fieldstone, barrel hoops, and two car fenders.

No collections or subsurface tests were made. This site will be affected by flooding as a result of construction on any of the three proposed damsites.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage of Shooting

Creek was located 1 m to the west.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; site was abandoned.

6. Areal Extent: Foundation = 2.9 m in length, 1.4 m in width and .3 m in height. Debris extended 3.7 m northeast-southwest, 4.9 m northwest-southeast.

7. Elevation: 1210 feet AMSL

8. Slope: 8 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

No artifacts were collected.

44Fr144

Archeology Laboratories Site: AL90

44Fr144 was an historic still site located in a gulley adjacent to a feeder stream of Shooting Creek. The vegetation consisted of rhododendron. The site contained an old hearth (no foundation), the remnants of a "deadman" or submarine style vat, barrel hoops, tin cans and portions of a car axle. The vat exhibited numerous axe cuts, likely from destruction by state or federal officials.

No collections or subsurface tests were made. This site will be inundated should a dam be constructed in any of the three proposed locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage of Shooting Creek was located 27.7 m southwest of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; the site was destroyed.

6. Areal Extent: The site was dispersed over a 15 m stretch of gulley.

7. Elevation: 1220 feet AMSL

8. Slope: 50 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk176

Archeology Laboratories Site: AL96

44Pk176 was an historic still site located within an unnamed feeder stream of Shooting Creek. The vegetation consisted of beech and oak. The site contained "dead-man" or submarine style vats and assorted pieces of galvanized sheet metal deposited in the creek--the site had obviously been destroyed. No surface collections or subsurface tests were made. This site will be flooded bv dam costruction on any of the three proposed locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage is located 2 m south of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site had been destroyed.

6. Areal Extent: 24.5 m north-south; 8.4 m east-west.

7. Elevation: 1120 feet AMSL

8. Slope: 16 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk179

Archeology Laboratories Site: AL99

44Pk179 was an historic still located on a floodplain along Shooting Creek within a white pine tree farm. The site consisted of a hearth constructed of naturally occurring fieldstones and a sheet metal "dead-man" or submarine style vat. No surface collections or subsurface tests were made at the site. 44Pk179 will be flooded should a dam be

constructed at any of the alternate project locations.

1. Soil Type: Not noted.
2. Distance to Water: Shooting Creek is located 12 m to the west.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, the site was abandoned.
6. Areal Extent: 1.8 m in length; 1.2 m in width.
7. Elevation: 1060 feet AMSL
8. Slope: 4 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk180

Archeology Laboratories Site: AL100

44Pk180 was an historic still site located along a feeder stream of Shooting Creek. The vegetation consisted of beech, oak and rhododendron. The site had four aluminum "dead-man" or submarine style vats and an associated hearth constructed of cinder blocks. Two of the vats had been axed, one had been removed from the foundation, and the fourth vat had been completely crushed. Numerous tin cans were found in association with the site. The conditions here indicated that the operation was destroyed by state or federal officials. This site will be flooded by a dam at any of the three alternative damsite locations.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage of Shooting Creek is located southeast of the site within 1 m.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, the site had been destroyed.
6. Areal Extent: 8.5 m north-south; 8.9 m east-west.

7. Elevation: 1080 feet AMSL

8. Slope: 8 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk181

Archeology Laboratories Site: AL101

44Pk181 was an historic still located on an unnamed feeder stream of Shooting Creek. The vegetation surrounding the site area consisted of rhododendron and beech. The site contained a hearth constructed of naturally occurring fieldstone and one galvinized steel vat exhibiting numerous axe cuts. The activities at the site were apparently ended by state or federal officials. No surface collections or subsurface tests were made. 44Pk181 will be flooded by construction on any of the three damsite locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed feeder stream of Shooting Creek lies 2 m to the northwest of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, site apparently destroyed by law enforcement officials.

6. Areal Extent: Foundation - 1.9 m in length by 1.3 m in width. Debris lie within 10 m of the foundation.

7. Elevation: 1140 feet AMSL

8. Slope: 8 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk182

Archeology Laboratories Site: AL102

44Pk182 was an historic still located on an unnamed feeder

stream of Shooting Creek. The site consisted of a fieldstone hearth and associated debris including an iron pipe and a small pile of fieldstones. The smaller pile of fieldstones measured .4 m by .6 m in horizontal dimensions and .1 m in height. The site appeared to have been abandoned. In the event that the proposed project is undertaken, this site will be flooded by any of the three proposed damsite locations.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed feeder stream of Shooting Creek lies 2 m to the northwest.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, site was abandoned.
6. Areal Extent: Foundation - 2.1 m in length by 1.2 m in width. Debris lies within a 5.9 m radius of the foundation.
7. Elevation: 1140 feet AMSL
8. Slope: 18 degrees
9. Exposure: Northwest
10. Condition of Features: Poor.

No artifacts were collected.

44Pk183

Archeology Laboratories Site: AL103

44Pk183 was an historic still site located on a small, unnamed feeder stream of Shooting Creek. The vegetation surrounding the site area consisted of mixed hardwoods. The cultural features which identified the site were a hearth constructed of cinder blocks and one associated glass jar. From the condition of the features it appeared that the site was only recently abandoned. No surface collections or subsurface tests were made. This site will be affected by flooding if a dam is constructed on any of the project locations.

1. Soil Type: Not noted.
2. Distance to Water: A small, unnamned feeder stream of Shooting Creek lies 6.8 m to the northeast.
3. Cultural Affiliation: Historic, twentieth century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair, the still hearth was intact, but the site was apparently abandoned.

6. Areal Extent: Foundation - 2.3 m in length by 1.5 m in width.

7. Elevation: 1100 feet AMSL

8. Slope: 15 degrees

9. Exposure: Northwest

10. Condition of Features: Fair, the site was recently abandoned.

No artifacts were collected.

44Pk184

Archeology Laboratories Site: AL104

44Pk184 was an historic still located on a small, unnamed feeder stream of Shooting Creek. Mixed hardwoods surrounded the site, which consisted of a cinder block hearth and associated glass jars. Debris from the site, including cinder blocks and glass jars, had been scattered over a 60 square m area. No additional cultural items were found in association, and the site appeared to have been recently abandoned. Surface collections and subsurface tests were not made at the site. This site will be affected by flooding as a result of dam construction at any of the three alternative locations.

1. Soil Type: Not noted.

2. Distance to Water: A small, unnamed feeder stream of the Smith River lies 3.2 m to the northeast.

3. Cultural Affiliation: Historic, twentieth century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, materials from the hearth were widely scattered.

6. Areal Extent: 6.9 m north-south; 9 m east-west.

7. Elevation: 1100 feet AMSL

8. Slope: 25 degrees

9. Exposure: Northwest

10. Condition of Features: Poor, the site was abandoned.

No artifacts were collected.

44Pk185

Archeology Laboratories Site: AL105

44Pk185 was an historic still located in a ravine adjacent to a small unnamed feeder stream of Shooting Creek. The vegetation of the site area was pine and mixed hardwoods. The site contained three cinder block hearths and three "dead-man" or submarine style vats. The hearths were located on a terraced area partway down the side of the ravine, while the vats had apparently been overturned, one on top of the other, into the ravine. The site had apparently been destroyed by state or federal officials. No surface collections or subsurface tests were made; this site will be affected by flooding as a result of dam construction at any of the proposed damsite locations.

1. Soil Type: Not noted.

2. Distance to Water: The site lies 74.3 m from a small unnamed feeder stream of Shooting Creek.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, The site had been destroyed.

6. Areal Extent: Debris extended for 10 m on an east-west axis.

7. Elevation: 1160 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southwest

10. Condition of Features: Poor.

No artifacts were collected.

44Pk187

Archeology Laboratories Site: AL107

44Pk187 was an historic still located on a terraced area along a feeder stream of Shooting Creek. In a beech forest were found a hearth constructed of naturally occurring fieldstones, aluminium tubs, a piece of steel railroad track,

1 glass "mason" jar, and a "dead-man" or submarine type still vat. The site had apparently been destroyed by state or federal officials -- all of the aluminium tubs had been axed and the vat, also revealing axe cuts, was found 28 m downstream in Shooting Creek. No surface collections or subsurface tests were made within the site area. This site will be flooded by any of the project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed feeder stream of Shooting Creek lies 3 m from the hearth.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site has been destroyed.

6. Areal Extent: 15 m north-south; 28 m east-west.

7. Elevation: 1170 feet AMSL

8. Slope: 18 degrees

9. Exposure: South

10. Condition of Features: Poor

No artifacts were collected.

44Pk188

Archeology Laboratories Site: AL108

44Pk188 was an historic still located on a ridgetoe overlooking Shooting Creek. The vegetation in and around the site consisted of oak and beech forest. The site revealed the sheet metal remains of a "dead-man" or submarine style still, severely damaged by numerous axe cuts and crushing. There was no evidence of a still foundation, hearth, or other cultural debris in association with the vat. No surface collections or subsurface tests were made. This site will be flooded by any of the three project dam locations.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek lies 65 m to the west of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic condition: No testpits were dug.

5. State of Preservation: Poor; the vat was crushed.

6. Areal Extent: The site was defined by the crushed vat.

7. Elevation: 1100 feet AMSL

8. Slope: 18 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk189

Archeology Laboratories Site: AL109

44Pk189 was an historic still located along an unnamed creek draining into the Smith River. The vegetation of the site area primarily was conifers, while the site itself consisted of a cinder block still foundation and associated debris. Two "dead-man" style vats were found in association with the still foundation. One of these vats remained partially atop the cinder block foundation while the other was located in a small creek adjacent to the foundation. The site apparently had been destroyed by state or federal officials; both vats and several aluminium tubs found at the site had been axed. No surface collections or subsurface tests were made. This site will be flooded by any of the project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: A small drainage of the Smith River lies 1 m to the south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the still had been destroyed.

6. Areal Extent: Cinder block foundation - 1.5 m in length by 1.2 m in width by .3 m in height. Associated debris is located within a 1.7 m radius of the foundation.

7. Elevation: 1160 feet AMSL

8. Slope: 12 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk192

Archeology Laboratories Site: AL112

44Pk192 was an historic still located on the edge of an unnamed feeder stream of Shooting Creek. The vegetation in the site area consisted of beech and oak. The site itself was a foundation constructed from naturally occurring fieldstone, pieces of a car axle, a pail, a square tin can, one set of car springs, barrel hoops, and a hoe blade. There was no visible sign of destruction by state or federal officials, suggesting that the site had been voluntarily abandoned. No surface collections or subsurface tests were made.

This site will be affected by flooding as a result of the proposed project, regardless of the damsite chosen.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage lies 1.5 m to the northwest of the site.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Fair, site had been abandoned.
6. Areal Extent: Foundation - 2.03 m in length by 1.27 m in width by .14 m in height. Associated debris - 11.7 m northwest-southeast; 4.5 m northeast-southwest.
7. Elevation: 1100 feet AMSL
8. Slope: 16 degrees
9. Exposure: Northwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk193

Archeology Laboratories Site: AL113

44Pk193 was an historic still on an unnamed feeder stream of Shooting Creek. The vegetation was beech and oak, and the site was a foundation constructed of naturally occurring fieldstone, the remnants of a "dead-man" style vat, a pail,

barrel hoops, and copper tubing. The site had apparently been dynamited by state or federal officals. Debris was widely scattered and accurate measurments were impossible for the fieldstone foundation. No surface collections or subsurface tests were made.

This site will be flooded by construction at any of the damsite locations.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage lies 1 m to the southeast.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, the site had been destroyed with dynamite.
6. Areal Extent: 47 m north-south; 56 m east-west.
7. Elevation: 1140 feet AMSL
8. Slope: 21 degrees
9. Exposure: Southeast
10. Condition of Features: None noted.

No artifacts were collected.

44Pk194

Archeology Laboratories Site: AL114

44Pk194 was an historic still site located along a small feeder stream of the Smith River. The site area vegetation consisted primarily of mixed hardwoods. The site itself contained a foundation of naturally occurring fieldstone and barrel hoops. The barrel hoops were scattered 9 m upstream from the foundation and no other additional debris was found. The site appeared to have been abandoned voluntarily. No surface collections or subsurface tests were made.

This site will be flooded by dam construction at any of the three alternative locations.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage lies 2 m to the south.
3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor

6. Areal Extent: Foundation - 1.8 m in length by 1.6 m in width. Debris extend out to 9 m east.

7. Elevation: 1150 feet AMSL

8. Slope: 5 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk196

Archeology Laboratories Site: AL116

44Pk196 was an historic still located on a terrace above the confluence of Shooting Creek and the Smith River. The vegetation consisted of beech and oak. The site contained a foundation constructed from naturally occurring fieldstone, one large square tin can, the remnants of a "dead-man" or submarine style vat and a car axle. No surface collections or subsurface tests were made. This site will be affected by flooding should any of the proposed damsites be selected.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 23.5 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, remnants only of the still setup remained.

6. Areal Extent: Foundation - 2.5 m in length by 1.5 m in width by .35 m in height. The site extends 10.36 m northwest-southeast; 5.41 m northeast-southwest.

7. Elevation: 1030 feet AMSL

8. Slope: 5 degrees

9. Exposure: South

10. Condition of Features: None noted.

No artifacts were collected.

44Pk200

Archeology Laboratories Site: AL120

44Pk200 was an historic still site located along an unnamed feeder stream of the Smith River adjacent to a series of three small (1.5 m high) waterfalls. Vegetation consisted of beech and sycamore, and the site contained only a foundation constructed of naturally occurring fieldstone, a cache of square tin containers, and a barrel hoop. No vat was found in association with the foundation. The containers all had been axed and tossed to the east of the foundation, apparently by state or federal officials. No surface collections or subsurface tests were made. This site would be flooded by all three project alternatives.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage lies 5 m to the southwest.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor, still had apparently been destroyed.
6. Areal Extent: Foundation - 1.78 m in length, 1.24 m in width.
7. Elevation: 1100 feet AMSL
8. Slope: 25 degrees
9. Exposure: Southeast
10. Condition of Features: None noted.

No artifacts were collected.

44Pk201

Archeology Laboratories Site: 121

44Pk201 was an historic still located on a terrace above the Smith River. The vegetation was mixed hardwoods, and the site consisted of a foundation constructed of naturally occurring fieldstone, copper tubing and tin cans. No surface collections or subsurface tests were made. This site will be inundated should any of the damsites be selected for construction.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage of the Smith River lies 5.9 m to the south. The Smith River lies 19.3 m to the east.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site was abandoned.

6. Areal Extent: Foundation - 2.4 m in length, 1.3 m in width. Associated debris extends for 13 m north to south.

7. Elevation: 1100 feet AMSL

8. Slope: 32 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk202

Archeology Laboratories Site: AL122

44Pk202 was an historic still site located at the base of a ridgetoe along a seasonal stream. The vegetation consisted of mixed hardwoods, beech, redbud, dogwood and tulip poplar. The site revealed a foundation constructed of naturally occurring fieldstone, a barrel hoop and bits of corrugated aluminum. No vat was found in association with the foundation. No surface collections or subsurface tests were made. This site will be flooded by any of the three project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage that flows into White Oak Creek was located 4.18 m to the west.

3. Cultural Affiliation: Historic, twentieth century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site was abandoned, with the majority of the hardware having been removed.

6. Areal Extent: Foundation - 1.2 m in length, 1.1 m in width, .6 m in height. Associated debris was

distributed 9.3 m northwest-southeast and 8.1 m northeast-southwest.

7. Elevation: 1100 feet AMSL

8. Slope: 36 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk211

Archeology Laboratories Site: AL131

44Pk211 was an historic still located along the eastern bank of an unnamed drainage of the Smith River, in a thicket of rhododendron. The site had a scattered foundation constructed of naturally occurring fieldstone, a crushed galvanized steel "dead-man" or submarine style vat, an iron pipe measuring 7.2 m in length and several "I" beams. The foundation was widely scattered and measurements of its original dimensions were not possible. The site appeared to have been destroyed by state or federal officials. No surface collections or subsurface tests were made. This site would be flooded as a result of dam construction, regardless of the damsite alternative selected.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage of the Smith River lies 12 m to the west.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, site had been destroyed.

6. Areal Extent: 10 m northwest-southeast; 7 m northeast-southwest.

7. Elevation: 1090 feet AMSL

8. Slope: 32 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk216

Archeology Laboratories Site: AL136

44Pk216 was an historic still site located along the bank of an unnamed drainage of the Smith River, in a stand of mixed hardwoods. The site consisted of a natural fieldstone foundation, metal wash basins and blue mason jars. There was no evidence of willful destruction, suggesting that the site was abandoned voluntarily. No collections or subsurface tests were made.

This site will be affected by flooding as a result of dam construction at any of the project alternatives. In addition, the site will likely suffer secondary effects by the construction of the penstock.

1. Soil Type: Not noted.
2. Distance to Water: An unnamed drainage is located 3.2 m to the southwest.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Poor; site was abandoned.
6. Areal Extent: Foundation = 2.9 m length, 1.5 m width. Associated debris = 31.5 m northeast-southwest; 2.9 m southeast-northwest
7. Elevation: 1080 feet AMSL
8. Slope: 8 degrees
9. Exposure: Northwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk238

Archeology Laboratories Site: AL161

44Pk238 was an historic still site located along the south bank of an unnamed drainage of the Smith River. The vegetation consisted of a mixed hardwood forest, and the site shows a foundation constructed of naturally occurring fieldstone, a "deadman" or submarine style vat, buckets, tin cans and barrel hoops. No collections or subsurface tests were made. The vat had been crushed, possibly as a result of state or federal officials breaking up the still. All the hardware was located in the creek.

Should Damsite "A" or "B" be chosen for construction, this site will be only periodically flooded as a result of high water levels. Should Damsite "C" be chosen for construction, this site will be inundated.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage was located 3 m south of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; all the hardware had been crushed and deposited in the creek.

6. Areal Extent: 6.4 m north-south; 1.9 m east-west

7. Elevation: 1170 feet AMSL

8. Slope: 10 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

Site Descriptions: Historic Structures

44Pk80

Archeology Laboratories Site: AL8

44Pk80 was located on a terrace above the Smith River. The site consisted of the remnants of a log structure and an outbuilding. The structure's foundation was built of large rough-cut fieldstones laid in place without mortar. Chinked fieldstone chimneys on either end of the structure suggested a two room building. One chimney had collapsed toward the outside of the building while the other remained intact (Figure 22). Numerous artifacts were found in association with the structure, the majority recovered within the structure below the level of the foundation stones. A depressed area at one end of the structure suggested a basement. No collections or excavations were made on this site; however, photographs were taken.

The outbuilding associated with the structure consisted of two separate lines of rough-cut fieldstones. No additional components of the structure, other than the foundation stones, were noted. An historic still was also found in association, but received a separate site number (44Pk97).

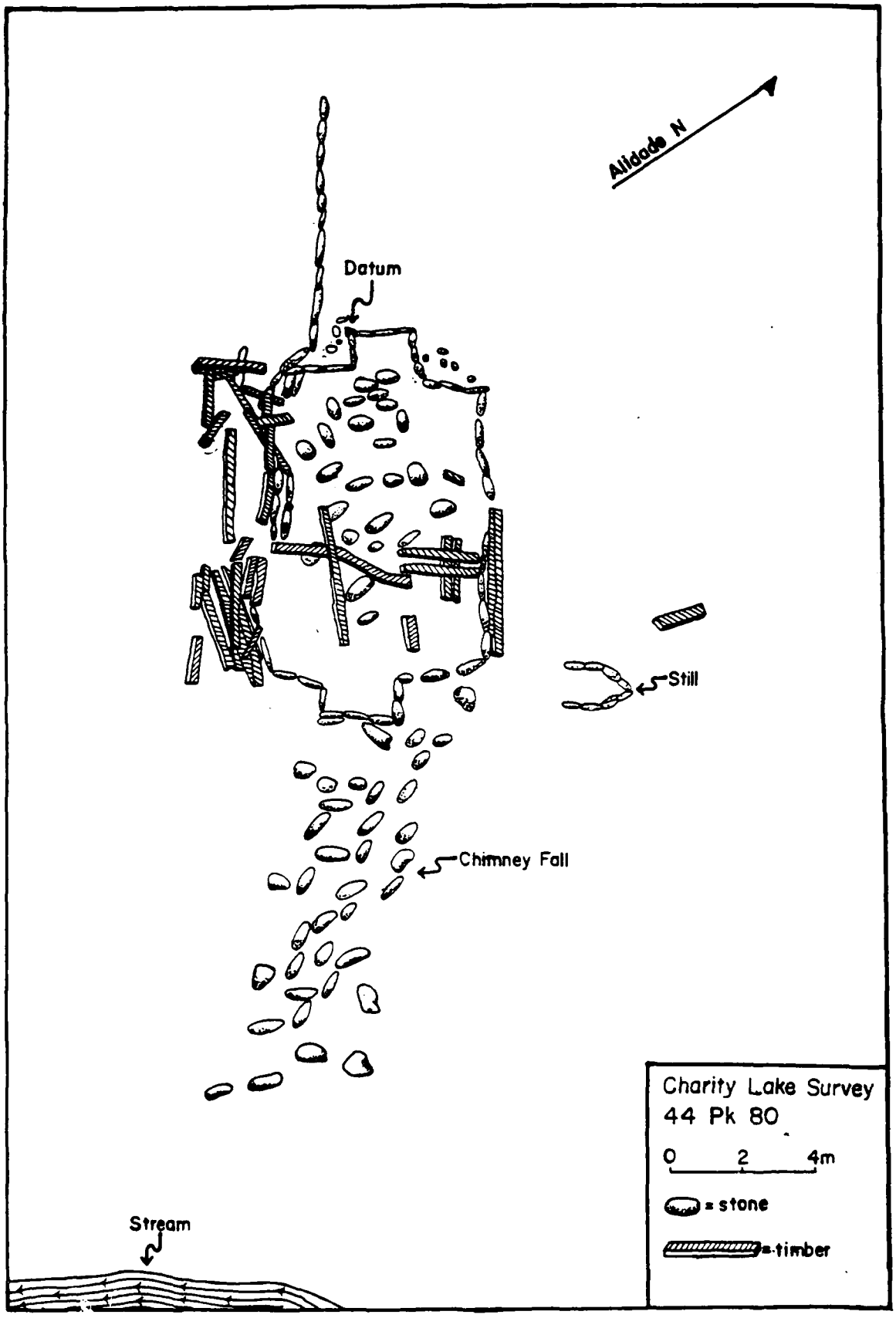


Figure 22. Ground Plan, 44Pk80, USRB, Virginia.

Various unnatural features regarding the general landforms suggested alteration of the area by road construction, terracing and stream diversion or ditching. Present vegetation was various hardwoods mixed with conifers, along with patches of periwinkle and cedar.

The structure was in a poor state of preservation. Some wooden beams remained, but they were in an advanced stage of decomposition.

Should Damsite "A" be chosen for construction, this site will be impacted by flooding. Should Damsites "B" or "C" be chosen for construction, this site should not be affected by the proposed project.

1. Soil Type: Red sandy clay.

2. Distance to Water: 42.6 m to north of Smith River.

3. Cultural Affiliation: Historic (For this structure and others to follow, the absence of a more specific age ascription indicates the lack of temporal diagnostic information. Such sites can only be broadly dated from the end of the eighteenth century to the end of the nineteenth century.)

4. Stratigraphic Condition: None noted.

5. State of Preservation: Poor; fieldstone foundation and chimney remain.

6. Areal Extent: 27.2 m east-west; 14 m north-south. Log structure foundation measured 5.8 m by 7.6 m (19 ft by 25 ft).

7. Elevation: 1020 feet AMSL

8. Slope: 18 degrees

9. Exposure: Southwest

10. Condition of Feature: Not tested.

No artifacts were collected.

44Pk101

Archeology Laboratories Site: AL37

44Pk101 was an historic spring house built into a gulley on a steep slope above the Smith River. An old road bed was located 25 m north of this site, but a concentrated search of the vicinity failed to reveal any evidence of an historic residential structure. The vegetation was blackberry

undergrowth with an oak-hickory secondary growth. The site consisted of naturally occurring rock that had been piled across a small spring and its adjacent drainage area. A small opening was built into the bottom of the structure by offset placement of the fieldstones with water forming a small pool inside. No collections or subsurface tests were made.

Should Damsites "A" or "B" be chosen for construction, this site will be affected by flooding. Should Damsite "C" be chosen for construction, this site will not be affected by the proposed project.

1. Soil Type: Not noted.
2. Distance to Water: The Smith River lies 133 m to the east.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Good, fieldstones remain in place and contain the spring.
6. Areal Extent: 4.3 m north-south; 1.4 m in height.
7. Elevation: 1180 feet AMSL
8. Slope: 18 degrees
9. Exposure: East
10. Condition of Features: Good.

No artifacts were collected.

44Pk125

Archeology Laboratories Site: AL44

44Pk125 was an historic structure located at the base of a ridgetoe overlooking the Smith River. The vegetation consisted of beech, pine and oak. The site was located within the boundaries of 44Pk124, and consisted of a foundation of rough fieldstones cut approximately square and oriented on the cardinal directions.

Some highly decomposed wood along with wire nails were recovered within the foundation, although one cut nail conformed to those styles used between 1820 and 1860 (Nelson 1968). Testpits used to assess 44Pk124 produced wire nails mixed with prehistoric artifacts to 16 cm below surface.

Should Damsite "A" be chosen for construction, this site

will be affected by flooding. Should Damsite "B" or "C" be chosen it will not be affected by the proposed project.

1. Soil Type: Not noted.

2. Distance to Water: Smith River lies 85.3 m to the northwest.

3. Cultural Affiliation: Historic, circa 1820 to 1860.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; only fieldstone foundations remain.

6. Areal Extent: 5.4 m north-south; 5.7 m east-west (17.7 ft by 18.7 ft).

7. Elevation: 1020 feet AMSL

8. Slope: 21 degrees

9. Exposure: Northwest

10. Condition of Features: Poor; structure destroyed except for fieldstone foundation. No subsurface excavation conducted.

Artifacts Collected

1 Nail: machine cut

Total Artifacts: 1

44Pk130

Archeology Laboratories Site: AL50

44Pk130 was an historic house foundation located on a ridgetoe and adjacent to the west bank of the Smith River. The vegetation consisted of rhododendron, blackberry, oak, beech and dogwood.

The site is marked by the trace of a fieldstone foundation line and several pieces of badly rusted roof tin. No structural evidence remained. A total of 15 rock piles extended from the house downslope to the southeast. These piles probably resulted from land clearing activities associated with the site.

No collections or subsurface tests were made. One relic hunter's hole was found within the outline of the foundation. This pit measured approximately 1 m square and was dug to approximately 80 cm below ground surface.

44Pk130 will be affected by flooding should any of the dam sites be chosen for construction.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 40.6 m southeast.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, only fieldstone and quartzite foundation stones remain.

6. Areal Extent: 168 m southwest-northeast; 61 m southeast-northwest. Foundation measures 5.6 m by 4.5 m, or 18.4 ft by 14.8 ft.

7. Elevation: 1170 feet AMSL

8. Slope: 10 degrees

9. Exposure: Southeast

10. Condition of Features: Poor, relic hunter's pit lies in the center of the structure.

No artifacts were collected.

44Pk138

Archeology Laboratories Site: AL58

44Pk138 was an historic structure located on a terrace near the confluence of an unnamed feeder stream and Poplar Camp Creek. The vegetation consisted of oak, pine, beech and dogwood. The site contained an old foundation line of rough-cut fieldstone, a standing fieldstone chimney chinked with mud, and rotted timbers studded with cut and wire nails indicating the building once was weatherboarded. The fireplace is noteworthy in that a single, large stone forms its lintel.

No collections or subsurface tests were made on this site. Very little erosion or other disturbance was noted. This site will be flooded as a result of the proposed project regardless of the damsite selected.

1. Soil Type: Not noted.

2. Distance to Water: 60.9 m to the confluence of a small branch and Poplar Camp Creek.

3. Cultural Affiliation: Historic, probably 1800-1850.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, only fieldstone foundations and chimney remain standing.

6. Areal Extent: 6.6 m north-south; 6.2 m east-west (21.7 ft by 20.3 ft).

7. Elevation: 1140 feet AMSL

8. Slope: 21 degrees

9. Exposure: North

10. Condition of Features: Poor, structure not intact. Fieldstone foundation and chimney remains.

No artifacts were collected.

44Pk146

Archeology Laboratories Site: AL66

44Pk146 was an historic barn located at the edge of a plowed millet field near Poplar Camp Creek. The site consisted of the remnants of a wooden barn that had been removed from its foundation (which was not located) as a result of plowing or land clearing activities. The remains were piled as rubble from bulldozing. The site contained a plow fragment and part of an old tractor(1910's-1920's). The barn timbers were notched and contained wire nails. Plowing or land clearing activities had apparently destroyed this structure.

The site will be affected by flooding if any of the three alternative damsites are selected for construction.

1. Soil Type: Not noted.

2. Distance to Water: 15.2 m northwest of Poplar Camp Creek.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; the structure has been either knocked down or bulldozed within the recent past.

6. Areal Extent: 6.2 m northwest-southeast; 11.7 m northeast-southwest (20.3 ft by 38.4 ft).

7. Elevation: 1160 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southeast

10. Condition of Features: Poor.

No artifacts were collected.

44Pk147

Archeology Laboratories Site: AL67

44Pk147 was an historic homestead site located on a floodplain of Poplar Camp Creek. A small unnamed feeder stream of Poplar Camp Creek ran through a springhouse (Structure E) associated with this site. The site was a complex of 6 buildings and an abandoned trailer. Structure A was a 3.9 m x 2.5 m (12.8 ft x 8.2 ft) log outbuilding with square-notched joints. The joints were not chinked and there was no foundation. Logs were hand-hewn and the crossbeams at the top were pegged. A variety of nails were in evidence sticking out of the logs: cut, wire and possible wrought nails were noted.

Structure B, "Mack's shack" as noted by the sign over the door, was a modern building.

Structure C was a vertical board outbuilding measuring 4 m x 5.2 m (13.1 ft x 17.1 ft). Both cut and wire nails were in evidence.

Structure D was a vertical board barn constructed with wire nails and measured 24.1 m x 14.2 m (79.1 ft x 46.6 ft).

Structure E was a modern spring house measuring 3.5 m x 3.5 m (11.5 ft x 11.5 ft).

Structure F was a poorly defined foundation that appeared to be L-shaped. The most clearly defined section of the foundation ran ne/sw and measures 7.6 m x 5.2 m (24.9 ft x 17.1 ft). It appeared to be of hand-made local brick, and remains of a brick fireplace also were evident. At a right angle to and adjoining the brick foundation were remains of a fieldstone foundation, but excavation of the site would be necessary to determine its exact size. Several logs with cut nails were noted. The building appeared to have been a log structure dating from the first half of the nineteenth century with a brick ell addition. The general area was relatively unaffected by erosion. One outbuilding had been moved onto the site from another location, and some of the bricks used in the house have been robbed for the construction of other buildings.

This site will be affected by flooding should any of the

three damsite locations be used.

1. Soil Type: Not noted.

2. Distance to Water: 167.6 m northwest of Poplar Camp Creek.

3. Cultural Affiliation: Historic, 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good to fair; Some reconstruction and restoration done.

6. Areal Extent: 122 m north-south; 61 m east-west.

7. Elevation: 1180 feet AMSL

8. Slope: 2 degrees

9. Exposure: South.

10. Condition of Features: Good; some restoration done.

No collections were made.

44Pk149

Archeology Laboratories Site:AL69

44Pk149 was a frame house located on a ridgetoe overlooking the Smith River. The vegetation consisted of grass and blackberry thickets. Yucca, daffodil and American boxwoods had been planted around the structure. No subsurface tests were made. Some erosion, due to numerous road cuts, was noted in the area.

This structure measured 5.1 m x 4.7 m (16.7 ft x 15.4 ft). Its exterior was primarily vertical board and batten; the rear was weatherboarded, all over a frame substructure. The interior contained two rooms (one downstairs and a loft). The loft was reached by a corner stair, typical of the type found in colonial structures as early as the seventeenth century. The general construction techniques and presence of only wire nails suggest a late nineteenth century date for this building.

This site would be inundated by all three project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 152 m to the north.

3. Cultural Affiliation: Historic, late 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair; framing and weatherboards remain. Heavy erosion in the area due to numerous road cuts.

6. Areal Extent: 5.1 m northwest-southeast; 4.7 m northeast-southwest (16.7 ft by 15.4 ft).

7. Elevation: 1180 feet AMSL

8. Slope: 5 degrees

9. Exposure: Northwest

10. Condition of Features: Fair.

Artifacts Collected

3 Sherds: glass

Total Artifacts: 3

44Pk152

Archeology Laboratories Site: AL72

44Pk152 was an historic springhouse located adjacent to a small unnamed rank one stream southeast of the Smith River. Vegetation consisted of mixed hardwoods, principally oak, hickory, poplar and maple, with a ground cover of club moss (Lycopodium complanatum). The soil was a highly micaceous sand.

The site was a dome-shaped springhouse constructed of naturally occurring fieldstone mortared by cement. This structure would be flooded if any of the three damsite locations is selected for use.

1. Soil Type: Highly micaceous sand.

2. Distance to Water: An unnamed rank one stream lies 1 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Very good; domed structure remains intact.

6. Areal Extent: 1.2 m northwest-southeast; 1.2 m

northeast-southwest

7. Elevation: 1180 feet AMSL

8. Slope: 18 degrees

9. Exposure: Southwest

10. Condition of Features: Very good; structure well-preserved.

No artifacts were collected.

44Pk155

Archeology Laboratories Site: AL75

44Pk155 was an historic house site located at the head of a cove along the Smith River. The vegetation consisted of a pine forest north of the site and an old apple orchard to the southwest, surrounded by a mixture of grasses and blackberry thickets. The site contained two adjacent structures located 7.2 m apart. A measured 6.1 x 5.4 m (20 ft x 17.7 ft) with v-notch joints, resting on a raised foundation providing a level base for the sill logs. The structure had front and back doors opposite each other, a window on the south side, and a window to the right of the front door. The fieldstone chimney had collapsed. Remnants of firring strips provided evidence that the logs were originally covered with weatherboard. Shake shingles were visible on the ground where the roof had collapsed. Judging by the joists still evident the interior included a loft. The fireplace opening was large, 1.9 m x 1.9 m. All logs were hand-hewn and displayed many hand-forged and cut nails, indicating a late eighteenth or early nineteenth century construction date.

Structure B was located 7.2 m south of A, and exhibited hand-hewn logs with half-dovetail joints and opposing front and back doors. Both cut and wire nails were visible in the logs, indicating the logs were probably once covered with weatherboards and that this is a later structure than A. Both cabins faced south, a common orientation in late eighteenth and early nineteenth century building.

Despite the fallen roof and chimney Structure A was in remarkably good repair. The pair of structures provided excellent examples of the building types produced in the area. Heavy erosion had occurred on a hill northeast above this site, but erosion around the structures was slight to moderate. This site will be affected by flooding as a result of construction on any of the three damsite locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage was located

30.8 m to the south.

3. Cultural Affiliation: Historic, late 18th or 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair; parts of structure remain intact.

6. Areal Extent: 5.4 m north-south; 19.8 m east-west (foundation of Structure A measures 5.4 m north-south and 6.1 m east-west, or 17.7 ft by 20 ft; foundation of Structure B is 4.9 m north-south and 6.5 m east-west, or 16 ft by 21.3 ft).

7. Elevation: 1170 feet AMSL

8. Slope: 2 degrees

9. Exposure: West

10. Condition of Features: None noted.

No artifacts were collected.

44Pk157

Archeology Laboratories Site: AL77

44Pk157 was an historic foundation line, built of naturally occurring fieldstone, located on a terraced area above an unnamed feeder stream of the Smith River. The vegetation surrounding the site area consisted of beech and oak. No additional structural components remained at the site, but a metal cog from some unidentified piece of machinery was found in association with the foundation. No surface collections or subsurface tests were made.

This site will be flooded by any of the three project locations.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage is 30.8 m north of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the site was abandoned.

6. Areal Extent: 6.3 m northeast-southwest; 4.8 m northwest-southeast (20.7 ft by 15.7 ft).

7. Elevation: 1150 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk158

Archeology Laboratories Site: AL78

44Pk158 was an historic spring house along a small feeder stream of the Smith River. The vegetation of the site area consisted of beech and oak. The site included a small natural spring covered with naturally occurring fieldstone mortared together with concrete; the top of the spring house was covered with an old millstone. This site was probably associated with 44Pk155, located 43 m downstream along the drainage. No surface collections or subsurface tests were made at the site.

This site will be flooded by any of the three damsite locations.

1. Soil Type: Not noted.

2. Distance to Water: The site was located at the head of an unnamed drainage of the Smith River.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, the structure remains intact.

6. Areal Extent: 1 m north-south; 2.6 m east-west.

7. Elevation: 1170 feet AMSL

8. Slope: 16 degrees

10. Condition of Features: None noted.

No artifacts were collected.

44Pk164

Archeology Laboratories Site: AL84

44Pk164 was an historic house foundation located on a terraced area within a cove along an unnamed feeder stream of the Smith River. The vegetation was mixed grasses, young beech and oak. The site revealed a foundation and a standing chimney constructed of naturally occurring fieldstone, with a few fragments of an old wood stove in association with the structure. Very little erosion was noted.

No collections or subsurface tests were made. The site will be affected by flooding should a dam be constructed on any of the three proposed damsites.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage was located 15 m south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; structure was not intact.

6. Areal Extent: 4.8 m north-south; 6.1 m east-west (15.7 ft by 20 ft).

7. Elevation: 1190 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Fr145

Archeology Laboratories Site: AL91

44Fr145 was an historic site located on a terraced area overlooking Shooting Creek. The vegetation consisted of beech and oak. The site contained fieldstone chimney fall and a large depression where a structure likely once stood, probably a cabin. No foundation line was found and none of the chimney remained upright.

No collections or subsurface tests were made here. The site will be flooded by any of the three project dam locations.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek is located 19.6 m south.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; foundation missing, probably borrowed.

6. Areal Extent: 4.9 m north-south; 11.2 m east-west

7. Elevation: 1170 feet AMSL

8. Slope: 3 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk173

Archeology Laboratories Site: AL93

44Pk173 was an historic structure located on a floodplain northeast of Shooting Creek. The vegetation included mixed grasses, wild yucca, and thickets of blackberries. Surrouding the area was a tree farm of white pines. The site consisted of a portion of a fieldstone foundation atop a mound of dirt. One .5 m testpit was placed adjacent to the site to test for slag or artifacts which might indicate the site's function, but no artifacts were recovered. This site held the possibility of being a light industrial structure, a possible kiln. An old road trace was located adjacent and south of the site.

No artifact collections were made. This site will be affected by flooding should a dam be placed in any of the three alternative locations.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek was located 12 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: Not noted.

5. State of Preservation: Poor; foundation line possibly destroyed as a result of land clearing activities.

6. Areal Extent: 25 m northeast-southwest; 10 m northwest-southeast

7. Elevation: 1100 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk177

Archeology Laboratories Site: AL97

44Pk177 was a ruined historic house located on a terrace overlooking the floodplain of Shooting Creek. The vegetation was mixed grasses and blackberries. The house had a foundation line of roughcut fieldstone with chimneys located on either end. The site had been used as a garbage dump and various assorted pieces of trash were scattered about, including discarded furniture, pieces of metal and crockery. Strong evidence of fire -- charred debris and melted glass -- was observed, along with hand-made brick and cut nails. The structure likely dated to the first half of the nineteenth century.

No surface collections or subsurface tests were made at this site, which would be flooded by dams on any of the project alternative locations.

1. Soil Type: Not noted.

2. Distance to Water: Shooting Creek is located 73.8 m to the east of the site.

3. Cultural Affiliation: Historic, 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor, the house had been destroyed by fire.

6. Areal Extent: 21.7 m north-south; 6.3 m east-west (71.1 ft by 20.7 ft).

7. Elevation: 1070 feet AMSL

8. Slope: 2 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk190

Archeology Laboratories Site: AL110

44Pk190 was an historic farmstead located near a ridgetoe overlooking the Smith River, in an area covered by a mixed hardwood forest. The site consisted of a house foundation with a standing fireplace made of naturally occurring fieldstone. Also within the site area was a small apple orchard on a knoll overlooking the head of an unnamed feeder creek of the Smith River. A spring house constructed of dry laid fieldstone was found in a gulley below the house at the head of the feeder creek. A pile of crushed corrigated tin had been deposited in a refuse pile located in another gulley southeast of the house. A barbed wire fence ran behind the site foundation. Located on a slope to the south of the house was a cemetery, 44Pk199.

The house foundation measured 6.6 m by 6 m (21.5 ft. by 19.5 ft.) while the foundation of the adjacent spring house measured 1.3 m by .8 m by .5 m in height (4.2 ft. by 2.6 ft. by 1.6 ft.). No surface collections or subsurface tests were made. This site will be flooded by any of the three alternative damsite locations.

1. Soil Type: Not noted.
2. Distance to Water: The head of an unnamed feeder stream of the Smith River lies 62 m north of the house.
3. Cultural Affiliation: Historic, late 19th - early 20th century.
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Fair, the foundation stones are the only remains of the house. The spring house was still usable.
6. Areal Extent: 76.9 m northeast-southwest; 80 m northwest-southeast
7. Elevation: 1190 feet AMSL
8. Slope: 8 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk207

Archeology Laboratories Site: AL127

44Pk207 was an historic house located on a terrace west of an unnamed feeder stream of White Oak Creek. The vegetation was mixed grasses, with the house located between two cultivated fields. The structure was a typical central-hall I-house, frame-sided with clapboards, with a symmetrical front and centered door. The foundation, exclusive of the ell, measured 12.5 m x 5.1 m (41 ft x 16.7 ft). Second story windows were directly above the ground floor openings, and a one-story porch was centered on the front.

The central-hall I-house was perhaps the most common folk house type in the eastern U.S. The type first appeared in the eastern part of the state in the late eighteenth century but probably not in the survey area until mid-nineteenth century. Further investigation of structural details and artifacts is needed to determine the approximate construction date of this example, but the style of the porch turnings indicated a late nineteenth century placement. A modern brick ell had been added to the rear of the house. Although modern in construction, the ell was a common modification of the I-house. Also present nearby was a spring house foundation, made of fieldstone chinked with concrete.

No surface collections were made at 44Pk207. The site will be inundated if dam construction occurs at any of the alternative locations.

1. Soil Type: Not noted.
2. Distance to Water: A spring is located 19.4 m to the southeast of the structure.
3. Cultural Affiliation: Historic, late 19th, early 20th century.
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Good, structures remain intact.
6. Areal Extent: 12.5 m north-south; 5.1 m east-west.
7. Elevation: 1100 feet AMSL
8. Slope: 8 degrees
9. Exposure: Southeast
10. Condition of Features: None noted

No artifacts were collected.

44Pk209

Archeology Laboratories Site: AL129

44Pk209 was an historic farmstead located on a terraced area and floodplain to the west of a feeder stream of White Oak Creek, with vegetation of mixed grasses. The site consisted of a complex of seven structures: log cabin, weatherboarded house with ell, tool shed, garage, chicken coop, barn, outhouse, and sty. A was a single story log structure 6.9 m x 5.1 m (22.6 ft x 16.7 ft) with half dovetail and square-notched joints, front and rear doors, and was situated on a slight slope. The front door faced southwest. Joists for a loft were evident, and two small windows, one up and one down had been cut in the end wall to the rear of the chimney. Part of the original fieldstone foundation had been replaced with cinderblock, and a modern sawn board lean-to attached to the back or northwest face. Vertical wood strips placed at regular intervals were attached to the logs with cut nails, and weatherboarding was probably once attached to these strips. Construction probably occurred in the first half of the nineteenth century.

B appeared to be a central-hall I-house in good repair. An ell was attached to the rear. Both house and ell were sided with weatherboarding using wire nails. The front door was centered and flanked by two windows. Second floor windows were aligned above first floor openings.

C was a 9.4 m x 9.4 m (30.8 ft x 30.8 ft) barn constructed of vertical boards and wire nails. It had a central door front and back, and included a hayloft and stables.

All other structures on this site were of modern construction and did not fall within the scope of this work. No surface collections or subsurface tests were made. 44Pk209 will be flooded by all three project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed feeder stream of White Oak Creek lies 14.5 m east of the house.

3. Cultural Affiliation: Historic, early to mid-nineteenth century through the present.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, structures remained intact.

6. Areal Extent: 90 m northeast-southwest; 160 m northwest-southeast.

7. Elevation: 1160 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk218

Archeology Laboratories Site: AL138

44Pk218 was an historic house located on a ridgetoe between the Smith River and an unnamed drainage. The vegetation consisted of an oak and beech forest with mixed grasses immediately surrounding the house. The site contained a fieldstone foundation 10.8 m x 4.4 m (35.4 ft x 14.4 ft) and two fieldstone chimneys, the southern one carved with 1806 JI, 3.5 m above grade. The foundation was built on a slope, dropping markedly from north to south. The south chimney hearth was 1.6 m above grade while the north chimney hearth was slightly less than one m above grade, indicating that the sill logs would have been placed on a level surface to insure that the log structure would have right angle corners.

In addition to the structural evidence provided by this site, the chimney date was important in documenting the settlement patterns found in the area. This was the only log structure with a firm date and initials which could identify specific settlers. Associated with the structure were several piles of fieldstone and an historic cemetery. The cemetery had fieldstone markers and was located upslope from the house, out of the survey area, but very near a now-abandoned sawmill. Logging activities probably associated with that sawmill had used the area around the house as an access road and staging area.

Should Damsite "A" or "B" be chosen for construction, this site will be affected by occasional flooding from fluctuating water levels. Should Damsite "C" be chosen for construction, the site will be flooded.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 154 m to the southwest.

3. Cultural Affiliation: Historic, early 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Poor; area used by loggers as a staging area.

6. Areal Extent: 31 m north-south; 77 m east-west. Foundation = 10.8 m (35.1 ft) north-south; 4.4 m (14.3 ft) east-west.

7. Elevation: 1150 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk168

Archeology Laboratories Site: AL147

44Pk168 was an historic house site located on a terrace on the north side of the Smith River. The vegetation consisted of mixed grasses, American boxwoods, wild sweet peas and adjacent mixed hardwoods. The site consisted of a frame house in good repair along with a large barn. The house was one and a half stories with a large dormer in the front and rear, and its foundation measured 12.1 m x 13 m (39.7 ft x 42.7 ft). Porches ran the full width of the house both front and back and the foundation appeared to be of concrete with large cobble aggregate. The rear porch was raised to accomodate a slope behind the structure. Windows were double hung casements with 4 vertical panes in the upper casement. The front door was centrally located and flanked by two windows. On the rear a double window was flanked by a pair of doors. The gable-end chimneys were enclosed and placed below the ridge on the rear (west) slope of the tin roof. The north chimney had two dates scratched into the brick. These were difficult to read, but appeared to be Oct. 17, 1856 (66?) and Oct. 1884. Further investigation of construction details on the interior of this structure is needed to approximate its construction date.

Located 50 m northeast of the house was a large barn of sawn vertical boards. The structure measured 9.5 m x 5.8 m (31.2 ft x 19 ft). The roof had a single pitch to the south. On the east and north ends were two small doors at ground level, and on the south were doors opening into livestock stalls. The north and south sides also had small doors accessing a hayloft. All evident nails were wire. A modern outhouse was also associated with this site. No surface collections or subsurface tests were made.

Should Damsites "A" or "B" be chosen for construction, this site will be affected only periodically by flooding from high water levels. Should Damsite "C" be chosen for construction, this site will be inundated.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage was located 39.5 m to the west.

3. Cultural Affiliation: Historic, late 19th - early 20th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, structures remained intact.

6. Areal Extent: 22 m north-south; 92 m east-west.

7. Elevation: 1190 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

No artifacts were collected.

44Pk169

Archeology Laboratories Site: AL148

44Pk169 was an historic homestead located on a seasonal terrace on the north side of the Smith River, now covered with a thicket of vines and weeds. The site consisted of a foundation line measuring 16.7 m x 6.5 m (54.8 ft x 21.3 ft), one standing chimney and a pile of deteriorated timbers. The length of the foundation suggested that a second chimney and hearth had fallen and were overgrown. Fragments of weatherboard provided evidence that the structure apparently was sided over hewn logs. The appearence of cut nails in the weatherboards dated the structure to the first half of the nineteenth century, probably the 1830's. The fireplace was shallow and unusually decorative for this area. The roof of the opening was arched and set with a single row of bricks along the top of the opening. The stones above the brick were plastered revealing only the brick. The presence of the weatherboarding and the brick detail of the fireplace were noteworthy. The pile of hand-hewn timbers, 8 m by 8.8 m, was located 31 m southwest of the foundation. No surface collections or subsurface tests were made. 44Pk169 will not be affected by the proposed project because it is located outside the limits of the power pool.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage was located 31 m to the west.

3. Cultural Affiliation: Historic, middle 19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair, some timbers remain.

6. Areal Extent: 49 m north-south; 9 m east-west.

7. Elevation: 1220 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

No artifacts were collected.

44Pk229

Archeology Laboratories Site: AL163

This historic building sat on a terrace overlooking Poplar Camp Creek, on land now used as pasture. The log structure, measuring 4.5 m x 4.2 m (14.8 ft x 13.8 ft) with half dovetail joints, was being used as a hay rick when visited. According to oral references (1985) the structure was moved from its original foundation; presently it does not sit on a foundation, and has been detached from its original chimney and hearth. The original foundation and hearth have not been located. Milled boards had been nailed over the fireplace opening and a lean-to added to the original front of the structure. This site will be flooded as a result of the proposed project, regardless of the damsite selected.

1. Soil Type: Not noted.

2. Distance to Water: Poplar Camp Creek was located 90 m south of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good; structure had been dismantled, moved and reassembled.

6. Areal Extent: 15 m northwest-southeast; 15 m northeast-southwest

7. Elevation: 1150 feet AMSL

8. Slope: 4 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

Site Descriptions: Rock Piles and Walls.

44Pk77

Archeology Laboratories Site: AL5

44Pk77 was an historic site located on a ridgetop and slope overlooking the Smith River. The vegetation consisted of mixed hardwoods and conifers. The site consisted of 32 separate piles of mixed cobbles of quartzite, quartz and irregular granitic fieldstone scattered across the ridgetop and adjacent southwest slope. The piles that occurred on the slope were aligned downslope in a straight line.

The rock piles had an average width of 3.04 m, an average length of 5.01 m, and an average height of 3.75 m. A total of 30 rock piles were oriented with their short axis parallel to the slope.

One rock pile located below the 1200 feet AMSL contour level was bisected and inspected for evidence of subsurface features and/or prehistoric artifacts. The soil beneath this rock pile revealed very rocky yellowish brown sandy clay to 40 cm, over red micaceous clay. While no culturally derived stratigraphy or features were noted, two prehistoric quartz artifacts were recovered at 15 cm below surface.

The rock piles at 44Pk77 probably resulted from historic land clearing activities (Garrow 1980; House and Ballenger 1976:104). The rock piles were situated on a relatively flat ridgetop which, once cleared, would have provided several hectares of land suitable for cultivation.

Should Damsite "A" be chosen for construction, this site will be affected by flooding. Should Damsites "B" or "C" be chosen for construction, this site should not experience any affects from the actions of water or construction as a result of this project.

1. Soil Type: Sandy clay over red clay.
2. Distance to Water: The Smith River was located 76 m South of the site.
3. Cultural Affiliation: Historic, prehistoric.
4. Stratigraphic Condition: Heavily eroded.
5. State of Preservation: Good, the rock piles remained intact.
6. Areal Extent: 82.5 m north-south; 107 m east-west.

7. Elevation: 1080-1130 feet AMSL

8. Slope: 8 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

Artifacts Collected

Excavation Unit 1
2 Shatter: quartz

Total Artifacts: 2

44Pk82

Archeology Laboratories Site: AL10

44Pk82 was located on a steep slope adjacent to the Smith River. The site was made up of a wall constructed of naturally occurring stacked fieldstone, oriented perpendicular to the natural slope. The length of the wall was 8.9 m, the width was 1.9 m, and the height was 1.0 m. No collections were made on this site. Surface inspection revealed no prehistoric artifacts.

Erosion was great in the area due to the steepness of the slope. Vegetation was mixed hardwoods dominated by beech, dogwood and maple.

Should Damsite "A" be chosen for construction, this site will be flooded. Should Damsite "B" be chosen for construction, this site will be affected by activities associated with the construction of the dam. Should Damsite "C" be chosen this site will not be affected.

1. Soil Type: None noted.

2. Distance to Water: 30 m

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits dug.

5. State of Preservation: Good

6. Areal Extent: 8.9 m east-west; 1.9 m north-south

7. Elevation: 1020 feet AMSL

8. Slope: 36 degrees

9. Exposure: Southwest

10. Condition of Feature: No subsurface feature noted or assessed.

No artifacts were collected.

44Pk135

Archeology Laboratories Site: AL55

44Pk135 was an historic rock wall located across a gulley north of Poplar Camp Creek. One half of the rock wall was in a pasture while the remainder was located within a forest remnant of oak, beech, dogwood and sourwood. The site consisted of naturally occurring fieldstones stacked one atop the other to intersect a (probable) intermittant stream.

Any of the three dam site locations would flood this site.

1. Soil Type: Red clay.
2. Distance to Water: 170.7 m north of Poplar Camp Creek.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: N/A
5. State of Preservation: Good, stones remain in place.
6. Areal Extent: 16.1 m northwest-southeast; 4.6 m northeast-southwest.
7. Elevation: 1160 feet AMSL
8. Slope: 18 degrees
9. Exposure: Southwest
10. Condition of Features: Good, cobbles remain in place.

No artifacts were collected.

44Pk165

Archeology Laboratories Site: AL85

44Pk165 was an historic rock pile site located on the terraced portion of a ridgetoe at the confluence of two unnamed feeder streams of the Smith River. The vegetation consisted of mixed hardwoods, primarily oak, hickory and maple; there was some disturbance in the vicinity by logging roads. Twelve piles of quartz and quartzite cobbles were found spaced irregularly within a 1900 square m area. The rock piles ranged in diameter from 1.9 m to 3.4 m.

No collections or subsurface tests were made on this site, which will be flooded should any of the three damsites be selected for construction.

1. Soil Type: Not noted.

2. Distance to Water: An unnamed drainage lies 18.2 m west.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good; the piles remained intact.

6. Areal Extent: 64.5 m north-south; 29.5 m east-west

7. Elevation: 1150 feet AMSL

8. Slope: 3 degrees

9. Exposure: Northwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk166

Archeology Laboratories Site: AL86

44Pk166 was an historic rock pile site located at the base of a ridge overlooking the Smith River. Vegetation consisted of dogwood, beech and oak. The site was a series of 33 piles of stacked fieldstone spaced intermittently along the base of a large ridge system. The piles ranged from .4 to 1.2 m in height and .5 to 2.6 m in diameter.

No collections or subsurface tests were made. The site will be flooded by construction on any of the three alternative damsites.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River is 30 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good; the rock piles remain intact.

6. Areal Extent: 190 m northwest-southeast; 25 m northeast-southwest

7. Elevation: 1100 feet AMSL

8. Slope: 55 degrees

9. Exposure: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk203

Archeology Laboratories Site: AL123

44Pk203 was a series of historic rock piles located in mixed hardwoods, on the slope of a ridgetoe across two erosional gullies. The site showed nine piles of stacked quartz boulders aligned across the gullies. The lengths of the piles ranged from 3 m to 6.9 m, with heights from .3 m to .9 m. The piles extended over an area of 9075 square m, and apparently were constructed to control erosion from the ridgetoe above.

No surface collections or subsurface tests were made. The site will be inundated should dam construction occur on any of the alternative locations.

1. Soil Type: Not noted.

2. Distance to Water: White Oak Creek lies 69 m to the southwest.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, piles were intact.

6. Areal Extent: 165 m north-south; 55 m east-west.

7. Elevation: 1140 feet AMSL

8. Slope: 18 degrees

9. Elevation: Southwest

10. Condition of Features: None noted.

No artifacts were collected.

44Pk220

Archeology Laboratories Site: AL140

44Pk220 was an historic rock pile site located on a terrace above White Oak Creek, found in mixed hardwoods. The site showed four piles of quartz and quartzite rocks, with diameters betweeen 1 and 4 m and heights between .3 and 1.1 m. These piles possibly resulted from field-clearing activities on a small floodplain adjacent to the site.

Should Damsite "A" or "B" be chosen for construction, this site will be only occasionally affected by flooding dependent on the fluctuation in the level of the lake. Should Damsite "C" be chosen for construction, this site will be flooded.

1. Soil Type: Not noted.
2. Distance to Water: White Oak Creek was located 61.5 m to the northeast.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Good; piles remain intact.
6. Areal Extent: 10 m north-south; 12.5 m east-west
7. Elevation: 1150 feet AMSL
8. Slope: 24 degrees
9. Exposure: Northeast
10. Condition of Features: None noted.

No artifacts were collected.

44Pk221

Archeology Laboratories Site: AL141

44Pk221 was an historic rock pile site located on a slope overlooking the Smith River, in a stand of mixed hardwoods. The site had two rock piles composed of quartz cobbles. One pile measured 2.6 m in length, 2.6 m in width and 1.3 m in height, the other 3.5 m in length, 2.7 m in width and 1 m in height. The piles were aligned on a north to south axis and apparently were not associated with any other cultural features.

Should Damsite "A" or "B" be chosen for construction, this site will be affected by occasional flooding dependent upon the level of the lake. Should Damsite "C" be chosen for

construction, this site will be flooded.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River was located 148 m to the west of the site.

3. Cultural Affiliation: Historic

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good; the rock piles remain intact.

6. Areal Extent: The distance between the two piles was 9 m

7. Elevation: 1120 feet AMSL

8. Slope: 15 degrees

9. Exposure: West

10. Condition of Features: None noted.

No artifacts were collected.

Site Descriptions: Historic Cemeteries

44Pk239

Archeology Laboratories Site: AL36

44Pk239 was an historic cemetery located on top of a hill overlooking the Smith River. The surrounding area had been heavily timbered, and was covered in blackberry and young sumac. The Smith River was located 345 m to the northeast. The cemetery was enclosed by a wire fence measuring 28 m north, 28 m west, 23 m south, and 28 m east. Several boxwoods and cedar trees were planted in the cemetery, evidently in conjunction with the interments. Ground cover within the cemetery was provided by periwinkle.

The enclosure itself contained eight marked graves and six depressed areas where unmarked graves may have been located. A brief description of the stones follows.

1. This grave was marked by a gray marble head stone and foot stone. The head stone was inscribed with a dove in flight, enclosed by a circle. The information inscribed on the head stone was:

Thomas R. Moran
Nov. 9 1855

Nov. 11 1914

The foot stone was inscribed with the initials TRM.

2. This grave was marked by a gray marble head stone and foot stone. The head stone was decorated with an inscribed cross and crown, surrounded by a wreath. The epitaph "Safe in the arms of Jesus" was also inscribed on the stone, with:

Ogie E. Moran
May 20 1849
Nov 16 1903

The foot stone was inscribed with the initials OEM.

3. This grave was marked by badly eroded fieldstone head and foot stones. No inscriptions remained.

4. This grave was marked by a gray marble head stone and foot stone. The head stone was inscribed with a lamb, and a rising sun appeared in the background. The epitaph "Our darling one" appeared on the head stone, and the personal information on the stone was as follows:

Thomas H. Moran
Sept. 21, 1921
Jan. 20, 1923

The foot stone was inscribed with the initials THM.

5. This interment was marked by a gray marble head stone and foot stone. The head stone was inscribed with a cross surmounted by a crown, enclosed by a wreath; the epitaph read "Darling we miss thee". The personal information was:

Gay A. Martin
Aug 25, 1917
June 23, 1920

The foot stone was inscribed with the initials GAM.

6. This grave was marked by a gray marble head stone and foot stone. The head stone was inscribed with a crown, cross, and wreath, and the epitaph "Darling we miss thee." The personal information was:

Bessie A. Martin
May 24, 1907
Aug 6, 1908

The foot stone was inscribed with the initials BAM.

7. This grave was marked by badly eroded fieldstone head and foot stones. No inscriptions remained.

8. This grave was marked by badly eroded fieldstone head

and foot stones. No inscriptions remained.

Information furnished by the Corps of Engineers (Ruddle, personal communication 1985) indicated some confusion regarding the individuals interred in the Moran cemetery. It seems likely that the "Harold Moran, 1923" grave shown on a sketch map filed with the COE as marked by a a gray marble head stone may in fact be the "Thomas H. Moran" recorded during the survey. The information furnished by the Corps further indicated that the non-marble marked graves, (i.e. unmarked or fieldstone) contain the remains of the following individuals:

Harold Moran (d. 1923)
Wm. J. Moran (d. 1929)
Geo. W. Moran (d. 1939)
Geo. W. Moran (d. 1920)
Mable, infant of W.D. Moran (d.1889)
Ferguson (d. 1880)

Should Damsites "A" or "C" be chosen for construction, this site will not be affected by the proposed project. Should Damsite "B" be chosen for construction, this site will be directly impacted by activities surrounding construction of the dam itself.

1. Soil Type: Red clay.
2. Distance to Water: The Smith River lies 345 m to the northeast.
3. Cultural Affilitation: Historic, late 19th, early 20th century.
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Good, most of the head and footstones remain. Six graves were unmarked.
6. Areal Extent: 28 m north-south; 28 m east-west
7. Elevation: 1040 feet AMSL
8. Slope: 4 degrees
9. Exposure: Northeast
10. Condition of Features: Good, graves intact.

No artifacts were collected.

44Pk241

Archeology Laboratories Site: AL41

44Pk241 was an historic cemetery located on a terraced

portion of a ridgetoe overlooking an unnamed drainage of the Smith River. The vegetation consisted of mixed hardwoods and cedars. Club moss (lycopodium complanatum) was abundant on the ground surface. This ground cover extended over an area of 250 m square.

The site consisted of three graves marked with bare fieldstone, two with head and foot stones, and a third only with one stone.

44Pk241 will be affected by the construction of the penstock, primarily by land clearing, grading and construction.

1. Soil Type: Not noted.
2. Distance to Water: A small drainage of the Smith River was located 24.4 m southwest.
3. Cultural Affiliation: Historic
4. Stratigraphic Condition: No testpits were dug.
5. State of Preservation: Fair, one stone missing.
6. Areal Extent: 10.87 m north-south; 3.3 m east-west
7. Elevation: 1120 feet AMSL
8. Slope: 5 degrees
9. Exposure: Southwest
10. Condition of Features: None noted.

No artifacts were collected.

44Pk199

Archeology Laboratories Site: AL119

44Pk199 was an historic cemetery located on a hilltop overlooking the Smith River. The cemetery was in a grassy clearing surrounded by conifers and mixed hardwoods. American boxwoods were associated with three graves. The site contained seven headstones with associated footstones, with one set marking the grave of a husband and wife. Four of the headstones were of grey painted fieldstone, two were of polished granite and one was of marble. No surface collections or subsurface tests were made at the site, which is located above the 1200 feet AMSL contour line and should not be flooded by the proposed project. It would, however, become an island upon impoundment.

This cemetery was approximately 135 m south of Pk190. A

deserted frame I-plan farmhouse was located in the cove immediately to the east; although that house was outside of the sample unit being tested, it may be that the cemetery, centrally located between Pk190 and that house, served as a common burial ground for the two families occupying the structures.

The cemetery itself was enclosed by a wire fence measuring 10.8 m by 19.6 m. The site as a whole was well-maintained, indicating that descendants still visited the graves located there. A description of each grave follows:

1. This interment was marked by a polished granite stone with the crucified Christ engraved on it. The epitaph read "Have Mercy", and the personal information contained on the stone was:

1886 - 1969
Bertie L.
Moran

The polished granite foot stone said "Mother."

2. This interment was marked by a fieldstone head stone. The stone was apparently covered with a silver-gray paint at one time, probably in imitation of the granite used for more expensive grave markers. The stone was engraved:

HESTER H.
MORAN
BORN MAY 27
1916. DIED
JUNE 2, 1936

A painted foot stone was associated with this interment.

3. This grave was marked by a painted fieldstone head stone. It was rather crudely engraved:

MARY
NICHOLS
BORN JULY
1 1848 DIED
JULY 31 1930

A painted foot stone was associated with this grave.

4. This interment was marked by a crudely engraved painted fieldstone at the head.

PETER
NICHOLS
BORN 18(7?)5
DIED JUNE
26 1927

A painted foot stone was associated with this interment.

5. This grave was marked by a painted head stone, engraved in a neater hand than the other fieldstone markers in this cemetery. Note that the name was misspelled, perhaps indicating that the inscription was done by a person unfamiliar with the deceased. A further unusual feature of this marker was that it contained the marriage date of the deceased; it is probable that the widow arranged the manufacture of the head stone, as the marriage was not quite three years old when the husband died.

J.W. Nickols
Born May 3 1869
Married March 3 1900
Died Jan 11 1903

An unpainted foot stone was associated with this grave.

6. This interment was marked by a large polished granite head stone marking the graves of a husband and wife. The inscribed names were framed by a rose and ivy motif. The epitaph read "Gone but not forgotten."

NICHOLS

JOHN R.	PENCIE A.
MAY 4, 1872	MAR. 23, 1874
AUG.6, 1941	Nov. 25, 1955

Gone but not forgotten

Associated with these interments were flat polished granite foot stones labeled "FATHER" and "MOTHER."

7. This grave was marked by a marble head stone surmounted by a three-dimensional lamb resting on top. The material used (it was the only marble stone in the cemetery) and the sophistication of the carving, as well as the sentiment expressed on the stone ("We want to meet you in heaven") indicated that fairly expensive burial arrangements were made for an infant who only survived a matter of days.

DARLING DAUGHTER
OF
VICTORIA and T.W.
NICHOLS
Dec. 8, 1930
Dec. 12, 1930
"We want to meet you in heaven"

The marble foot stone associated with this grave was inscribed with the word "BABY" on the side of the stone facing the head of the grave.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 335 m to the

south.

3. Cultural Affiliation: Historic, 20th century (1903-1969).

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, the stones remained intact.

6. Areal Extent: The fence surrounding the cemetery measured 10.8 m by 19.6 m.

7. Elevation: 1205 feet AMSL

8. Slope: 1 degree

9. Exposure: Southeast

10. Condition of Features: None noted.

No artifacts were collected.

44Pk208

Archeology Laboratories Site: AL128

44Pk208 was an historic cemetery located on a hilltop overlooking White Oak Creek. The vegetation consisted of cedar, yucca, American boxwood and holly. The site once had four graves; at the time of our survey three were marked with head and foot stones with dates of 1915, 1916 and 1931, while a fourth had been opened and relocated -- boxwoods remained in the area of the head and foot stones to mark the original location of the burial, which also was indicated by a depression. The present land owner confirmed that one of the burials had been moved. No surface collections or subsurface tests were made here. This cemetery was located above the 1200 foot AMSL contour and will not be inundated by the proposed project. In the event that water levels do exceed 1200 feet AMSL however this site would be flooded by any of the three project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: White Oak Creek lies 169 m to the southwest.

3. Cultural Affiliation: Historic, early 20th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Good, 3 graves intact, 1 relocated.

6. Areal Extent: 9 m north-south; 15 m east-west.

7. Elevation: 1205 feet AMSL

8. Slope: 2 degrees

9. Exposure: South

10. Condition of Features: None noted.

No artifacts were collected.

44Pk215

Archeology Laboratories Site: AL135

44Pk215 was an historic cemetery located on a ridgetoe to the south of the Smith River, in scrub oak and dogwood. The site contained five or six graves, each marked with an unpolished stone. Only one grave bore an inscription, a date of April 17, 1853. The general area surrounding this site was badly eroded, and a roadcut was present immediately west of this cemetery. The site extended 13 m along the north/south axis and 6 m along the east/west axis. The individual stones were as follow:

1. This marker was a camel-back head stone made of local material. It was hand-engraved in a neat, square script:

IN
MEMORY OF
SARAH MARTIN
C CONSORT OF
MOSES MARTIN
WHO DIED
APRIL 17TH 1853
AGED L6Y 6M

A small unmarked camel-back foot stone was associated with this interment.

2. This marker was a red granite fieldstone head stone, badly eroded. A small eroded foot stone of the same material was associated with it.

3. This interment is marked by a red granite head stone, badly eroded. A small foot stone of like material was associated with it.

4. This grave was marked by a fallen gray granite rock which was probably a head stone. Any engraving which may have been present had eroded. A small granite foot stone was associated with this grave.

5. The function of this small, red granite fieldstone was unknown -- it was badly eroded.

6. The function of this upright gray fieldstone was unknown. It may haved served as the headstone to the following marker.

7. The function of marker 7, a quartzite stone set upright, was unknown. It may have been a foot stone to marker 6.

This site lies outside of the project area and will not be affected by even the maximum powerpool of any of the proposed project alternatives.

1. Soil Type: Not noted.

2. Distance to Water: The Smith River lies 615 m to the north of this site.

3. Cultural Affiliation: Historic, mid-19th century.

4. Stratigraphic Condition: No testpits were dug.

5. State of Preservation: Fair; gravestones remain intact. Moderate erosion, however, has taken place as a result of nearby logging activities.

6. Areal Extent: 13 m north-south; 6 m east-west

7. Elevation: 1300 feet AMSL

8. Slope: 2 degrees

9. Exposure: Northeast

10. Condition of Features: None noted.

No artifacts were collected.

A1164

This cemetery was located on a ridgetop facing east, north of State Road 712. The general area was covered in young oak/hickory forest. The cemetery itself was being maintained regularly; the grass was mowed and a small driveway was cleared to the site. Several yucca plants, a cedar, and boxwoods were planted in the cemetery, which measured 15 m north/south and 12.8 m east/west. A variety of fieldstone, marble, and granite markers were present, and a description of each interment follows.

1. This grave was marked by marble head and foot stones. The head stone read:

JOHN W. VIA

BORN
DEC. 10, 1885
DIED
FEB. 6, 1921
Blessed and Holy is
he that hath part
in the first resurrection.
On such the second death
hath no power.

A small upright marble foot stone accompanied the head stone.

2. This interment was marked by a marble head stone, on which was engraved a pair of shaking hands enclosed in an oval cartouche. This was a common mortuary motif in the Southeast.

P.L. VIA
NOV. 4, 1851
MAR. 21, 1920
Earth has no sorrow that heaven
cannot heal.

A small upright marble foot stone was engraved PLV.

3. This fieldstone marker was somewhat unusual in that the engraving was still readable. Evidently the age of the individual was in some doubt; the arrangement of the wording indicates that the stone was carved by an amateur.

IN MEMORY OF
MISS BETTIE
BRYANT DIED
1 JULY 1909
SUPPOSE 84 YRS.
OLD

A small, unmarked foot stone of the same material accompanied the head marker.

4. This marble marker was, like head stone number two, engraved with shaking hands enclosed in an oval cartouche.

MARY WRIGHT
BORN
FEB. 15, 1830
DIED
JULY 11, 1913
Blessed are the dead
which die in the lord.

A small upright marble foot stone was engraved with the initials M.W.

5. Marker number five was fieldstone, and was also somewhat

unusual in that it was fully readable.

IN MEMORY
OF ELEMING VIA
BORN JUNE 14 1808
DIED JUNE 25 1893
AGE 85 YEARS & 11 DAYS.
IN GOD HE TRUSTED WHILE
ON EARTH WE HOPE WITH
GOD HE IS AT REST. HE LIVED
A CHRISTIAN LIFE
AND DIED A CHRISTIAN
DE-ATH. THE BAPTIST
CHURCH WAS HIS HOME.

A small fieldstone at the foot of the grave was marked F.V., although the given (Christian) name was Eleming on this and the next head stone. A boxwood was planted at the head of the grave.

6. This marker was a fieldstone engraved with a branch motif, which was repeated on the foot stone. The dots appearing in the text were ground into the stone, evidently as scribe marks. Several of the letters on the headstone had been reversed, and these letters are enclosed in parentheses in the text below.

IN MEMORY. OF.
MARY. VIA.
CON(S)ORT. OF ELEM
ING VIA.
BOR(N)ED. MAY
11.TH. 1812. DIED. NOV
5.TH. 1896. AGE 84
YEAS 5. MO(N)THS
&. 24 DAYS.
GONE. TO. DWELL.
WITH. CHRIST ABOVE
TO.SI(N)G.THE.SONG
OF. THE. SAINT.

7. This polished granite head stone marked the graves of two individuals, probably husband and wife. A flower and ivy motif was engraved in the stone.

VIA

William A.	Adaline M.
1859-1944	1856-1952

Two polished granite foot stones were engraved WAV and AMV.

8. This marble head stone was engraved with an ornate roundel, in which appeared the following information.

FRANCES
JOSEPHINE

BABY OF LESTER
& ONIE ROBERSON
BORN JUNE 5, 1919
DIED JUNE 6, 1919

The small upright marble foot stone was engraved with the initials F.J.R.

9. This grainy marble head stone evidently marked the grave of the mother of the infant buried in number eight.

PEACE PERFECT PEACE
ONIE NELSON
ROBERSON
SEPT. 14, 1896
JUNE 6, 1922
MEET ME IN HEAVEN
ROBERSON

The marble footstone was engraved with the initials O.N.R.

10. The flush, polished granite marker was unusual in that it faced west rather than east. There was no foot stone.

Walter Herbert Roberts
US ARMY
Nov 13 1928 Jan 8 1985

11. This grave was marked by an eroded fieldstone head and foot stone marker. No inscription remained.

12. This burial was marked only by a small metal plaque of the type funeral homes furnish. It read:

WESLEY DAVID MARTIN
1877-1948

13. This polished granite marker was for two individuals who were probably married. It was inscribed with a rose and ivy motif.

JESSIE N. NANNIE L.
1898-1964 1901-1965

A flush polished granite foot stone accompanied the grave of Jessie N. Via, although no such stone was in place for Nannie L. Via. It read J.N.V.

14. This grave was marked by a grainy marble head stone with a lamb carved on the top, a common marker for children's graves of the period in the United States. Only two examples were found in the cemeteries surveyed, however, perhaps because of the cost involved.

CLINTON EARL
VIA

AUG. 30, 1924
NOV. 7, 1928
DARLING WE MISS THEE

The upright marble foot stone was engraved C.E.V.

AL165

This cemetery was located on a ridge-top, facing east. It was reached via a hike of about two k along a seldom used jeep trail, and did not show any sign of current maintenance. The surrounding terrain supported an oak/hickory forest, although a field immediately to the north was covered in knee-high undergrowth. The cemetery was covered in periwinkle, along with several boxwood plantings and a now-dead cedar, and included a rusty wrought iron fence enclosure around the interments of a husband and wife. The whole was surrounded by rusty wire fencing which had collapsed in some places.

This cemetery was unusual in both its extent (37 m north/south and 35 m east/west), and in the number of interments represented (approximately 54). Unfortunately, an overwhelming majority of the graves were represented by eroded fieldstone markers with no discernable engraving or other surface treatment. The fieldstone markers were arranged in very loosely-organized rows, making the demarcation of the graves they represented somewhat difficult to define. It is believed, however, that all currently marked graves were noted.

1. This interment was marked by a fieldstone head marker with no foot stone.

2. This marble head stone was accompanied by a fieldstone foot marker, and contained the remains of a Civil War veteran. It included a small Maltese Cross enclosed in a circle inscribed over the name.

SM Chaney
Co I.
5 Bn Va Res
CSA

3. This marble head stone included a gate motif inscribed at the top. It was enclosed in a wrought iron fence with number 4, below.

J. Thomas
Chaney
May 4, 1885
Dec. 23, 1918
Father into thy
Hands I commend
My spirit.

The marble foot stone was inscribed J.T.G.

4. This marble head stone was also inscribed with a gate motif, and marked the remains of:

Henrietta
Chaney
Died May 11, 1897
Age 39 years
A tender ...(epitaph unreadable)

The upright marble foot stone was inscribed H.C.

5. This flat fieldstone marker was inscribed with the legend:

Duddlie A. Chaney
Died 1920

The fieldstone foot marker was inscribed D.C.

6. The grainy marble head stone was accompanied by a clear Mason jar with a rusty lid, holding a faded corsage.

BRYANT
Lucinda M.
Bryant
Jan 10, 1850
May 19, 1939
A good wife and
devoted mother

The upright marble foot stone was engraved LMB.

7. This grainy marble head stone (which was also accompanied by a clear Mason jar containing a corsage) read:

Jesse T.
Bryant
Oct. 20, 1847
Oct. 7, 1881
Let our Father's
will be done

The upright marble foot stone read J.T.B.

8. This pair of eroded fieldstone markers may have marked a child's grave, as the two stones were only a meter apart.

9. This interment was marked by a pair of eroded fieldstones.

10. This polished granite marker with a small upright foot stone read:

Eula Anna
Turner
July 26, 1899
July 22, 1943

The foot stone was inscribed E.A.T.

11. This small polished granite marker was grouped with numbers 12 and 13. It displayed a lamb, ivy, and flower motif, and read:

Gatha E.
Wright
Feb. 14, 1934
April 18, 1934
Budded on Earth
to bloom in Heaven.

The polished granite flush foot stone read DAU (for daughter).

12. This polished granite stone with the lamb, ivy, and flower motif was inscribed:

Pete E.
Wright
Mar. 4, 1940
Mar. 13, 1940
Budded on Earth
to bloom in Heaven

the polished granite flush foot stone read SON.

13. The polsihed granite head stone with lamb, ivy and flower motif read:

James E.
Wright
June 30, 1937
Aug. 18, 1948
He was the sunshine
of our home

No foot stone accompanied this grave.

14. This polished granite head stone inscribed with a cross and flower motif read:

Nannie H. Chaney
May 14, 1876 - Nov. 12, 1910
IN GOD'S CARE

The flush polished granite foot stone read MOTHER.

18. This grave was marked by a grainy marble head stone inscribed with the shaking hands enclosed in a cartouche. It

read:

Farewell
Charley
Preston
Chaney
Apr. 18, 1897
Sept. 25, 1925
Farewell, my wife and
children all.

The upright marble foot stone read CPC.

15-17, 19-54. All other graves were marked with eroded fieldstones, either as a head stone or head and foot stones.

AL166

This cemetery was located on an easterly slope adjoining State Road #622. The hillside was covered in oak/hickory forest, but the cemetery was grassed and mowed regularly. The enclosed site measured 12 m north/south and 25 m east/west, with two interments lying 17 m to the east of the enclosure. The grave plots were enclosed by an ornate iron fence painted silver. All of the grave stones, with two exceptions, were polished granite. No fieldstone markers were found.

1. This grainy marble head stone was engraved:

ELDRIDGE M.
WHITLOCK
Aug. 1, 1929
Feb. 1, 1930

The upright foot stone was engraved E.M.W.

2. This polished granite head stone marked the graves of a husband and wife. The family name was also engraved on the backside of the stone.

Roundtree

Alfred Jr.	Odessa T.
Dec.23, 1920	Nov.12, 1909
Aug.30, 1971	Apr.14, 1982

The flush granite foot stones were engraved "Husband" and "Wife".

3. This polished granite head stone marked the graves of husband and wife. It was engraved:

Thomas

Joel E.	Lonnie R.
Mar.4, 1885	Apr.13, 1890
Apr.15, 1980	Jan.13, 1971

The flushed polished granite foot stones were engraved "Husband" and "Wife".

4. This grave was marked by a polished granite head stone which read:

Garth L.
Thomas
July 10, 1918
May 2, 1936
Gone but not forgotten.

An unmarked upright granite foot stone accompanied the head stone.

5. Graves five, six, and seven were grouped together, and evidently represented the children of Joel E. and Lonnie R. Thomas (#3). All head and foot stones were of polished granite, with a lamb and flower motif engraved into them.

Lucille Thomas
Oct. 6, 1915
July 29, 1917
In God's Care

The flush granite foot stone read L.T.

6. This marker included the following information:

Stuard Eldridge
Son of J.E. &
Lonnie Thomas
Jan 29, 1913
Feb 10, 1913
In God's Care

The foot stone read SET.

7. This head stone marking the grave of an unnamed newborn read:

Infant son of
J.E. & Lonnie
Thomas
Born and Died
Mar 6, 1911
IN GOD'S CARE

The foot stone read "SON".

8. This polished granite head stone marked the grave of:

Delia Rakes
Dec. 20, 1880
Apr. 20, 1943

The polished granite footstone read D.R.

9. This polished granite head stone served as a marker for:

W.M. Rakes
Born Dec. 3. 1843
Died Sept. 28, 1931
His toils are past,
His work is done,
He fought the fight,
The victory won.

The upright polished granite foot stone read WMR.

10. Interment number 10 was marked by an upright polished granite head stone engraved:

Martha A. Rakes
Born Oct. 3, 1858
Died April 27, 1936
She was Devoted
to her family

The upright foot stone was engraved MAR.

11. This grave contained another member of the Rakes family. It was marked with a simple polished granite head stone which read:

Lera H.
Rakes
Feb. 29, 1904

12. This polished granite head stone marked the interment of:

Peter J.
Rakes
July 8, 1883
Nov. 4, 1974

The upright polished granite foot stone was engraved "Father".

13. This polished granite head stone contained both the married and maiden names of the deceased, an unusual example in the survey area.

Mary A. Bowling
wife of
P.J. Rakes
Born Jan.17, 1885
Died Jan.6, 1932
She was the sunshine
of our home.

The upright granite foot stone was marked M.A.R.

14. This grave was located 17 m east (downslope) from the enclosure containing the previous 13 interments.The area was not mowed, although it appeared to be kept cleared of excessive undergrowth. Several boxwoods were planted in the vicinity. The marble marker read:

Peyton H. Rakes
1877-1950
AT REST

The upright marble foot stone read: P.H.R.

15. This grave, located next to and west of #14, was unmarked except for a funeral home plaque which was unreadable.

CHAPTER SIX: SITE DENSITY ESTIMATES

One of the objectives of the Charity Lake survey was to estimate the total number of sites in the project area based on the number found in the sampled sectors. In this exercise historic and prehistoric sites were estimated separately. The two site types (historic and prehistoric) were considered separately because the large number of stills in the historic sites would have diminished the predictive power of the resultant estimates for measuring prehistoric site density. If, on the other hand, stills were to be omitted from the historic site inventory the remaining historic site types (rock walls, rock piles, cemeteries, houses, etc.) are presumably strongly influenced, in regard to site location, by very specific natural or cultural features which may or may not have been significant in determining prehistoric site placement. In other words, and in short, separation of prehistoric and historic sites should create estimates that are more likely to reflect the specific characteristics of those sites without the likely confounding influences of one set of sites on estimates for the other set. Using the data which follow, however, computations using a combined sample can easily be carried out.

In determining the site estimates for the entire project area the site estimates for each cluster were first calculated. This was done using the equation:

$$t=N\bar{y}_{st}=N_1\bar{y}_1+N_2\bar{y}_2+\ldots+N_L\bar{y}_L=\sum_{i=1}^{L}N_i\bar{y}_i$$

where: t=estimator of a population total

N=number of sampling units in the population

$\bar{y}_{st}$=unbiased estimator of the population mean

L=number of strata

N_i=number of sampling units in stratum i

$\bar{y}_i$=unbiased estimator of the population mean in stratum i (Mendenhall et al. 1971:59)

The corresponding equation for the standard error of this estimate is represented by the equation:

$$\sqrt{\hat{V}(N\bar{y}_{st})}=\sqrt{\sum_{i=1}^{L}N_i^2\left(\frac{(N_i-n_i)}{N_i}\right)\frac{s_i^2}{n_i}}$$

where: $\hat{V}(N\bar{y}_{st})$=estimated variance of the population total

s_i^2=sample variance of stratum i

n=number of elements in a simple random sample, with all other symbols as defined in the previous equation.

The historic site estimates and standard errors for each

cluster were as follow:

Cluster 3 = 58±66

Cluster 4 = 14±17

Cluster 6 = 6±12

Cluster 8 = 25±34

Cluster 9 = 10±15

Cluster 10 = 4±2

(See Table XII for the raw data used in these computations.)

Table XII: Data Elements, Historic Site Frequency Estimation, USRB

	N_i, m_i	$\bar{y}_i$	t_i, y_i	s_i^2	n_i
Cluster 3, Str.1	2	1.0	2.0	0.0	1
Str.2	26	.15	3.9	1.69	13
Str.3	17	.44	7.48	4.22	9
Str.4	186	.24	44.64	22.80	93
	231		58.02		
Cluster 4, Str.1	2	0.0	0.0	0.0	1
Str.2	26	0.0	0.0	0.0	13
Str.3	19	.3	5.7	2.1	10
Str.4	71	.11	7.81	3.54	35
Str.5	2	0.0	0.0	0.0	1
	120		13.51		
Cluster 6, Str.2	28	0.0	0.0	0.0	14
Str.3	26	0.0	0.0	0.0	13
Str.4	35	.17	5.95	4.5	18
	89		5.95		
Cluster 8, Str.1	2	0.0	0.0	0.0	1
Str.2	3	0.0	0.0	0.0	2
Str.3	2	0.0	0.0	0.0	1
Str.4	73	.35	25.55	16.43	37
Str.5	3	0.0	0.0	0.0	2
	83		25.55		

Table XII: Data Elements, Historic Site Frequency Estimation (cont.)

		N_i, m_i	$\bar{y}_i$	t_i, y_i	s_i^2	n_i
Cluster 9	Str.2	4	0.0	0.0	0.0	2
	Str.3	3	0.0	0.0	0.0	2
	Str.4	59	.17	10.03	4.17	30
		66		10.03		
Cluster 10	Str.2	3	0.0	0.0	0.0	1
	Str.3	3	0.0	0.0	0.0	2
	Str.4	8	.25	4.0	.75	4
	Str.5	2	0.0	0.0	0.0	1
		16		4.0		
		$\sum_{i=1}^{n} m_i = 605$		$\sum_{i=1}^{n} y_i = 117.06$		

The standard error of each estimate is very high. Bartlett's Test of the Homogeneity of Variance was run on Strata 1, 2, 3, and 5 (confluence, floodplain, terrace and uplands respectively) together and on Stratum 4 (slopes) separately to see if the high variance was attributible to the variability of the topography on the slopes. Strata 1, 2, 3, and 5 were grouped together because of their less variable topography--all were consistently flat, leading us to expect less variability in site distribution. If the null hypothesis ($H_o: \sigma_1^2 = \sigma_2^2 = \ldots \sigma_n^2$) is accepted for Strata 1, 2, 3 and 5, but not for Stratum 4, then this will probably be the result of the irregular nature of the terrain included in Stratum 4 (gradual, moderate and steep slopes, and small terraced areas along branches of the Smith River and tributaries). If, on the other hand, we must reject the null for both sets of strata this could be a consequence of the highly variable nature of the settlement patterns and sites, which include rock piles, stills, foundations and standing structures. Bartlett's equation is:

$$X^2 = \left[\sum^{a}(n_i - 1)\right] \ln s^2 - \sum^{a}(n_i - 1) \ln s_i^2$$

where: n_i=number of sampling units in stratum i

s^2=weighted variance

s_i^2=variance in stratum i

(Sokal and Rohlf 1981:404-5).

This test showed that the null hypothesis must be rejected for both groups of data: $X^2_{(1,2,3,5)} = 22.368$, $\alpha < .001$; $X^2_{(4)} = 63.715$, $\alpha < .001$, suggesting the historic population is a highly variable one, without regard to topography.

From the site estimates of each cluster an estimate of the total number of sites in the project area was computed. The equation used was:

$$M\bar{y} = M \frac{\sum_{i=1}^{n} y_i}{\sum_{i=1}^{n} m_i}$$

where: $M = \sum^{N} m_i$ = number of elements in the population

N = number of clusters in the population

m_i = number of elements in cluster i

$\bar{y} = \frac{\sum_{i=1}^{n} y_i}{\sum_{i=1}^{n} m_i}$ estimator of the population mean

n = number of clusters selected in a simple random sample

y_i = the total of all observations in cluster i
(Mendenhall et al. 1971:124,127).

The corresponding equation for the standard error of the estimate is determined by the equation:

$$\sqrt{\hat{V}(M\bar{y})} = \sqrt{N^2\left(\frac{N-n}{Nn}\right)\frac{\sum_{i=1}^{n}(y_i - \bar{y}m_i)^2}{n-1}}$$

where: V(My) = estimated variance of the population total and all other symbols are as previously defined (Mendenhall et al. 1971:127). From this equation it was estimated that there are 273±31 historic sites in the project area.

The prehistoric sites were estimated in the same manner as the historic sites. Estimates by cluster were as follow:

Cluster 3 = 27±34

Cluster 4 = 26±21

Cluster 6 = 34±17

Cluster 8 = 8±18

Cluster 9 = 8±14

Cluster 10 = 3±1

Again, these standard errors are large. Bartlett's Test of the Homogeneity of Variance was used, after again separating Stratum 4 from Strata 1, 2, 3 and 5. It was postulated that if the null hypothesis was accepted for Strata 1, 2, 3, and 5 but rejected for Stratum 4 then the variance was probably the result of the topographic variability in Stratum 4. The statistics did not show a clear distinction between the variance in Strata 1, 2, 3 and 5 and the variance in Stratum 4. Though the variance is Stratum 4 was slightly higher it was not statistically significant, as $X^2_{(1,2,3,5)} = 3.493$; $\alpha > .995$; while $X^2_{(4)} = 2.06$; $.5 < \alpha < .9$. This does show, however,

that the variance in general was fairly low and the prehistoric sites may, in fact, represent the same site population. The estimate for the prehistoric sites was 248±34. In future studies of this sort, particularly in such rugged terrain, it may be useful to include areas immediately adjacent to small streams as part of the "terraces" stratum (Stratum 3) rather than as part of Stratum 4 (slopes) to control the variability which was found on the slopes.

Table XIII: Data Elements, Prehistoric Site Frequency Estimation, USRB

		N_i, m_i	$\bar{y}_i$	t_i, y_i	s_i^2	n_i
Cluster 3,	Str.1	2	2.00	4.00	0.0	1
	Str.2	26	.23	5.98	2.31	13
	Str.3	17	.33	5.61	4.00	9
	Str.4	186	.06	11.16	5.61	93
		231		26.75		
Cluster 4,	Str.1	2	0.0	0.0	0.0	1
	Str.2	26	.54	14.04	3.23	13
	Str.3	19	0.0	0.0	0.0	10
	Str.4	71	.17	12.07	4.88	35
	Str.5	2	0.0	0.0	0.0	1
		120		26.11		
Cluster 6,	Str.2	28	.29	8.12	2.86	14
	Str.3	26	.77	20.02	5.12	13
	Str.4	35	.17	5.95	2.50	18
		89		34.09		
Cluster 8,	Str.1	2	1.0	2.0	0.0	1
	Str.2	3	0.0	0.0	0.0	2
	Str.3	2	0.0	0.0	0.0	1
	Str.4	73	.08	5.92	4.76	37
	Str.5	3	0.0	0.0	0.0	2
		83		7.92		
Cluster 9,	Str.2	4	0.0	0.0	0.0	2
	Str.3	3	0.0	0.0	0.0	2
	Str.4	59	.13	7.87	3.47	30
		66		7.87		
Cluster 10	Str.2	3	0.0	0.0	0.0	1
	Str.3	3	.5	1.5	.25	2
	Str.4	8	0.0	0.0	0.0	4
	Str.5	2	1.0	2.0	0.0	1
		16		3.5		

$\sum_{i=1}^{n} m_i = 605$ $\sum_{i=1}^{n} y_i = 106.24$

Table XIV: Bartlett's Test of Homogeneity of Variance, USRB

			Historic		Prehistoric	
	n	df	s_i^2	$\ln s_i^2$	s_i^2	$\ln s_i^2$
Cluster 3, Str.1	1	0	0	--	0	--
Str.2	13	12	1.69	.525	2.31	.837
Str.3	9	8	4.22	1.440	4.00	1.386
Str.4	93	92	22.80	3.127	5.61	1.724
Cluster 4, Str.1	1	0	0.0	--	0	--
Str.2	13	12	0.0	--	3.23	1.172
Str.3	10	9	2.1	.742	0.0	--
Str.4	35	34	3.54	1.265	4.88	1.586
Str.5	1	0	0.0	--	0.0	--
Cluster 6, Str.2	14	13	0.0	--	2.86	1.051
Str.3	13	12	0.0	--	5.12	1.633
Str.4	18	17	4.5	1.504	2.50	.916
Cluster 8, Str.1	1	0	0.0	--	0.0	--
Str.2	2	1	0.0	--	0.0	--
Str.3	1	0	0.0	--	0.0	--
Str.4	37	36	16.43	2.799	4.76	1.560
Str.5	2	1	0.0	--	0.0	--
Cluster 9, Str.2	2	1	0.0	--	0.0	--
Str.3	2	1	0.0	--	0.0	--
Str.4	30	29	4.17	1.427	3.47	1.244
Cluster 10 Str.2	1	0	0.0	--	0.0	--
Str.3	2	1	0.0	--	.25	-1.386
Str.4	4	3	.75	-.288	0.0	--
Str.5	1	0	0.0	--	0.0	--
		282				

(71=strata 1,2,3,5; 211=stratum 4)

Site Location Probability

Appendix B illustrates the inferred site potential of areas in the impoundment area not surveyed by the Archeology Laboratories. A total of 112 sites, historic and prehistoric, was recorded in the sampled clusters (the remainder were either in the damsites or outside the project area). The number of sites per hectare sample unit within each of the defined topographic features is as follows, with P representing the probability (%) of site occurrance per hectare.

Table XV: Site Count by Topographic Unit, USRB

Topographic unit	No. sites	Area (ha)	Sites/ha	P(site/ha)
Confluence	4	3	1.33	100
Floodplain	16	45	.36	36
Terrace	21	37	.57	57
Slope	70	217	.32	32
Uplands	1	4	.25	25

The inferred potential of an area was computed as low (0-33% probability of site occurrance within one hectare), moderate (34-66%), and high (67-100%). The potential for prehistoric sites was computed separately from historic sites because of the effects produced by the high frequency of stills on the slopes. Prehistoric site occurrance by sampling strata is as follows:

Table XVI: Prehistoric Site Count by Topographic Unit, USRB

Topographic unit	No. sites	Area (ha)	Sites/ha	P(site/ha)
Confluence	3	3	1.0	100
Floodplain	14	45	.31	31
Terrace	15	37	.41	41
Slope	22	217	.10	10
Uplands	1	4	.25	25

From the figures above it can be seen that confluences are high probability areas, terraces are moderate, and floodplains, slopes and uplands are low. The historic sites in the sample areas by strata are as follow:

Table XVII: Historic Site Count by Topographic Unit, USRB

Topographic unit	No. sites	Area (ha)	Sites/ha	P(site/ha)
Confluence	1	3	.33	33.3
Floodplain	2	45	.04	4
Terrace	6	37	.16	16
Slope	48	217	.22	22
Uplands	0	4	0.0	0

This table demonstrates the low probability for historic site occurrance in all topographic units. It should be noted that the low probability figures derived for the uplands are a direct result of the dearth of upland sample units within the area surveyed. This should be considered when assigning probability status for uplands that will be unaffected by the inundation but may experience direct impact through road construction, recreational use, etc.

CHAPTER SEVEN: CERAMIC ANALYSIS

The USRB project encompassed 1150 acres of surveyed area. Four hundred contiguous acres were surveyed intensively, and 750 acres were sampled using a stratified cluster sample. Within the surveyed area there was a total of 162 sites reported. Thirty-two of these sites contained prehistoric ceramic artifacts which produced an assemblage of 1923 sherds; four sites contained "sherdlets" only, i.e. sherds which would pass through a half-inch screen. This chapter will discuss this ceramic assemblage.

Initially, research questions were formulated to address problems anticipated for ceramics recovered from the northern Smith River drainage. Foremost were questions dealing with the range of variability both typologically and technologically for the survey area; the identification of ceramic series; the density and relationship of recovered materials within sites; relationships between sites; and the relationship of the survey area's ceramic assemblage as a whole with adjacent geographic areas.

To gain an understanding of the ceramics likely to be represented within the project area a literature review was initiated. Pertinent research included Coe 1952; Coe and Lewis 1952; Evans 1955; Coe 1964; Holland 1970; Waselkov 1977; Coleman 1976; Gardner 1980; Claggett and Cable 1982; Egloff 1980; Word et.al. 1981; and Wilson 1983. A comparative collection was also assembled.

From this background two views of the ceramics emerged, one typological and another technological, each geared to describing ceramic change through time. The typological view provided descriptive categories for identifying ceramic series while the technological view focused on attributes for identifying trends of ceramic technology.

Typological attributes were established from existing type descriptions cited in the literature. It was felt that these established attribute categories would most closely relate the Smith River materials to existing typological data for that area. Typological attributes for which data were collected included kind of temper, exterior surface treatment, interior surface treatment, sherd color, sherd thickness, temper size and temper amount. In addition were noted sherd decoration; rim presence, morphology, and decoration; and form of vessel bases.

Definite technological trends have been found in other studies. Technological trends were defined for this study as patterns of attributes which inform on techniques and processes of ceramic production. Gardner (1980:31) and Wilson (1983:490) note a trend in the Dan River Series toward a reduction in temper size and amount. A trend toward reduction in scraping of vessel interior surfaces with a serrated tool was also recorded. In addition a trend was

noted by Snavely and Raber (in Claggett and Cable 1982) toward a harder, thinner finished product. To monitor these trends the temper size and amount were noted during analysis as well as the method of interior surface finish and sherd thickness.

The following analytical criteria were based on typological and technololgical attributes. The total range of attributes noted in the sherd analysis was as follows:

Typological Attributes:
- Kind of temper present
- Exterior surface treatment
- Interior surface treatment
- Decorative attributes
- Presence of rims/bases
- Presence of appendages

Technological Attributes:
- Clay matrix condition
- Temper size
- Temper amount
- Sherd thickness

For each sherd in the study collection the kind of temper inclusions was noted. An initial survey of the total sherd collection was conducted to assess the range of variability within the sherd sample. At this point sherds smaller than 1.2 cm ("sherdlets") were recorded, weighed, and eliminated from the study collection due to their small size. Later, some sherdlets were included in the analysis from sites where these were the only ceramic materials. Two main inclusion categories were identified -- river sand and crushed quartz. Later analysis refined these categories to include "fine sand," "fine sand with occasional quartz inclusions," "quartz sand," "crushed quartz and fine sand," and "crushed quartz, silty paste." Additional inclusion categories for which only a small number of sherds were present contained variations on all of the above themes.

Exterior surface treatments were recorded as "net-impressed," "cordmarked," "eroded," and "other"; "plain/smoothed," "brushed," and "burnished." Surfaces that were eroded but with discernable treatment were also recorded, e.g. "net-impressed, eroded." Interior surface treatments were listed as "smoothed," "brushed," "combed," "eroded," and "other." Eroded surfaces where present were noted.

Sherd color was categorized as "O"=orange, "BF"=buff, "BL"=black, "BR"=brown, "T"=tan, and "R"=red. Color descriptions were usually listed as combinations, for example "OBF"="orange-buff."

Decorative attributes were recorded and described where present, i.e. "pinched," "notched," etc. Rims were noted by

number present, lip shape ("round," "flat"), lip finish ("smoothed"), angle of rim ("straight," "excurvate"), and decorative elements were listed where present ("notched," "incised"). Appendages such as loop or strap handles were noted where present and decorative elements were recorded.

Technological attributes were recorded as "clay matrix," "temper size," "amounts of temper" and "sherd thickness." "Clay matrix" was listed as "compact," "compact with laminations," "chunky," and "porous." Temper size was measured and listed (e.g. <1 mm, 1-3 mm). Amounts of temper were estimated as "abundant," "frequent," and "represented." Sherd thickness was measured and a range recorded for the general temper theme grouping (e.g. 4-8 mm).

Typological Attributes

Kind of Temper. For this study, temper will be defined as inclusions and paste constituencies. Most of the ceramics from the Smith River project could be placed in two categories: a sand tempered ware and a crushed quartz ware. A third category displaying leached temper was minimally represented also. However, to designate all sherds as either sand or crushed quartz tempered would mask the great variability present within the collection and consequently sherds were viewed in terms of temper themes. As noted, this variability was much greater than anticipated, and many permutations of the initial tempering themes were found during analysis.

Generally the larger the sherd collection recovered from a site, the more temper variability (i.e. temper themes) was present in the assemblage. As noted above, general trends were evident as crushed quartz and sand temper. Within the crushed quartz category, crushed quartz was described as "crushed quartz, silty;" "crushed quartz, quartz sand;" "crushed quartz, micaceous sand," and "crushed quartz, fine sand." Sand tempered sherds could be subdivided into "fine sand;" "fine sand, occasional crushed quartz;" "quartz sand;" and "micaceous sand" temper theme categories. Within these more specific categories, random combinations resulting in representation by a few sherds could be seen, i.e. "fine sand, occasional quartz, micaceous sand." These were noted where present. A brief description of each of the temper themes and its representation in the total sherd assemblage is presented below.

Silty, Leached (Silty, Leach or Silty, L). Sherds in this category are very compact (n=31, 2%). The tempering material is completely leached from the sherd cross-section leaving abundant angular holes less than 1 mm in size. Sherd thickness ranges from 5 to 9 mm. and the exterior surface treatment is net-impressed (n=25, 85%) and usually eroded. The interior is smoothed (n=21, 68%), combed (n=4, 13%), scraped (n=3, 10%), eroded (n=2, 7%), and floated (n=1, 4%).

Color is orange to buff. Random variations are "silty, no visible temper" (n=1), "silty, quartz sand, hornblende" (n=1), and "silty, leached, occasional quartz" (n=1).

Fine Sand (FSand). Fine sand tempered sherds comprise 35% of the total project sample (n=664). These sherds are very compact with a well-mixed matrix; temper size is less than 1 mm and exterior surface treatment is generally net-impressed although quite often eroded (n=594, 89%). The interior surface is generally smoothed (n=618, 92%), often eroded, with fine striations visible only at 2.5x power. The breakage pattern for these sherds is angular to oblique, occasionally on a coil fracture. Sherds are 2.5 to 10 mm thick with colors of orange, buff, brown, and tan.

Fine Sand, Occasional Quartz (FS OccQ). These sherds (n=347, 18%) closely resemble the fine sand sherds above in matrix (compact), and exterior and interior surface treatments (net-impressed n=294, 88%; smoothed, n=303, 91%). The difference is created by the occasional inclusion of quartz fragments which range in size from less than 1 mm to 7 mm. Sherd colors include orange, buff and brown combinations with sherd thickness from 2 to 11 mm. One random sherd contains "fine sand, occasional quartz, micaceous clay."

Quartz Sand (QSand). These sherds (n=534, 28%) are compact in cross-section, often with laminations (83%). Sherd exteriors are generally net-impressed (n=433, 82%), often eroded. Interior surfaces are usually smoothed (n=493, 93%). Sherd thickness is 3.5 to 13 mm and color is orange, buff, tan and brown. Temper size ranges from less than 1 mm to 2 mm in the same sherd with occasional isolated quartz fragments up to 5 mm. Temper amount is frequent to abundant. Three sherds from 44Pk171 contain "quartz sand, micaceous clay."

Micaceous Sand (MSand). These sherds (n=56, 3%) appear to represent a variation on the "quartz sand" theme using a highly micaceous, sandy clay. Sherds are compact with laminations and are highly eroded. Exterior surface treatment is net-impressed (n=56, 98%) and the interior is smoothed (n=56). Color is orange to buff with brown and gray represented. Sherd thickness is 3 to 7.5 mm. Temper size ranges from less than 1 mm to 6 mm and is abundant to represented.

Quartz Sand, Micaceous Sand (QSand,MSand). Sherds of this category were recovered only from 44Pk223 (n=1) and 44Pk171 (n=31) with sherdlets only from 44Pk226. Temper is a mixture of quartz sand and micaceous sand with temper size from less than 1 mm to 6 mm and the amount abundant to frequent. Sherd thickness is from 4 to 10.5 mm. The exterior surface treatment is net-impressed (n=31, 97%) and the interior surface treatment is smoothed (n=30, 94%).

Crushed Quartz, Fine Sand (CrQ,FS). These sherds (n=77, 4%) are the enigmatic portion of the sherd assemblage. The paste is very compact and composed of a very fine sand matrix but crushed quartz fragments ranging from less than 1 mm to 9 mm are included. It is difficult to distinguish these sherds from a "fine sand" category or one containing crushed quartz. Exterior surface treatments are generally net-impressed (n=56, 74%) while the interiors are usually smoothed (n=74, 97%). Sherd thickness is 4 to 13 mm. Colors range from orange to buff. Random variability is found in two sherds: one "crushed quartz, quartz sand, hornblende," and one "crushed quartz, quartz sand, fine sand."

Crushed Quartz, Micaceous Sand (CrQ, MS). Crushed quartz is found in combination with micaceous sand at six sites (n=46, 2%); however, the largest representation occurred at 44Pk171 (n=38). These sherds are compact with some laminations in cross-section. Exterior surface treatment is net-impressed (n=44, 94%) while the interior is smoothed (n=44, 94%) Sherd thickness ranges from 3 to 11 mm. Sherd color is primarily orange combinations with tan, buff, and brown represented. Temper size is from less than 1 mm to 7 mm, abundant.

Crushed Quartz, Quartz Sand (CrQ, QS). Crushed quartz and quartz sand were combined in 2% (n=45) of the USRB sherds. These sherds are somewhat compact with laminations in cross-section. The exterior surface is net-impressed (n=30, 63%); the interior is generally smoothed (n=30, 63%) with ten sherds too eroded for identification. Sherd thickness is 5 to 10 mm with colors orange to tan with black and brown represented. Temper size measures from 1 to 7 mm and is abundant to frequent. Random variability appears in four sherds: one "crushed quartz, quartz sand, hornblende;" one "crushed quartz, quartz sand, micaceous sand;" one "crushed quartz, quartz sand, micaceous clay;" and one "crushed quartz, quartz sand, feldspar."

Crushed Quartz, Silty (CrQ, Silty). These sherds comprise 5% of the total USRB sample (n=90). Variously sized prepared quartz fragments are lodged in a compact, silty clay matrix. Laminations are present and in cross-section the sherds exhibit a chunky, blocky, and angular appearance. Exteriors are variously net-impressed (n=51, 57%), cordmarked (n=22, 24%), and eroded (n=2, 2%) with plain (n=3), brushed (n=9), fabric (n=1) and simple stamped (n=1) represented. Interior surface treatment is smoothed (n=36; 40%), combed (n=6; 7%), scraped (n=4; 4%), eroded (n=2; 2%), and floated (n=42; 47%). Sherd thickness is 4 to 11 mm. Colors are orange and buff to brown with tan and red represented. Temper is sized at less than 1 mm to 8 mm, abundant to frequent. Table 6.1 below summarizes the temper theme descriptions.

Following recognition of the wide variety of temper theme variability occurring within the project area, stratigraphic

Table XVIII: Temper Theme Attribute Summary, USRB

Temper Theme	n	Exterior Matrix	Net	CM	Other	Interior Sm	Comb	Scr	E	Fl	Sherd O	Thick	Color	Temper Size
Silty, L	31	Compact	87%	7%	6%	66%	14%	10%	7%	4%	--	5-9	OBF	0
F Sand	664	Compact	89%	2%	9%	92%	5%	2%	.2%	.5%	--	2.5-10	OBFBRT	<1
FS OccQ	347	Compact	89%	3%	8%	91%	7%	1%	--	1%	--	2-11	OBFBR	1-7
QSand	534	ComLam	82%	1%	17%	93%	3%	2%	1%	--	1%	3.5-13	OBFTBR	<1-2
MSand	56	ComLam	98%	0	2%	100%	--	--	--	--	--	3-7.5	OBFBRG	<1-6
QS,MS	32	ComLam	97%	3%	0	94%	3%	3%	--	--	--	4-10	OBFBRG	<1-6
CrQ,FS	77	Compact	74%	4%	22%	97%	3%	--	--	--	--	4-13	OBF	<1-9
CrQ,MS	47	ComLam	94%	0	6%	94%	--	2%	4%	--	--	3-11	OTBF	<1-7
CrQ,QS	45	ComLam	60%	8%	31%	60%	4%	2%	22%	8%	4%	5-10	OTBLBR	<1-7
CrQ,Silty	90	Ch, Bl	58%	24%	18%	40%	7%	4%	2%	47%	--	4-11	OBFBRTR	<1-8

units were analyzed to look for distributional patterns. Stratigraphic units were excavated at four sites: 44Pk9, 44Pk96, 44Pk171, and 44Pk223. Table XIX displays the distribution of temper themes in the stratigraphic excavations at these four sites.

Table XIX: Temper Theme by Stratigraphic Distribution, USRB

Site Number	Prov	n	Silty Leach	Fine Sand	FSand OccQtz	CrQtz FSand	Qtz Sand	Mica Sand	QSand MSand	CrQtz QSand	CrQtz MSand	CrQtz Silty
44Pk9	A-1	40	1	6	4	4	25					
	A-2	5		2			3					
	A-3	7		1			6					
	A-4	121	1	33	11	11	59		5			1
	A-5	33		22	6		5					
	A-6	68		15	15	5	26			1		6
	OM-2	12	2	2	8							
	OM-3	24	6	2			2			11		3
	OM-4	4	1			2	1					
	OM-5	0										
	OM-6	1								1		
44Pk171	1-1	21		6		4	8		2			1
	1-2	16		5		4	6		1			
	1-3	18		9			6		1			2
	1-4	0										
	1-5	1					1					
	2-0	1					1					
	2-1	3		1					1			1
	2-2	9	1	2			1		1	1		3
	2-3	2				1						1
	3-1	7		2			4					1
	3-2	7		1			6					
	3-3	9		2	1		6					
	3-4	3		2	1							
	4-1	19		10	1		3	4				1
	4-2	16		10	1		2	3				

Table XIX: Temper Theme by Stratigraphic Distribution, USRB (cont.)

Site Number	Prov	n	Silty Leach	Fine Sand	FSand OccQtz	CrQtz FSand	Qtz Sand	Mica Sand	QSand MSand	CrQtz QSand	CrQtz MSand	CrQtz Silty
	4-3	1						1				
44Pk96	1-1	4		1	1	1	1					
	1-2	11		2	1	4	3					1
44Pk223	1-1,2	1		1								
	1-3	1						1				
	1-4	2						1		1		
	1-5	6			6							
	1-6	0										
	1-7	1						1				

Exterior Surface Treatments. As noted earlier, temper theme was only one diagnostic attribute included in the analysis of the USRB sample. Also included were the exterior and interior surface treatments. These attributes were compared within temper themes to observe patterning of data and are listed in Table XX. Table XXI lists the distribution by exterior surface treatment for stratified sites. Net-impressed sherds comprised the majority of the sherd collection (n=1629). Of these, 1189 net-impressed sherds were contained in a "net-impressed, eroded surface" category. However, enough surface remained to place them in the net-impressed group. This category is presumably most useful in considering site environmental processes and reflects repeated flooding and consequent eroding of materials at some sites. Only 199 sherds were too eroded for identification of exterior. Fifty-nine sherds could be classed in a cordmarked category and 37 were grouped in a

Table XX: Distribution of Exterior Surface Treatment by Temper Theme, USRB

Temper Theme	Net Impressed	Cord Marked	Eroded	Other
Silty,Leached	27	2	1	1 Plain
Fine Sand	589	12	53	10 Smoothed
FSand,Occ Qtz	308	10	28	1 Plain
Qtz. Sand	439	5	86	5 *
Mica. Sand	55			1 Fabric
QSand, MSand	31	1		
CrQtz, FSand	57	3	15	2 Plain
CrQtz, MSand	44		3	
CrQtz, Qtz Sand	27	4	11	3 **
CrQtz, Silty	52	22	2	14 ***

* 3 Plain, 1 Brushed, 1 Fabric
** 3 Simple stamped
*** 3 Plain; 9 Brushed; 1 Fabric; 1 Simple Stamped

Table XXI: Exterior Surface Treatment by Stratigraphic Distribution, USRB

Site	Prov.	Net Impressed	Net, Eroded	Cord Marked	Plain	Eroded	Other
44Pk9	A-1	29		1		10	
	A-2	3				2	
	A-3	6				1	
	A-4	64	5	1	1	50	
	A-5		33				
	A-6	17	33	3	2	13	
	OM-2	6	2			4	
	OM-3	1	11	5	1	2	4
	OM-4	3			1		
	OM-6				1		
44Pk171	1-1	5	15	1			
	1-2	1	11	2		2	
	1-3	2	15			1	
	1-5		1				
	2-0	1					
	2-1	1	1	1			
	2-2		3	2		4	
	2-3	2					
	3-1		6			1	
	3-3	4	2			3	
	3-4		3				
	4-1		19				
	4-2		14		2		
	4-3		1				
44Pk96	1-1	2	2				
	1-2	4	6	1			
44Pk223	1-1,2		1				
	1-3		1				
	1-4		2				
	1-5		6				
	1-7						1*

* fabric impressed

miscellaneous category ("Other") containing three fabric marked, 20 plain, 10 brushed, and four simple stamped.

Eighty-five percent of all sherds collected from the project area were net-impressed (n=1629). At 44Pk171, 96% of the total sherd collection was net-impressed while at 44Pk9, the percentage dropped to 69%. However, at 44Pk9, 171 sherds were too eroded for surface identification and these eroded sherds may explain the lower net-impressed percentage.

Stratigraphic comparisons of net-impressing with other choices of surface treatment may be seen in Table XXI and

yielded the following data: at all levels there was a trend to net-impressed exteriors, however within the lower levels, as well as all levels, cordmarked sherds were a very small portion of the sample. Within temper groupings, net-impressed exteriors prevailed as the most utilized surface treatment.

Trends in surface treatment finish are widely recognized in studies of southeastern ceramics. Looking at temper themes in terms of a trend toward increased net-impressing, themes can be ordered as follows. (Certain temper themes are viewed as variations on a major tempering theme and are listed in relation to that theme. Higher percentages are viewed as reflecting an intensification of the net-impressed treatment rather than an indication of a later "temporal" placement):

	% Net-impressed		
Fine Sand	89%		
FSand, Occ Qtz	88%		
Silty, Leached	85%		
Qtz Sand	82%	MSand 98%	QSand,MSand 97%
CrQtz, FSand	74%	CrQtz, MSand 93%	
CrQtz, QSand	63%		
CrQtz, Silty	41%		

Interior Surface Treatments. Comparisons of interior surface treatment show the highest number of sherds smoothed on the interior (n=1717, 89%) while 5% (n=90) were combed (a pattern producing a regular series of parallel lines). Two percent (n=36) were scraped in a random fashion on the interior while 3% (n=49) displayed a floated interior. Seven sherds (.4%) appeared brushed and 23 sherds (1%) were too eroded on the interior finish to be identified. Table XXII displays the distribution of interior surface finish as it relates to the temper theme groupings, while Table XXIII displays the distribution of this attribute through excavated

Table XXII: Distribution of Interior Finish by Temper Themes, USRB

Temper Theme	Smoothed	Combed	Scraped	Eroded	Floated	Brushed	Other
Silty,Leached	21	4	3	2	1		
Silty,Leached	21	4	3	2	1		
Fine Sand	613	35	12	1	1	1	1*
FSand, Occ Qtz	317	25	4		1		
Qtz Sand	498	15	10	6		5	
Mica. Sand	56						
QSand, MSand	30	1	1				
CrQtz, FSand	75	2					
CrQtz, MSand	44		1	2			
CrQtz, QSand	27	2	1	10	4	1	3*
CrQtz, Silty	36	6	4	2	42		

* simple stamped

Table XXIII: Interior Surface Treatment by Stratigraphic Distribution, USRB

Site Number	Prov.	n	Smoothed	Combed	Scraped	Eroded	Floated	Brushed
44Pk9	A-1	40	40					
	A-2	5	2	3				
	A-3	7	7					
	A-4	121	116	4			1	
	A-5	33	32		1			
	A-6	68	66		1			1
	OM-2	12	12					
	OM-3	24	18	4		2		
	OM-4	4	3	1				
	OM-6	1		1				
44Pk171	1-1	21	17	2	1		1	
	1-2	16	14	1				1
	1-3	18	15	2		1		
	1-5	1	1					
	2-0	3	1					
	2-1	3	1		1		1	
	2-2	9	6	1			2	
	2-3	2	1				1	
	3-1	7	7					
	3-2	7	7					
	3-3	9	9					
	3-4	3	3					
	4-1	19	17	1			1	
	4-2	16	16					
	4-3	1	1					
44Pk96	1-1	4	2	2				
	1-2	11	11					
44Pk223	1-1,2	1	1					
	1-3	1	1					
	1-4	2	2					
	1-5	6	6					
	1-7	1	1					

strata. Here again interior smoothing can be seen as the interior finish most often used. Of the net-impressed sherds, 93% (n=1513) are smoothed on the interior while in the cordmarked group only 53% (n=31) are smoothed. The remaining 47% (n=23) are scraped (n=2), combed (n=5), and floated (n=21, 35%).

Sherd Color. Colors range from variations of tan (10YR7/4) to variations on buff (7.5YR8/4), orange (2.5YR6/8 to 5YR6/6), brown (5YR4/3), red (10R5/6), grey (10YR7/8), and black (10YR3/1). Within temper themes most variations on these colors are present. However, in every temper theme group, sherds with an orange base color comprise the largest

percentage of sherds: "silty, leached"=59%; "fine sand"=76%; "fine sand, occasional quartz"=54%; "quartz sand"=57%; "micaceous sand"=66%; "quartz sand, micaceous sand"=93%; "crushed quartz, fine sand"=57%; "crushed quartz, fine sand"=57%; "crushed quartz, micaceous sand"=79%; "crushed quartz, quartz sand"=66%; and "crushed quartz, silty"=73%. Table XXIV presents the general color groups and the distribution within these groups.

Table XXIV: Color Distribution by Temper Themes, USRB

Temper Theme	n	Color						
		Tan	Black	Buff	Orange	Brown	Red	Gray
Silty, Leached	31			24%	59%	3%	2%	
Fine Sand	664	3%	2%	12%	76%	5%	.3%	2%
FSand, Occ Qtz	347	5%	.3%	28%	54%	11%		3%
Qtz Sand	534	5%	2%	26%	57%	8%	.8%	2%
Mica. Sand	57			26%	66%	4%		4%
QSand, MSand	32			7%	93%			
CrQtz, FSand	77	4%	9%	20%	57%	5%	5%	
CrQtz, MSand	45	9%		5%	73%	7%		
CrQtz, QSand	47	23%	2%	4%	79%	4%		
CrQTz, Silty	90	2%		11%	73%	12%	2%	

Sherd Decoration. There are 24 decorated sherds in the USRB sample divided between two main sites: 44Pk9 and 44Pk171. Decorative elements can be grouped into four categories: punctated (n=5); pinched (n=10); notched (n=1); and incised (n=8). Within these groups, punctated forms are circular (n=3; Figure 23:k), triangular (n=1), and elongated ovals (n=1). Pinched sherds are similar while the notched resemble pinched (Figure 23:i,m,n). Eight sherds have some form of incising with two cord "incised" sherds and one parallel line incised sherd from Pk171. From Pk9, four sherds contain incising: one, short vertical lines; one, trailed lines; two, deeply incised lines; and one with deep combing over net-impressions on the interior surface. Due to the fragmentary nature of the sherds, exact location on vessels of decoration is not readily apparent. Decorated sherds are represented in five temper theme categories: "fine sand" (n=13); "fine sand, cccasional quartz" (n=6); "quartz sand" (n=2); "crushed quartz, micaceous sand" (n=1); and "crushed quartz, fine sand" (n=2). Table XXV lists sherd decoration within temper themes.

Sherd Rims. Sixty-eight rims were collected within the survey area. Table XXVI lists rim sherd characteristics and provenience. Of the 68 rims, 50% (n=34) are represented within the "fine sand" category with 30 straight and 10 everted. The "quartz sand" theme contains 16 rims (24%), 13 straight and 3 everted. The remaining rims (n=17) are distributed over the remaining temper themes: "silty, leached," n=1 (everted);"fine sand, occasional quartz," n=2 (2 straight); "micaceous sand," n=1 (everted); "quartz sand,



Figure 23. Ceramic Artifacts, USRB, Virginia. a, b, h, j-l, sherds, 44Pk171; c, pipe fragment, 44Pk171; f, g, i, m-o, sherds, 44Pk9; d, e, pipe fragments, 44Pk9.

Table XXV: Sherd Decoration Within Temper Themes, USRB

Decoration	Prov.	n	Temper Theme
Punctations:			
Circular	44Pk171:3-3	1	Fine Sand
	44Pk171:GR21	1	Fine Sand
Triangular	44Pk171:GR35	1	Fine Sand, Occ. Qtz
Circular/ pattern	44Pk171:GR39	1	Quartz Sand
Elongated Oval	44Pk171:GR39	1	CrQtz, MSand
Pinched:	44Pk171:GR6	1	Fine Sand
	44Pk171:GR23	1	Fine Sand
	44Pk171:GR38	1	Fine Sand
	44Pk171:GR38	1	Fine Sand, Occ. Qtz
	44Pk171:GR41	2	Fine Sand
	44Pk9:A-4	1	Fine Sand
	44Pk9:E0	1	Fine Sand, Occ. Qtz
	44Pk9:P7GR	1	Fine Sand, Occ. Qtz
	44Pk9:OM-2	1	Fine Sand
Notched:	44Pk171:GR34	1	Qtz Sand
Incised:			
Parallel Lines	44Pk171:GR42	1	Fine Sand
	44Pk171:GR57	1	Fine Sand
Cord Lines	44Pk171:GR38	1	Fine Sand, Occ. Qtz
Trailed Lines	44Pk9:P9L3	1	Fine Sand, Occ. Qtz
Vertical, Comb	44Pk9:A-6	1	Fine Sand
	44Pk9:P3GR	1	Fine Sand
Deep Lines	44Pk9:P6L3	2	CrQtz, FSand

micaceous sand," n=1 (straight); "crushed quartz, fine sand," n=2 (1 everted, 1 straight); "crushed quartz, micaceous sand," n=2 (straight); "crushed quartz, quartz sand," n=2 (straight); and "crushed quartz, silty," n=7 (straight).

Decorative treatments (where present) were mainly notching (n=23, Figure 23:1,o) and incising (n=3)with one sherd net-impressed to the lip. All rims are smoothed before decorative treatment was added. Lip shape is rounded (n=45), flattened (n=13), pointed (n=5) or occasionally flat to oblique (n=2), and rounded to flat (n=3).

Sherd Bases. Thirty-four sherds were recovered which may represent basal portions of vessels. In most cases these fragments display some interior scraping from their initial formation and this helped identify their possible basal position. All bases appear to represent bowls; no conoidal fragments such as are typically associated with storage jars were recovered, although some basal portions may be sections of globular jars.

Table XXVI: Rim Sherds by Temper Theme, USRB

Temper Theme	n	Prov	Lip Shape	Finish	Angle	Decoration
Silty, Leached	1	44Pk9:A-4	Rounded	Smooth	Everted	
Fine Sand	1	44Pk96:1-2	Flat	Smooth	Straight	
	1	44Pk96:12-1	Rounded	Smooth	Straight	Notched
	1	44Pk171:GR19	Rounded	Smooth	Straight	
	1	44Pk171:GR19	Flat	Smooth	Straight	
	2	44Pk171:GR23	Rounded	Smooth	Straight	
	1	44Pk171:GR26	Flat	Smooth	Everted	Notched
	1	44Pk171:GR27	Rounded	Smooth	Everted	Notched
	1	44Pk171:GR28	Rounded	Smooth	Straight	
	1	44Pk171:GR36	Rounded	Smooth	Straight	Oblique notches
	1	44Pk171:GR38	Rounded	Smooth	Straight	Notched
	1	44Pk171:GR38	Rounded	Smooth	Straight	Incised
	1	44Pk171:GR38	Rounded	Smooth	Everted	Notched
	1	44Pk171:GR39	Flat	Smooth	Straight	
	1	44Pk171:GR39	Rounded	Smooth	Everted	Notched
	1	44Pk171:GR39	Flat	Smooth	Straight	
	1	44Pk171:GR39	Rounded	Smooth	Everted	Notched
	1	44Pk171:GR39	Pointed	Smooth	Straight	
	1	44Pk171:GR39	Pointed	Smooth	Everted	Notched
	1	44Pk171:GR39	Flat-R	Smooth	Straight	
	4	44Pk171:GR41	Rounded	Smooth	Straight	
	1	44Pk171:GR43	Rounded	Smooth	Straight	Incised
	1	44Pk171:GR44	Flat	Smooth	Straight	Notched
	1	44Pk171:GR65	Rounded	Smooth	Straight	
	1	44Pk171:GR71	Flat	Smooth	Everted	
	1	44Pk171:GR74	Flat	Smooth	Everted	Notched
	1	44Pk9:A-4	Rounded	Smooth	Everted	Notched
	1	44Pk9:A-4	Rounded	Smooth	Straight	Incised
	1	44Pk9:A-4	Rounded	Smooth	Straight	
	1	44Pk9:A-5	Pointed	Smooth	Everted	
	1	44Pk9:P3GR	Rounded	Smooth	Straight	Oblique notches
FSand, Occ Qtz	1	44Pk78:1-8	R-Flat	Smooth	Straight	
	1	44Pk171:GR19	Pointed	Smooth	Straight	Deep notches
Qtz Sand	1	44Pk171:GR41	Rounded	Smooth	Straight	
	1	44Pk96:1-1	Rounded	Smooth	Straight	Net to Lip
	1	44Pk195:1-1	Rounded	Smooth	Straight	
	1	44Pk195:3-1	Rounded	Smooth	Straight	
	1	44Pk171:3-2	Pointed	Smooth	Straight	Notched
	1	44Pk171:GR12	Flat	Smooth	Straight	
	2	44Pk171:GR21	Rounded	Smooth	Straight	Notched
	1	44Pk171:39	Rounded	Smooth	Straight	Notched
	1	44Pk171:GR42	Flat	Smooth	Everted	
	1	44Pk171:GR42	Rounded	Smooth	Straight	
	1	44Pk171:GR57	Rounded	Smooth	Straight	
	2	44Pk9:A-4	Rounded	Smooth	Straight	Notched
	1	44Pk9:A-4	Fl-Obl	Smooth	Everted	Notched
	1	44Pk9:P3L5	Rounded	Smooth	Everted	Notched

Table XXVI: Rim Sherds by Temper Theme, USRB (cont.)

Temper Theme	n	Prov	Lip Shape	Finish	Angle	Decoration
Mica Sand	1	44Pk9:A-4	R-Flat	Smooth	Everted	Notched
QSand, MSand	1	44Pk171:GR40	Flat	Smooth	Straight	
CrQtz, FSand	1	44Pk9:P3GR	Flat	Smooth	Everted	Oblique
	1	44Pk9:P3GR	Rounded	Smooth	Straight	
CrQtz, MSand	1	44Pk171:GR39	Rounded	Smooth	Straight	Notched
	1	44Pk171:GR39	Rounded	Smooth	Straight	
CrQtz, QSand	2	44Pk195:2-1	Rounded	Smooth	Straight	
CrQtz, Silty	1	44Pk175:GR2	Rounded	Smooth	Straight	
	1	44Pk175:2-3	Rounded	Smooth	Straight	
	1	44Pk175:2-3	Flat	Smooth	Straight	
	1	44Pk206:8/35	Rounded	Smooth	Straight	
	1	44Pk206:8/40	Rounded	Smooth	Straight	
	1	44Pk206:8/42	Rounded	Smooth	Straight	
	1	44Pk171:GR43	Fl-Obl	Smooth	Straight	

Generally, all basal portions were almost flattened with little curvature which suggests bowls rather than jars. Six temper themes were represented with possible basal fragments: "silty, leached" (n=2); "quartz sand" (n=8); "quartz sand, micaceous sand" (n=2); "crushed quartz, quartz sand" (n=1); "fine sand, occasional quartz" (n=7); "crushed quartz, fine sand" (n=1); and "fine sand" (n=13).

Appendages. There are nine fragments representing portions of vessel appendages such as strap or loop handles appliqued to the vessel shoulder. These fragments contain two decorative treatments: notches (n=2) and punctations (n=1). Three temper themes are represented: "fine sand" (n=2); "fine sand, occasional quartz" (n=2); and "quartz sand" (n=5). Two attached strap/loop handles were recovered from 44Pk171:GR41 (Figure 23:a,b) and 44Pk9:E0 (Figure 23:f,g) and two lug fragments were found, one in 44Pk171 (Figure 23:h) and one in 44Pk9 (Figure 23:i).

Pipe Fragments. Three ceramic pipe fragments were recovered. Two from 44Pk9 are bowl fragments (Figure 23:d,e); one is made with "fine sand" and the other is made from a silty clay with a crushed quartz inclusion -- a 5 mm space can be seen where a pebble was included in the bowl's paste. The third fragment is from 44Pk171 (Figure 23:c), a stem fragment of "fine sand" with smoothing striations visible on the exterior.

Technological Attributes

Technological attributes are divided into four classes: clay matrix, range of temper (size and amount), trends in surface treatment finish (exterior and interior), and sherd thickness. Patterning of these attributes may inform on the techniques and processes used in making ceramics.

Clay Matrix. "Clay matrix" describes the appearance of a sherd's cross-section. Categories established to describe the collection were "compact," "compact with laminations;" "chunky;" "porous;" and combinations of these attributes.

Compact (Com). This attribute describes a tight, well-mixed matrix which may be related to two factors: 1) the degree of mixing of the clay base, and 2) selection of clay sources. The appearance of a more compact clay matrix in cross-section is considered an indication of selection of finer clays for a more compact and harder finished product (Claggett and Cable 1982). Snavely and Raber (in Claggett and Cable 1982) describe technological patterns of changes in clay sourcing and utilization of local clays in their statistical analysis of ceramics from the Haw River drainage. Analysis of Haw River pottery has suggested a general temporal trend of increased sophistication in the selection and use of available clay resources.

Compact with Laminations (ComLam). This attribute describes a compact, tight matrix which in cross-section displays visible parallel "lines" of clay layers. Lines may be parallel to interior/exterior surfaces or at oblique angles to these surfaces. Frequently these laminations may appear somewhat wavy. This attribute may be related to mixing/malleation of clay in forming a finished product.

Chunky (Ch). Some sherds in cross-section present a blocky or chunky aspect. This cross-section may be accompanied by angular temper inclusions, clumping temper fragments, and laminations.

Porous (Porous). Sherds with this attribute display porosity in cross-section. Porosity may be caused by temper being leached out of the sherd, by inadequate mixing of the clay preceding coil formation, or during malleation. Combustion of temper during the firing process may also produce this effect. Table XXVII describes sherd matrix in terms of temper themes. Sherds were grouped by temper theme for descriptive purposes although no temper theme completely conformed to any one matrix group pattern.

Temper Size and Amount. Temper size varies between temper theme groups: the sand temper themes range in particle size from less than 1 mm to 2 mm with an occasional quartz fragment (1-5 mm). Crushed quartz themes contain a range of prepared quartz fragments from less than 1 mm to 5-8 mm. The amounts vary from R ("represented") in "fine sand" to F

Table XXVII: Matrix by Temper Theme, USRB

Temper Theme	n	Compact	Compact/Lam.	Chunky	Ch,Porous	Other
Silty, Leached	31	24%	14%	24%		38%*
Fine Sand	664	94%	6%			
FSand, Occ Qtz	347	52%	45%			
Qtz Sand	534	17%	83%			.7%**
Mica Sand	57	30%	66%			
QSand, MSand	32	6%	93%			
CrQtz, FSand	77	53%	47%			
CrQtz, MSand	45	14%	86%			
CrQtz, QSand	47	10%	48%	6%		35%***
CrQtz, Silty	90	7%	11%	47%	29%	7%****

* 3% Lam, Porous; 35% Compact, Porous
** Compact, Porous
*** 35% Variously: Ch,Lam; Ch,Porous; Compact/Lam,Ch; Compact/Lam,Porous; and Compact,Ch.
**** 7% Variously: Ch,Lam; Com,Porous; Lam; Com,Lam,Ch; Com/Lam,Porous.

("frequent") in "fine sand, occasional quartz" to A ("abundant") in quartz sand and micaceous sand themes. Temper size also varies between groups: the sand temper themes range in particle size from less than 1 mm to less than 1-2 mm (upper limit) with an occasional quartz fragment (1-9 mm). Crushed quartz themes contain a range of prepared quartz fragments from less than 1 mm to 5-8 mm. Table XXVIII shows the range of variability within theme groups for amounts of temper. Within groups all of the amounts of temper (A, F, and R) are represented.

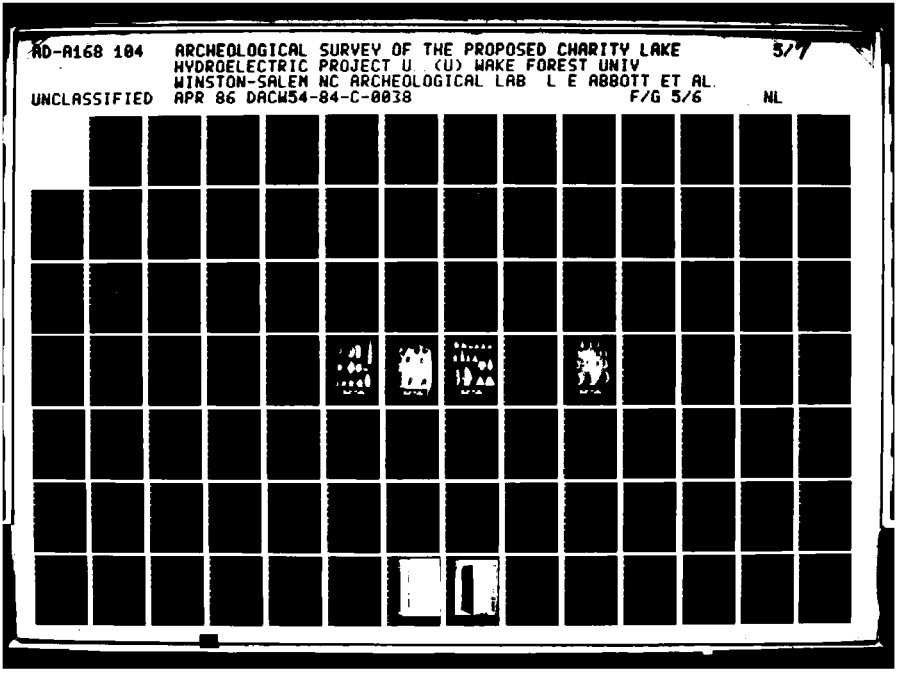
Sherd Thickness. The sherds in the Smith River sample maintain a similar range for sherd thickness. The thinnest sherds appear to correspond most closely with the smaller-sized temper theme groups; however, "crushed quartz, micaceous sand" sherds range from 3 mm to 11 mm throughout the group. Table XXVIII shows the range of variability of temper theme groups for sherd thickness.

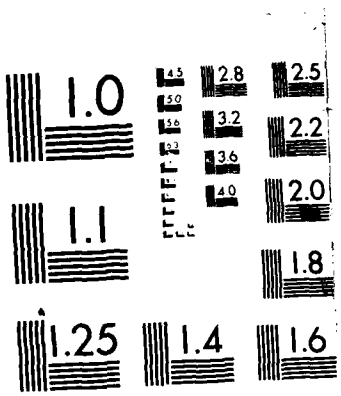
Variability of the Smith River Assemblage

Typological Identification. The majority of the sherds recovered from the project area represented a predominantly sand tempered ware, 1633 sherds or 85% of all ceramics. This ceramic assemblage is generally defined for the Smith River drainage as the Dan River Series -- a sand tempered ware with occasional crushed quartz fragments, predominantly net-impressed (Coe and Lewis 1952). Gardner (1980:54-55)

AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL. 5/7

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 196

Table XXVIII: Range of Sherd Thickness and Temper Size Within Temper Themes, USRB

Temper Theme	Range Abundant Thickness	Size	%	Range Frequent Thickness	Size	%	Range Represented Thickness	Size	%
Silty,L	5-9 mm	0	81	6-9 mm	0	13	8-9 mm	0	6
FSand			0	5-9 mm	<1-2	2	2.5-10 mm	<1-2	98
FSand,OccQ	5-9.5 mm	4-7 mm	6	2-10 mm	<1-6	11	3-11 mm	<1-7	83
Qtz Sand	4-9 mm	<1-5 mm	13	4-13 mm	<1-5	59	3.5-9 mm	<1-5	28
MSand	5-7 mm	<1-3 mm	16	3-7.5 mm	<1-4.5	37	5-7 mm	<1-6	47
QSand,MSand	4-10.5mm	<1-4 mm	59	6-9 mm	<1-6	41			0
CrQtz,FSand	6-10 mm	<1-6 mm	16	5-10 mm	<1-9	39	4-13 mm	1-7	45
CrQtz,MSand	3-9 mm	<1-5 mm	73	4-8 mm	<1-6	11	5-11 mm	<1-7	16
CrQtz,QSand	5-10 mm	<1-7 mm	68	6-9.5 mm	<1-6	26	7-8 mm	<1-3	6
CrQtz,Silty	4-11 mm	1-8 mm	40	5-9 mm	<1-5	53	6-8 mm	<1-6	7

describes the series:

> "Sand tempering varies from medium quartz sand to fine river sand. The paste is compact, not friable, and often gritty. Sherd color ranges from buff to black while the most usual color is brown. Fire clouds are often present. Surface finish is usually net-impressed although others are represented (cordmarked, corn cob impressed, brushed, and smoothed). The interior surface is often scraped with a serrated tool, however, smoothing is also used. Decorative attributes include lip notching, finger pinching and fingernail incising. Lips may be flattened or rounded and rims are everted, straight, or incurved. Occasionally a rim will be castellated. Body form is globular jars and bowls with conoidal to rounded bases. Vessel walls may be four to 13 mm thick with an average of 7 to 8 mm. The use of lugs and strap handles is most commonly found in Virginia."

A comparison of the Dan River typological attributes with the reflection of these attributes in the Smith River collection appears below in Table XXIX.

Generally speaking, the Smith River collection can be placed within a Grayson-Dan River-Caraway tradition described by Coe (1964) and Holland (1970). General temper variability is crushed quartz or sand temper and variations on these main groupings. Recovered sherd percentages mirror those of Word, et al (1982) who recovered 85% sand tempered wares in their survey of the lower Smith River. Variation of temper was more

Table XXIX: Comparison of the Dan River Series Attributes and the USRB Collection

Dan River Series	USRB Collection
Temper: Generally sand tempered	Fine Sand 664, 35%
Multiple to occasional quartz	FSand, Occasional Quartz 347, 18%
	Quartz Sand 534, 28%
	Mica Sand 56, 3%
	QSand, MSand 32, 2%
	CrQtz, FSand 77, 4%
	CrQtz, MSand 47, 2%
Surface Treatment--Exterior:	
Generally net-impressed	Net-impressed 1627, 85%
Other: Cordmarked,	Cordmarked 59, 3%
corn cob impressed,	Eroded 199, 10%
brushed, smoothed.	Other 38, 2%
Surface Treatment--Interior:	
Generally smoothed with some scraping	Smoothed 1717, 89%
	Scraped 36, 2%
	Brushed 7, .4%
	Combed 90, 5%
	Floated 2, .05%
	Eroded 23, 1%
	Other 1, .1%
Decoration:	
Finger pinching	Finger pinching 10, 42%
Fingernail punctations	
Angular punctation	Angular punctations 2, 8%
Circular punctation	Circular punctations 3, 13%
Trailed Line incising	Trailed line incising 1, 4%
	Incised 7, 29%
Rims: Notched	Notched 23, 40%
Flattened	Flattened 12, 21%
Everted	Everted 15, 26%
Straight	Straight 43, 74%
Incurved	Incurved 0
Castellated	Castellated 0
Body: Form--globular jars, bowls	Form: Globular jars, bowls
Bases: Conoidal to rounded	Bases: Rounded
Appendages: Lugs, strap handles	Appendages: Present

diverse than was initially supposed and led to the establishing of multiple temper themes to fulfil the analytical goal of description of the ceramic variability present in the survey area. Of the 34 ceramic sites within the project area, 28 contained sherds of the Dan River

Series. One site, 44Pk9, produced three radiocarbon dates from two test excavation units: EU-A and EU-OM. EU-A6 supplied a date of A.D. 1202 while EU-OM yielded two dates from a lower midden, top and bottom (OM-3 and OM-4); those dates were A.D. 910 and A.D.530, respectively. Clark, et al (1978: in Simpkins 1985) reports dates for the Dan River Series from A.D. 1010 (±) to A.D. 1495 in Virginia. It should be pointed out, however, that the lower 44Pk9 midden produced ceramics clearly assignable to the Grayson or Uwharrie series as well as Dan River examples. At this time it seems prudent to suggest only that the Dan River wares were being manufactured at least as early as A.D. 1000 in the USRB.

Gardner (1980) divides the Dan River Series into several varieties: Dan River variety Dan River and Dan River variety Stokes. He bases this division on the change in temper size through time -- a reduction in size and amount. The former is dated to A.D. 1300-1550 and the latter at A.D. 1550 to 1725. Wilson (1983), however, based on a reassessment of the ceramic assemblage from 44Ha23, the Leggett Site , sees a problem with this variety division based on similarities in frequencies of occurrence of cordmarked vs. net-impressed surface treatments. If var. Stokes post-dates var. Dan River then Wilson feels these frequencies should show marked differences. Gardner's division by temper is seen as not temporal but as "due to the natural variation in the amount of temper included in the ceramics from any assemblage... factors other than time are the cause for these two varieties" (Wilson 1983:269).

Stratigraphic frequencies of temper themes (Table XIX) from 44Pk9 and 44Pk171 support Wilson's disagreement over the time factoring of Dan River var. Dan River and Dan River var. Stokes. Using the temper themes of "fine sand," "fine sand, occasional quartz" as being equivalent to Dan River var. Stokes and "quartz sand," "micaceous sand", "crushed quartz, fine sand," "crushed quartz, micaceous sand" as representing Dan River var. Dan River, it can be seen that these temper themes co-occur consistently in most levels of stratigraphic units. Some co-occurrence may be due to on-site mixing of assemblages. However, as Wilson points out, other factors may be at work. Possibly a functional explanation of ceramic usage could be invoked here or the variability of temper may indicate the use of local clays during pottery-making. Consequently temper theme variability remains open for interpretation.

An additional variety of Dan River Ware is Gardner's Dan River var. Wythe. Holland (1970) lists these sherds as the Wythe Series but Gardner demotes the series to the variety level and labels it Dan River var. Wythe.

Dan River var. Wythe is characterized as a sand tempered Dan River ware of western Virginia. Gardner includes material formerly classified as the Clarksville Series also

in this variety. Presently its principal distinguishing feature is its geographical range; it cannot be sorted morphologically from the Stokes variety group. The Wythe variety has a lower frequency of scraped interiors, and possibly a greater frequency of appendages and thickened rims. It is given a separate status due to its geographical distance from the Dan River basin, and because it may occur temporally prior to the Stokes variety group (Gardner 1980:68). Sherds for this variety of Dan River were not found in the project area. Both Holland and Gardner place this series/variety west of the Smith River.

While the temporal/stratigraphic placements of Gardner's Dan River var. Dan River and Dan River var. Stokes have not been supported, the temper themes of this study themselves could be easily separated into these two varieties supporting Gardner descriptively if not temporally. Gardner describes his Dan River var. Dan River as being "Uwharrie-like" and his Dan River var. Stokes as being "Caraway-like" (Gardner 1980). Using these descriptions, the temper themes could be easily grouped as:

Dan River var. Stokes: "fine sand," "fine sand, occasional quartz"

Dan River var. Dan River: "quartz sand," "micaceous sand," "crushed quartz, fine sand," and "crushed quartz, micaceous sand".

Three temper themes did not conform to the Dan River Series: the "silty, leached" theme and two crushed quartz themes--"crushed quartz, quartz sand" and "crushed quartz, silty." The "silty, leached" theme most closely resembles Holland's Radford Series (Holland 1970:65). Holland comments that within this limestone tempered series "a few sherds are leached, but the angular holes easily distinguish the paste from leached shell tempered material." The soils in the study area can be seen in Tables X and XI to be highly acidic, which may account for this leaching. Holland depicts multiple finds of Radford Series sherds on the North and South Mayo Rivers located south and east of the project area. He generally dates this series within a very wide range of A.D. 1200 to 1675. Thirty-one Smith River sherds fit into this category.

Ninety sherds having a temper theme of "crushed quartz, silty" and 45 sherds of "crushed quartz, quartz sand" were identified with Holland's Grayson Series (Holland 1970:51). Holland describes this series as being associated with Coe's Uwharrie Series and also having affinities with Yadkin Series sherds. In the Smith River analysis, the temper theme "crushed quartz, silty" most closely corresponds to Yadkin/Grayson sherds. The sherds placed in the "crushed quartz, quartz sand" category displayed attributes of a Uwharrie/Grayson component with large amounts of crushed quartz.

Technological Trends

In addition to identifying the ceramic series represented in the project area, initial research questions were posed addressing the appearance of technological trends within the ceramic collection: hypotheses were proposed to detect trends which might be reflected in 1) reductions in temper size and amount; 2) reductions in sherd thickness; and 3) changes in finishing of interior surfaces.

Results from analyses posited the following directions for technological trends:

Reduction in temper size and amount. Generally this trend was supported with more crushed quartz materials appearing at lower levels of excavated strata. Within the project area itself, sherds containing smaller sized temper inclusions greatly outnumbered those containing crushed quartz: sand tempered, n=1633 (85%); crushed quartz tempered, n=259 (13%). These percentages may also be reflecting intensity of site occupation for the project area.

Viewing these trends in terms of the recovered radiocarbon dates for 44Pk9 and the stratigraphic distribution of temper themes (Table XIX), the major temper themes represented between the A.D. 530 and A.D. 910 dates were generally "silty leach," "crushed quartz, fine sand," "quartz sand," "crushed quartz, quartz sand," and "crushed quartz, silty" with "fine sand" appearing in the upper postion of the lower midden (OM-3: A.D. 910). In the A-6 midden (A.D. 1202), "fine sand," "fine sand, occasional quartz," and "quartz sand" sherds increased in number with "crushed quartz, fine sand," "crushed quartz, quartz sand" and crushed quartz, silty" represented. It appears then that EU-A at all levels is more recent than the OM unit and supports the trend of reduced temper size.

Reduction in sherd thickness. While there was a slight reduction in sherd thickness (usually one to two mm between some tempering themes), sherd thickness was generally uniform across all temper themes with a range of four to nine mm (Table XXVII).

Changes in interior surface treatment. As expected there were some changes between the Grayson Series sherds and the Dan River Series in interior surface finish. The Grayson Series sherds (n=135) were floated (34%), scraped (4%), and smoothed (47%) as compared to the Dan River Series (n=1757) with 1633 (93%) smoothed and 7% other finishes (scraped 28, combed 78, eroded 9, floated 2, one simple stamped, and 6 brushed). The Radford Series was smoothed (n=21, 68%), combed (n=4, 13%), scraped (n=3, 10%), eroded (n=2, 6%) and floated (n=1,3%). Considering the variability of interior surface finishes and the percentage of smoothing, the Radford Series

appears to overlap easily with Dan River.

Ceramic data then appear to support the technological trends proposed for the ceramic assemblage. Interior surface finish presents considerable variability in "earlier" sherds, while "later" sherds show a trend to smoothed interiors with Grayson Series sherds exhibiting 47% smoothed interiors to Dan River 94% smoothed.

Two areas of the ceramic assemblage would benefit from further research: sherd thickness and clay sourcing. While the range of sherd thickness was relatively consistent across temper themes, numbers of occurrences of sherd thicknesses should be calculated to give a clearer picture of modes within temper themes. The presence of sherd thickness modes would indicate more clearly trends toward thinner vessels within temper themes. A detailed study of local clays available at area sites could delineate usage of local clays in terms of temper themes and point out temper themes which may be local variants of tempering traditions, e.g. "quartz sand, micaceous sand" as a variant on the "quartz sand" theme.

Ceramic Distribution of the Smith River Assemblage

The distribution of ceramics by typological series was as follows: Grayson, 19 sites; Dan River, 28 sites; and Radford, 9 sites. Sites are distributed along each of the drainage areas of the project (Widgeon Creek-Smith River, Poplar Camp Creek, Shooting Creek/White Oak Creek, and the Smith River, east). When viewed in terms of ceramic series, a limited pattern of distribution is presented with the majority of sites represented by the Dan River Series. When distribution is viewed in terms of temper themes, a broader perspective is revealed.

Table XXX lists the distribution of ceramic sites within the project area in terms of temper themes and sherd numbers; Figure 24 displays this distribution.

Ceramics are present by temper themes in various amounts at all sites. Ceramic concentrations between sites can be arranged in three classes: "large" concentrations (n=10), "small" concentrations (n=2-10), and a "presence" (n=1 or sherdlets). Large concentrations are identified as a multiple of sherds of a particular temper theme. A small concentration is represented as a few sherds (usually less than ten) of a temper theme. A presence is identified as one sherd or sherdlets. Concentrations are viewed in terms of the creek drainages. For example, on Widgeon Creek a large concentration of "fine sand, occasional quartz" sherds is identified for 44Pk171 (n=259), while a small concentration is located at 44Pk223 (n=9), and a "fine sand, occasional quartz" presence is cited for 44Pk242 (n=sherdlets only).

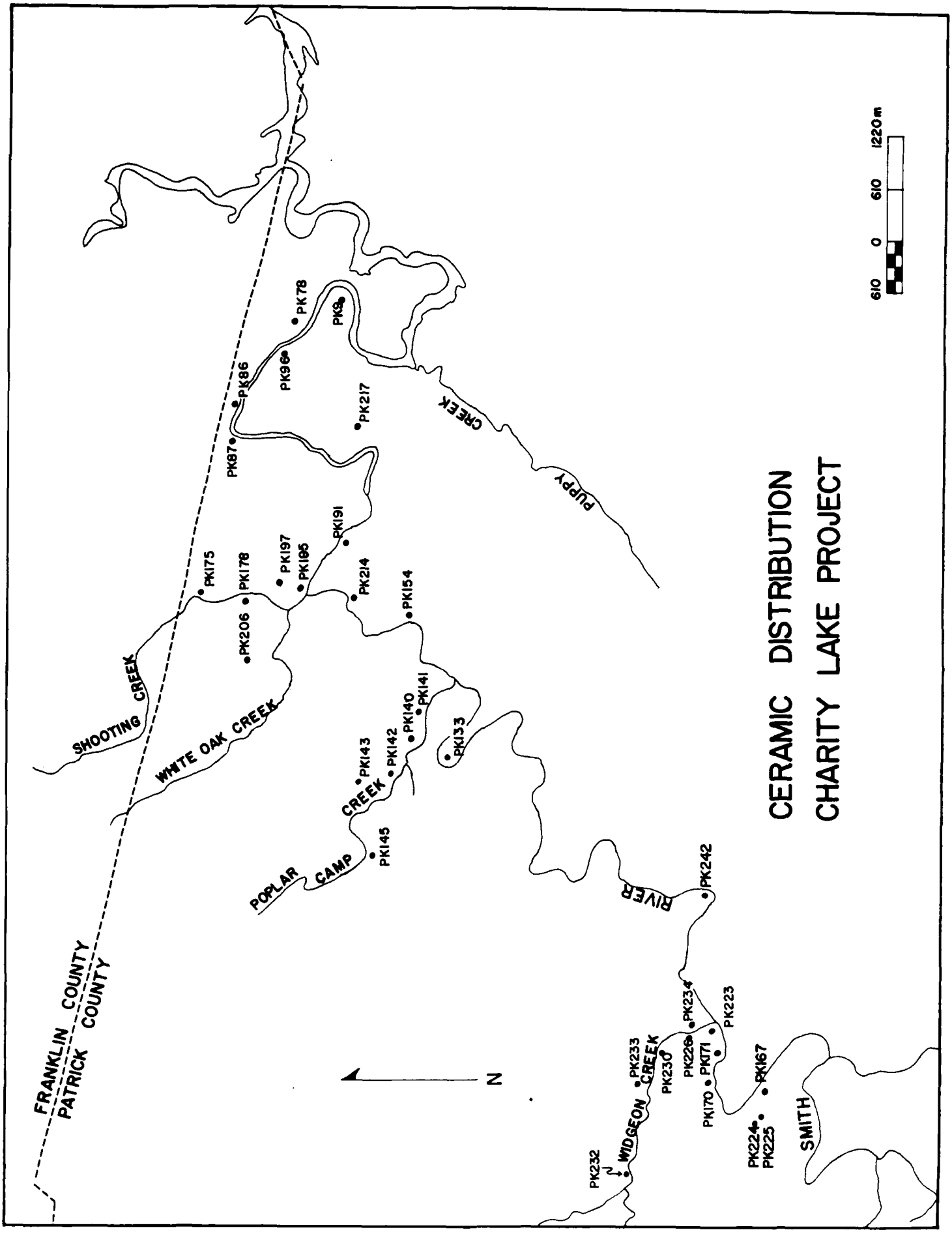


Figure 24. Ceramic sites, USRB, Virginia.

Table XXX: Distribution of Temper Themes and Sherd Numbers, USRB

Site	n	Silty Leach	Fine Sand	FSand OccQ	Qtz Sand	Mica Sand	CrQtz FSand	CrQtz MSand	CrQtz QSand	CrQtz Silty	QSand MSand
Pk9	452	13	125	67	172	7	35	1	14	18	
Pk78	8			5			1		1	1	
Pk86	1						1				
Pk87	1				1						
Pk96	44	5	11	3	7	1	10			7	
Pk133	1				1						
Pk140	Sherdlets: Fine Sand										
Pk141	3				1			2			
Pk142	2				1			1			
Pk143	26	1	3	4	12	2	2			2	
Pk145	1								1		
Pk154	4		1		1				1	1	
Pk167	3							3			
Pk170	5		1		3				1		
Pk171	1259	7	509	259	307	43	23	38	5	37	31
Pk175	4								4		
Pk178	5		2		3						
Pk191	3	1						1		1	
Pk195	23		2		9		1		9	2	
Pk197	5				5						
Pk206	11				1					10	
Pk214	1		1								
Pk217	1									1	
Pk223	41	1	4	9	7	3	3		5	8	1
Pk224	4		1		1				1	1	
Pk225	6	2	2		1		1				
Pk226	Sherdlets: QSand, MSand										
Pk230	2	1							1		
Pk232	2				1				1		
Pk233	2	1							1		
Pk234	3		1		1					1	
Pk242	Sherdlets: Fine Sand, Occ Qtz										

When distribution is viewed in these terms, a recurrent pattern of redundant occupation can be seen for some sites while others consistently maintain either small concentrations or a presence of themes. At the outset, it should be noted that numbers of sherds are viewed as representing a "ceramic presence" and a partial reflection of site occupation intensity. The relationship of ceramic numbers to each other should have implications for intensity of occupation: a large occupation (size) or a long term, small repeated occupation at a specific location should leave larger numbers of sherds than a small occupation for a short time period. Intensity of occupation can then be compared by these large versus small numbers of sherds represented. These statements also assume, however, that all vessels are equally friable; that there are consistent pre- and post-depostional comminution factors; that vessel shapes and sizes

are comparable for different series; and that there were equal recovery rates of sherds per unit area at the various sites.

On the Widgeon Creek-Smith River area, the following ceramic sites are identified: 44Pk167, 44Pk170, 44Pk171, 44Pk224, 44Pk225, 44Pk226, 44Pk227, 44Pk230, 44Pk232, 44Pk233, 44Pk234, 44Pk235, 44Pk236 and 44Pk242. Of these 14 sites, one site--44Pk171--contains large concentrations of 9 temper themes. Figure 25 displays the general range collections and excavated distributions of sherds for this site while Table XXXI presents the sherd numbers by temper themes.

Clearly, in numbers of temper themes represented, 44Pk171 contains the greatest variability of all the sites in the Widgeon Creek-Smith River area. Three temper themes appear to have a similar range and degree of distribution: "fine sand," "fine sand, occasional quartz" and "quartz sand." These three themes have the broadest areal representation. Two additional themes are represented in quantity: "mica sand" and "quartz sand, mica sand." "Mica sand" appears to be a limited variation on the "quartz sand" theme while "quartz sand, mica sand" is a variation which occurs only at 44Pk171. A minimal presence (n=1) occurs in quantity at one nearby site, 44Pk223. Sherdlets of this theme occur at Pk226. Areas of distribution overlap considerably for these themes at 44Pk171.

Crushed quartz themes are also represented at 44Pk171 but not in as great quantities as the more sandy themes. "Crushed quartz, fine sand" and "crushed quartz, mica sand" distributions overlap earlier mentioned themes but in small numbers. "Crushed quartz, silty" and "crushed quartz, quartz sand" are represented by a spotty distribution.

Additionally on Widgeon Creek, another site (44Pk223) displays a similar pattern of temper theme representation as 44Pk171. Seven temper themes are represented. However, the number of sherds in each temper theme group is greatly reduced in comparison with the numbers of each theme at 44Pk171.The remaining twelve sites in this area show a "ceramic presence," one sherd or sherdlets of a temper theme.

The pattern proposed then for the area of Widgeon Creek/Smith River is one of recurrent occupation of one site (44Pk171) producing large quantities of temper theme concentrations. These quantities could be produced by either repeated short term occupations at this site over a long time period or by a long term permanent population. Because of the ceramic diversity, the repeated occupation of this site as a seasonal encampment is likely. No supporting evidence of long-term occupation was recovered, i.e. house patterns, storage facilities, or burials.

Shapiro notes that food storage can serve as indirect

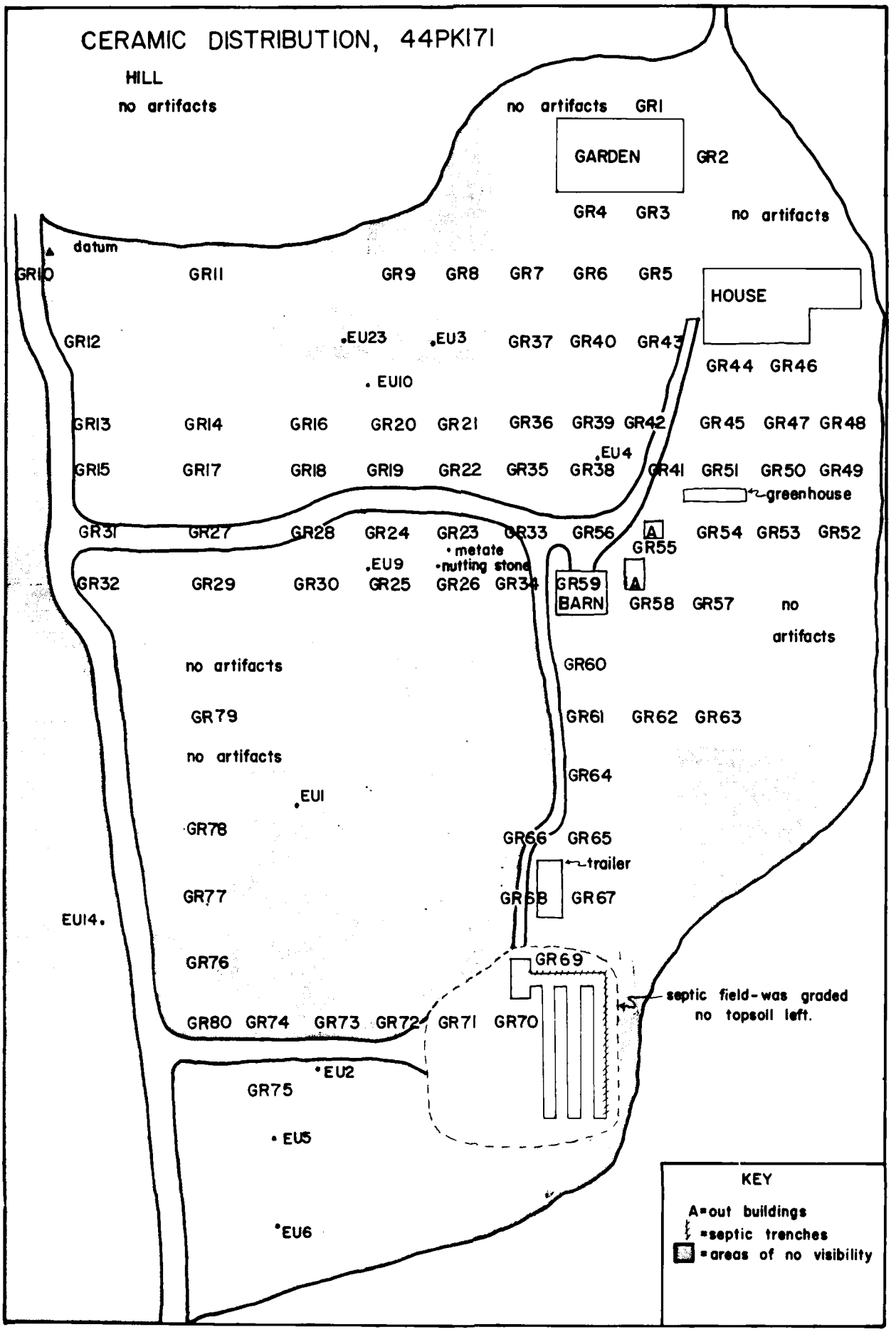


Figure 25. Site Plan and Sampling Units, 44Pk171.

Table XXXI: Temper Theme Distribution, 44Pk171, USRB

Prov.	n	Silty Leach	Fine Sand	FSand OccQ	Qtz Sand	Mica Sand	CrQtz FSand	CrQtz MSand	CrQtz QSand	CrQtz Silty	QSand MSand
GR1	1		1								
GR3	1				1						
GR6	7		3		3			1			
GR7	1		1								
GR9	3		2		1						
GR10	2	1	1								
GR12	6		1		5						
GR14	3				2		1				
GR16	2		1						1		
GR17	5		1	3	1						
GR18	7		5	2							
GR19	64		29	15	17					3	
GR20	4		1	1	1						1
GR21	19	1	3	6	8					1	
GR22	45		21	8	11		4	1			
GR23	32		14	8	10						
GR24	21		13		5		2	1			
GR26	11		7	2	2						
GR27	10	2	2		5		1				
GR28	38		21	16				1			
GR29	6			2	3	1					
GR30	8		4				3			1	
GR34	23		11	1	9		1			1	
GR35	47		27	11			2				7
GR36	26		9	5	6						6
GR37	4			3							1
GR38	145	1	45	37	40	21				1	
GR39	240		96	54	54			26	2	8	
GR40	9		2	3	1						3
GR41	109		40	21	32			2	1	3	
GR42	86		34	32	13	1				6	
GR43	14		5	3	1	4					1
GR44	5		2	1	2						
GR45	10		6		3						1
GR48	3				1	2					
GR49	1				1						
GR51	4		3			1					
GR52	4		2		1	1					
GR53	1					1					
GR54	2							2			
GR55	5		3	1	1						
GR56	6		4	1		1					
GR57	8		5		3						
GR58	4		2	1	1						
GR60	6		4	2							
GR61	9		4	3	2						
GR62	1		1								
GR63	6		3	2	1						
GR64	2					2					

Table XXXI: Temper Theme Distribution, 44Pk171, USRB (cont.)

Prov.	n	Silty Leach	Fine Sand	FSand OccQ	Qtz Sand	Mica Sand	CrQtz FSand	CrQtz MSand	CrQtz QSand	CrQtz Silty	QSand MSand
GR65	6		5	1							
GR66	4		4								
GR71	12		5	5	1					1	
GR72	4		2		2						
GR73	7			3	4						
GR74	5	1	3		1						
GR75	3				3						
GR76	1			1							
GR77	3				3						
GR78	2		1		1						

evidence of site permanence and that evidence for storage of large quantities of foodstuffs would indicate a high degree of site permanence (1984:703). This evidence of long term storage capacity is usually interpreted as food storage facilities, i.e. "storage/refuse" pits or large ceramic containers. At 44Pk171 no traces of storage pit features were uncovered. A survey of the ceramic artifacts does not reveal indications of large storage jars. However, occurrence of certain rim types may provide this information about site activities.

Shapiro characterizes certain rim forms as an indicator of storage vessels. "Outflaring rims facilitate pouring of stored substances and the fastenings of some kind of covering over the vessel orifice (1984:703)" If everted rims are indicative of storage vessels, then a site utilized as a seasonal base camp or permanent habitation site should contain more everted rims (i.e.representing food storage activities) than a more transient camp where minimal food production activities would occur.

If everted rims are indicative of food storage activities, then what interpretation can be placed on the large numbers of straight rims also found at these sites? Braun (1980:183) notes that bowls are associated with activities that require unhampered access to vessel contents, but that at the same time these vessel forms reflect some concern for preventing spillage of contents (hence some inverted or incurved rims); they function in terms of mixing, serving and eating. He sees bowl size as being related to utilization--the smaller the bowl, the more individualized the associated activity.

Bowls then appear to be associated with straight rims. Waselkov (1977:24) also notes bowls with straight or incurved rims and jars with flaring rims. Wilson (1984:244) lists jars with slightly everted, everted-flaring and everted-almost-straight rims and bowls with predominantly straight and infrequently inverted rims.

A comparison of straight rims (i.e. bowls) and everted rims (i.e. jars) at 44Pk171 and adjacent sites then may indicate possible site activities especially when coupled with temper theme comparisons.

At 44Pk171 there are 39 rim sherds. Of these 39, seven are everted and 32 are straight. In comparison no rim sherds were recovered from adjacent sites. The number of everted sherds from 44Pk171 seems to indicate some degree of food storage activities being carried on there (whether on a long term or short term seasonal basis).

In contrast, Coleman (1976) found rims at the Koehler Site on the Smith River east of the project area to be predominantly everted with a slight to pronounced flare. Rims on bowls were straight or slightly inverted. This larger proportion of everted to straight rims may be indicative of a much longer or larger occupation (and more intensive food storage practices) for the Koehler Site in comparison to sites like 44Pk171.

Sites adjacent to 44Pk171 produced no rim sherds. The lack of recovery of rim sherds from these sites may be indicative of the transitory nature of the occupations. A small, short term occupation would leave little pottery debris with an even smaller amount surviving the ravages of site erosion and archeological transforms. Lack of ceramic artifacts may be due to other factors than size of site occupancy however; also, storage vessels could have been carried to and returned from these adjacent sites leaving no traces.

The value however of these rim sherd occurrences (where they occur) may be as an indicator of sites which may have served in a "transitory camp" relationship to adjacent sites, that is, food preparation activities rather than storage. These adjacent non-rim-sherd sites in turn may be linked to the larger sites through occurrences of temper themes.

For example, the variability of pottery and multiple occurrence of temper themes at a site like 44Pk171 argues for repeated occupation of this area as a favorable site location. Presence of temper themes at adjacent sites may indicate small work groups occupying these sites for short times during the main occupation of nearby sites. This pattern has already been established by Binford (1980), Butzer (1982), and Gardner, et. al (1984). Binford (1982:9) discusses this pattern as increased redundancy from year to year using the same locations as residential camps. Taylor elaborates on this pattern of site occupation as one of permanent habitation away from major river systems and their flood plains. This may indeed be the case for the Koehler Site with smaller village sites or "hamlets" (i.e. 44Pk171) appearing in marginal settings, 8-10 miles from the major flood plains. These hamlets may function much as the larger village sites but on a smaller scale (Taylor 1984). Coleman

(1976) lists possible indicators of permanence at Koehler--burials, storage facilities, and burials with large numbers of marine shell beads. None of these indicators was recovered at 44Pk171. Sites such at 44Pk171 may serve as support for Taylor's assertion that population pressure is inducing movement into marginal settings where smaller groups of people can take advantage of the still relatively rich environments of the smaller systems (Taylor 1984:11).

Table XXX lists temper themes and sherd numbers for the Widgeon Creek-Smith River sites listed above. At a glance the repeated deposition of most themes at 44Pk171 can be seen with small representations at adjacent sites.

The general pattern then of pottery distribution and temper theme occurrence on the Smith River-Widgeon Creek involves multiple temper themes being represented at one site; with a secondary site where multiple themes are represented but by only a few sherds; and with multiple adjacent sites with limited temper theme representations and limited sherds. Manifestations of this pattern for other areas of the project are presented below.

Looking first at the easternmost portion of the Smith River project area, one large site stands out as a major concentration of ceramic refuse and represented temper themes: 44Pk9. 44Pk9 contains large concentrations of themes (n=452). Small or secondary concentrations are visible at adjacent sites. Several more distant sites display a few temper theme sherds to a "presence" only. Rim sherds (n=13) are represented at 44Pk9 with ten straight rims and three everted rims. Rim sherds were also found at 44Pk78 (n=1) and 44Pk96 (n=3). All four of the latter sherds were straight rims. Distribution by temper theme of sherds for sites in this area can be seen in Table XXX. Sites located in this area are 44Pk9, 44Pk78, 44Pk86, 44Pk87, 44Pk96, and 44Pk217.

The distribution pattern for the Poplar Camp Creek area and the Shooting Creek-White Oak Creek-Smith River area are small scale versions of the Widgeon Creek-Smith River and eastern Smith River patterns. No large concentration sites are located in these areas but on each drainage one site contains multiple temper themes with a "ceramic presence" at adjacent sites.

Table XXX lists temper themes and sherd numbers for these areas. Site numbers for Shooting Creek-White Oak Creek-Smith River are 44Pk154, 44Pk175, 44Pk178, 44Pk191, 44Pk197, 44Pk206, and 44Pk214. Site numbers for the Poplar Camp Creek-Smith River area are 44Pk133, 44Pk140, 44Pk141, 44Pk142, 44Pk143, and 44Pk145. On Poplar Camp Creek, 44Pk143 displays the most temper themes, while on Shooting Creek-White Oak Creek-Smith River, 44Pk195 contains the broadest representation.

In sum, the ceramic assemblage from the project area appears to reflect a settlement pattern involving a central base camp and associated short-term bivouacs. Diagnostics for this pattern may be visible in temper theme distributions and representations. In a general sense this settlement pattern may be a consequence of a logistical subsistence pattern more commonly attributed to the late Archaic, but consistent with the growing notion that Piedmont Woodland cultural systems remained reliant on wild food resources until the historic period.

CHAPTER EIGHT: LITHIC ANALYSIS

Classification of the lithic assemblages recovered from USRB sites involved two schemes. The first classification focused on lithic material. Detailed description of lithic material variation was initiated for two reasons: (1) an accurate understanding of lithic materials would provide a framework for establishing trends in aboriginal lithic selection and utilization through time; and (2) analytic control of lithic material variability in combination with rigorous provenience data might allow resolution of multi-component sites into discrete occupational episodes on the basis of lithic material distributions. The second classification established artifact membership in sets defined primarily by technological considerations. These technological categories also connote morphological and functional aspects.

Although confounded by the near ubiquity of quartz artifacts, efforts to discern temporal trends in lithic procurement were largely successful. The anticipated delineation of temporally discrete occupation assemblages at multi-component sites on the basis of lithic material spatial distribution met with more limited success. Two factors tempered attainment of this latter goal. The first factor was, not surprisingly, the subtle but wide-ranging variation in quartz material attribute expression. Significant understanding of this variability was achieved during analysis of USRB lithics, but more thorough control of nodule-specific variation is necessary to achieve resolution. The second factor was the very small number of assemblages recovered from sites unobscured by vegetation. The recovery of representative artifact samples through test pitting and augering unfortunately yields minimal spatial distributional data, simply because of low artifact counts.

The following pages present the data and results of a limited lithic analysis of USRB artifacts, primarily projectile points. The discussion begins by establishing the "Geological Context" of the analysis. This section describes the different lithic material categories defined by this study, as well as the occurrence of certain lithic types in the project area. The next section discusses in detail the projectile points recovered during field reconnaissance. Although typically annoying by their non-adherence to established typologies, these points offered a welcome refuge form the white background of quartz. This chapter concludes with a synthesis of lithic analysis data, summarizing the insights gained from lithic artifacts about the prehistoric societies of the USRB area.

A methodological concern central to this study of lithic artifacts is the data recording necessary for replication, critique, and curation control. In the following pages, individual artifacts are referenced by unique identification codes. The code typically consists of the site number in

standard trinomial format, the provenience designation, and an artifact ID number unique to the smallest unit of provenience. These three components of the identification code are separated by virgules. Because much of this analysis necessarily involves somewhat subjective categories of color and texture, artifact-specific identification codes will facilitate replicative studies and/or further analysis of the lithic assemblages.

Geological Context

Ten types of rocks have been identified in the lithic artifacts recovered from prehistoric sites in the USRB study area:

1. Argillite
2. Chalcedony
3. Chert
4. Granite
5. Jasper
6. Metamorphosed conglomerate
7. Quartz
8. Quartzite
9. Rhyolite
10. Siliceous Rock (massive)

These rock types have been subdivided into 87 categories. The specificity of the categories varies greatly; subdivisions of quartz remain general, for example, whereas some subdivisions of chert reflect color changes from heat-alteration. The denominator of lithic category definition is a qualitative distinction in the macroscopic petrographic attribute expression. This section describes the lithic material categories thus defined for USRB artifacts. These data provide the geological context for behavioral interpretations of both intra-site and inter-site lithic distributions.

Argillite. A single tertiary retouch flake was recovered during field survey. This specimen is opaque, with parallel bands of brown and dark-gray. This material does not occur naturally in the project area. Similiar material occurs in archeological context in the northwestern Piedmont of North Carolina (e.g. Forsyth County), where it has probably been acquired from the Carolina Slate Belt.

Artifact Member ID Code: 44Pk9/OM-3/2

Chalcedony. As a variety of quartz, chalcedony has been isolated as a rock type because of both archeological convention and the high incidence of utilization observed on specimens from USRB archeological sites. According to Hurlbut and Klein (1977:416), chalcedony is the general term applied to fibrous varieties of microcrystalline quartz. Sinkankas (1966:437), on the other hand, defines chalcedony

as "submicroscopic", (i.e., cryptocrystalline). Appropriately, the USRB artifacts identified as chalcedony are bimodal in crystallinity, with only two or three specimens debatable as to assignment. Two categories of chalcedony have thus been defined: cryptocrystalline and microcrystalline fibrous.

The delineation of these two categories of chalcedony required microscopic examination and reference to the optical properties of quartz. Diagnostic macroscopic attributes of chalcedony include a light gray color and waxy luster. However, these attributes are necessary but not sufficient conditions for identification because several non-chalcedony quartz artifacts mimic these characteristics. The situation is not surprising given the broad range of quartz expression and factors of lithic material cultural alteration. Inspection with a 10x hand lens proved adequate for distinguishing most look-alike non-chalcedony quartz.

Those specimens which remained ambiguous were first examined macroscopically between polarized filters. By fixing the filters in either crossed or uncrossed positions, rotation of a specimen between them revealed the presence/absence of crystal extinction. Those specimens which showed extinction could not be microcrystalline aggregates, i.e. chalcedony, by definition of uniaxial crystal properties. (See Hurlbut and Klein 1977:177-205 for an overview of the optical properties of minerals.) This adaptation of standard microscopic petrographic technique offered a qualitative efficiency in examination time. The technique is also non-destructive. The thickness of some artifacts prevented the use of polarized filters, and high-quality binocular magnification (10x-20x) was used to determine crystallinity.

Three cobbles of microcrystalline chalcedony were recovered during a geological survey of the project area. (The details of the survey are presented below in the discussion of the "Quartz" lithic category.) These cobbles indicate that chalcedony occurs as a rare, but present, lithic resource. The chalcedony cobbles were recovered from Cobblebars 13, 17, and 20 (see Figures 26, 27).

Cryptocrystalline Chalcedony: Type A -- Artifacts show no macroscopic inclusions. Munsell 10YR 7/3.

Artifact Member ID Code: 44Pk133/6-1/1
44Pk171/GR23/1; 44Pk171/GR72/1

Cryptocrystalline Chalcedony: Type B -- Highly translucent artifacts also show no macroscopic inclusions. Munsell 5YR 8/1.

Artifact Member ID Code: 44Pk9/OM-2/4
44Pk142/GR9/1

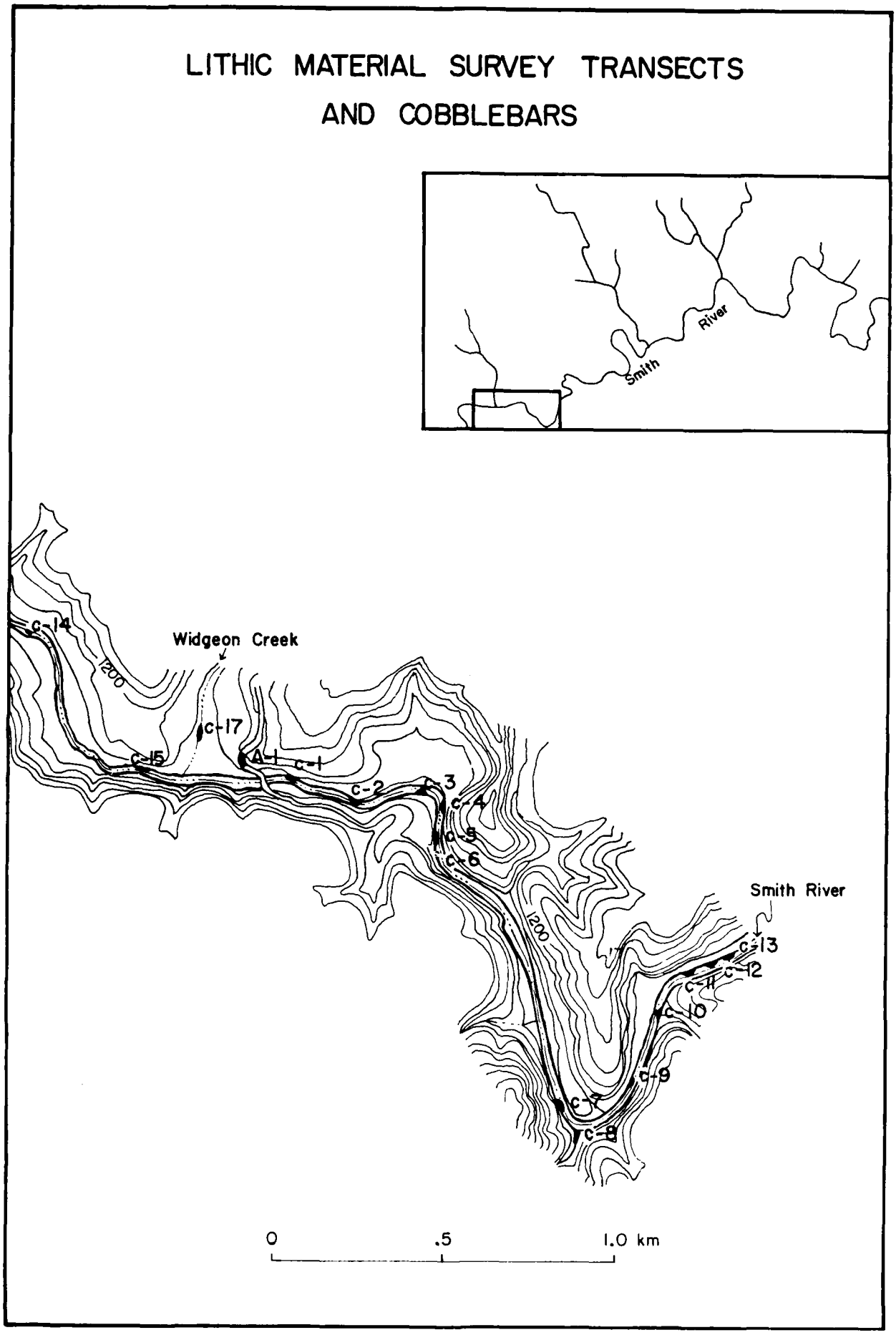
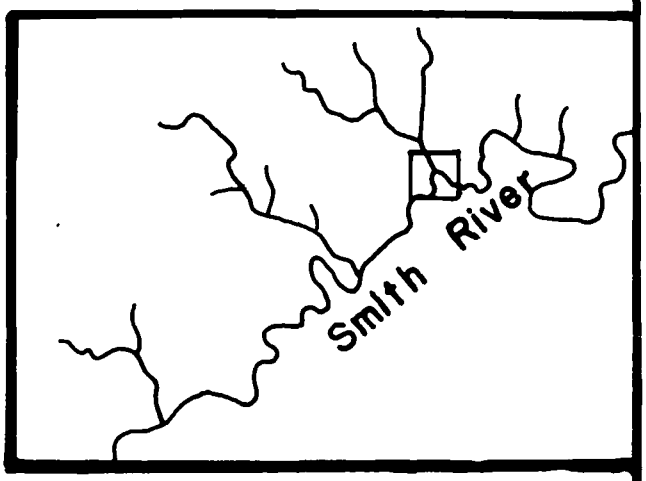


Figure 26. Lithic Material Survey Transects and Cobblebars, Western Sector, USRB, Virginia.

LITHIC MATERIAL SURVEY TRANSECT AND COBBLEBARS



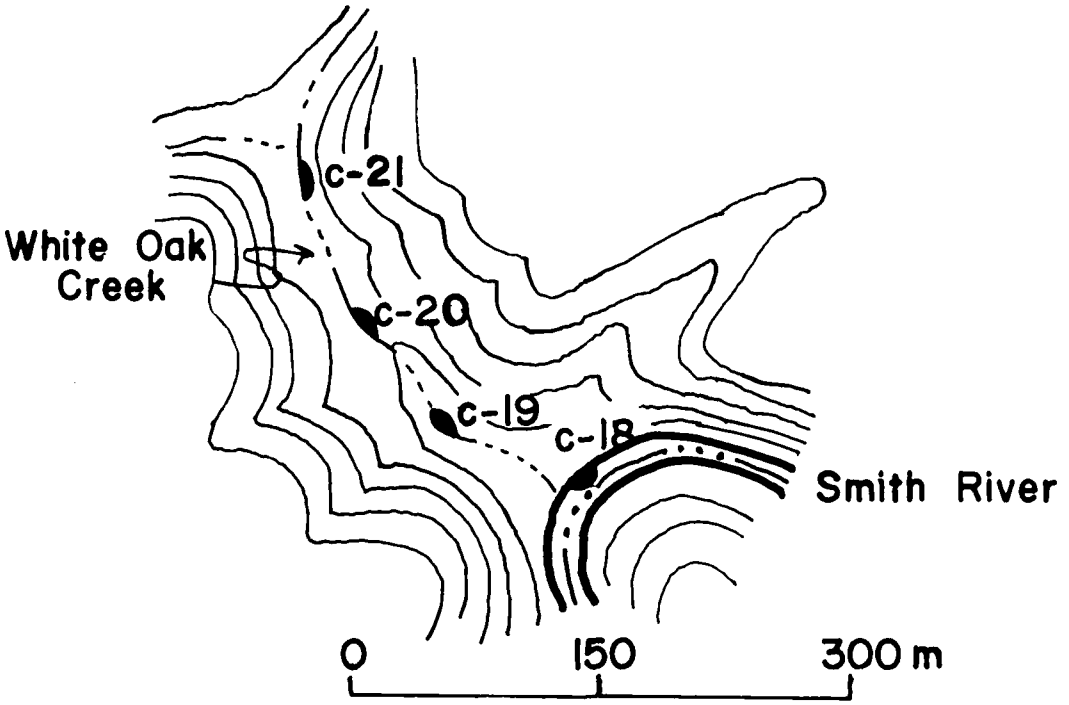


Figure 27. Lithic Material Survey Transect and Cobblebars, Eastern Sector, USRB, Virginia.

Cryptocrystalline Chalcedony: Type C -- Artifacts have an occasional pyrite crystal in a light smoky gray groundmass. Munsell 2.5YR 6/2; 2.5YR 6/6.

Artifact Member ID Code: 44Pk78/1-2/2; 44Pk78/1-4/3
44Pk87/13-1/2
44Pk171/GR41/1
44Pk219/1-1/1
44Pk235/EU1/3

Cryptocrystalline Chalcedony: Type D -- Smoky gray with no visible inclusions. Munsell 5Y 2/1; 5YR 6/1; 5YR 5/1 respectively. A small reddened area on 44Pk87/10-1/1 indicates heat-alteration. The association of this artifact with 44Pk87/13-1/2, Type C, should be noted.

Artifact Member ID Code: 44Pk87/10-1/1
44Pk143/7-1/1
44Pk175/GR3/2

Cryptocrystalline Chalcedony: Type E -- Faint inclusions suggestive of agate mosslike patterns. Munsell 5Y 5/2; 7.5YR 8/0, respectively.

Artifact Member ID Code: 44Pk171/GR39/2
44Pk175/GR3/1

Microcrystalline Chalcedony: 199 artifacts have been identified as microcrystalline chalcedony. Table XXXIII presents detailed data on both these artifacts; those listed above as cryptocrystalline are described in Table XXXII.

Chert. 145 artifacts from the USRB archeological sites have been classified as chert. This lithic material is not known to outcrop in the project area, and was almost certainly acquired from the Ridge and Valley Province of western North Carolina and eastern Tennessee. The diagnostic attribute of the cherts is a greasy (as opposed to waxy) luster.

Thirty-three categories of chert have been designated. These divisions are based on several factors including grain size, color, heat-alteration, and cortex. The macroscopically distinct divisions were created first without reference to provenience; these categories were then refined by intra-site assemblage context. Attempts to correlate the 30 heat-altered pieces of chert with non-altered chert categories were frustrated by small sample sizes and by lack of experimental data. Similarly, the differential staining of artifacts by different soil matrices has obviously produced visual variability. For these reasons, the following categories remain primarily descriptive. Future research should fairly easily establish category-specific variation and significantly reduce the number of chert categories.

Chert: Type A -- Cryptocrystalline; qualitatively distinct honey colored specimen. Munsell 2.5YR 6/6.

Artifact Member ID Code: 44Pk235/EU1/1

Chert: Type B -- Cryptocrystalline; small botryoidal cobble with three fresh (Woodland?) flake-blade scars, which are black. Munsell 7.5YR 2/0.

Artifact Member ID Code: 44Pk171/GR42/5

Chert: Type C -- Cryptocrystalline; black with semi-glossy sheen. 44Pk154/1-1/2 is a decortification flake. Munsell 7.5YR 2/0; 2.5Y 2/0, respectively.

Artifact Member ID Code: 44Pk154/1-1/1, 44Pk154/1-1/2

Chert: Type D -- Cryptocrystalline; black with transparent flow zones. Chert Type Y is probably a heat-altered version of Type D. Munsell 7.5YR 2/0; 5YR 2/1.

Artifact Member ID Code: 44Pk87/13-1/1
44Pk171/GR42/1, 44Pk171/GR47/1
44Pk206/GR8/44

Chert: Type E -- Cryptocrystalline; blue-black. Munsell 2.5Y 2/0; 7.5YR 3/0, respectively.

Artifact Member ID Code: 44Pk224/10-2, 44Pk224/11-1

Chert: Type F -- Cryptocrystalline; black-brown. Munsell 2.5YR 2.5/0; 5Y 6/1; 2.5YR 2.5/0, respectively.

Artifact Member ID Code: 44Pk171/GR65/1, 44Pk171/GR73/1
44Pk223/1

Chert: Type G -- Cryptocrystalline; dark brownish gray.

Artifact Member ID Code: 44Pk171/4-1/2

Chert: Type H -- Cryptocrystalline; 44Pk171/GR35/1 is a blocky core which is heavily weathered; two more recent flake scars are fully patinated; a fresh break shows a dark blue color. 44Pk154/1-1/3 is a similar dark blue. Munsell 5Y 7/1; 5Y 7/1, 10YR 6/6, respectively.

Artifact Member ID Code: 44Pk154/1-1/3
44Pk171/GR35/1

Chert: Type I -- Cryptocrystalline; very dark brownish blue. Munsell 5Y 2.5/1

Artifact Member ID Code: 44Pk87/15-1/2
44Pk171/GR35/4

Chert: Type J -- Cryptocrystalline; occasional small

mineral inclusions visible in dark blue-gray groundmass.

Artifact Member ID Code: 44Pk171/GR39/32

Chert: Type K -- Cryptocrystalline; opaque dark blue. Munsell 5Y 3/1.

Artifact Member ID Code: 44Pk171/GR41/2

Chert: Type L -- Cryptocrystalline; dark blue, probable spalling from heat-alteration.

Artifact Member ID Code: 44Pk219/1-1/1 -- projectile point, Figure 29(h)

Chert: Type M -- Cryptocrystalline; very dark blue-gray. Munsell 5Y 2.5/1.

Artifact Member ID Code: 44Pk9/P3-L4/1
44Pk87/11-1/2
44Pk195/1-1/2
44Pk223/30 -- projectile point, Figure 31(a), 44Pk223/52, 44Pk223/116, 44Pk223/158, 44Pk223/1-1
44Pk234/7/1

Chert: Type N -- Cryptocrystalline; dark blue-gray. Munsell 5Y 3/1, 10YR 4/1.

Artifact Member ID Code: CL-IF/11
44Pk102/0/1 -- projectile point, Figure 31(b)
44Pk142/GR2/1
44Pk171/3-2/3, 44Pk171/GR47/3
44Pk223/29, 44Pk223/31, 44Pk223/34, 44Pk223/46, 44Pk223/48, 44Pk223/161, 44Pk223/166
44Pk233/GR3/1, 44Pk233/GR6/1, 44Pk233/GR7/1, 44Pk233/GR8/1, 44Pk233/GR8/3, 44Pk233/GR9/1, 44Pk233/GR9/2, 44Pk233/GR9/3 44Pk233/GR9/5, 44Pk233/GR9/6
44Pk235/1/4

Chert: Type O -- Cryptocrystalline; medium blue. Munsell 5Y 4/1. The artifacts from 44Pk223 show slightly weathered surfaces.

Artifact Member ID Code: 44Pk9/P7-6/1, 44Pk9/P7-6/2
44Pk171/GR71/2
44Pk195/3-2 -- projectile point, Figure 31(f)
44Pk223/1-2/1,
44Pk223/1-2/2 -- projectile point, Figure 29(j)

Chert: Type P -- Cryptocrystalline; medium gray-blue. Munsell 10YR 6/1. Chert Type X is probably a heat-altered version of Type P.

Artifact Member ID Code: 44Pk9/A-4/4, 44Pk9/OM-3/4,
44Pk9/P6-L3
44Pk87/10-1/2
44Pk142/GR1/1
44Pk143/1-1/1, 44Pk143/11-1/1,
44Pk143/20-1/1
44Pk145/5-1/2
44Pk171/GR17/1, 44Pk171/GR49/2,
44Pk171/GR74/1
44Pk206/GR6/8, 44Pk206/GR10/58
44Pk224/10/3
44Pk233/8/2

Chert: Type Q -- Cryptocrystalline; medium brownish blue-gray. This category probably contains clay-stained expressions of other categories. Munsell 10YR 4/1, 5Y 4/1.

Artifact Member ID Code: 44Pk9/A-4/1
44Pk78/1-9/1
44Pk154/0/1
44Pk171/3-3/1
44Pk223/1-2/3, 44Pk223/165
44Pk232/4-1
44Pk234/5-2, 44Pk234/5-3

Chert: Type R -- Cryptocrystalline; light blue-gray with slight clay-staining. Munsell 5Y 6/2.

Artifact Member ID Code: 44Pk154/0/2

Chert: Type S -- Cryptocrystalline; medium grayish-green. This material was differentiated from varieties of siliceous rock by microscopic examination: Chert Type S contains qualitatively fewer mineral inclusions. Munsell 10YR 7/2.

Artifact Member ID Code: 44Pk171/4-2/1, 44Pk171/GR26/1,
44Pk171/GR41/11
44Pk191/8-1 -- projectile point,
Figure 31(e)

Chert: Type T -- Cryptocrystalline; light tannish-gray. Munsell 5Y 6/1.

Artifact Member ID Code: 44Pk89/1-2/4, 44Pk89/1-3/1,
44Pk89/1-3/2, 44Pk89/1-4/1,
44Pk89/1-5/1

Chert: Type U -- Cryptocrystalline; banded, gray/light tannish-gray. Munsell 5Y 7/1.

Artifact Member ID Code: 44Pk89/1-2/1, 44Pk89/1-2/2,
44Pk89/1-3/3, 44Pk89/1-3/6,
44Pk89/1-6/1

Chert: Type V -- Microcrystalline; medium bluish-gray. The slightly coarser texture is in part a function of weathering.

Artifact Member ID Code: CL-IF/14 -- projectile point, Figure 29(k)
44Pk87/5-1/1
44Pk171/GR39/5
44Pk223/104, 44Pk223/115
44Pk227/4-1/1

Chert: Type W -- Microcrystalline; blue-black. This material is qualitatively different from other chert categories because of its micro-granular texture. The greasy luster suggests a chert variety, however. Munsell 5Y 3/1.

Artifact Member ID Code: 44Pk87/11-1/4
44Pk143/24-1/1
44Pk171/GR73/7
44Pk233/GR9/4

Chert: Type X -- Cryptocrystalline; medium blue-gray with moderate heat-alteration indicated by incipient pot-lid fractures. Site assemblage context suggests that 44Pk143/24-1/2 may be a heat-altered version of Chert Type P. Munsell 5GY 4/1.

Artifact Member ID Code: 44Pk9/P3-GR/1
44Pk143/24-1/2
44Pk171/GR22/1
44Pk223/124
44Pk236/0/1

Chert: Type Y -- Cryptocrystalline; blue with moderate heat-alteration indicated by incipient pot-lid fractures. Site assemblage context suggests that 44Pk87/11-1/3 and 44Pk206/GR8/46 are heat-altered expressions of Chert Type D. Munsell 7.5YR 5/0, 5YR 4/1, 10YR 5/1, and N 5/0.

Artifact Member ID Code: 44Pk9/OM-2/1
44Pk87/11-1/3
44Pk171/GR60/2
44Pk206/GR8/46
44Pk236/0/2, 44Pk236/1/2

Chert: Type Z -- Cryptocrystalline; light brownish blue-gray with incipient pot-lid fractures indicating moderate heat-alteration. Munsell 10YR 5/2, 5Y 6/1.

Artifact Member ID Code: 44Pk145/5-1/1
44Pk171/GR39/10, 44Pk171/GR62/1
44Pk223/10, 44Pk223/12,

Chert: Type AA -- Cryptocrystalline; light gray with incipient pot-lid fractures indicating moderate heat-alteration. Site lithic assemblage context suggests that 44Pk143/1-1/1 is a heat-altered expression of Chert Type O. Similarly, 44Pk195/1-1/1 may a heat-altered version of Chert Type M. Munsell 10YR 7/1, 10YR 6/1.

Artifact Member ID Code: 44Pk90/1-3/3
44Pk143/1-1/1
44Pk195/1-1/1
44Pk223/118

Chert: Type BB -- Cryptocrystalline; light orange, probable clay staining, with incipient pot-lid fractures resulting from moderate heat-alteration. Munsell 5Y 6/2, 5Y 5/1, 10YR 6/3.

Artifact Member ID Code: 44Pk9/GR49/4, 44Pk9/OM-3/7
44Pk171/GR12/1, 44Pk171/GR49/1

Chert: Type CC -- Cryptocrystalline; brownish gray. This variety is opaque with pot-lid fractures indicating heat-alteration.

Artifact Member ID Code: 44Pk171/GR54/1 -- projectile point, Figure 31(c)

Chert: Type DD -- Cryptocrystalline; medium gray. Samples are opaque with pot-lid fractures resulting from heat-alteration. Site lithic assemblage context suggests these artifacts are heat-altered expressions of Chert Type U. Munsell 10YR 6/1.

Artifact Member ID Code: 44Pk89/1-1/1, 44Pk89/1-2/3,
44Pk89/1-3/4

Chert: Type EE -- Cryptocrystalline; medium gray color with spalling from heat-alteration.

Artifact Member ID Code: 44Pk170/1-1/1 -- projectile point, Figure 29(i)

Chert: Type FF -- Cryptocrystalline; light grayish beige with pot-lid fractures indicating heat-alteration. Munsell 5Y 7/1, 5Y 6/1.

Artifact Member ID Code: 44Pk145/4-1/1
44Pk171/GR7/1

Chert: Type GG -- Cryptocrystalline; light gray color; heat-altered. Subtle, but noticeable surface smoothing may indicate age wear.

Artifact Member ID Code: 44Pk231/4-1/1, 44Pk231/14-1/1

Granite. Eight lithic artifacts have been identified as granite. At least one outcrop of granite occurs adjacent to the project area. Conley and Henika (1970:26) report this formation as a felsite dike (Figure 28). Examination of hand specimens collected from this dike indicate that the term "fine-grained granite" may be properly substituted for the more generic field term "felsite" (Butler, personal communication). Correlation of the granite artifacts with this outcrop is impossible without detailed petrographic analysis; local acquisition is nonetheless suggested.

Granite: Fine grained. Examples 44Pk78/1-10/1 and 44Pk9/P9-L4/1 of this type are projectile points (see Figures C (n) and C (1) respectively).

Artifact Member ID Code: 44Pk9/P9-L4/1 -- projectile point, Figure C (1)
44Pk78/1-6/2, 44Pk78/1-10/1 -- projectile point, Figure C (n),
44Pk78/1-10/4
44Pk143/4-1/1
44Pk231/11/1, 44Pk231/13/1,
44Pk231/13/3

Granite: Very fine-grained. This material may have been obtained from a very limited area corresponding to the contact boundary of the dike. 44PK236/1/1 is heat-altered.

Artifact Member ID Code: 44Pk235/4/1 -- projectile point, Figure A (d)
44Pk236/1/1

Jasper. 20 artifacts have been classified as jasper. This granular microcrystalline variety of quartz is generally opaque and has a dull luster. Iron oxide inclusions (e.g. hematite) provide a dark yellow-gold color (Hurlbut and Klein 1977:416).

Jasper: Type A -- This category of jasper has been unaltered by heat and retains its yellow/gold color. Munsell 10YR 5/4.

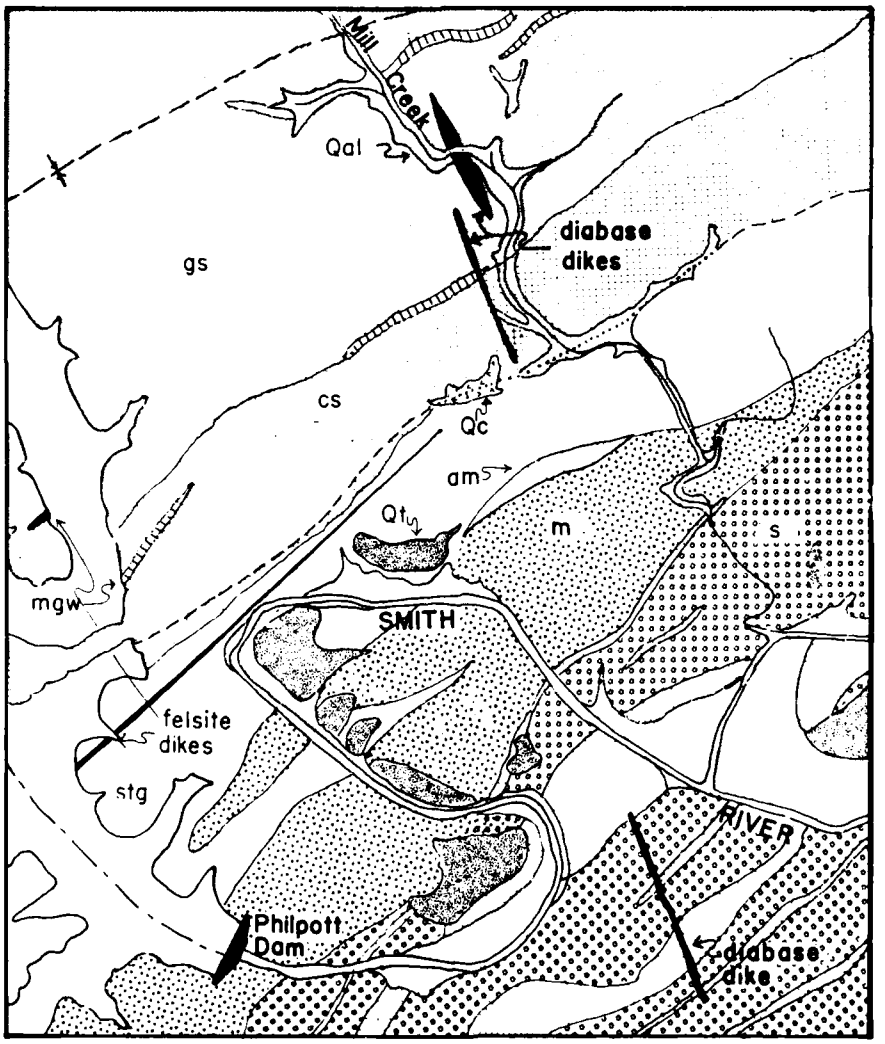
Artifact Member ID Code: 44Pk/CL-IF/13
44Pk9/OM-A/1, 44Pk9/OM-2/2,
44Pk9/OM-3/1, 44Pk9/OM-4/2,
44Pk78/1-10/2

44Pk171/GR10/3 -- projectile point, Figure 31(d)
44Pk232/4-2

Jasper: Type B -- The deep red color of these artifacts indicates that they have been heated (see Schindler et.al 1982 for a detailed discussion of the geochemical determinates of color change in jasper when heated).

DETAILED GEOLOGIC MAP OF THE CHARITY LAKE PROJECT AREA, WESTERN SECTION, PART I

- gs = graphite schist
- cs = muscovite-chlorite-chloritoid schist
- stg = schist with altered staurolite and garnet
- m = mica schist with some sillimanite
- s = sillimanite-mica schist
- am = amphibolite
- Qt = Alluvial terrace deposits
- Qal = Alluvium
- mgw = metagraywacke and metagraywacke conglomerate
- Qc = colluvium
- = Syncline
- = overthrust side



Adapted from Conley and Henika (1970)

Figure 28. Geological Map, USRB Western Section.

Munsell 5YR 3/2.

Artifact Member ID Code: 44Pk9/A-G/1, 44Pk9/OM-2/1
44Pk170/6-1/1
44Pk171/GS42/6, 44Pk171/GR49/2,
44Pk171/GR66/1
44Pk236/6/1

Jasper: Type C -- These reddish-black pieces of jasper have been heat-altered, or more specifically, burned in a reducing atmosphere (i.e. a firing atmosphere containing no free oxygen). Munsell 5Y 2.5/2.

Artifact Member ID Code: 44Pk154/1-2
44Pk234/5/1, 44Pk234/10/1,
44Pk234/10/2

Jasper: Type D -- This jasper is a lower grade microcrystalline form of jasper. A single nodule of similar material was recovered during a lithic material survey of the project area (see "Quartz" material section for a discussion of this survey). This single cobble indicates the present, but rare, occurrence of jasper in the project area.

Artifact Member ID Code: 44Pk228/2

Metamorphosed Conglomerate. A single artifact is made from a metamorphosed conglomerate. The material is similar to that occurring in the Moneta gneiss units of the Lynchburg Formation (Butler, personal communication; Conley and Henika 1970:10,11). This lithic material category may also be termed metagraywacke conglomerate.

Artifact Member ID Code: 44Pk191/8-5/1

Quartz. Eight categories of quartz have been defined in this analysis of Charity Lake artifacts. The extensive variability of quartz expression prevented the selection of a single attribute for discrimination. These eight categories were instead established by successive subtraction of qualitatively distinct sets of quartz, as determined by macroscopic characteristics. The sets were isolated after (1) review of all quartz artifacts recovered during archeological field survey, and (2) geological field survey in the project area. The geological field survey will be discussed first.

The variability observed in the set of quartz artifacts could not be meaningfully assessed without reference to geological context. This consideration prompted the geological field survey described in Appendix D, "Proposal for a Lithic Material Sources Survey of a Portion of the Smith River, Virginia." The purpose of this survey was, appropriately, "to document the range of variation of the local lithic resources" in order "to establish a data framework for the analysis of lithic artifacts recovered from

archeological sites in the proposed Charity Lake Reservoir." ("Local lithic resources" almost equates with "quartz.")

As discussed in the appended proposal, the sampling strategy and field methods were based on geological principles of stream channel erosion. The dynamics of this process suggested that a representative sample of available lithic materials could be retrieved from exposed sandbars, or cobblebars, along the Smith River. The bias introduced by sampling only along the river transect was minimized by considering (1) the cost-efficiency of data acquisition and (2) the assumption of aboriginal lithic procurement from the highly visible and accessible sandbars/cobblebars. The strategy is further strengthened by noting the physiographic constraints of the proposed project area.

As shown in Figures 26 and 27, 4.4 kilometers of the Smith River and its tributaries were surveyed in order to document lithic/quartz occurrence and variability. Most of the transect covered that portion of the Smith River in the southeastern section of the project area. This section of the river was chosen for ease of logistic access and safety; the depth and velocity of the Smith River increases appreciably downstream toward the Philpott Reservoir Dam. Fifteen cobblebars ranging from 10 square meters to 660 square meters were recorded. It may be noted that no sandbars occur in this section of the Smith River; all exposed features along the banks of the river are composed exclusively of cobbles.

Three tributaries of the Smith River were also sampled at their confluence with the river. The tributaries are Widgeon Creek, White Oak Creek and an unnamed stream immediately upstream of the Highway 704 bridge over the Smith River. The tributaries were effectively continuous cobblebars with a trough of water. Those areas of the tributaries designated in Figures 26 and 27 show the location of cobble sections selected at random (ad hoc) for transect sampling. An access farm road, denoted A-1 in Figure 26, was also investigated.

The composition of a typical cobblebar consisted of rounded cobbles ranging from pebble size to those with diameters of 15-20 cm. Lithic material ranged from quartz to gneiss, amphibolite, and schist. The relative homogeneity of cobble size provided very suitable discrete sampling units.

Any given cobblebar selected for data collection was sampled proportional to its size. A line transect was situated along the major axis of the cobblebar. The lithic material of each cobble on the surface which intersected this line was assessed.

Complementing each line transect was a "range collection" of each cobblebar. This collection strategy allowed documentation of rare events such as down-washed cobbles of chert from the headwaters of the Smith River. This second

sampling strategy was purposive in that lithic specimens corresponding to those in site context could be collected to document their presence.

Only a limited field trial was necessary to ascertain that this sampling strategy would be both feasible and informative. The feasibility of individual cobble inspection followed from limiting data recording to only those cobble materials relevant to the lithic variability observed in the site assemblages. For example, the ubiquitous cobbles of schist and gneiss were easily identified and required no further study.

A second factor contributing to the feasibility of cobble assessment was that high quality quartz cobbles occurred with less frequency than anticipated. Subsequent field quantification documented that a cobble requiring inspection occurred roughly every 25 cm along the line transect. Cobble inspection translated to breaking the cobble with a geology hammer. The correlation between internal cobble structure and cortex expression, although patterned, required obtaining a fresh surface. By conservative quantitative field estimate, over 10,000 cobbles were broken and examined. This total includes those cobbles purposively sampled for rare events.

The information potential of the geological survey was realized through the somewhat surprising redundancy in quartz expression -- provided the categories were broadly enough defined. Six categories of quartz were established and the totals for each cobblebar recorded. It should be emphasized that these six categories do not correspond exactly to those used in analysis of site lithics. The eight categories of quartz used in site analysis developed in part from the information of the geological survey. Hence, the site analysis categories supersede the geology survey categories.

A brief description of the six quartz categories recorded during geological field survey follows.

(1) Rock crystal -- The material of cobbles recorded as rock crystal is almost completely transparent. Small cloudy or milky areas may occur. It should be noted that these cobbles of clear quartz do not always exhibit regular crystal faces; it is the parent material of those cobbles which possess this structure. These cobbles are almost always qualitatively lighter in color than surrounding cobbles. The cortex is often almost white.

(2) High Quality -- The material recorded as "high quality" typically demonstrates conchoidal fracture. Single crystal cobbles except those transparent or showing multiple structural flaws constitute the majority of this category. The cobbles are primarily cloudy or milky white with occasional transparent patches. Several cobbles of macrocrystalline aggregates are regarded as high quality.

The distribution of crystal sizes and alignments combine in these specimens to produce nearly conchoidal fracture.

(3) Moderate Quality -- Cobbles in this category frequently showed multiple structural flaws, although pockets of high quality material can be isolated. Artifacts could be produced from these cobbles despite the low material reliability.

(4) Subconchoidal -- This loosely defined category consists of cobbles of marginal quality with respect to artifact manufacture. This assessment is based on the low frequency of this material in site assemblages. In addition to the distinguishing attribute of subconchoidal fracture, most specimens are opaque.

(5) Fine grained aggregates, white variants -- These cobbles are composed of fine-grained macroscopic crystals. A fresh fracture shows a "frosted" or "sugary" granular appearance. The cobbles are frequently homogeneous throughout with an absence of flaws.

(6) Fine grained aggregates, gold variant -- The crystalline structure of these cobbles is the same as Category (5). However, Category (6) cobbles are distinctly gold colored from iron (Sinkankas 1966:436).

There are several immediate results from this geological survey of the Smith River. First, as indicated by data from the Smith River sampling transect, the distribution of preferred tool-quality quartz is not constant. While quartz may seem to outcrop ubiquitously in large geological zones, distinct varieties may exist only locally. A specific pattern observed along the Smith River is the relative concentration of high quality quartz varieties in the Widgeon Creek confluence area: Cobblebars 15, 1, 2, and 4. The pattern of quartz occurrence contrasts strongly with that recorded for cobblebars immediately upstream of the Highway 704 bridge: Cobblebars 7, 8, 9, 10, and 11.

Range collection sampling on the cobblebars suggests that the patterns are more pronounced than that indicated by transect data. These field impressions further suggest that some modification of sampling design may be desirable. Placement of a series of 1 X 1 meter sample squares may better document material patterning, although grass and shrub vegetation on cobblebars may present problems for this and other sampling strategies.

A second result of the geological survey is the demonstrated feasibility of recording rare events, e.g., an isolated nodule of chalcedony or jasper. It appears that a moderate increase in river survey coverage should result in discovery of very localized zones of specific material categories. Associated quarry sites may also be identified as a result.

The geological survey provided significant data not only on the distribution of quartz varieties in the project area. Field inspection of over 10,000 cobbles also provided information about material variation within a single cobble. An understanding of cobble-specific material variability is critical for control of lithic assemblage variability.

Three primary observations about quartz material variation may be reported. It should be noted that these observations are not yet supported by rigorous data. The acquisition of such data to substantiate these inferences defines a natural follow-up study.

The first cobble-specific attribute pattern is the relative homogeneity of fine-grained aggregates. Large areas of a single cobble are typically fault-free. This attribute conveys a high reliability for knapping and tool production. The second observation is that in high quality quartz cobbles, material expression ranges from completely transparent to nearly opaque white, with cloudy translucent patches common. Most cobbles of single crystal, low fault, conchoidal fracture thus produce flakes of varying color and translucency. The third observation regarding cobble-specific attribute expression is that cobbles occur, albeit infrequently, which are either completely clear or uniformly milky white.

The understanding gained from geological survey established a framework for the eight categories of quartz used in analysis. The geological framework was refined by reference to quartz material variation in site specific context. In this way, the lithic material categories are defined by both geological and archeological considerations. The first quartz category discussed below illustrates the definitional interplay.

Quartz: Rock Crystal -- This category of quartz consists of completely transparent specimens. Many of the artifacts retain regular crystal faces from the parent rock and/or core. This quartz is completely conchoidal. Several specimens show multiple internal structural flaws (visible as oxidized linear networks).

Site specific assemblage context encourages further distinction among clear quartz artifacts. The following argument assumes that a representative sample of artifacts and material variability has been recovered from a site. Isolated clear quartz artifacts with multiple working bits and/or formalized morphology probably represent curated tools produced from transparent rock crystal. In contrast, the clear quartz specimens in assemblages comprised (in part) by a set of partially clear, cloudy, and milky artifacts were probably isolated from clear patches in the variable matrix of a "high quality" quartz nodule. This argument suggests that true rock crystal artifacts will show evidence of

regular crystal faces more frequently than clear artifacts obtained from the interior of a nodule. Artifact size distinctions and the presence/absence of small tertiary flakes of clear quartz in site assemblages also bear upon artifact interpretation.

The significance of this analytic resolution is that discrete behavioral events can be delineated. The implications of a single curated tool versus the onsite manufacture of the same tool may be considerable. Evaluation of site function, duration of occupation, and group size ultimately depend on this data precision.

Quartz: Milky, high quality -- The material comprising this category is uniformly white, or milky, and often has a greasy luster. This material represents fragments of single quartz crystals formed in a low temperature environment; the white coloration results from microscopic fluid inclusions (Hurlbut and Klein 1977:415). A distinguishing characteristic of this material is that fracture surfaces are optically continuous, i.e., show no micro-topography such as graininess or irregular fracture other than that associated with conchoidal fracture.

Arguments similar to those developed for isolating sub-categories of clear quartz are relevant to milky quartz. The identification of milky quartz artifacts in individual site assemblages from tools and associated debitage representing milky patches in variable matrix cobbles may provide chronological information.

Quartz: High Quality -- The majority of quartz artifacts fall into this material category. The variation within this category can best be structured by geological considerations. The first sub-category of high quality quartz is defined as conchoidal single crystal with varying translucency. A second sub-category is defined and analytically isolated by the abrupt interruption or termination of fracture surfaces by angular crystal boundaries. This situation can arise from at least three scenarios. In one case the fracture characteristics are the result of zones of impurities in the matrix of a single crystal. In the second case, aggregates of macrocrystals are adjoined by zones of microcrystalline quartz. Fracture characteristics are thus a function of force vector displacement through the different structural mediums. The material of a third sub-category of high quality quartz is an aggregate of macrocrystals which are essentially uniform in size. As yet undetermined matrix attributes produce fractures which mimic single crystal quartz conchoidal fracture. It is not clear whether the variation in this material category conveys temporal and functional information.

Quartz: Moderate Quality -- Quartz artifacts which have been classified as "moderate quality" typically exhibit multiple structural flaws and/or subconchoidal fractures.

This material category occurs infrequently in site assemblages and results from at least two activities. Core preparation is one activity which produces quartz artifacts of moderate quality. An example of this is found in site 44Pk172. The decortication flake 44Pk172/1-1/5 is the only "moderate quality" lithic specimen in an otherwise homogeneous assemblage of fine-grained quartz. Expedient tool acquisition can also yield moderate quality artifacts. Indication of expedient tool manufacture bears directly on explanation of site function.

Quartz: Fine-grained Aggregate -- This quartz material is comprised of fine to coarse-grained macroscopic crystals. A fresh fracture shows a "frosted" or "sugary" granular appearance. The fracture is subconchoidal to blocky, with conchoidal fracture traversing individual macrocrystals. The translucency of this material ranges from nearly opaque to almost transparent. Color varies accordingly from white to slightly cloudy.

Weathered, i.e., prehistoric, surfaces of crystalline quartz appear less "frosted" than fresh surfaces. One factor contributing to this is microscopic erosion of irregular surfaces, exposing more stable crystal planes. The result is a hand specimen which reflects light from numerous crystal faces varying in size and orientation.

Differentiation of crystalline aggregates from single crystal quartz artifacts is not immediate in all cases. Identification of quartz categories and varieties requires reference to breakage characteristics. The primary breakage diagnostics of quartz are (1) fracture and (2) parting; a third attribute, (3) cleavage, is not a consideration in that cleavage is usually, or practically, absent in quartz (Kerr 1959:238; Wahlstrom 1955:94).

By considering fracture as an attribute of breakage, fracture may be defined as any surface of breakage which does not coincide with possible crystallographic planes; i.e., molecular "bonds are broken in an irregular fashion unrelated to the symmetry of the internal structure" (Ernst 1969:31). In the case of single crystal quartz, the fracture is conchoidal; impure and aggregate varieties are subconchoidal.

Parting is perhaps best defined as breakage along planes of structural weakness (Hurlbut and Klein 1977:184). These planes of weakness may occur from twinning, or from a "sheet of atoms in a slightly disarranged manner" (Pough 1960:35). Importantly, parting planes are finite in number and the planes are thus spatially separated. A mathematical description of this structure would be a step function in which the magnitude of step increment frequently can be macroscopically observed.

The interplay of these two breakage characteristics, fracture and parting, produces subtle but optically distinct

expressions. The significance of these distinctions is that they allow (or at least encourage) the isolation of discrete quartz sets in a site assemblage. Artifacts produced from single quartz crystals show curviplanar, optically continuous breakage surfaces when the lattice structure of that crystal is relatively defect-free. That is, the reflection of light along conchoidal fractures follows continuous force waves without interruption.

In single crystal quartz artifacts with less pure lattice composition, the conchoidal fracture is interrupted by stepped, parallel parting planes. This surface is created by the re-direction of impact force vectors along the structurally weaker parting planes. The optical effect of the resultant surfaces in a hand specimen is the simultaneous reflection of light from a series of stepped, smooth planes. The reflection is broken by the conchoidal steps between successive parting planes. The relative degree of conchoidal fracture and the number and spacing of parting planes is highly variable. Expression of these attributes is influenced by both type and direction of impact, as well as by internal material structure. In some specimens, the combination of weakly expressed parting and conchoidal fracture produces a limited number of macroscopic planar surfaces. The reflection of light in these specimens produces isolated macro-flashes similar to that seen in some crystalline aggregates.

In crystalline aggregates, however, flashes of reflected light are caused by individual crystal faces. Further, the irregular orientation of crystals in aggregates generally prohibits the effect of parallel surface reflection.

Any diagnostic dichotomy between single crystal quartz petrographic attributes and those of crystalline aggregates is immediately tempered by the variability of aggregate matrices. A single macroscopic large crystal in a matrix of finer crystals may exhibit parting. Alternatively, breakage of crystalline quartz composed of 2 to 4 mm crystals, say, may produce a smooth conchoidal fracture across successive crystals that mimics parting -- the fracture surface is interrupted by respective crystal boundaries. These analytic caveats indicate the rigor necessary for correctly assessing quartz material variation.

Quartz: Blue/Rutilated -- Several quartz artifacts of a striking sky-blue color occur in the lithic assemblages from USRB sites. Other artifacts of less intense pale gray-blue complement these bright blue specimens. In all cases the color is qualitatively distinct from color variations in milky or cloudy quartz artifacts. Sinkankas (1966:436) defines a variety of single crystal quartz as "Blue Quartz" in which the distinct color is caused by the scattering of light by microscopic needles of rutile.

The lithic assemblages contain 38 single crystal micro-

rutilated specimens. An additional 58 artifacts were produced from crystalline aggregate quartz; 37 of these were recovered from site 44Pk172 -- see Table XXXIV. Two artifacts of note are 44Pk86/1-2/1 and 44Pk95/0-1. The crystalline matrix of these two blue quartz tools is chalcedonic.

Quartz: Gold/Citrine -- Yellowish-gold single crystal quartz is termed "citrine." Nine artifacts of true citrine have been identified from USRB sites. 38 other yellow-gold artifacts show aggregate structure. This latter material corresponds to the gold fine-grained quartz aggregates frequently recorded during geological survey.

The assignment of gold quartz artifacts to the citrine category required reference to both fire-cracked rock (FCR) and clay-stained quartz artifacts. The distinction between citrine artifacts and FCR proved straightforward. The various discolorations of FCR and diagnostic fractures combine to contrast qualitatively with citrine artifacts. The distinction between citrine material and quartz stained subsequent to discard by soil (e.g. iron-rich clays) is more difficult. Two diagnostics used to differentiate citrine and FCR are degree of coloration and the presence/absence of similar lithic material at a given site. A third criterion is artifact soil context, with reference to degree of clay staining on neighboring artifacts. These considerations in combination create the citrine artifact set listed in Table XXXV. Re-examination of Charity Lake lithic assemblages may add members to this material category; however, the 47 artifacts listed should serve as a fixed lower bound.

Quartz: Smoky -- Distinctive dark gray to almost black "smoky" quartz occurs rarely in the lithic assemblages from USRB. Smoky quartz occurs in the project area, however, and nodules of smoky quartz were recorded during the geological survey. Smoky quartz is formed in the context of pegmatite (Butler, personal communication), and pegmatite sills are reported near the project area by Conley and Henika (1970:38).

Several conventional categories of quartz were not adopted as analytic terms in this analysis. The category of "sugar quartz" was rejected in part because a "sugary" surface can result from a fresh fracture of different quartz materials. "Vein quartz" was rejected because many different crystalline forms of quartz occur in "vein" context. The term also connotes procurement strategies, and this implication may or may not be accurate.

"Aventurine" quartz may prove to be a useful category in subsequent analysis of USRB quartz. Aventurine quartz is characterized as being spangled by scales of mica or other minerals. The ubiquitous occurrence of mica in the project area suggested that an "aventurine" category might mask other, less common, variation. Several artifacts indicate,

however, that a modified aventurine category may prove informative. Distinctive dark mineral scales (magnetite) occur in the matrix of artifacts 44Pk144/4-1/4 and 44Pk206/GR15/25. Black-gold mica cortex occurs on several blue quartz artifacts, e.g., 44Pk137/3-1/1, and may hint at attribute patterns relating to lithic selection and procurement.

Quartzite(fine-grained). The 15 quartzite artifacts listed below have been isolated from irregular pieces of quartzite fire-cracked rock and clay-stained look-alike crystalline aggregates of quartz. This separation was based on a qualitative homogeneity of groundmass structure, artifact morphology, and the presence/absence of tool diagnostics. These criteria were not exhaustively pursued (e.g., by complete microscopic examination), and it is likely that additional quartzite tools and manufacturing debris will emerge from the collection of small fire-cracked rock shatter.

Quartzite: Type A -- Fine-grained; light green.

Artifact Member ID Code: 44Pk87/11-1/7, 44Pk87/15-1/5, 44Pk96/11-2/2, 44Pk96/11-2/3, 44Pk171/GR44/10 -- projectile point, Figure 30(h)

Two artifacts of Type A quartzite show a pronounced pink color which is almost certainly the result of heat alteration.

44Pk171/GR23/14
44Pk214/1-2/1

Quartzite: Type B -- Fine-grained; grayish blue.

Artifact Member ID Code: 44Pk78/1-9/8 -- projectile point, Figure 31(o)
44Pk78/1-11/2

Quartzite: Type C -- Fine-grained; light yellow-gold. These two artifacts are qualitatively distinct from both clay stained, fine-grained quartz aggregates and the artifacts designated "citrine quartz."

Artifact Member ID Code: 44Pk9/A-4/14, 44Pk9/P5-L3/1

Quartzite: Type D -- Fine-grained; dark reddish gold. This category may represent heat-altered expressions of Types C or E.

Artifact Member ID Code: 44Pk9/OM-5/2, 44Pk9/11-1/3

Quartzite: Type E -- Fine-grained; pinkish red. Again, this category may represent a heat-altered expression of another quartzite category. Site context suggests Type C.

Artifact Member ID Code: 44Pk9/A-4/12, 44Pk9/A-5/3

Rhyolite. Only nine artifacts have been identified as rhyolite. The total is somewhat surprising given the extensive outcrops and prehistoric utilization in the nearby areas of Mount Rogers in southwestern Virginia, and the Carolina Slate Belt, lying east and southeast of the project area. Trace element sourcing of the two rhyolite projectile points would provide interesting data regarding directions of population interaction.

Rhyolite: Type A -- Cryptocrystalline; blue-graygroundmass with feldspar phenocrysts. Note flow structure visible in Figure 31(p).

Artifact Member ID Code: 44Pk78/1-9/6 -- projectile point, Figure 31(p)
44Pk170/13-1/1
44Pk237/1/2

Rhyolite: Type B -- Cryptocrystalline; dark gray/black groundmass with yellow feldspar phenocrysts.

Artifact Member ID Code: 44Pk9/OM-4/9 -- projectile point, Figure 29(l)
44Pk217/1-1

Rhyolite: Type C -- Cryptocrystalline; medium blue-gray patina; fresh break shows blue-black.

Artifact Member ID Code: 44Pk224/11-1/2

Rhyolite: Type D -- Microcrystalline; mottled blue-gray on light tan groundmass.

Artifact Member ID Code: 44Pk140/3-1/1, 44Pk140/20-1/1, 44Pk140/21-1/1

Siliceous Rock (massive). 109 artifacts from USRB are classified as massive siliceous rock. The groundmass of this material is almost pure silica, with grain size ranging from cryptocrystalline to fine-grained. The descriptive term "massive" indicates that the material is compact and without form or distinguishing feature (Hurlbut and Klein 1977:182).

Outcrops of massive siliceous rock are not documented in the USRB project area. It is not unlikely, however, that geological structures exist in the area which do contain this rock type. These structures could be similar to the silicified breccia zones denoted by Espenshade et. al.(1975) which lie 30 to 35 miles south and southwest of the project area. Butler and Dunn (1968) have described these zones, the Stony Ridge fault zone, in detail. In that report, the term "mylonite" is used, but "siliceous rock" and/or "siliceous breccia" is more appropriate (Butler, personal

communication).

A single cobble recovered from Cobblebar 16 during geological survey of the project area may indicate the presence of siliceous rock outcrops -- identification of this cobble is not yet precise.

Twenty-four categories of massive siliceous rock have been distinguished during analyses. These categories are based on macroscopic variation in grain size, degree of weathering, luster, type and amount of inclusions, and groundmass structural features.

Siliceous Rock: Type A -- This aphanitic material is medium blue-gray in color and contains occasional euhedral clear quartz crystals, 1 mm in size.

Artifact Member ID Code: 44Pk171/2-3/3, 44Pk171/3-3/3, 44Pk171/4-1/3
44Pk171/GR39/13 -- projectile point; see Figure 29(e)
44Pk171/GR60/1
44Pk195/1-1/1

Siliceous Rock: Type B -- This material is slightly coarser than Type A siliceous rock, but is still aphanitic. Feldspar phenocrysts are present in the groundmass. 44Pk223/55 is heat-altered, and may be a member of another siliceous rock category.

Artifact Member ID Code: 44Pk171/2-1/1, 44Pk171/2-3/4, 44Pk171/GR26/14 -- projectile point; cf. Figure 29(g)
44Pk171/GS42/7, 44Pk171/GR47/2, 44Pk223/55

Siliceous Rock: Type C -- A single specimen forms this material category. The aphanitic groundmass is medium gray, and parallel bands of slightly coarser crystallinity are visible.

Artifact Member ID Code: 44Pk9/OM-4/8

Siliceous Rock: Type D -- This cryptocrystalline material is fully patinated to a light yellow brown color. Some specimens show areas of brown.

Artifact Member ID Code: 44Pk171/2-3/1, 44Pk171/2-4/1, 44Pk171/3-2/1, 44Pk171/3-2/2, 44Pk171/3-4/3, 44Pk171/GR6/1, 44Pk171/GR19/2
44Pk171/GR22/2 -- projectile point (broken); see Figure 29(a)
44Pk171/GR24/1, 44Pk171/GR24/20, 44Pk171/GR34/2, 44Pk171/GR39/7,

44Pk171/GR39/8, 44Pk171/GR39/9,
44Pk171/GR45/1, 44Pk171/GR80/1

Siliceous Rock: Type E -- This category of siliceous rock is aphanitic and medium gray in color. The material is assigned to the Archaic on the basis of weathering. Artifact surfaces show a thin but complete patination layer as well as a "frosted" appearance. Artifact 44Pk171/GR28/1 has been heat-altered in color, and may belong to another siliceous rock category.

Artifact Member ID Code: 44Pk171/4-1/1, 44Pk171/4-1/4,
44Pk171/4-1/5, 44Pk171/GR19/1,
44Pk171/GR28/1, 44Pk171/GR39/4,
44Pk171/GR41/3, 44Pk171/GR41/4,
44Pk171/GR42/3, 44Pk171/GR60/4,
44Pk223/126

Siliceous Rock: Type F -- This category of siliceous rock is slightly coarser than the previous categories. There is a qualitative difference in surface texture between Type F and the similarly colored Type D.

Artifact Member ID Code: 44Pk222/GR2/1
44Pk222/GR4/1 --
projectile point; see Figure 29(b)
44Pk222/GR8/1 --
projectile point; see Figure 29(c)

Siliceous Rock: Type G -- This category represents a still coarser-grained aphanitic siliceous rock. The complete patination on all specimens suggests an Archaic temporal assignment. Color is either medium gray or yellow brown.

Artifact Member ID Code: 44Pk171/3-3/2, 44Pk171/3-3/5,
44Pk171/3-4/2, 44Pk171/GR41/7,
44Pk171/GR45/1

Siliceous Rock: Type H -- The fine-grained groundmass of this material produces a subconchoidal fracture. The color is a greenish yellow brown.

Artifact Member ID Code: 44Pk171/1-1/2, 44Pk171/GR26/2,
44Pk171/GR26/13, 4Pk171/GR41/5,
44Pk171/GR72/1, 44Pk171/GR73/1

Siliceous Rock: Type I -- This material is very similar in color and grain size to Type H. The grain size is, however, slightly coarser.

Artifact Member ID Code: 44Pk87/5-1/2, 44Pk87/11-1/5,
44Pk142/GR7/1
44Pk195/2-2/1 --
projectile point; see Figure 31(n)

Siliceous Rock: Type J -- The slightly textured surface of

this material indicates the relative coarseness of the aphanitic groundmass. This opaque material is a medium greenish gray.

Artifact Member ID Code: 44Pk78/1-2/1, 44Pk78/1-7/2, 44Pk175/GR3/6 -- projectile point; see Figure 31(k) 44Pk233/GR9/1

Siliceous Rock: Type K -- This aphanitic coarser-grained material is opaque and grayish green in color. The luster of the artifacts is qualitatively fresher than those siliceous rocks assigned to the Archaic.

Artifact Member ID Code: 44Pk143/16-1/1
44Pk145/10-1/1
44Pk191/1
44Pk223/141

Siliceous Rock: Type L -- This aphanitic material is dark greenish gray in color. Only the edges of the artifacts are translucent. The groundmass shows only slight weathering.

Artifact Member ID Code: 44Pk171/GR39/12 -- projectile point; see Figure 31(h)

Siliceous Rock: Type M -- The aphanitic groundmass of this material is slightly finer than Categories K and L. Artifact surfaces show slight weathering and are dark gray in color.

Artifact Member ID Code: 44Pk171/GR27/9 -- projectile point; see Figure 31(i) 44Pk223/127

Siliceous Rock: Type N -- This material is very similar to Type M. Although a finer grain size is suggested by a semi-glossy luster. The artifacts are less weathered than Type M.

Artifact Member ID Code: 44Pk225/1 -- projectile point; see Figure 31(g) 44Pk232/6/1

Siliceous Rock: Type O -- Parallel bands of dark gray are visible in the medium gray groundmass of this material. Surface texture indicates a coarser-grained aphanitic groundmass. The fresh luster with light weathering suggests assignment to the Woodland.

Artifact Member ID Code: 44Pk223/28, 44Pk223/119, 44Pk223/157
44Pk242/1/1, 44Pk242/1/2, 44Pk242/1/3, 44Pk242/1/4

Siliceous Rock: Type P -- The groundmass of this material is similar to Type O; the banding is absent and, the color is blue gray. Portions of older, weathered Archaic surfaces are

present on some specimens.

Artifact Member ID Code: 44Pk9/OM-10/1
44Pk171/GR5/1, 44Pk171/GR39/2,
44Pk171/GS42/1, 44Pk171/GR73/1

Siliceous Rock: Type Q -- The aphanitic dark blue groundmass contains occasional macroscopic mineral inclusions. A coarser grain is indicated by slight surface texture and an irregular, though sharp, fracture.

Artifact Member ID Code: 44Pk171/1-3/1
44Pk234/4/1, 44Pk234/4/2,
44Pk234/5/1

Siliceous Rock: Type R -- The color of this material category ranges from dark blue to light greenish gray; the latter are probably heat-altered. Impurities and slightly coarse grain size in the aphanitic groundmass are indicated by irregular edge fracture.

Artifact Member ID Code: 44Pk78/1-4/1, 44Pk78/1-4/2,
44Pk78/1-6/1, 44Pk78/1-8/1,
44Pk78/1-8/2, 44Pk78/1-11/2,
44Pk195/3-1/1, 44Pk195/3-1/2,
44Pk224/1/1

Siliceous Rock: Type S -- The dark blue aphanitic groundmass of this material contains occasional off-white phenocrysts. The nearly conchoidal fracture indicates finer grain size.

Artifact Member ID Code: 44Pk9/OM-3/5, 44Pk9/OM-4/2,
44Pk102/0/1
44Pk171/GR39/2
44Pk223/122

Siliceous Rock: Type T -- The homogeneous aphanitic groundmass of this material is dark blue to blue gray. Fracture is almost completely conchoidal.

Artifact Member ID Code: 44Pk9/OM-2/3, 44Pk9/OM-3/3,
44Pk9/OM-3/6
44Pk87/5-1/3, 44Pk87/15-1/1,
44Pk87/15-1/2
44Pk171/1-3/1, 44Pk171/GR5/1
44Pk224/10/1
44Pk231/13/2
44Pk233/GR7/2
44Pk237/1/1

Siliceous Rock: Type U -- The groundmass of this material category is qualitatively finer grained than the preceding Woodland siliceous rock types. Fracture is conchoidal and the surface reflectance more optically continuous. Type U artifacts show a light patina and may belong to the Archaic.

Artifact Member ID Code: 44Pk171/3-4/1, 44Pk171/GR41/2

Siliceous Rock: Type V -- This cryptocrystalline material has conchoidal fracture and vitreous luster. The color is dark gray. The surface shows almost no weathering.

Artifact Member ID Code: 44Pk133/1-1/1
44Pk171/1-1/1
44Pk223/6, 44Pk223/60

Siliceous Rock: Type W -- The cryptocrystalline groundmass of this material is indicated by conchoidal fracture and shiny luster. The color is dark gray. Very slight weathering is evident.

Artifact Member ID Code: 44Pk171/3-4/1, 44Pk171/13-1/1,
44Pk171/GR28/2, 44Pk171/GR41/2,
44Pk171/GR42/2, 44Pk171/GR43/1

Siliceous Rock: Type X -- This cryptocrystalline material shows faint directional structure in the groundmass. Yellow feldspar phenocrysts are occasionally represented. Surface texture is smooth.

Artifact Member ID Code: 44Pk102/0/1
44Pk143/13-1/1

Projectile Points

Fifty-seven projectile points (hafted bifaces/knives) were recovered from prehistoric sites in the project area. These temporally diagnostic artifacts are shown in Figures 29-32. The variation in lithic material among these projectile points documents distinct themes in lithic procurement and utilization throughout prehistory. The data indicate (1) an expected emphasis on rare and/or high quality lithic materials during the Early Archaic, (2) selection of relatively coarser grained material during the Middle Archaic, (3) a preference for easily acquired local material with reliable knapping qualities during the Late Archaic, (4) a return to materials comparable in quality to those of the Middle Archaic during Early Woodland times, and (5) the re-appearance of high quality aphanitic, usually exotic (i.e., rare or imported), materials during the Middle and Late Woodland. These trends appear to apply to both quartz and non-quartz lithic material, although the subtle variations in quartz as currently understood are less securely patterned.

The following description and discussion of the USRB projectile points (hafted bifaces/knives) is essentially chronologically ordered, beginning with Paleo-Indian and

ending with Proto-historic artifacts. The omnipresent issue of "what-to-call-it" is resolved here by reference to familiar standards, such as Coe (1964), Claggett and Cable (1982), Chapman (1977), etc.

Clovis/Hardaway. Figures 30(k), 44Pk206/GR8/52; 30(l), 44Pk206/GR8/30. Although the evidence is tenuous, there are several data that suggest these two artifacts date to the Paleo-Indian period. 44Pk206/GR8//52 is made from very high quality milky quartz. The right-hand side of this artifact exhibits classic parallel "ribbon" pressure flakes which end at a central longitudinal ridge (weakly visible in the photograph). No other points/bifaces recovered from the project area show this workmanship. The basal portion of the reverse side shows a deep flake scar extending up the blade from the base, but terminating in an abrupt hinge fracture. THe knot on the left-hand edge is truncated perpendicular to the blade edge. The suggestion is that this artifact represents an aborted lanceolate point, and functioned as a backed bifacial knife.

Three paradigmatic thumbnail scrapers of high quality quartz material were recovered from 44Pk206: (A) 44Pk206/GR7/18, very high quality milky quartz; (B) 44Pk206/GR18/3, highly translucent single crystal quartz; and (C) 44Pk206/GR8/24, clear rock crystal quartz. Site 44Pk206 also contains several bifacial microcrystalline chalcedony tools (see Table XXXII). As discussed above in the section, "Geological Context," these chalcedony artifacts may be an indicator of Early Archaic occupation.

The artifact assemblage discussed above is relevant to interpretation of 44Pk206/GR8/30, shown in Figure 30(l). The spatial association of this point with these tools suggests that assignment of 44PK206/GR8/30 as a Middle Woodland large triangular point (e.g., Roanoke Large Triangular; Coe 1964:111) may be hasty. It should be emphasized that this artifact is unfinished: unsuccessful bifacial thinning is indicated by a large central knot. Figure B (m) shows a typical Middle Woodland large triangular point, 44Pk244//0/1, for comparison. 44Pk206/GR8/30 remains, nevertheless, problematic. [Note: We dissent vigorously with Snavely's identification of 44Pk206/GR8/52 and 44Pk206/GR8/30--LEA, EES, JNW.]

Hardaway/Dalton. Figure 30(h), 44Pk171/GR41/10. This projectile point is manufactured from a light green fine-grained quartzite. Six other artifacts of this material have been recovered from four sites in the project area. All six are either tertiary retouch flakes or very small flake-blades. A subtle but real distinction in age-wear of the quartzite matrix of 44Pk171/GR31/10 is manifest when compared to the quartzite Late Archaic projectile point 44Pk78/1-7/8, show in Figure 31(o). The point from 44Pk78 has a much sharper edges and rougher surface; the quartzite crystals are more textured, i.e, less rounded and smoothed.

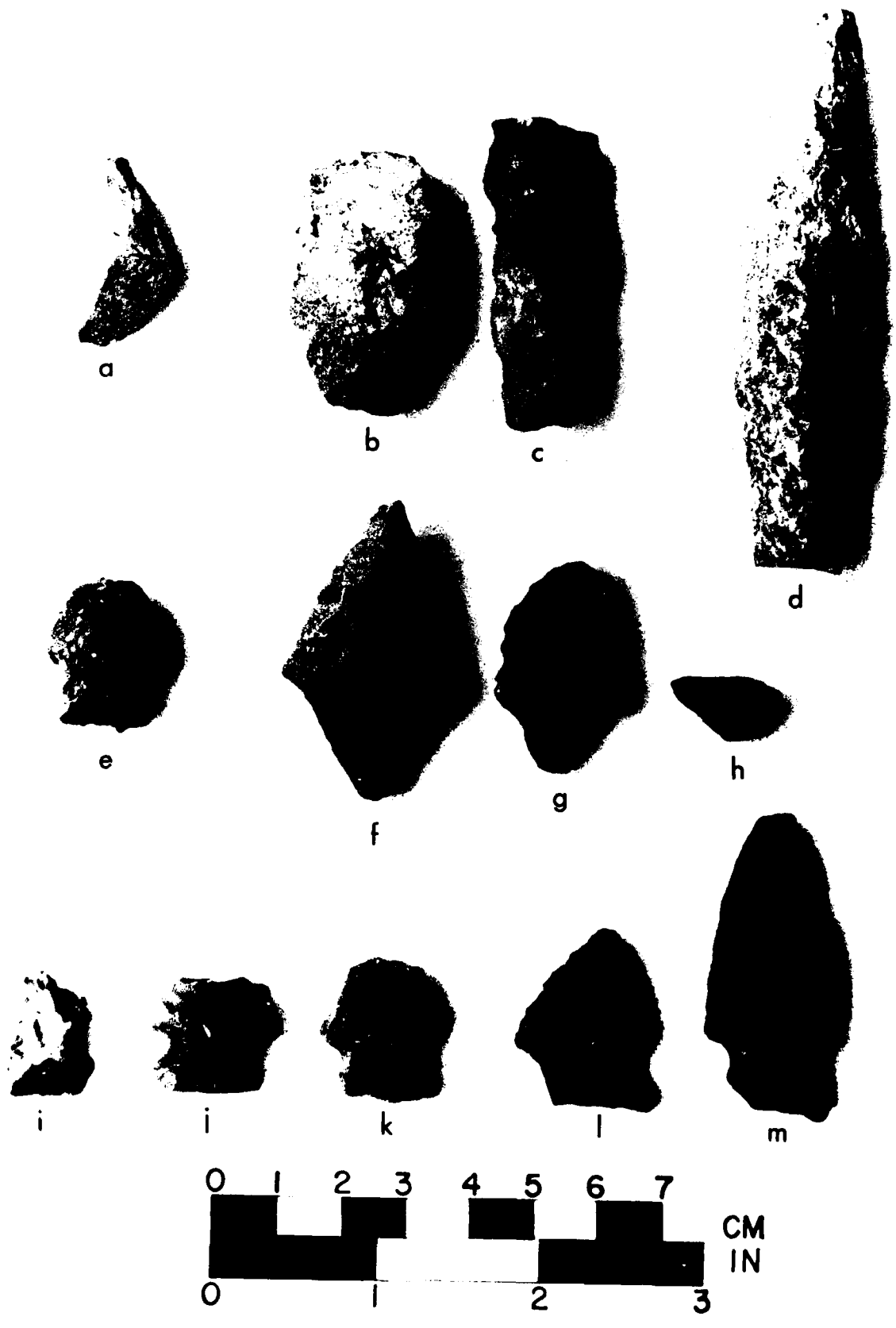


Figure 29. Early and Middle Archaic Non-Quartz Projectile Points, USRB, Virginia. a, e, g, 44Pk171; b, c, 44Pk222; d, 44Pk235; f, l, 44Pk9; h, 44Pk219; i, 44Pk170; j, 44Pk223; k, CL-Isolated Find #14; m, 44Pk228.

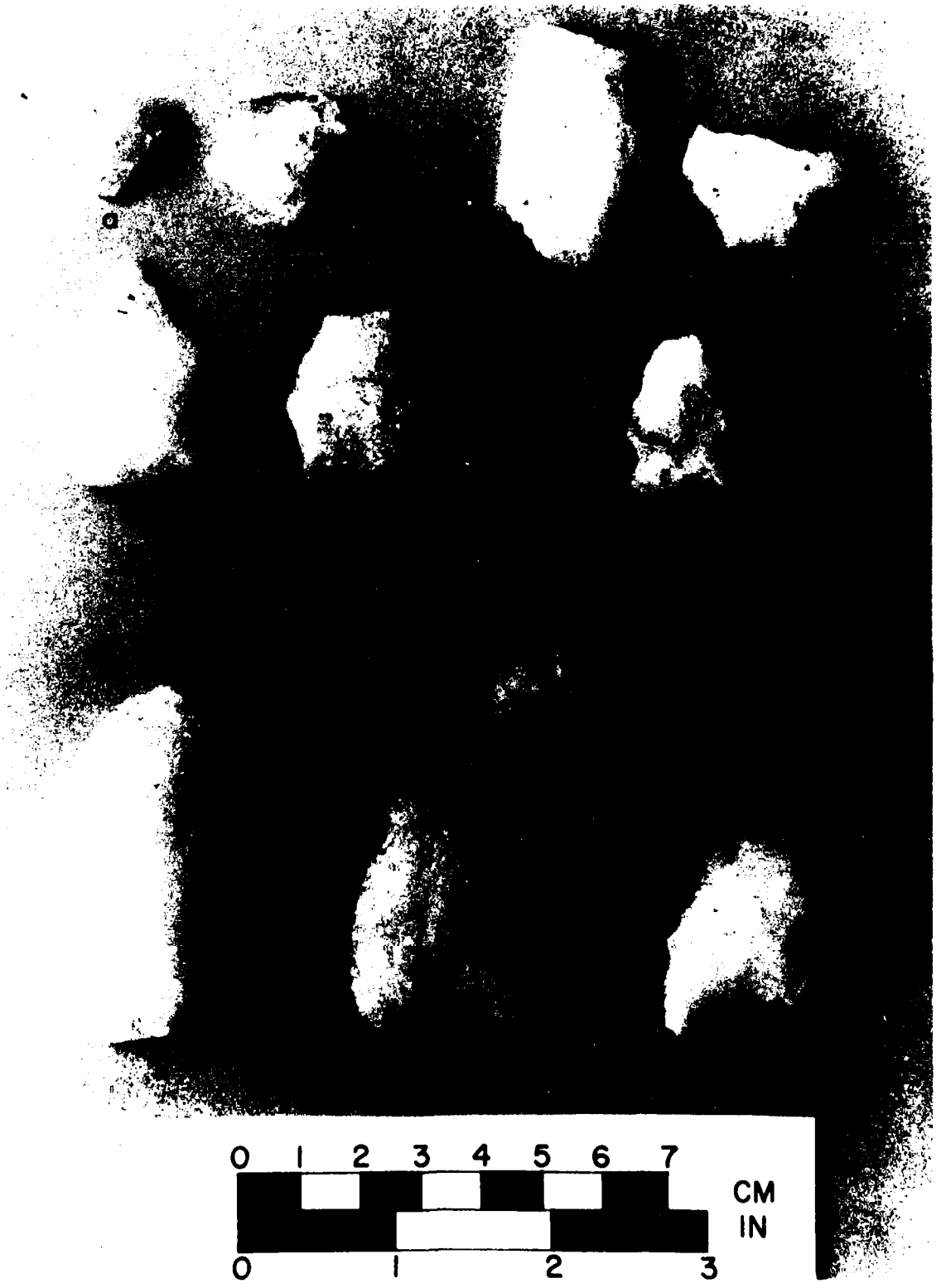


Figure 30. Early and Middle Archaic Quartz Projectile Points, USRB, Virginia. a, c, j, 44Pk78; b, 44Pk154; d, 44Pk73; e, 44Pk205; f, 44Pk142; g, 44Pk228; h, 44Pk171; i, 44Pk223; k, l, 44Pk206; m, 44Pk244.

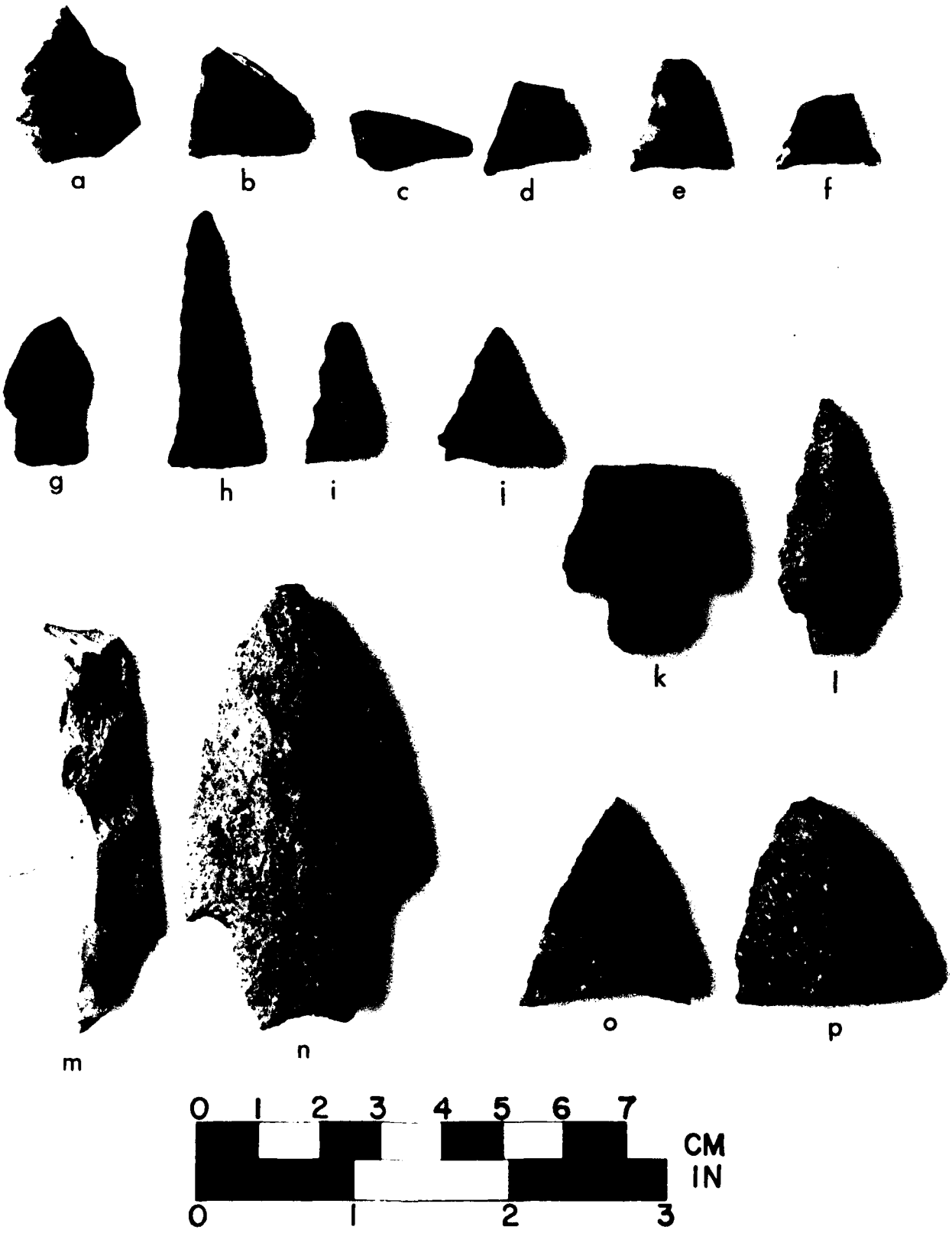


Figure 31. Late Archaic and Woodland Non-Quartz Projectile Points, USRB, Virginia. a, 44Pk223; b, 44Pk102; c, d, h-j, 44Pk171; e, 44Pk191; f, m, 44Pk195; g, 44Pk225; k, 44Pk175; l, 44Pk9; n-p, 44Pk78.



Figure 32. Late Archaic and Woodland Quartz Projectile Points, USRB, Virginia. a, c, d, f, h, k-m, 44Pk171; b, e, g, 44Pk9; i, j, 44Pk170; n, 44Pk190; o, 44Pk206; p, 44Fr139.

Several technological characteristics are indicative of early prehistoric manufacture. The base and notches of this point are ground. Pressure flaking is excellent, with flake scars barely visible. Basal thinning is pronounced, with the basal thinning flake scar on the reverse extending twice as far as that shown of the obverse in Figure 30(h).

Morphologically, the outline of the point compares favorably with the Hardaway-Daltons illustrated in Coe (1964:66, Figure 57), and contrasts with the Woodland Yadkin eared variety, shown in Figure 42 of Coe (1964:47). A review of regional reports and monographs failed to illustrate projectile point forms, especially Woodland forms, similiar to 44Pk171/GR41/10 other than Hardaway-Dalton variants. A further typological consideration is that the collection of Woodland triangular points from 44Pk171 shown in Figure 31(d, h, i, j) and Figure 32(b, c, d, e, f, h) are qualitatively distinct from 44Pk171/GR41/10, and the sample size suggests that the range of variability for Woodland points is adequately represented. [Again there is disagreement with the identification of this specimen as Hardaway/Dalton--LEA, EES, JNW.]

Palmer Variants. Figure 29(l), 44PK9/OM-4/9; Figure 29 (m), 44Pk228/0/2; Figure 30(g), 44Pk228/0/1. Projectile point 44Pk9/OM-4/9 is made from a black, cryptocrystalline rhyolite with yellow feldspar phenocrysts. This material does not occur in the USRB study area. The base and notches of this resharpened point are ground. The concave base produces a form very similar to examples of the Palmer I and Palmer II points shown in Claggett and Cable (1982:327, Plate 3).

44Pk228/0/2, Figure 29(m), is morphologically identical to point 44Pk9/OM-4/9 except for resharpening. This point is made of a microcrystalline jasper. The leaching of mineral impurities gives the illusion of a coarser grained material.

44Pk228/0/1 has a strongly ground base. The two points from 44Pk228 were collected prior to the systematic schema employed in this project, and the spatial association of these specimens is thus unfortunately lost.

Early Kirk Variants. Figure 30(i), 44Pk223/132; Figure 30(j), 44Pk78/1-3/1. Projectile point 44Pk223/132 is made of a partially transparent milky quartz. The base and notches are ground, and a single serration appears above the left-hand notch. Morphological analogs to this point are seen in Chapman (1977:43; Figure B), and are described as Kirk variants. Radiocarbon dates associated with the Tennessee points cluster at 7400 B.C. (Chapman 1977:158).

Precise identification of point 44Pk78/1-3/1 is clearly impossible. However, the well-formed serrated edges and size suggest an Early Archaic Palmer/Early Kirk morphology.

Late Kirk Variants. Figure 29(i), 44Pk170/1-1/1; Figure 29(j), 44Pk223/1-2/2; Figure 29(k), CL-IF/14; Figure 29(e), 44Pk171/GR39/13; and Figure 30 (e), 44Pk205/0/1. Projectile point 44Pk170/1-1/1 is a completely resharpened/exhausted point of chert. The original point probably exhibited high quality workmanship; the artifact shown in Figure 30(i) has been severely altered by heat spalling subsequent to discard. Those few areas of the point which have not been damaged indicate a thick, bifacially reduced, symmetric Kirk form.

The blue chert point 44Pk223/1-2/2 is morphologically isomorphic to those described and illustrated by Chapman (1977) from the Kirk strata at the Icehouse Bottom Site. These Tennessee points are appropriate references in that the USRB point 44Pk223/1-2/2 is made from Ridge and Valley or Knox blue chert. Several specific attributes indicating Early Archaic classification may be noted. First, 44Pk223/1-2/2 shows well-controlled chevron pressure flaking on the blade. These flakes form a true serration (as opposed to a chipped notch) just above the left-hand barb. Second, the point has been manufactured by full bifacial reduction. Third, and particularly important, the corner-notches have been formed by multiple flake scars during manufacture of the stem. The base of this point shows a transverse snap, or possible burin spall; a similiar attribute is mentioned by Chapman (1977:48) for this point category.

A set of 23 blue chert tools and flakes was recovered from 44Pk223. Included in this assemblage is a re-sharpened triangular point -- see Figure 31(a). Another Woodland triangular point of a very similiar blue chert is shown in Figure 31(b), 44Pk102/0/1. These data suggest that 44Pk223/1-2/2 may be a Woodland stemmed point, similiar to Jack's Reef Corner Notched (e.g., Ritchie 1971:26, Plate 11). a review of regional literature uncovered but a single Woodland chert point superficially similiar to 44Pk223/1-2/2. This Woodland point is shown in Schroedl (1978:114, Figure 58 (h)), and is "referable to Jack's Reef Corner Notched Type."

Several data suggest that point 44Pk223/1-2/1 is not a Jack's Reef Corner Notched, however. The Jack's Reef Corner Notched point has a thin blade, and shows irregular flake scares across the faces. The stem is usually asymmetric, and the notches are chipped out of the preform blade edge; i.e., the blade edge contour is interrupted by the notch, and then continues to form the stem. These considerations suggest that USRB point 44Pk223/1-2/2 is indeed an Archaic point. The strength of this temporal assignment argument is relevant to the delineation of a blue/blue-gray chert material subset. Points 44Pk223/1-2/2, 44Pk223/104, and 44Pk223/115 show a qualitatively greater surface texture than the other blue chert artifacts from 44Pk223. This attribute may be the result of age-wear -- heat, microscopic erosion/leaching of the crystals and mineral inclusions. This interpretation finds some support by comparison with known heat-altered

cherts in the 44Pk223 assemblage. The heat-altered chert specimens show color variation, but not textural variation.

Cumulatively, these data indicate that site 44Pk223 was occupied at least twice by groups with chert artifacts. These two occupations appear to have been seperated by 8700 years.

Point 44Pk/CL-IF/14 represents an isolated find. Manufactured from a microcrystalline chert, [illegible] shows an impact fracture, which probably explains its discard.

Point 44Pk205/0/1, Figure 30(e), although missing the stem, shows corner notches typical of Early Archaic points.

Projectile point 44Pk171/GR39/13, Figure 29(e), is made from a cryptocrystalline siliceous rock. Thin lines of clear quartz traverse the point, and clear enhedral quartz crystals occur in the groundmass. This resharpened point also shows a small impact fracture. The form of the point is typical of later Stemmed Kirk variants, e.g., Figure 60 in Coe (1964), and Plate 12 in Claggett and Cable (1982).

Morrow Mountain. Figure 29(f), 44Pk9/OM-4/8; Figure 29 (g), 44Pk171/GR26/14; Figure 29(h), 44Pk219/1-1/1; Figure 30 (g), 44Pk78/1-7/3; Figure 30(b), 44Pk154/1; Figure 30(c), 44Pk78/1-9/7. Six projectile points recovered from USRB sites can be classified as Middle Archaic Morrow Mountain forms. 44Pk9/OM-4/8 is made from a cryptocrystalline siliceous rock with bands of microcrystalline silica.

44Pk171/GR26/14 is also made of siliceous rock. Small quartz crystals are visible in the groundmass. This point may be heat-altered.

A broken stem defines point 44Pk219/1-1/1. The dark blue lithic material appears to be a heat-altered chert.

Three quartz Morrow Mountain points were recovered: 44Pk78/1-7/3, 44Pk154/1, and 44Pk78/1-9/7. All three have broken tips. The first two of these points have "typical" contracting stems; the third point, 44Pk78/1-9/7, is a rounded base variant (see Cridlebaugh 1977:Figures 8,9).

Middle Archaic, Atypical Forms. Figure 29(a), 44Pk171/GR22/2; Figure 30(d), 44Pk73/3-1/1; Figure 30(f), 44Pk142/GR8/1. These three projectile points all possess attributes that suggest a Middle Archaic affiliation. The quality of manufacture of point 44Pk73/3-1/1 is the primary criterion for Middle Archaic assignment. The point was completed by bifacial pressure flaking. The broad sloping shoulders are strongly suggestive of Middle Archaic Stanly forms. These two attributes also indicate that the point is not a Late Archaic/early ceramic Gypsy variant (Oliver:1981).

Point 44Pk142/GR8/1, Figure 30(f), may be considered a late, "degenerative," Kirk form, extending into the Middle Archaic. Again, the quality of workmanship prevents assignment to later periods.

Point 44Pk171/GR22/2, Figure 29(a), is assigned to the Middle Arhaic on the basis of size, probable soft hammer manufacture techniques, and degree of patination. The lithic material is an aphanitic siliceous rock.

Guilford. Figure 29(b), 44Pk222/GR4/1; Figure 29(c), 44Pk222/GR8/1; and Figure 29(d), 44Pk235/EV4/1; Figure 32 (n), 44Pk198/1-1/1. The two points from 44Pk222 are of special interest because of the form variability at an apparent single occupation site. Both point forms conform to the description of Guilford Lanceolate given by Coe (1964:43). The two points are also of similar cryptocrystalline siliceous rock.

Point 44Pk235/EU4/1 is made of a very fine-grained granite. Only one other flake of this material was collected from USRB sites (see above discussion, "Geological Context").

Alchough both the proximal and distal ends of point 44Pk198/1-1/1, Figure D (n), are missing, its rhomboidal cross section is a diagnostic attribute of Guilford points.

The lithic material of this point is an aggregate of fine-grained quartz crystals.

Savannah River. Figure 32(o), 44Pk206/GR1/1; Figure 32 (p), 44FR139/0/1; Figure 32(m), 44Pk195/2-2/1; Figure 31 (n), 44Pk78/1-10/4; Figure 31(o), 44Pk78/1-9/8; Figure 31 (p), 44Pk78/1-9/6. The fine-grained quartz point 44FR139/0/1 is an example of the Small Savannah River Stemmed discussed by Oliver (1981). The well-formed stem suggests that this is an earlier form, following the Stanly stem attributes.

The larger, percussion manufactured Savannah River point 44Pk206/GR1/1 is also made of fine-grained quartz, Figure 32 (o).

Intermediate between these forms is 44Pk195/2-2/1, Figure 31(m). This point is made of siliceous rock, although of slightly coarser grain than those varieties of siliceous rock referenced for Middle Archaic points.

The three points from 44Pk78 occur in two adjacent 5 cm strata (artificial units). Although the basal portions of 44Pk78/1-9/8, and 44Pk78/1-9/6 are missing, their size, lithic material types, and context strongly suggest Savannah River designation. 44Pk78/1-10/4 is made of fine-grained granite; 44Pk78/1-9/8 is quartzite; and 44Pk78/1-9/6 is a blue gray porphyritic rhyolite.

Gypsy. Figure 31(k), 44Pk175/GR3/6. This projectile point conforms well to the attributes described by Oliver (1981) for this early ceramic, hence, Early Woodland, category. The siliceous rock material is again aphanitic but coarser-grained than Middle Archaic materials.

Early Woodland Stemmed. Figure 31(l), 44Pk9/P9-L4/1. A plethora of regional names has been given this point form. The cortex visible in Figure 31(l) often misleads classification, and a protohistoric or historic category is assigned. Point 44Pk9/P9-L4/1, however, exhibits workmanship uncharacteristic of European contact period points. First, the blade is manufactured by even, parallel pressure flakes. Their obverse/reverse symmetry produces the serrated edge. Second, the stem is well-formed; in particular, it is angled approximately 15° to the blade, which augments hafting rigidity. The point is also larger than type specimens of the contact period (e.g., Coe 1964:48, Figure 43).

Middle Woodland Stemmed. Figure 31(g), 44Pk225/1; Figure 32(l), 44Pk171/GR23/20. These stubby, non-descript points are manufactured from a dark gray siliceous rock and a fine-grained quartz, respectively. The relatively crude mode of manufacture suggests that these points pre-date the Late Woodland period. Similarly, the relatively small size of the points indicates a post-early ceramic period date.

Middle Woodland Triangular. Figure 32(h), 44Pk171/GR59/1; Figure 32(i), 44Pk170/6-1/2; Figure 32(j), 44Pk170/1-3/1; Figure 32(k), 44Pk171/GR73/6. This set of points is assigned to the Middle Woodland primarily on the basis of size. The points fall between the larger Yadkin/Roanoke sizes and the later Uwharrie points (Wilson 1976:49, Plate VI).

The two point fragments from 44Pk170, 44Pk170/6-1/2 and 44Pk170/1-3/1, may or may not be from the same artifact. Both are made of milky single crystal quartz, and show old transverse fractures.

Projectile point 44Pk171/GR59/1, Figure 32(h), is an unfinished artifact, also of single crystal milky quartz.

Artifact 44Pk171/GR73/6, Figure 32(k) is potentially a very significant artifact. Close examination of this tool stongly indicates that the function is not a projectile point, but an endscraper, possibly hafted. The base/bit on the reverse side is formed by a single flake scar, and the large flake scars on the right-hand side do not terminate in hinge fractures as would be expected from unsuccessful bifacial thinning. Also, the tip has a broad tetragonal structure rather than a sharp acute point. A final consideration is the type of lithic material -- microcrystalline chalcedony. As discussed above, the reliability and utility of microcrystalline chalcedony suggests that a large discard would not find its way into the

archeological record. If these arguments are correct, then 44Pk171/GR73/6 joins 44Pk86/1-2/1 and 44Pk95/0-1 as a set of chalcedony endscrapers indicative of the Early Archaic.

Uwharrie. Figure 31(h), 44Pk171/GR39/12; Figure 31(i), 44Pk171/1-1/2; Figure 32(f), 44Pk171/GR53/1; Figure 32(g), 44Pk9/A-4/3. These isosceles Woodland triangular points are termed "Uwharrie" for morphological and temporal reference (see Wilson 1976:49, Plate VI). They may or may not relate culturally to points and societies from the Piedmont of North Carolina. At the least, these points represent the ubiquitous trend in the Eastern Woodlands of decreasing point size during Late Woodland times. The lithic materials of these points are, respectively, dark greenish gray siliceous rock; a lighter green gray siliceous rock; single crystal milky quartz; and microcrystalline chalcedony. Point 44Pk171/1-1/2 shown in Figure 31(i) is a broken tip.

Late Woodland Triangular Type A. Figure 31(j), 44Pk171/GR27/9; Figure 31(a), 44Pk223/30; Figure 31(b), 44Pk102/0; Figure 31(c), 44Pk171/GR54/1; Figure 32(d), 44Pk171/GR11/1; Figure 32(e), 44Pk9/OM-2/5. This set of well-made equilateral triangles probably post-dates the "Uwharrie" points. The selection of lithic material and quality of workmanship (e.g., serrated edges) support this contention.

Point 44Pk171/GR27/9 is made of a dark gray aphanitic siliceous rock.

Points 44Pk223/30 and 44Pk102/0 are both of dark blue chert. 44Pk223/30 has been resharpened.

44Pk171/GR54/1, a chert point, has been heat-altered.

44Pk171/GR11/1 is made from milky single quartz crystal.

Point 44Pk9/OM-2/5 is made from microcrystalline chalcedony.

Late Woodland Triangular Type B. Figure 31(d), 44Pk171/GR10/3; Figure 31(e), 44Pk191/8-1; Figure 31(f), 44Pk195/3-2; Figure 32(a), 44Pk9/A-5/1. This set of points represents the final period of pristine aboriginal culture in the project area. Each point is well-made from an "exotic" lithic material. These materials are, respectively, jasper; heat-altered chert; blue chert; and cryptocrystalline chalcedony. The small size of these points is characteristic of the 1600's throughout the eastern Woodlands.

Protohistoric Triangular. Figure 32(b), 44Pk171/GR28/3; Figure 32(c), 44Pk171/GR39/2. These two points are made of milky, single crystal quartz. The delicate pressure flaking of the Late Woodland Triangular Type B points is absent. The use of local materials and still further reduction in size are argued to reflect the breakdown of aboriginal trade

networks by European intrusion.

Trends in the USRB Lithic Assemblage

The work summarized above provides limited information regarding stability and change in the prehistoric cultural systems of the USRB study area. Although we can offer some statements, the principle achievement of the lithic study was in providing an orientation for future research; those research questions are presented in the final chapter of this report. At present we discern a shift in the raw material procurement systems, at least as reflected in the projectile points. Notwithstanding the arguable "Paleo-Indian" points, it seems that early Archaic and late Woodland groups were acquiring non-local raw material (or just the points proper?) from areas well outside the USRB vicinity. Local quartz, however, seems to have been used in the main for expedient tools, contributing the bulk of the debitage to the local archeological record.

We also have detected variability in the natural distribution of certain quartz varieties, with cobbles of a particular quality and color tending to accumulate on cobblebars in certain portions of the USRB study area. This, coupled with the rare appearance of jasper and chalcedony on certain bars, provides a critical bit of data for measuring the rate and direction of raw material movement out of its zone of natural occurrance.

Finally, it is worthy to note what was not found in the USRB lithic assemblage. A review of the artifact lists for the various prehistoric sites shows the scarcity of tools, or fragments of tools, that are commonly found in Piedmont base camp sites. Only one nutting stone was recovered (44Pk78); only five fragments of steatite (not all of which are definitely worked--44Pk96, 44Pk133, 44Pk171 and 44Pk231); celts, axes, adzes likewise are rare. No attempt is made here to contrast the relative frequency of ground stone tools, and Claggett and Cable's "site furniture" category (1982:89), with sites outside the USRB study area except at an impressionistic level. It seems, at this juncture, that the USRB sites, notably Archaic sites, are different in their high frequency of light-weight tools, multiple tools (e.g. borer/graver, scraper/burin) and debitage, and the low frequency of grinding stones, nutting stones, anvils and steatite vessel fragments. With some exceptions, including the rock shelters and 44Pk223, 44Pk133 and of course 44Pk9, the sites seem to represent brief visits, most likely by hunting parties.

Our data do not indicate that the use of the USRB study area increased during the Archaic, and thus there is little support for our Hypothesis 1 concerning population increase. Basing the site identification on diagnostic tools (i.e. hafted bifaces), we found eight early Archaic sites, five

middle Archaic sites and six late Archaic sites or components of sites, hardly convincing of any trend at all. It must be recognized, however, that most of the lithic sites remain unidentified as to cultural affiliation, a problem which is addressed in our suggestions for future research.

Table XXXII. USRB Lithic Analysis
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk9/A-4/2	.5	tertiary flake	acute angle edge wear
44Pk9/A-4/3	2	projectile point	biface; triangular, isosceles; tip broken
44Pk9/A-4/4	2.5	primary flake transverse snap; heat-altered	2 gravers/weak burins
44Pk9/A-4/5	2	small shatter	2 weak burins/gravers
44Pk9/A-4/6	1	flake-blade	acute angle edge wear
44Pk9/A-4/7	1	tertiary flake	delicate graver/ perforator
44Pk9/A-4/15	3.5	primary flake transverse snap	strong burin; large drill bit; 45' angle edge retouch
44Pk9/A-4/16	3	blocky core fragment	steep angle edge retouch and wear
44Pk9/A-4/25	5	primary flake	acute angle edge retouch and wear
44Pk9/A-6/2	.75	tertiary flake	2 gravers; 1 weak burin steep angle edge retouch and wear
44Pk9/A-6/4	3	flake-blade with cobble cortex	broken graver spur
44Pk9/P2-GR/1	1.5	flake-blade	graver; weak burin
44Pk9/P3-GR/2	3	primary flake transverse snap	graver/weak burin; acute angle edge wear
44Pk9/P3-GR/3	4.5	biface; transverse snap	battered and polished bit
44Pk9/GR60/3	9	core flake	acute angle edge wear; 60' edge retouch and wear
44Pk9/OM-1/1	1.5	small core fragments	2 gravers, 1 strong burin
44Pk9/OM-1/2	.5	tertiary flake	edge wear on tip
44Pk9/OM-2/6	1	flake-blade	drill/perforator; delicate awl
44Pk9/OM-2/8	3	primary flake	drill/perforator; burin; acute angle edge wear
44Pk9/OM-2/5	5	primary flake	acute angle edge retouch and wear
44Pk9/OM-4/10	1.5	flake-blade	acute angle edge wear
44Pk9/OM-4/11	.5	tertiary flake	micro-graver
44Pk9/OM-4/12	.75	tertiary flake	delicate graver/awl
44Pk9/OM-4/13	.5	tertiary flake	graver
44Pk78/1-3/2	.5	——	broken tip of small awl
44Pk78/1-7/2	.75	tertiary flake	---

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk78/1-8/3	.5	flake-blade; transverse snap	2 weak burins
44Pk78/1-9/2	.5	tertiary flake	acute pointed tip
44Pk78/1-9/3	.5	tertiary flake	acute angle edge wear
44Pk78/1-9/4	11	primary flake with cortex	large burinated reamer 60' angle edge retouch and wear
44Pk78/1-9/5	8	primary flake with cortex; heat-altered	broad reamer/drill tip
44Pk78/1-10/3	.5	tertiary flake	possible graver
44Pk86/1-2/1	4	primary flake transverse snap	3 burins; 45' edge wear
44Pk86/1-2/2	1.5	flake-blade; transverse snap	graver
44Pk87/11-1/8	2	flake-blade	acute angle edge retouch and wear
44Pk87/15-1/2	1.5	flake-blade; transverse snap	burin; acute angle edge wear
44Pk87/15-1/3	.5	tertiary flake	---
44Pk87/15-1/4	.75	tertiary flake	---
44Pk94/3-1/1	3.5	biface; rhomboidal cross-section	large drill/reamer bit with broken tip
44Pk95/0/1	7	primary flake	Type 1 endscraper(Coe 1964:75)
44Pk95/1-1/1	1	flake-blade; heat-altered	2 gravers
44Pk95/1-1/2	2	flake-blade	graver
44Pk96/1-1/3	3	flake-blade	burin; acute angle edge damage
44Pk96/3-1/2	.5	tertiary flake	possible graver
44Pk133/2-1/1	1	flake-blade	graver
44Pk133/4-1/1	6	ovate biface	45' angle edges
44Pk133/4-1/2	1.5	flake-blade	graver
44Pk133/4-1/3	1.5	flake-blade	weak burin; acute angle edge wear
44Pk133/4-1/4	1.5	flake-blade	graver
44Pk133/4-1/5	1.5	flake-blade	graver
44Pk133/4-1/6	1.5	flake-blade	graver
44Pk133/4-1/7	1	flake-blade	acute angle tip (not graver spur)
44Pk133/4-1/8	1	flake-blade	acute angle tip (not graver spur)
44Pk133/4-1/9	.5	tertiary flake	graver
44Pk133/4-1/10	.5	tertiary flake	graver
44Pk133/6-1/2	.5	tertiary flake	graver
44Pk133/6-1/3	.5	tertiary flake	---
44Pk140/30-1/1	1.5	flake-blade	awl
44Pk141/2-1/1	.5	tertiary flake	probable graver

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk143/24-1/3	3.5	primary flake transverse snap	strong burin
44Pk143/24-1/4	.75	tertiary flake	---
44Pk143/24-1/5	.75	tertiary flake	---
44Pk154/0/3	1.5	small shatter	2 burins
44Pk154/1-1/1	1.5	flake-blade	awl(broken tip); acute angle edge wear
44Pk154/1-1/4	.5	tertiary flake	---
44Pk154/1-1/5	2.5	primary flake with cortex	acute angle tip; 45' angle edge damage
44Pk154/1-1/6	1	flake-blade; transverse snap	burin
44Pk154/1-1/7	1	flake-blade; transverse snap	2 gravers
44Pk154/1-1/8	1.5	flake-blade; transverse snap	awl; acute angle edge wear
44Pk154/1-1/9	2	flake-blade; transverse snap	delicate awl; steep angle edge wear
44Pk154/1-1/11	1.5	flake-blade	graver
44Pk154/1-1/13	2	flake-blade	graver; burin
44Pk154/1-1/15	1	flake-blade	burin
44Pk154/1-1/17	1.5	flake-blade	45' angle edge wear
44Pk154/1-1/18	1	flake-blade	graver; acute angle edge wear
44Pk161/1-1/2	8	primary flake black acicular minerals in groundmass	acute angle edge wear
44Pk170/1-1/2	1	biface	broad drill bit
44Pk171/2-3/5	3	flake-blade; circular	perimeter formed by several broad shallow notches(multi-graver?); acute angle edge wear
44Pk171/3-3/4	1.5	flake-blade	graver; acute angle edge wear
44Pk171/4-2/2	.5	tertiary flake	graver
44Pk171/4-2/3	4	primary flake; transverse snap	stong burin; graver
44Pk171/GR34/6	2	flake-blade	2 gravers; steep angle edge wear
44Pk171/GR35/2	4	primary flake	burin; acute angle edge wear
44Pk171/GR35/3	2.5	flake-blade	2 gravers; steep angle edge wear
44Pk171/GR39/3	2.5	flake-blade	45' angle edge retouch and wear
44Pk171/GR41/9	3	primary flake transverse snap	burin; acute angle edge wear
44Pk175/2-3/1	5	primary flake	burin; broad drill bit; graver

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk175/2-3/2,4,5	2.5	flake-blade; 3 pieces, conjoinable (fresh break)	graver
44Pk175/2-3/3	1.5	flake-blade	awl; graver; acute angle edge wear
44Pk175/2-3/6	1	flake-blade; transverse snap	graver
44Pk175/GR2/1	1.5	flake-blade	2 gravers
44Pk175/GR2/2	1.5	flake-blade	acute angle edge wear
44Pk175/GR2/3	.5	tertiary flake	---
44Pk175/GR3/3	7	primary flake	bifacial edge retouch; acute angle edge wear
4Pk175/GR3/4	1	flake-blade	graver; small chisel bit; acute angle edge wear
44Pk175/GR3/5	1	flake-blade	graver; burin
44Pk175/GR4/1	1.5	flake-blade	graver
44Pk175/GR4/2	3	flake-blade	broad drill bit; weak burin
44Pk175/GR4/3	.75	tertiary flake	graver
44Pk175/GR4/4	1.5	flake-blade transverse snap	2 gravers
44Pk175/GR4/5	1.5	flake-blade; transverse snap	strong burin; weak burin; drill bit
44Pk175/GR4/6	2	flake-blade	strong burin; weak burin
44Pk175/GR4/7	2	flake-blade; transverse snap	drill bit(broken tip); burin
44Pk175/GR4/8	1	flake-blade; transverse snap	graver
44Pk175/GR4/9	.75	flake-blade; transverse snap	delicate awl
44Pk175/GR4/10	2.5	flake-blade	acute angle edge wear
44Pk175/GR4/11	1.5	flake-blade	graver; steep angle edge retouch and wear
44Pk175/GR4/12	.5	tertiary flake	---
44Pk175/GR4/13	2	flake-blade	acute angle edge retouch and wear
44Pk175/GR4/14	3.5	primary flake; transverse snap	2 strong burins; graver
44Pk175/GR4/15	9	core flake	strong burin; 2 edges with steep angle edge wear
44Pk175/GR4/16	1.5	flake-blade; transverse snap	strong burin
44Pk175/GR4/17	1.5	flake-blade; transverse snap	graver
44Pk175/GR4/18	1	flake-blade; transverse snap	graver

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk175/GR4/19	1	tertiary flake	graver
44Pk175/GR4/20	.5	tertiary flake	graver, broken tip
44Pk175/GR4/21	1	tertiary flake	graver
44Pk175/GR4/22	1.5	flake-blade	burin
44Pk175/GR4/23	1	tertiary flake	graver
44Pk175/GR4/24	1	flake-blade	drill/perforator with broken tip
44Pk175/GR4/25	.5	tertiary flake	---
44Pk175/GR4/26	.5	tertiary flake	---
44Pk175/GR5/1	.5	tertiary flake	graver
44Pk175/GR5/2	.5	tertiary flake	graver
44Pk175/GR6/1	2.5	shatter fragment	drill/perforator
44Pk175/GR6/2	6	biface; transverse snap	bit edge wear/damage; wedge(?)
44Pk175/GR7/1	7	core flake	2 strong burins; steep angle edge retouch and wear
44Pk175/GR7/2	2	flake-blade	acute angle edge wear
44Pk175/GR7/3	2.5	flake-blade	drill/perforator
44Pk195/1-1/3	3.5	primary flake	burin; chisel bit
44Pk195/1-1/4	1.5	flake-blade; transverse snap	weak burin; acute angle edge wear
44Pk195/3-1/3	1.5	flake-blade	burin
44Pk206/GR8/19	7	biface	broad drill bit; graver
44Pk206/GR8/51	2.5	flake-blade	2 broad drill bits; acute angle edge wear
44Pk206/GR11/59	5.5	biface	serrated edges; graver, broken tip; broad drill bit(?)
44Pk206/GR11/61	5	core flake with cortex	3 strong burins
44Pk213/1-2/1	3	primary flake; heat-altered with adhering soil	large graver; acute angle edge damage
44Pk213/1-2/3	1.5	flake-blade	acute angle edge wear
44Pk213/1-2/4	1	flake-blade	possible graver
44Pk213/1-2/5	1	flake-blade; transverse snap	weak burin
44Pk213/1-2/6	.75	flake-blade; transverse snap	weak burin
44Pk213/1-2/7	1	flake-blade	acute angle edge wear
44Pk213/1-2/8	2	flake-blade	drill/perforator
44Pk213/1-2/9	3	flake-blade	graver
44Pk213/1-2/10	.75	flake-blade transverse snap	graver
44Pk213/1-2/11	1	flake-blade	snapped tip
44Pk213/1-2/12	1.5	flake-blade; transverse snap	awl; acute angle edge wear

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk213/1-2/13	1.5	flake-blade	multiple gravers
44Pk213/1-2/14	.5	tertiary flake	graver
44Pk213/1-2/15	.5	small flake-blade	graver
44Pk213/1-2/16	1	flake-blade; transverse snap	graver
44Pk213/1-2/17	1.5	flake-blade; transverse snap	small chisel bit
44Pk213/1-2/18	1	flake-blade	graver
44Pk213/1-2/19	.5	flake-blade; transverse snap	graver
44Pk213/1-2/20	.75	flake-blade; transverse snap	graver; awl
44Pk213/1-2/21	1	tertiary flake	graver
44Pk213/1-2/22	1	small flake-blade	acute angle edge wear
44Pk213/1-2/23	1.5	flake-blade; transverse snap, heat-altered	burin; acute angle edge wear; steep angle edge wear
44Pk213/1-2/24	2	flake-blade	awl, broken tip
44Pk213/1-2/25	.75	flake-blade; transverse snap close to striking platform	graver; awl; acute angle edge wear
44Pk213/1-2/26	1.5	flake-blade; transverse snap	graver; acute angle edge wear
44Pk213/1-2/27	.75	tertiary flake	graver
44Pk213/1-2/28	1	small flake-blade; heat-altered	graver; acute angle edge wear
44Pk213/1-2/29	2	flake-blade; heat-altered	graver; acute angle edge wear; chisel bit
44Pk213/1-2/30	1	small shatter	acute angle edge wear on 2 small chisel bits
44Pk213/1-2/31	1	small flake-blade; heat-altered	awl
44Pk213/1-2/32	1	flake-blade; heat-altered	graver
44Pk213/1-2/33	1.5	flake-blade; heat-altered with	acute angle edge wear; small chisel bit
44Pk213/1-2/34	2.5	flake-blade; heat-altered with adhering soil	graver; acute angle edge wear
44Pk213/1-2/35	.5	tertiary flake heat-altered with adhering soil	---
44Pk213/1-2/36	1.5	flake-blade; transverse snap; heat-altered with adhering soil	graver; acute angle edge wear

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk213/1-2/37	1.5	primary flake; transverse snap; heat-altered with adhering soil	strong burin; acute angle edge wear
44Pk213/1-2/38	.5	tertiary flake; heat-altered with adhering soil	graver
44Pk213/1-2/39	1	small flake-blade; heat-altered with adhering soil	graver; acute angle edge wear
44Pk213/1-2/40	.5	tertiary flake	---
44Pk213/1-2/41	1.5	flake-blade; heat-altered with adhering soil	weak burin; acute angle edge wear
44Pk213/1-2/42	1.5	flake-blade; heat-altered with adhering soil	weak burin; acute angle edge wear
44Pk213/1-2/43	2.5	flake-blade; heat-altered with adhering soil	acute angle edge wear
44Pk213/1-2/44	1.5	flake-blade; heat-altered with adhering soil	acute angle edge wear
44Pk213/1-3/1	1	flake-blade; transverse snap; heat-altered	graver
44Pk213/1-3/2	2	flake-blade; transverse snap; heat-altered	acute angle edge damage
44Pk214/1-1/1	3	flake-blade	graver
44Pk214/1-1/2	2	flake-blade	graver
44Pk214/1-1/3	1.5	flake-blade	graver
44Pk214/1-1/4	.75	flake-blade; transverse snap	---
44Pk214/1-1/5	1	flake-blade	graver
44Pk214/1-1/6	1.5	flake-blade	acute angle edge wear
44Pk214/1-1/7	1.5	flake-blade	acute angle edge wear
44Pk214/1-1/8	1.5	flake-blade	graver
44Pk214/1-1/9	1	flake-blade transverse snap	---
44Pk214/1-1/10	1	flake-blade	awl
44Pk214/1-3/1	1.5	flake-blade	graver; acute angle edge wear
44Pk214/1-3/2	1.5	flake-blade	acute angle edge wear
44Pk214/1-3/3	1	flake-blade	graver
44Pk223/89	3.5	biface; transverse snap	broad drill bit; awl

Table XXXII. USRB Lithic Analysis (cont.)
Chalcedony -- Microcrystalline Fibrous

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk227/4-1/2	2.5	flake-blade	graver, broken tip; 45' angle edge wear
44Pk233/GR8/4	4	primary flake	graver; awl, broken tip
44Pk235/1/2	.5	tertiary flake	graver
44Pk235/1/6	.5	tertiary flake	---

Table XXXIII USRB Lithic Analysis
Chalcedony -- Cryptocrystalline

Artifact ID/ Site/Prov./#	Artifact Size (cm^2)	Technological Category	Function(s) Utilization
44Pk9/OM-2/4	.75	tertiary flake	delicate graver
44Pk78/1-2/2	1	flake-blade	acute angle edge wear
44Pk78/1-4/3	1.5	flake-blade; transverse snap	2 burins; 2 awls
44Pk87/10-1/1	2	primary flake transverse snap; heat-altered	strong burin; steep angle edge wear
44Pk87/13-1/1	1	tertiary flake	---
44Pk133/6-1/1	1	small shatter	45' angle edge wear
44Pk142/GR9/1	2	flake-blade	acute angle edge wear
44Pk143/7-1/1	.5	tertiary flake	acute angle edge wear
44Pk171/GR23/1	2.5	primary flake	burinated chisel bit; steep angle edge wear; acute angle edge retouch and wear
44Pk171/GR39/3	2	projectile point	biface; triangular, isosceles
44Pk171/GR41/1	3.5	primary flake	burin; acute angle edge retouch and wear; 45' angle bifacial edge retouch and wear
44Pk171/GR72/2	.5	tertiary flake	---
44Pk175/GR3/1	2.5	flake-blade	acute angle edge wear
44Pk175/GR3/2	2.5	core fragment	strong burin; steep angle edge wear
44Pk219/1-1/1	.5	tertiary flake	graver
44Pk235/1/3	1	tertiary flake	acute angle edge wear

Table XXXIV. USRB Lithic Analysis
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk9/A-4/9	5.5	core fragment	steep angle edge wear	single crystal	7.5YR N8/
44Pk9/A-4/10	4	core fragment	45' angle edge wear	single crystal	7.5YR N6/
44Pk9/A-4/11	3	flake-blade	acute angle edge wear	single crystal	7.5YR N7/
44Pk9/OM-4/15	1	flake-blade	burin	single crystal	7.5YR N8/
44Pk9/OM-4/16	1	flake-blade	steep angle edge wear	single crystal	7.5YR N7/
44Pk73/3-1/8	1.5	flake-blade	acute angle edge wear	fine-grained aggregate	7.5YR N7/
44Pk73/3-1/11	7.5	primary flake	acute angle edge retouch and wear	fine-grained aggregate	2.5YR N5/
44Pk76/0/1	.5	tertiary flake	---	single crystal	2.5YR N8/
44Pk76/1-1/1	9	primary flake	steep angle edge retouch and wear	single crystal	7.5YR N7/
44Pk76/1-1/2	3	biface	burin	single crystal	
44Pk76/1-1/3	20	core flake	adze/plane; bit wear	single crystal	2.5YR N7/
44Pk78/1-11/3	15	core flake	acute angle edge retouch producing a jagged, coarsely serrated bit	fine-grained aggregate	2.5Y N6/
44Pk78/1-11/4	19	core flake	chipped adze/plane	single crystal	7.5YR N6/
44Pk78/1-12/1	2	flake-blade	acute angle edge wear	fine-grained aggregate	2.5YR N6/
44Pk86/1-2/1	4	primary flake	end scraper; burin; steep angle retouch and wear	microcrystalline	N5/
44Pk87/5-1	3	primary flake	drill; strong burin; 45' angle edge wear	fine-grained aggregate	7.5YR N6/
44Pk94/3-1/2	6	exhausted core; cubic	---	single crystal	7.5YR N6/

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk94/3-1/3	3.5	core fragment	steep angle edge wear	single crystal	2.5Y N6/
44Pk94/3-1/4	13	core fragment	steep angle edge retouch and wear; acute angle edge wear	single crystal	2.5Y N8/
44Pk95/0-1	7	primary flake	Type I endscraper (Coe 1964:75)	microcrystalline	2.5YR N4/
44Pk95/3-1	2	---	broken adze bit	single crystal	
44Pk116/1-1/3	5	pebble	---	single crystal	2.5Y N6/
44Pk116/1-2/2	5.5	core fragment	---	single crystal	2.5Y N8/
44Pk116/1-2/3	1	small shatter	---	single crystal	2.5Y N8/
44Pk116/GR7/1	1.5	small shatter	---	single crystal	2.5Y N7/
44Pk124/1-1/1	5	primary flake	strong burin	fine-grained	2.5Y N7/
44Pk124/1-1/2	7	core flake	drill/perforator	fine-grained aggregate	2.5Y N7/
44Pk124/1-1/3	13	primary flake	acute angle edge wear	fine-grained aggregate	2.5Y N7/
44Pk124/1-1/4	3.5	core fragment; bipolar	45' angle edge retouch and wear	fine-grained aggregate	
44Pk124/1-1/5	3.5	core flake	strong burin	fine-grained aggregate	
44Pk124/1-1/6	3	primary flake	strong burin	fine-grained aggregate	
44Pk128/14-1/2	4	core fragment	45' edge angle retouch and wear	single crystal; hematite(?) crystals and euhedral crystal voids	7.5YR N5/
44Pk128/14-1/3	6.5	core flake	steep angle edge retouch and wear	single crystal	7.5YR N5/

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk128/18-1/3	13	core flake; gold mica cortex	45' angle edge retouch and wear; acute angle edge retouch and wear	single crystal	7.5YR N6/
44Pk128/18-2/2	2	small shatter	---	single crystal	2.5Y N6/
44Pk129/0-1	2	flake-blade	acute angle edge wear	single crystal	7.5YR N6/
44Pk131/1-3/2	1	small shatter	---	fine-grained aggregate	7.5YR N7/
44Pk131/1-3/4	.5	small shatter	---	fine-grained aggregate	7.5YR N6/
44Pk131/1-3/5	1	flake-blade	drill/perforator	fine-grained aggregate	7.5YR N6/
44Pk132/IF-1	6x8x19 cm	hand-axe	3x4 cm bifacial bit	fine-grained aggregate; areas of gold mica cortex	7.5YR N8/
44Pk133/0/1	30	core flake	large, broad drill bit; strong burin; 45' angle edge retouch and wear; acute angle edge retouch and wear	fine-grained	bicolor: 2.5Y N6/; 2.5Y N7/2
44Pk133/4-1/11	1	flake-blade	acute angle edge wear	single crystal	7.5YR N6/
44Pk133/4-1/12	1.5	small shatter	---	single crystal	2.5Y N7/
44Pk133/16-1/1	10	primary flake	acute angle edge retouch and wear; steep angle retouch and wear	single crystal	2.5Y N6

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk137/3-1/1	6	primary flake	acute angle edge wear	fine-grained aggregate; areas of black-gold mica cortex	2.5Y N6/
44Pk137/5-1/1	60	core tool	very large drill bit	single crystal	2.5Y N6/
44Pk137/10-1/1	1.5	flake-blade	acute angle edge wear	fine-grained aggregate	7.5YR N6/
44Pk140/11-1/1	.5	tertiary flake	---	single crystal	7.5YR N7/
44Pk142/GR10/1	16	cobble tool	45' angle bifacial edge	single crystal	7.5YR N4/
44Pk143/6-1/4	2.5	primary flake; waterworn prior retouch	steep angle edge retouch and wear	single crystal	2.5Y N6
44Pk143/26-1/1	8	biface; transverse snap	steep angle edge retouch and wear	single crystal	2.5Y N6/
44Pk144/4-1/4	10	biface	wedge; battered edges	single crystal; a few small magnetite crystals	2.5Y N6/
44Pk171/GR35/25	1.5	flake-blade	acute angle edge wear	single crystal	10YR N6/
44Pk171/GR36/7	12	core flake; heat-altered	3 strong burins; steep angle edge retouch and wear; 45' angle edge retouch and wear	fine-grained aggregate	7.5YR N5/
44Pk171/GR37/3	4	flake-blade	acute angle edge wear	single crystal	7.5YR N6/
44Pk172/1-1/1	14	primary flake	acute angle edge retouch and wear; strong burin	fine-grained aggregate	

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk172/1-1/2	10	primary flake; heated cortex	acute angle edge retouch and wear	fine-grained aggregate	
44Pk172/1-1/3	15	biface	large, broad drill bit; 45' angle edges	fine-grained aggregate	
44Pk172/1-1/4	11	core flake	steep angle edge wear	fine-grained aggregate	
44Pk172/1-1/5	5	primary flake	decortication	fine-grained aggregate; poor quality	
44Pk172/1-1/6	2	biface	drill	fine-grained aggregate	
44Pk172/1-1/7	2	flake-blade	45' angle edge wear	fine-grained aggregate	
44Pk172/1-1/8	4	flake-blade	45' angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR1/1	10	primary flake	acute angle edge wear; steep angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR1/2	4	flake-blade	acute angle edge wear; 45' angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR1/3	10	primary flake	strong burin; acute angle edge wear	fine-grained aggregate	
44Pk172/GR1/4	4	flake-blade	drill; acute angle edge wear	fine-grained aggregate	
44Pk172/GR1/5	3.5	flake-blade	acute angle edge wear	fine-grained aggregate	
44Pk172/GR1/6	15	core flake; bi-polar (opposing cortex platforms)	bifacial 45' edges	fine-grained aggregate	

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk172/GR1/7	64	core	edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/1	21	core flake	45' angle edge retouch and wear; acute angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/2	13	core flake	large, broad drill bit; 45' angle bi-facial edges	fine-grained aggregate	
44Pk172/GR2/3	25	biface	large, broad drill bit; steep angle edge retouch and wear; 45' angle edges	fine-grained aggregate	
44Pk172/GR2/4	31	core flake	acute angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/5	11	primary flake	backed blade; acute angle edge retouch and wear; large drill bit	fine-grained aggregate	
44Pk172/GR2/6	17	core flake	broad drill bit	fine-grained aggregate	
44Pk172/GR2/7	11	biface; asymmetric primary flake	wedge, damaged bit	fine-grained aggregate	
44Pk172/GR2/8	20		backed blade; large drill bit; acute angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/9	13	core flake; heat-treated primary flake	45' angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/10	6.5		acute angle edge wear	fine-grained aggregate	

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk172/GR2/11	5	primary flake	steep angle edge retouch and wear; acute angle edge edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/12	12	primary flake	acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/13	6	primary flake	large drill bit; acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/14	5.5	primary flake	acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/15	9	primary flake	large, broad drill bit; acute angle edge retouch and wear	fine-grained aggregate	
44Pk172/GR2/16	3.5	flake-blade	acute angle edge wear; steep angle edge wear	fine-grained aggregate	
44Pk172/GR2/17	1.5	flake-blade	acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/18	12	primary flake	strong burin; acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/19	5.5	primary flake	acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/20	4.5	flake-blade	acute angle edge wear	fine-grained aggregate	
44Pk172/GR2/21	4	flake-blade	acute angle edge retouch and wear	fine-grained aggregate	
44PK172/GR2/22	4	primary flake	burin; steep angle edge wear	fine-grained aggregate	

Table XXXIV. USRB Lithic Analysis (cont.)
Quartz -- Blue

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk206/GR15/25	48	hand-axe	bifacial edges	fine-grained aggregate; with magnetite crystals and black mica on cortex	7.5YR N6/
44Pk225/10	20	core tool	wedge, extensive battering; steep angle edge retouch and wear	single crystal	7.5YR N5/
44Pk226/5-1/1	8	biface; transverse snap (battering on snap?)	wedge; edge battering	single crystal	7.5YR N7/
44PK228/0/2	2	flake-blade	acute angle edge wear	single crystal	2.5YR N8/
44PK237/5/1	5	primary flake	steep angle edge retouch and wear; acute angle edge wear	single crystal	2.5YR N8/

Table XXXV. USRB Lithic Analysis
Quartz -- Gold/Citrine

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk9/A-4/7	49	large primary flake	bifacial acute angle edge retouch and wear	fine-grained aggregate	7.5YR N5/6
44Pk9/A-4/8	6.5	primary flake cobble cortex	graver; acute angle edge wear	fine-grained aggregate	10YR N4/6
44Pk9/A-5/2	.5	tertiary flake; heat-altered	graver	fine-grained aggregate	2.5YR N5/8
44Pk9/OM-2/7	6.5	primary flake; cobble cortex	chisel bit with edge wear	fine-grained aggregate	10YR N5/6
44Pk9/OM-5/1	1	flake-blade; cobble cortex	acute angle edge wear	fine-grained aggregate	
44Pk9/OM-10/2	1	shatter flake	weak burin; acute angle edge wear	fine-grained aggregate	
44PK9/P3-GR/5	17	cobble chopper with cortex	45' bifacial edge	very fine-grained aggregate	2.5YR N8/2
44PK9/P3-GR/6	16	primary flake; cobble cortex	backed blade(cortex) acute angle edge wear; large drill bit	fine-grained	10YR N6/4
44Pk9/P6-L4/1	.5	tertiary flake	---	fine-grained aggregate	
44Pk9/P8/1	3.5	primary flake	burin; large drill bit	fine-grained aggregate	10YR N8/3
44Pk9/P8/2	9	primary flake	acute angle edge wear	fine-grained aggregate	10YR N6/6
44Pk78/1-8/5	14	primary flake; cobble cortex	strong burin; acute angle edge wear	fine-grained aggregate	10YR N5/4
44Pk78/1-8/6	11	pebble	---	single crystal	
44Pk78/1-9/9	.5	tertiary flake	---	fine-grained aggregate	
44Pk78/1-9/10	7.5	primary flake; cobble cortex	acute angle edge wear	fine-grained aggregate	10YR N6/6

Table XXXV. USRB Lithic Analysis (cont.)
Quartz -- Gold/Citrine

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk78/1-10/3	1	flake-blade; transverese snap	drill/perforator	fine-grained aggregate	5YR N6/8
44Pk78/1-10/5	3	flake-blade; cobble cortex	acute angle edge wear	fine-grained aggregate	7.5YR N7/6
44Pk96/3-1/4	3.5	primary flake	drill	fine-grained aggregate	10YR N4/6
44Pk96/3-1/5	1.5	flake-blade; cobble cortex	burin	very fine grained aggregate	7.5YR N5/8
44Pk96/3-1/7	.5	tertiary flake	graver	single crystal	7.5YR N5/8
44PK96/4-1/2	2	primary flake	gouge; strong buring	fine-grained aggregate	7.5YR N6/6
44Pk116/1-1/1	20	primary flake; cobble cortex	large burin	very fine grained aggregate	7.5YR N6/6
44Pk116/1-1/2	<.5	narrow tertiary flake	double awl	single crystal	10YR 7/6
44Pk116/1-2/1	<.5	tertiary flake	awl	single crystal	10YR 7/8
44Pk128/18-1/2	3	flake-blade	drill; acute angle edge wear	single crystal	2.5YR 6/4
44Pk143/6-1/1	11	primary flake	acute angle edge wear	fine-grained aggregate	10YR N6/6
44Pk143/6-1/2	12	core flake	adze/plane	single crystal	10YR 6/6
44Pk143/6-1/3	3.5	pebble	acute angle retouch and wear	fine-grained aggregate	7.5YR N6/6
44Pk143/11-1/1	4	primary flake	acute angle edge wear	fine-grained aggregate	7.5YR N6/10
44Pk143/11-1/1	1	flake-blade	drill/perforator	fine-grained aggregate	10YR N6/6
44Pk143/13-1/2	1x5x8 cm	cobble; longi-tudinal fracture	adze/plane; worn bit	fine-grained aggregate	7.5YR N5/8
44Pk143/14-1/1	.5	tertiary flake	---	fine-grained aggregate	10YR 7/6

Table XXXV. USRB Lithic Analysis (cont.)
Quartz -- Gold/Citrine

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk143/14-1/2	1	flake-blade; transverse snap	weak burin	fine-grained aggregate	7.5YR 5/6
44Pk143/18-1/2	3	flake-blade; cobble cortex	burin; acute angle edge wear	single crystal	10YR N7/6
44Pk143/23-1/1	17	primary flake; cobble cortex	acute angle edge retouch and wear	fine-grained aggregate	7.5YR N5/6
44Pk143/24-1/6	.5	tertiary flake	burin	very fine grained aggregate	7.5YR 6/8
44Pk143/24-1//7	1	shatter flake	---	fine-grained aggregate	10YR 5/6
44Pk143/24-1/8	54	cobble core	primary flake removed	fine-grained aggregate	
44Pk145/1-1/1	20	FCR; sooted	comparison/contrast with gold quartz artifacts	fine-grained aggregate	7.5YR N4/4
44Pk154/1-1/20	1.5	core fragment	2 awls/drills	very fine grained aggregate	10YR N5/6
44Pk154/1-1/21	14	primary flake; cobble cortex	large drill; steep angle edge retouch and wear; acute angle edge retouch and wear	fine-grained aggregate	10YR N5/6
44Pk171/GR39/31	1.5	flake-blade; cobble cortex	burin	single crystal	10YR N7/6
44Pk191/2	4.5	core fragment; cobble cortex	strong burin	fine-grained aggregate	7.5YR N7/6
44Pk214/1-1/1	5.5	core fragment; cobble cortex	burin; acute angle edge retouch and wear	fine-grained aggregate	10YR 5/6
44Pk223/1-2/1	3	flake-blade; cobble cortex	graver	fine-grained aggregate	10YR 6/6
44Pk223/103	5	core flake; cobble cortex	burin; acute angle edge wear	fine-grained aggregate	7.5YR N4/6

Table XXXV. USRB Lithic Analysis (cont.)
Quartz -- Gold/Citrine

Artifact ID/ Site/Prov./#	Artifact Size (cm2)	Technological Category	Function(s)/ Utilization	Crystallinity	Munsell Color
44Pk242/2/1	4	flake-blade	drill/perforator; acute angle edge wear	single crystal	10YR N4/6

CHAPTER NINE: SUMMARY AND CONCLUSIONS

As a result of the USRB project 25 per cent of the proposed impoundment area (Superstratum I), 306 hectares (756 acres) was sampled using a stratified cluster sampling strategy. Additionally 100 per cent of the alternate damsite areas (Superstratum II), approximately 162 ha or 400 acres were completely surveyed. A total of 163 archeological sites, 85 historic and 78 prehistoric, was recorded. These sites are summarized in Table XXXVI below.

Table XXXVI: Site Inventory, USRB, Virginia.

Site No.	Component(s)	Site Type	Activities	Recommend*
44Pk73	L. Archaic, E. Woodland	Short-term camp	Food processing, wood-working	2
44Pk74	Prehistoric	Short-term camp	Hunting	2
44Pk75	Prehistoric	Undetermined	Undetermined	2
44Pk76	Prehistoric	Undetermined	Undetermined	2
44Pk77	Historic	Rock piles	Land clearing	2
44Pk78	Archaic, Woodland	Base camp, hamlet	Multiple, inc. lithic reduction	1
44Pk79	Prehistoric	Bivouac	Undetermined	1
44Pk80	Historic	Structure	Undetermined	3
44Pk81	Prehistoric	Special activity	Butchering(?)	2
44Pk82	Historic	Rock wall	Erosion control	3
44Pk83	Prehistoric	Short-term camp	Wood, bone work	2
44Pk84	Historic	Still	Liquor production	3
44Pk85	Historic	Still	Liquor production	3
44Pk86	E. Archaic, Woodland	Multi-visit bivouac	Undetermined	1
44Pk87	L. Woodland	Hamlet	Multiple	2
44Pk88	Prehistoric	Undetermined	Lithic reduction	2
44Pk89	L. Woodland	Short-term camp	Undetermined	1
44Pk90	Prehistoric	Bivouac	Undetermined	2
44Pk91	L. Woodland	Special activity	Lithic reduction	2
44Pk92	Prehistoric	Bivouac	Undetermined	1
44Pk93	Prehistoric	Short-term camp	Undetermined	1
44Pk94	Prehistoric	Short-term camp	Undetermined	2
44Pk95	E. Archaic	Short-term camp	Woodworking	2
44Pk96	M.-L. Wdlnd	Short-term camp	Woodworking	2
44Pk97	Historic	Still	Liquor production	3
44Pk117	Historic	Still	Liquor production	3
44Pk118	Historic	Still	Liquor production	3
44Pk119	Historic	Still	Liquor production	3
44Pk120	Historic	Still	Liquor production	3
44Pk121	Historic	Still	Liquor production	3
44Pk122	Historic	Still	Liquor production	3
44Pk98	Historic	Still	Liquor production	3
44Pk99	Historic	Still	Liquor production	3
44Pk100	Historic	Still	Liquor production	3
44Pk123	Historic	Still	Liquor production	3
44Pk239	Historic	Cemetery	Human burial	3
44Pk101	Historic	Springhouse	Food storage	3

Table XXXVI: Site Inventory, USRB, Virginia (cont.)

Site No.	Component(s)	Site Type	Activities	Recommend*
44Pk240	Historic	Still	Liquor production	3
44Pk102	M., L. Wdlnd	Short-term camp	Undetermined	2
44Pk103	Historic	Still	Liquor production	3
44Pk241	Historic	Cemetery	Human burial	3
44Pk104	Historic	Still	Liquor production	3
44Pk124	Prehistoric	Special activity	Quarry	2
44Pk125	Historic	Structure	Undetermined	3
44Pk126	Prehistoric	Special activity	Quarry	2
44Pk127	Historic	Still	Liquor production	3
44Pk128	Prehistoric	Base camp	Lithic reduction	2
44Pk129	Prehistoric	Short-term camp	Tool manufacture	1
44Pk130	Historic	Structure	Undetermined	3
44Pk131	Prehistoric	Bivouac	Undetermined	1
44Pk132	Prehistoric	Special activity	Quarry	2
44Pk133	L. Woodland	Undetermined	Undetermined	2
44Pk134	Prehistoric	Bivouac	Undetermined	2
44Pk135	Historic	Rock wall	Erosion control	2
44Pk136	Prehistoric	Undetermined	Undetermined	2
44Pk137	Prehistoric	Special activity	Quarry, butchering	2
44Pk138	Historic	Structure	Residence	3
44Pk139	Historic	Still	Liquor production	3
44Pk140	L. Archaic, E. Woodland	Short-term camp	Undetermined	2
44Pk141	L. Woodland	Short-term camp	Undetermined	2
44Pk142	E. Archaic, L. Woodland	Undetermined	Undetermined	2
44Pk143	L. Archaic, L. Woodland	Bivouac	Undetermined	2
44Pk144	Prehistoric	Special activity	Quarry	2
44Pk145	M. Woodland	Bivouac	Undetermined	2
44Pk146	Historic	Barn	Agriculture	3
44Pk147	Historic	Homestead	Agriculture	3
44Pk148	Prehistoric	Bivouac	Tool maintenance	2
44Pk149	Historic	Structure	Residence	3
44Pk150	Historic	Still	Liquor production	3
44Pk151	Historic	Still	Liquor production	3
44Pk152	Historic	Springhouse	Food storage	3
44Pk153	Historic	Still	Liquor production	3
44Pk154	M. Woodland L. Woodland	Short-term camp Bivouac	Food preparation Tool maintenance	1
44Pk155	Historic	Structure	Residence	3
44Pk156	Historic	Still	Liquor production	3
44Pk157	Historic	Structure	Residence	3
44Pk158	Historic	Springhouse	Food storage	3
44Pk159	Prehistoric	Bivouac	Undetermined	1
44Pk160	Historic	Still	Liquor production	3
44Pk161	E. Archaic	Short-term camp	Undetermined	1
44Pk162	Prehistoric	Undetermined	Undetermined	2
44Pk163	Historic	Still	Liquor production	3
44Pk164	Historic	Structure	Residence	3
44Pk165	Historic	Rock piles	Land clearing	3

Table XXXVI: Site Inventory, USRB, Virginia (cont.)

Site No.	Component(s)	Site Type	Activities	Recommend*
44Pk166	Historic	Rock piles	Land clearing	3
44Pk167	M. Woodland	Undetermined	Undetermined	2
44Pk168	Historic	Structure	Residence	3
44Pk169	Historic	Structure	Residence	3
44Pk170	E. Archaic, L. Woodland M. Woodland	Short-term camp Bivouac	Multiple	2
44Pk171	Archaic-L. Woodland	Base camp/hamlet	Multiple	2
44Fr141	Historic	Still	Liquor production	3
44Fr142	Historic	Still	Liquor production	3
44Fr143	Historic	Still	Liquor production	3
44Fr144	Historic	Still	Liquor production	3
44Fr145	Historic	Structure	Residence	3
44Pk172	Prehistoric	Short-term camp	Butchering	2
44Pk173	Historic	Structure	Residence	3
44Pk174	Prehistoric	Special activity	Butchering	2
44Pk175	L. Archaic, E., L. Wdlnd	Special activity Short-term camp	Quarry	2
44Pk176	Historic	Still	Liquor production	3
44Pk177	Historic	Structure	Residence	3
44Pk178	L. Woodland	Undetermined	Undetermined	2
44Pk179	Historic	Still	Liquor production	3
44Pk180	Historic	Still	Liquor production	3
44Pk181	Historic	Still	Liquor production	3
44Pk182	Historic	Still	Liquor production	3
44Pk183	Historic	Still	Liquor production	3
44Pk184	Historic	Still	Liquor production	3
44Pk185	Historic	Still	Liquor production	3
44Pk186	Prehistoric	Bivouac	Undetermined	2
44Pk187	Historic	Still	Liquor production	3
44Pk188	Historic	Still	Liquor production	3
44Pk189	Historic	Still	Liquor production	3
44Pk190	Historic	Homestead	Agriculture	3
44Pk191	L. Woodland	Short-term camp	Undetermined	2
44Pk192	Historic	Still	Liquor production	3
44Pk193	Historic	Still	Liquor production	3
44Pk194	Historic	Still	Liquor production	3
44Pk195	L. Archaic, L. Woodland	Short-term camp	Multiple	1
44Pk196	Historic	Still	Liquor production	3
44Pk197	L. Woodland	Undetermined	Undetermined	2
44Pk198	M. Archaic	Bivouac	Undetermined	1
44Pk199	Historic	Cemetery	Human burial	3
44Pk200	Historic	Still	Liquor production	3
44Pk201	Historic	Still	Liquor production	3
44Pk202	Historic	Still	Liquor production	3
44Pk203	Historic	Rock piles	Erosion control	3
44Pk204	M. Archaic	Special activity	Quarry	2
44Pk205	E. Archaic	Short-term camp	Butchering	2
44Pk206	L. Archaic, M.-L. Wdlnd	Short-term camp	Multiple	2

Table XXXVI: Site Inventory, USRB, Virginia (cont.)

Site No.	Component(s)	Site Type	Activities	Recommend*
44Pk207	Historic	Structure	Residence	3
44Pk208	Historic	Cemetery	Human burial	3
44Pk209	Historic	Farmstead	Agriculture	3
44Pk210	Prehistoric	Special activity	Tool maintenance	3
44Pk211	Historic	Still	Liquor production	3
44Pk213	Prehistoric	Special activity	Micro-tool industry	1
44Pk214	L. Woodland	Bivouac	Undetermined	1
44Pk215	Historic	Cemetery	Human burial	3
44Pk216	Historic	Still	Liquor production	3
44Pk217	Prehistoric	Undetermined	Undetermined	2
44Pk218	Historic	Structure	Residence	3
44Pk219	M. Archaic	Special activity	Undetermined	2
44Pk220	Historic	Rock piles	Land clearing	3
44Pk221	Historic	Rock piles	Boundary marking	3.
44Pk222	M. Archaic	Short-term camp	Multiple	2
44Pk223	E. Archaic, M., L. Wdlnd	Short-term camp	Multiple	2
44Pk224	L. Woodland	Bivouac	Undetermined	2
44Pk225	M., L. Wdlnd	Short-term camp	Multiple	2
44Pk226	Prehistoric	Bivouac	Undetermined	2
44Pk227	Prehistoric	Bivouac	Lithic reduction	2
44Pk229	Historic	Barn	Agriculture	3
44Pk230	L. Woodland	Undetermined	Undetermined	2
44Pk231	Woodland	Bivouac	Undetermined	2
44Pk232	M., L. Wdlnd	Bivouac	Undetermined	2
44Pk233	M. Woodland	Short-term camp	Multiple	2
44Pk234	M. Woodland	Short-term camp	Limited	2
44Pk235	M. Archaic	Bivouac	Limited	2
44Pk236	Prehistoric	Bivouac	Limited	2
44Pk237	Prehistoric	Bivouac	Limited	2
44Pk238	Historic	Still	Liquor production	3
44Pk242	L. Woodland	Bivouac	Limited	2
44Pk9	M., L. Wdlnd	Hamlet	Multiple	1

*1=data recovery
2=no further work
3=no recommendation

In the table above the component designations and activities listed for prehistoric sites are derived from the lithic and ceramic analyses. The use of ceramics in site function identification was explained in Chapter Seven. In regard to lithics, hamlets, seasonal camps and base camps were identified when there occurred a wide range of tool types, debris and lithic raw material types. Short term camps were designated when only one or two general tool types were present, along with generalized debris and one to three different raw material types. Bivouacs were those sites yielding a small amount of lithic debris (generally retouch or thinning flakes), few or no formal tools, and one or two lithic raw material types. Special activity sites indicate

those loci containing specific tools (e.g. burins, drills, scrapers) to the exclusion of other tool types. Such sites also produced some utilized flakes and a limited range of lithic raw materials. Like bivouacs, special activity sites yielded a very small artifact inventory. For historic sites, site function was determined on the basis of architecture (e.g. structures with chimneys = residence), artifacts (e.g. hearths and vats = stills), or written evidence (e.g. inscribed headstones = cemeteries). For the historic sites especially we have a high level of confidence in the identification through the use of analogy.

The remainder of this chapter is devoted to placing the specific archeological resources already described into an appropriate historic or prehistoric context. For the historic remains that effort is aided by various written documents and greater familiarity with the cultural systems they represent. For prehistoric sites we are much more dependant upon abstract models derived from anthropology. The cultural context, the cultural setting, for these sites is important to establish because the significance of the properties depends, in whole or in part, on the information such sites may provide on the now-extinct cultural systems within which they once functioned. Sites with architectural remains, or sites associated with important persons, events or trends of the past may possess additional significance. The comments following are intended to define potentially significant sites and to provide suggestions for future research in the region.

Historic Cultural Resources

Both archeological research and archival studies indicate that, in comparison with other areas of the state, Euro-American settlers arrived late in Patrick County. In 1728, when William Byrd's survey team delineated the Virginia-North Carolina border, no settlement was noted in Patrick County. The general settlement patterns for the state reveal that settlers worked their way up the river systems in the northern areas of the colony, but this was not the case in Patrick County where the streams flow south into North Carolina, preventing simple migration from the tidewater area of Virginia (Word et al. 1981). Although neighboring Henry County was settled in the 1740's, permanent settlement in present-day Patrick County apparently did not occur until the end of the eighteenth century. According to the grant and patent records, no significant acreage was granted in present-day Patrick County until the 1780's, and grants and patents were bestowed well into the 1860's. Grants tended to be small, 200 to 400 acres with several major exceptions (Pedigo and Pedigo 1939). In spite of numerous land grants and deeds, settlement appears to have remained sparse and clustered around such centers as Stuart and Elamsville even into the twentieth century. In the 1930's Pedigo and Pedigo described northern Patrick County as isolated and recalled

that in the teens a "...pilgrimage on horseback into the recesses of the fir-clad Bull Mountain or Bald Knob was to enter a belated civilization" (Pedigo and Pedigo 1939). Unlike Henry County, which has different terrain and prospered before and after the Civil War, the area north of Bull Mountain in Patrick County was and remains isolated. This apparent isolation is substantiated by the architectural remains found in the USRB study area.

Stills. By far the most abundant site type in the USRB study area, liquor stills are its least valuable cultural resource. Distilled spirits represent a method for transporting a very bulky commodity (corn) efficiently and often secretly to a market. It is unlikely that Patrick County farmers moved from subsistence farming to cash crops and surplus production, and by inference liquor distilling, before the late nineteenth century. Certainly most of the stills described in this report date to the twentieth century. The location and content of these sites are highly predictable, and it is unlikely that more intensive intrasite investigations will produce new information. Remnants of certain materials, e.g. plastic jugs, PVC pipe, automobile parts, allow "no earlier than" dates to be assigned many of the stills. Unfortunately, however, precision dating would be difficult. If such dates were available then the fluctuations in illicit liquor production could be correlated with local and areal shifts in political, social and economic trends. At this time, however, it is recommended only that the stills continue to be recorded and described. Further investigation or preservation of known sites is not warranted.

Historic Structures. In the survey area 18 sites revealed foundations and a variety of structures in various states of preservation, all but four of which were log, and all but two of which are no longer occupied on a full-time basis. In addition several springs surmounted by rock foundations were noted, as were a few miscellaneous structures of comparatively recent construction (see Chapter Five for a complete inventory of structures). All but four sites in the study area are or were structures representing the first phase of the building sequence that would have appeared in a newly settled area. The two major building traditions represented in this first phase are English and Irish, and the universal construction materials are logs and fieldstone. (See Glassie 1978 for a complete discussion of log building traditions.) The normal second stage of building, the use of the hall-and-parlor type plan, appears to have been by-passed in the study area (but see Chapter Five, Site 44Pk168, possibly a hall-and-parlor plan structure). The main structures on sites 44Pk207 and 44Pk209 represent the third and final building stage found in the study area. Those structures appear to be examples of the central-hallway I-house, an extremely common house type built throughout the central Atlantic states during the nineteenth century.

The historic log structures can be divided into two major types, square and rectangular, with some variation within each type. Square forms are inherited from England where the 16 ft x 16 ft square became a standard format by the Tudor period. Throughout the English colonies the most common one-room house consisted of this traditional single square or bay. As the form appeared in the Blue Ridge area several changes may be noted: mountain cabins usually have a lower roof pitch and a higher loft than European counterparts, and mountain cabins are usually log with exterior gable-end chimneys. Structures in the eastern part of the colonies were generally weatherboarded frames with brick chimneys (Glassie 1978:404). Other English features found in the study area are half and full dove-tail joints and the centrally located front door. Windows were always optional. In the USRB, the usual dimensions for the square (or near-square) cabin were 16 ft x 16 ft and 16 ft x 18 ft.

The rectangular form was brought by Irish settlers and originated in northern and western Ireland. The usual dimensions (in feet) of the rectangular cabin are 16 x 22 and 16 x 24 (Glassie 1978:406). As with the square, the rectangle was seen as a single unit. Other common Irish features include opposed doors front and back, and the use of V or saddle notches for joints. The interior was often divided by a light partition into two rooms, the fireplace in the larger room. In his Virginia survey Glassie found the rectangular cabin appearing most commonly in areas where the Pennsylvania influence was greater that that of the Tidewater region. It is found occasionally throughout the valley of Virginia and the eastern Alleghenies, and is very common along the Blue Ridge of North Carolina and Tennessee into the upland Piedmont of North Carolina (Glassie 1978:407). Whitehall and Winborne (1982:16) found the rectangular cabin to be the dominant form in the Roanoke Valley. The findings in the USRB study area are not conclusive because of the limited number of sites investigated, but it appears that the square cabin and its variations were common, although neither form seems to dominate. In fact, the most common configuration seems to be 18 ft x 20 ft, a dimension which Glassie does not mention. These dimensions could indicate a form peculiar to the area or could simply be coincidental due to the limited number of sites surveyed. In contrast, the study area's rectangular cabins fall within dimensions listed by Glassie (1978) as common. Another interesting observation is the extent to which the square and rectangles are considered single units--all the double chimney and large foundation sites measured can be broken down into multiples of either the basic square or rectangle.

In general, the USRB log structures exhibit remarkable stylistic unity. With one possible exception, 44Pk147F, all the structures are supported on fieldstone foundations which raise the logs off the ground and provide a level base for the sill timbers. In erecting a log structure it is especially important to provide a level base on which to

place the sill so that corners will meet at right angles and the structure will be true and square. Above the basic log frame the open gable ends are closed with horizontally laid boards nailed to the end rafter. Fieldstone also is the primary building material for the chimney which, like the foundation, is chinked with mud. Chimneys always are centered on the gable end and follow the pattern established in the east by English settlers. The Irish quickly adopted this feature, and it became standard for almost all simple structures built throughout the central colonies. In the Tidewater and Piedmont, these chimneys are brick as are foundations. Handmade brick is scarce in the USRB study area, having been found in only three sites (44Pk169, 44Pk177, and 44Pk147). A common feature shared by the standing cabins, either square or single rectangles, is the presence of front and back doors opposite each other. As mentioned above, this trait was introduced by the Irish and assimilated by the English settlers early in the historic period of the Tidewater and Piedmont regions. Further investigation and some excavation is necessary to determine whether this feature is common to all the sites in the study area. It would be particularly interesting to note the placement of doors in the larger or two-bay cabins, none of which is standing above the foundation line.

Two other common cabin features which deserve mention are placement and size of windows and hearth dimensions. Placement of windows always seems to have been at the discretion of the individual builder and varied from cabin to cabin. Generally windows were small, and often a cabin had none--conservation of heat in the winter was important, while in the summer the cabin door often was open. If the cabin was built with a loft, a small window often was cut into the gable end next to the chimney for flow-through ventilation.

Weatherboarding also was used; at least four sites bear remains of firring strips to which weatherboards were nailed, and nails are evident in log exteriors at other sites (Figures 33 and 34). Despite the vision produced by log cabine mythology, most cabins were sided both for insulation and to protect the logs from the elements. Interiors usually were also covered with boards and then plastered, whitewashed, or covered by paper. The rustic log-exposed cabin interior is primarily a twentieth century popularized version of a log structure. Creating a weathertight, animal-proof shelter was serious business for the settler. That was accomplished in the southern states by weatherboarding, in the northern colonies by shingling. Only half-timbered structures with their heavy timbers and wattle-and-daub fill were left unsided. While half-timbering was a common building technique utilized in Europe, framing of this sort was cumbersome and required some expertise on the part of the builder. Structures of this sort were generally unknown in wilderness areas where the builder needed to erect a secure structure with as little effort and as much haste as possible. Log building techniques, on the other hand, suited

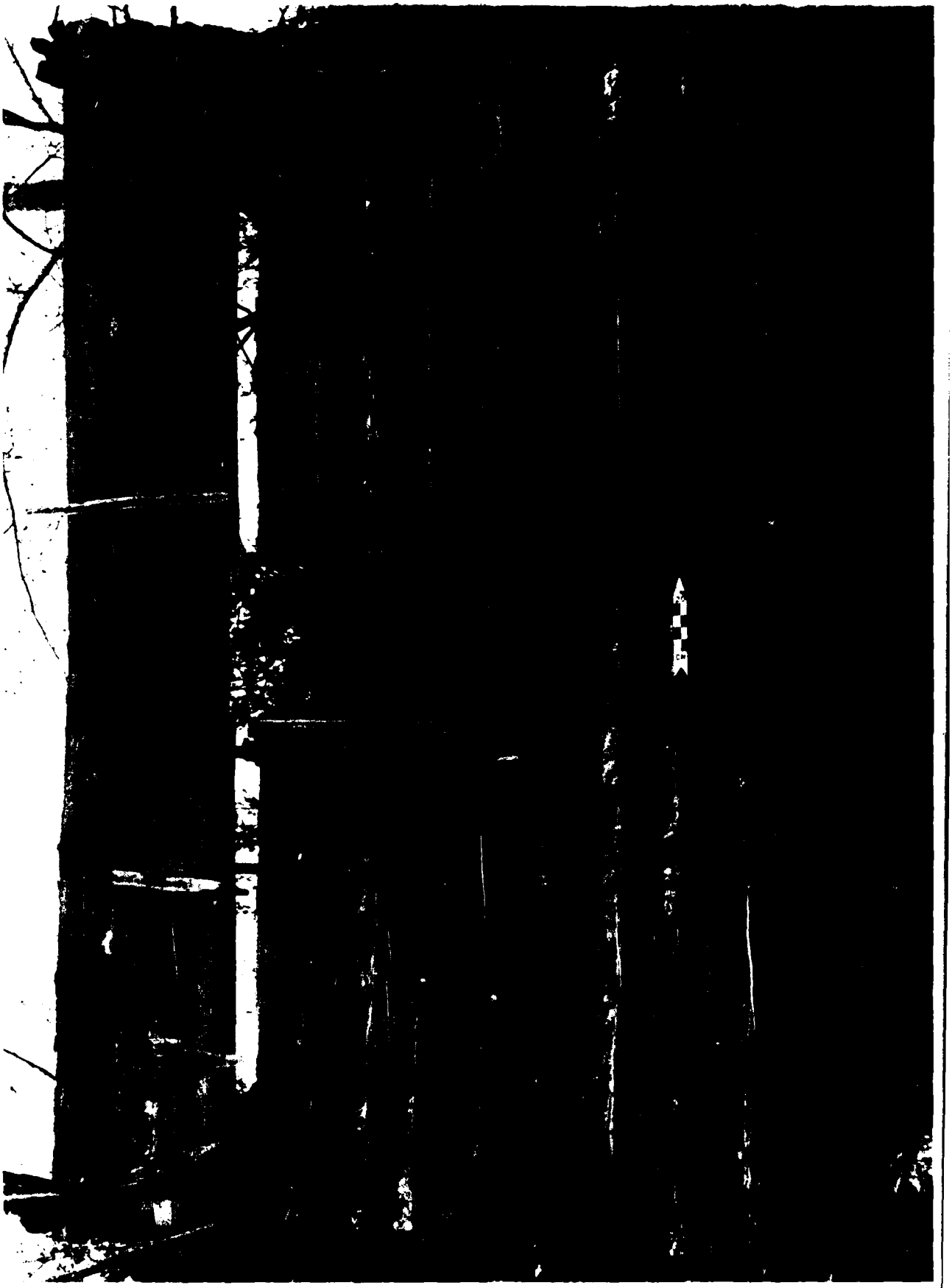


Figure 33. Log cabin, USRB, Virginia. Structure A, 44Pk155. Note furring strips and chinking.

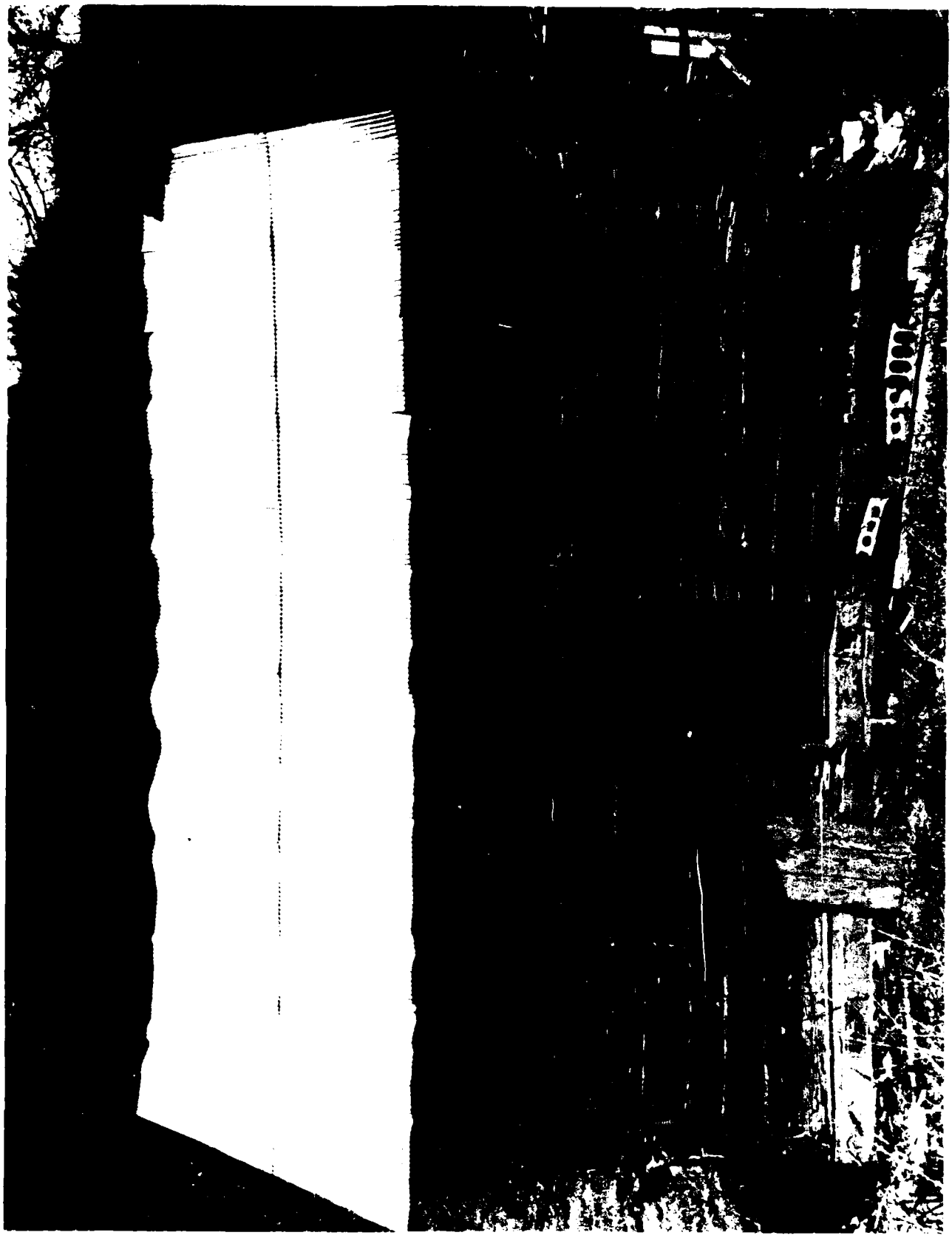


Figure 34. Log cabin, USRB, Virginia. Structure A, 44Pk209. Note furring strips for once-attached weatherboarding.

the needs and abilities of the frontier settler precisely. the adaptability of the log as a building material for the backwoods settler is exemplified by an outbuilding at site 44Pk147. That structure could have served various purposes, but the building techniques displayed as well as the shape of the structure are ubiquitous. The logs are hand-hewn and square notched; there is no chinking between the logs, and numerous nails sticking out of the logs provide ample evidence that this simple shelter also was sided. The roof overhang is substantial and a modern round frame over the door replaces the shed front which most probably originally sheltered the entrance.

The presence of the log cabin, miscellaneous log outbuildings, and fieldstone chimneys and foundations provides strong evidence that people moved into Patrick County in the early 1800's and at least attempted to settle the area. Based on architectural evidence, further development was very limited. In the entire survey area only four structures demonstrate any further stylistic evolution, and because it was not within the scope of this project to thoroughly investigate the architectural finds, three of those structures are problematical. Information concerning their interior construction and room layouts is needed to verify the building types absolutely. As mentioned previously, in most settled areas the usual sequence of architectural development would have the log cabins followed by houses of the hall-and-parlor plan. That plan is basically two rooms: the square hall entered directly from the outdoors with the fireplace centered in the end wall, and the smaller "parlor," which usually contained a narrow boxed-in stairway to a loft or full second story. At the rear of the two rooms was a long passageway with a back door. A porch usually ran the width of the front, and occasionally the porch was fully integrated into the structure which allowed an increase in the size of the second floor. According to Swaim (1978) this building type was quickly superceded by the symmetrical Georgian form and remained a viable dwelling option only in the mountainous west.

The ground plan of 44Pk168 is possibly that of a hall-and-parlor type, but several features date the structure to the late nineteenth or early twentieth century, rather than the early nineteenth century when most structures of the type were built. The exterior form, with the engaged front porch, matches one of the hall-and-parlor variations illustrated by Swaim. Again, because no interior data was collected it is impossible to comment on the floor plan or to date the structure with any certainty. Two dates appear on the north chimney, 1856(66?) and 1884. The treatment of the casement windows, and the concrete foundation correlate better with the 1880's date than early nineteenth century architectural features. Two hypotheses can be offered in this regard: a) the original structure dates to the early part of the nineteenth century, built by a settler familiar with the latest architectural styles, or b) it dates from the

late nineteenth or even early twentieth century and represents a degree of culture lag, at least in terms of local architecture. Given the general time frame during which Patrick County seems to have been settled, and the unsophisticated log structures apparently dating from the early nineteenth century, the would seem the latter hypothesis is likely correct.

The only other nineteenth century building type expected in the study area is the central hallway I-house. This plan, with a central hallway running front to back and flanked by one or two rooms on either side, is the vernacular adaptation of the eighteenth century Georgian house. It became the most common dwelling type in the United States throughout the nineteenth century. Its appeal seems to lie in its simplicity and its adaptability. The most basic arrangement of this plan is a central front to back hallway with a single room on either side; a chimney centered in each end; and a central staircase leading to a true second floor. (It is the full second floor that distinguishes this type from the closely related hall-and-parlor type.) The I-house plan could easily be expanded to two rooms, front to back on either side of the hallway; an ell was often added as were shed rooms; and usually a single story porch ran the length of the front. A porch was also usually fitted onto the ell. As fashion changed so did the trim of the I-house. Stylish at first was classical trim, often expressed in the treatment of the cornice or posts for the front porch. Following the Civil War, when jigsaw trim became fashionable, turned banisters replaced square, Georgian posts and jigsaw trim also was added to the bargeboards, with brackets replacing dentil work under the eaves. Sites 44Pk207 and 44Pk209 appear to be excellent examples of central hallway I-houses with two rooms front to back on the ground floor and a full second story. In addition, the two houses are almost identical in detail. Their foundations measure essentially the same, 16 ft x 40 ft. Interior arrangements cannot be determined because these were not examined, but again two hypotheses can be offered: a)the structures were built by the same builder, and b)the dwellings date from the late nineteenth century. That period would coincide with the popularity of Henry County Brite Leaf tobacco, and the location of these sites may suggest the economic basis for the upgrade in architectural type.

Site 44Pk209 is the only one the the study area which demonstrates a pattern of development from a simple architectural type to a more complex one. The earlier structure on the site is a log cabin measuring 6.9 m x 5.11 m (22.6 ft x 16.8 ft) with front and back doors. These logs are in excellent repair, and the appearance of cut nails suggests both that the structure was weatherboarded and was probably built during the first half of the nineteenth century. Apparently the hall-and-parlor stage was bypassed, for the main house is a central hallway frame type with an ell addition. Both house and ell are sided with weatherboard

using wire nails. The ell was often an addition to the I-house, and may or may not be original with the main house. Neither the ell nor the main house has a front porch. Closer inspection of construction details and window and door frames is needed to determine a more specific date for the structure, and to establish whether original features have been altered at a later date.

The house on site 44Pk207 is essentially the same, with the addition of a one-story front porch, a second chimney, and a modern brick ell instead of a sided one (but the brick ell may well have replaced an earlier sided one). The centrally located door and the arrangement of the windows up and down are the same as the I-house of 44Pk209, although there is some variation in the exact details of the windows and doors. Because the exteriors are so similar, it would be helpful to determine if the interiors are similarly arranged.

One other structure deserves specific mention, the almost square (5.1 m x 4.7 m, or 16.7 ft x 15.4 ft) frame structure at 44Pk149. This building follows the format of the log cabin but utilizes building techniques not common in the area until after the Civil War, particularly siding with vertical board and batten. Pattern book writers such as Andrew Jackson Downing popularized board and batten in the 1840's, but it seems unlikely such sources would have been known to Patrick County builders before the war. In any event, the structure has little relationship to the cottages which the pattern book writer advocated. Its interior contains two rooms, one up and one down, and the upper floor is reached by a narrow corner stairway. Although open rather than boxed-in, this staircase is reminiscent of the type found in hall-and-parlor houses.

The historic structures found in the USRB study area represent the mainstream of American vernacular building. The log structures are especially important in documenting the settlement patterns in the area, but the structures remaining are fragile and should be protected from further deterioration. Site 44Pk155 with its companion cabins is an excellent example of pioneer building, with two structures which exhibit the main characteristics common to frontier architecture. If the USRB project is built, these structures should be moved to an appropriate location and maintained, either as restored or in a "found" state. Other sites which require further investigation and documentation include 44Pk169, where the remaining fireplace opening is unusual in that it is faced with fieldstone and plastered above the fieldstone.

Also, site 44Pk218 contains the only early nineteenth century date and initials actually carved into a stone set into the chimney. The appearance of such an early date is important in documenting the settlement of the area, because the initials and the date can be cross-referenced with deed records and can be used to verify the probable owner and

builder of the structure. This site unfortunately is in danger of being obliterated and needs immediate attention.

44Pk147F provides further evidence of the use of local brick, and could provide some further dating for settlement in the area. 44Pk209 is an especially handsome example of log buildings in the study area, and along with the log outbuilding (Structure A) from 44Pk147 provides good evidence of the early setler's complete dependence on logs for his building needs. Together the historic structures located in the USRB study area capture the harsh conditions under which the early settlers of Patrick County existed. The early cabins provided few creature comforts for their occupants, but they offer abundant information to modern scholars on the lives of the settlers. Because log structures are vanishing evidence of the moral and physical stamina of America's early settlers, those of the USRB need to be assessed, documented and preserved when possible. Archeological investigations in and around these structures also can provide information on the age of the buildings, material culture of the early settlers and later occupants, and the market networks that sustained the local people and economy (Spencer-Wood 1979).

Several additional research questions can be formulated for the historic cultural resources in USRB, these more general than the site-specific goals described above. For example, is there a distinctive "domestic frontier pattern" for the nineteenth century in the southern Appalachian region which is comparable to the patterns delineated by South (1977)? If so, what types of past behavioral processes would best explain such patterning? If not, does this indicate a more generalized set of behavioral processes, or does it mean that present analytical tools do not yield the resolution necessary to discern such patterns? Sussman (1978:93) has documented the presence of fine tableware at British military outposts in New Brunswick province (Canada). This tableware was used in the officers' mess and indicates the preservation of English lifeways such as the tea ceremony on such sites (Roth 1961). Were such military outposts in fact more "British" than the domestic sites on the frontier area they were established to protect? Several frontier forts have been excavated (Ferguson 1975; Grimm 1970), so it is possible to statistically compare the material assemblages from military vs. domestic frontier sites. Aside from the obvious artifact classes (firearms, etc.) what types of differences are there in the material culture of the two types of sites? For USRB particularly, is the twentieth century conservatism of southern Appalachia, reflected now by linguistic patterns, discernable in the early nineteenth century in the late survival of British traditions such as the tea ceremony? Also, are there distinguishable differences between the material culture found on log home sites and that found on frame home sites? This is an area of research where economic scaling could be utilized (Miller 1980:12), and might prove particularly revealing on sites with both a log and a frame house. Did the occupants of a log house move into a frame

house when they had "come up" in the community, or is there no difference between the material culture of log vs. frame residences, indicating perhaps that occupants of frame homes only thought they were materially better off than their "country cousins?"

Rock Piles. Several types of rock piles were found in the survey area. Linear piles, found along ridge tops in association with sunken road traces, are evidently a result of road building activity. In several instances linear piles are found on slope areas across erosional gullies; evidently they were intended to control such erosion. Linear arrangements were also found across seasonal or intermittent streams, probably in order to create shallow pools for cattle. The third type of rock pile found was circular heaps of fieldstone or river cobbles, approximately 2 m across and 1 m high. Such piles were apparently the result of field-clearing activities (John Clauser, personal communication 1985; House and Ballenger 1976:140). The rather regular size of these piles likely is due to the practice of filling a cart or wagon to capacity in the field and dumping it at the field's edge. No documentary evidence was found for these phenomenon, although they are known to occur elsewhere (Cantley and Kern 1984:93). A research question which utilizes these rock piles is: what is the spatial relationship between them and historic house sites? If such a relationship can be defined and expressed in terms of a radius within which one will find both types of sites at a given confidence level, then the rock piles can be used in the future as a predictor of historic sites. Also, an established relationship coupled with dates for the house's occupation may allow estimation of the amount of land in cultivation, because the rock piles often roughly define the edges of cultivated fields.

Historic Cemeteries. Five historic cemeteries were located in the surveyed sample units. Three others (here designated as AL 164, 165 and 166) were adjacent to the study area and were studied individually in an attempt to collect data on early settlers in the region. That effort proved to be unproductive due to the relatively recent age of the cemeteries, but did allow certain observations regarding changes through time of tombstones, and the possible relationships between those changes and other cultural variables.

The cemeteries which were surveyed yielded a total sample size of 97 identifiable head and foot stones, as well as 8 unpaired head stones which were not dated, and which were, with the exception of one marble Civil War veteran's marker, all fieldstone. Of the 97 paired stones, 50 yielded decipherable inscriptions.

Grave stones in the survey were made of three different materials, broken into four sub-sets. These three materials were fieldstone (often unmarked), marble, and polished

granite. A seriation of the datable stone (Fig. 35) reveals a definite progression through time. Inscriptions on plain fieldstone markers (n=5) yielded dates from the 1850's through the 1920's. A varriation on this theme, gray-painted fieldstone markers (n=4) yielded dates from 1900 through the 1930's. These markers were evidently painted in imitation of polished granite markers, an indication that even though individuals in the area were poor, at least in economic terms, they knew what people of higher status were using to mark graves and wanted their loved ones to receive comparable treatment.

The first marble head stone was erected in the 1880's. This type of material (n=19) reached its peak of popularity in the 1920's in the survey area, and decreased in usage quickly after that decade. This decrease in popularity closely matches the rapid increase in popularity of polished granite markers (n=22) which were dated from 1904 to the present. This progression mirrors technological developments in stone masonry. According to Vogler's Funeral Home in Winston-Salem (Renegar, personal communication 1985), fieldstone markers were used well into this century by families that were simply too poor to afford anything else. The great majority of fieldstone markers in the survey area (47 out of 56) were not inscribed, and do not appear to have been shaped in any way. The large proportion of such stones in the total sample size (almost 55%) gives some indication of the lack of economic activity and wealth in the area.

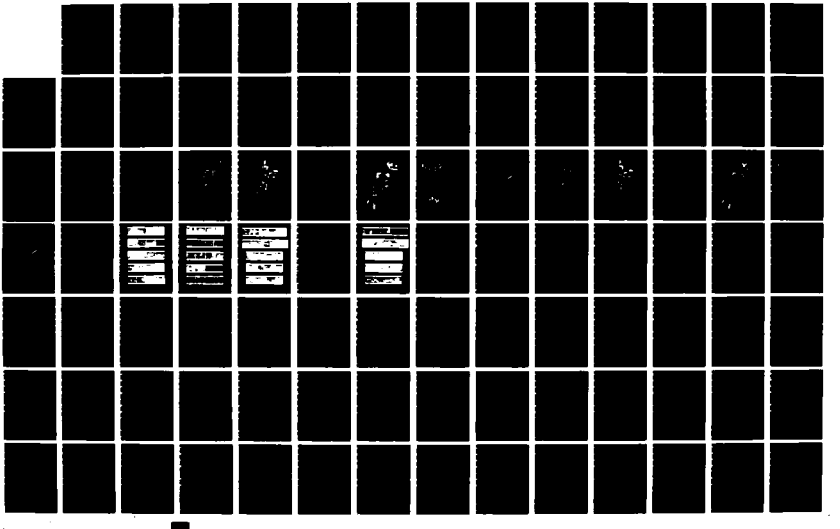
Marble markers came into use as a higher-status alternative to fieldstone markers. They offered several advantages as monuments -- marble is soft, and therefore easy to inscribe with common hand tools, and it is also highly visible. Again according to Vogler's Funeral Home (Renegar, personal communication 1985), polished granite stones rapidly gained in popularity when machine tools became available to working stonemasons. Granite is very hard in comparison to marble, which means that it lasts much longer but is harder to work unless machine tools are available. The primary advantage of granite over marble, however, is cost. Whereas a typical granite head stone today might cost $900-1000, a comparable marble head stone would cost $1700-1800, a price differential of about 80%.

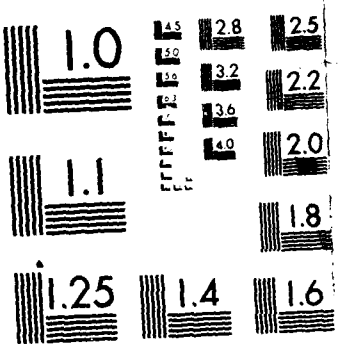
Given the small sample size used (n=50), the seriation done on monument material illustrates these changing trends fairly clearly. Several "holes" are apparent in particular decades, but these are in all probability a result of the sample size rather than changing demand. Several research questions present themselves regarding the graveyards in the study area.

a) Is there a spatial relationship between cemeteries and historic house site location? church location? crossroads? Although no spatial relationship is readily apparent, the lack of a comprehensive historic site survey makes any

AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL 6/7

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

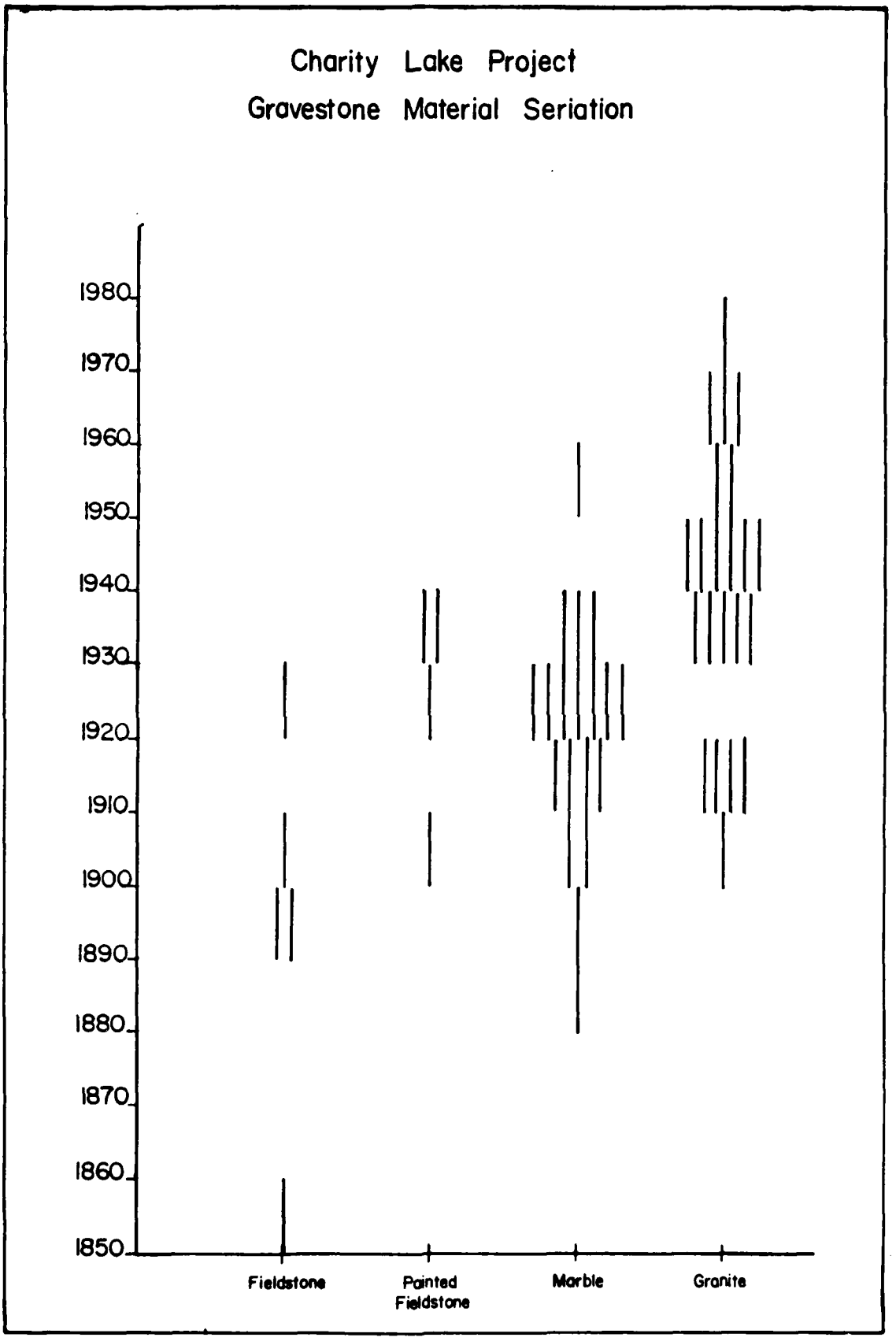


Figure 35. Seriation of gravestone types, USRB, Virginia.

possible relationship indiscernable at present. If there is in fact a definite relationship between house location and cemetery location, the information contained on gravestones might yield valuable information on what families occupied the sites, for how long, when the sites were abandoned, etc.

b) What is the temporal frame in which fieldstone markers were used? This information may be available through interviews with older people who have lived in the area for most of their lives. If this question could be answered in some meaningful way, it would give researchers some indication of changing economic trends in the survey area as they are revealed through tombstone material, and would lead to (c) below.

c) How do the changing preferences for tombstone material and mortuary motifs in the survey area relate to those same variables in cemeteries in Martinsville and Salem, Virginia? Deetz and Dethlefsen (1966) have shown that the Doppler effect was operant in the adoption of mortuary motifs in eastern Massachusetts in the seventeenth and eighteeth centuries. A similar analysis in the USRB study area may indicate whether the dominant cultural influences in the eighteenth, nineteenth, and twentieth centuries have come from the east (Martinsville) or the north (Salem). The presence and proportion of fieldstone markers in these other areas would also elucidate the relative economic status of the USRB area over this time frame.

Prehistoric Cultural Resources

Four basic prehistoric site types were defined within the project area. In the absence of any appreciable excavated data, especially hearths, pits, postholes, etc., our types are based primarily on site size and the artifacts recovered from the surface. Those data suggest, however, that our base camps/hamlets probably correspond with Binford's (1980) residential bases; our short-term camps and bivouacs with field camps (our distinction may or may not prove useful, distinguishing as it does short-term camps from "very short-term camps"); and our special activity sites with locations.

Base camps/hamlets. These were relatively large in areal extent and contain a variety of lithic types and tool categories, fire-cracked rock and, in Woodland sites, ceramics. These sites probably were seasonally occupied by a large group over an extended period of time. Recovered artifacts indicate multiple activities took place at these settings.

Short-term camps. Although smaller than the base camps or hamlets, short-term camps are larger than bivouacs and contain a small number of lithic types and one or two representative tool kits, fire-cracked rocks and ceramics in the case of Woodland components. It is suggested that these

sites were occupied for more than one night, but certainly less than a season, by a small group such as a family. Artifacts indicate that multiple activities were conducted.

Bivouacs. These are the smallest of the site types, and contain only one or two lithic types as debitage from tool maintenance or expedient tool production. Fire-cracked rock is absent, as are ceramics in Woodland components. It seems such sites were produced by an overnight or, at most, a few days' visit by a small group. Artifacts suggest a very limited activity range on these sites.

Special activity sites. Such sites are variable in size, ranging from large quarry locales to very small kill or butchering stations. The smallest are characterized by the on-site acquisition, utilization and discard of tools fashioned from local raw materials. These tools were, in all probability, used for some expedient extractive activity.

Any statements regarding the settlement patterns of the Upper Smith River basin within the USRB study area must be tempered with the understanding that no surveys were conducted in the higher elevations. The general steepness of the terrain in the project area would have encouraged prehistoric populations to settle on the limited tracts of land with level or near-level ground. While such tracts are available in the area surveyed (e.g. floodplains and stream terraces), far more level terrain would be found in the areas above the 1200-foot contour, along ridge crests, in saddles and on hilltops. Recent discoveries by Gardner (1984), Taylor (1984), and Moldenhauer (personal communication 1985) of Late Woodland hamlets located within saddles on the ridges in Henry County illustrate that certain site classes may be underrepresented in our sample. Future research in the Smith River basin should include investigations of these upland areas to determine if Late Woodland hamlets are located in higher elevations not covered by the Wake Forest investigations.

Some very general statements concerning prehistoric settlement patterns can be offered, however. There is, for example, a weak similarity between the USRB site distribution and that described by Custer (1979) for the New River. (It should be noted that the weakness of the similarity may be attributable to the scarcity of temporally diagnostic artifacts in our Archaic sites, thereby restricting our interpretive sample.) It would appear that during the earlier portion of the Archaic, base camps were located on terraced areas near the major rivers with a series of short-term camps, bivouacs and special activity sites located up the secondary drainages and on the slopes above the terraces. During the late Archaic the smaller sites shift toward the floodplains and terraces adjacent to the Smith River. Then, during the Woodland, the pattern noted for the late Archaic continued with the elaboration of short-term camps clustered around base camps or hamlets with bivouacs and special

activity sites further dispersed in the hinterland. A similar scheme has been drawn by Gardner (1984) for the Dan River phase.

Table XXXVII: Locational Data for Sites with Temporally Diagnostic Artifacts, Archaic Stage, USRB, Virginia.

Site No.	Base camp location	Phase
44Pk78	Slope	E.-L. Archaic
44Pk128	Slope	Archaic
44Pk171	Terrace	E.-L. Archaic
Site No.	**Short-term camp location**	**Phase**
44Pk73	Floodplain	L. Archaic
44Pk95	Slope	E. Archaic
44Pk140	Terrace	L. Archaic
44Pk161	Slope	E. Archaic
44Pk195	Confluence	L. Archaic
44Pk205	Slope	E. Archaic
44Pk206	Slope	L. Archaic
44Pk222	Slope	M. Archaic
44Pk223	Terrace	E. Archaic
Site No.	**Bivouac location**	**Phase**
44Pk86	Slope	E. Archaic
44Pk143	Floodplain	L. Archaic
44Pk198	Slope	M. Archaic
44Pk170	Slope	E. Archaic
44Pk235	Terrace	M. Archaic
Site No.	**Special activity site location**	**Phase**
44Pk175	Floodplain	L. Archaic
44Pk204	Slope	M. Archaic
44Pk219	Slope	M. Archaic

Table XXXVIII: Locational Data for Sites with Temporally Diagnostic Artifacts, Woodland Stage, USRB, Virginia.

Site No.	Base camp location	Phase
44Pk78	Slope	Woodland
44Pk87	Confluence	Late Woodland
44Pk171	Terrace	Late Woodland
Site No.	**Short-term camp location**	**Phase**
44Pk73	Floodplain	Early Woodland
44Pk89	Slope	Late Woodland
44Pk96	Confluence	Mid-Late Woodland
44Pk102	Upland	Mid-Late Woodland
44Pk140	Terrace	Early Woodland
44Pk141	Terrace	Late Woodland
44Pk143	Floodplain	Late Woodland
44Pk154	Slope	Middle Woodland
44Pk175	Floodplain	Late Woodland
44Pk191	Terrace	Late Woodland
44Pk195	Confluence	Late Woodland
44Pk206	Slope	Mid-Late Woodland
44Pk223	Terrace	Mid-Late Woodland
44Pk225	Terrace	Late Woodland
44Pk170	Slope	Late Woodland
44Pk233	Slope	Middle Woodland
44Pk234	Terrace	Middle Woodland
Site No.	**Bivouac location**	**Phase**
44Pk86	Slope	Woodland
44Pk145	Floodplain	Middle Woodland
44Pk154	Slope	Late Woodland
44Pk214	Slope	Late Woodland
44Pk224	Terrace	Late Woodland
44Pk170	Slope	Middle Woodland
44Pk226	Floodplain	Woodland
44Pk231	Floodplain	Woodland
44Pk232	Floodplain	Mid-Late Woodland
44Pk242	Terrace	Late Woodland
Site No.	**Special activity site location**	**Phase**
44Pk91	Uplands	Late Woodland
44Pk175	Floodplain	Early Woodland

Several hypotheses listed in Appendix D involve time-transgressive changes predicted in the USRB sample. These were tested using data on those sites which produced temporally diagnostic artifacts. As mentioned parenthetically above, the resultant data base is very small, with only 37 of the prehistoric sites yielding the diagnostic

artifact forms. These sites (shown below in TableXXXIX) will, however, allow some general statements and observations concerning the research design's hypotheses.

Table XXXIX: Temporally Diagnostic Specimens, USRB Sites, Virginia

Site No.	Specimen(s)	Raw material
44Pk171	Caraway	Quartz
44Pk9	Caraway	Quartz
44Pk171	Pee Dee Triangular	Chalcedony
44Pk171	Pee Dee Triangular	Quartz
44Pk171	Pee Dee Triangular	Quartz
44Pk171	Pee Dee Triangular	Jasper
44Pk171	Pee Dee Triangular	Jasper
44Pk171	Pee Dee Triangular	Siliceous rock
44Pk171	Uwharrie	Chalcedony
44Pk9	Pee Dee Triangular	Chalcedony
44Pk9	Pee Dee Triangular	Chalcedony
44Pk9	Pee Dee Triangular	Chalcedony
44Pk195	Pee Dee Triangular	Chert
44Pk91	Pee Dee Triangular	Chert
44Pk171	Uwharrie	Siliceous rock
44Pk171	Uwharrie	Siliceous rock
44Pk102	Uwharrie	Chert
44Pk223	Uwharrie	Chert
44Pk171	Uwharrie	Quartz
44Pk170	Uwharrie	Quartz
44Pk225	Middle Woodland stemmed	Siliceous rock
44Pk171	Woodland stemmed	Quartz
44Pk9	Woodland stemmed	Siliceous rock
44Pk175	Woodland stemmed	Siliceous rock
44Pk212	Roanoke	Quartz
44Pk73	Gypsy	Quartz
44Pk78	Savannah River	Quartzite
44Pk78	Savannah River	Siliceous rock
44Pk206	Savannah River	Quartz
44Pk78	Savannah River	Granite
44Pk195	Savannah River	Siliceous rock
44Pk235	Guilford	Felsite
44Pk190	Guilford	Quartz
44Pk222	Guilford	Massivesiliceous rock
44Pk171	Stanly	Rhyolite
44Pk9	Morrow Mt.	Siliceous rock
44Pk171	Morrow Mt.	Siliceous rock
44Pk219	Morrow Mt.	Chert
44Pk78	Morrow Mt.	Quartz
44Pk171	Kirk Stemmed	Siliceous rock
44Pk228	Kirk Corner-Notched	Jasper
44Pk228	Kirk Corner-Notched	Quartz
44Pk9	Kirk Corner-Notched	Porphoritic rhyolite
44Pk205	Palmer	Quartz
44Pk223	Palmer	Chert
44Pk170	Palmer	Chert
44Pk142	Palmer	Quartz
44Pk78	Palmer	Quartz

Hypothesis One states that during the period 8000 B.C. to A.D. 0 aboriginal population within the survey area increased in overall density, with little or no change in the size of individual sites. Those sites dating to the Archaic stage within the survey area did not show an increase in site density over time; site size and areal extent seem to remain constant, but such measurements are subjected to so many cultural and natural transformations (site re-occupations, erosion) that our small sample presented below is of limited value in testing the hypothesis.

Table XXXX: Site Density and Areal Extent, Archaic Sites, USRB, Virginia.

Site No.	Phase	Size (m^2)
44Pk78	Most Archaic phases	6
44Pk171	Most Archaic phases	22,800
44Pk73	Late Archaic	287
44Pk95	Early Archaic	1,950
44Pk140	Late Archaic	193
44Pk161	Early Archaic	127
44Pk195	Late Archaic	390
44Pk205	Early Archaic	116
44Pk206	Late Archaic	2,114
44Pk222	Middle Archaic	898
44Pk223	Early Archaic	4,216
44Pk86	Early Archaic	12
44Pk143	Late Archaic	16,605
44Pk170	Early Archaic	1,806
44Pk198	Middle Archaic	Undetermined
44Pk235	Middle Archaic	4,050
44Pk175	Late Archaic	707
44Pk204	Middle Archaic	223
44Pk219	Middle Archaic	5

It is possible that this area of the Smith River valley simply was too rugged to support or attract permanent occupants during any phase of the Archaic, but its primary use as a hunting preserve was maintained at about the same level of intensity during all phases. Future investigations which collect survey data from the uplands will greatly enhance the reliability of statements addressing this hypothesis.

Hypothesis Two states that Early Archaic settlements were located in high probability areas such as high ground adjacent to stream confluences or on ecotones found at higher elevations. Late Archaic settlements were predicted in the high probability areas and also in the less attractive locations as well, e.g. in backswamp settings, central in ecozones, or distant from water sources. The majority of Early Archaic sites, 55 per cent or 6 sites, were found on slopes overlooking unnamed drainages of the Smith River.

Only two were found on high ground adjacent to stream confluences. Late Archaic sites generally fell on floodplains, terraces overlooking floodplains, or at the confluences of major streams. Hypothesis Two was founded in expectation of support for Hypothesis One. If Hypothesis One had been supported, then it was predicted that population growth and consequent crowding of more desireable locales would have encouraged a Late Archaic occupation of marginal areas due to "filling up" of optimal zones. With no support for Hypothesis One it is consistent, if not convincing, that likewise there is no support for Hypothesis Two.

Although the data base is small and incomplete, a pattern seems evident in that Early and Middle Archaic groups occupied slopes, with settlements then shifting toward the terraces and floodplains after 2000 B.C. Based on observations from elsewhere in the Virginia and North Carolina piedmont, where a similar pattern has been found, we believe this phenomenon a result of increased population and crowding. It may have been in other areas, but if the USRB served primarily as a short-term occupation zone (e.g. for hunting parties or seasonal encampments), a replication of the pattern there without evidence of overcrowding may simply be signaling a greater use of, and preference for, riverine resources during the Late Archaic. This in turn may have been encouraged by higher availability of those resources following the Hypsithermal, particularly fish and shellfish, or incipient cultivation utilizing the floodplain's looser soils. Certainly future research in the region should give attention to verifying the suggestions made here that (a) the intensity of use of the upper Smith River area remained stable through the Archaic, (b) the activity sets represented in the archeological record are more restricted than those recorded in more eastern Piedmont settings, perhaps focused primarily on hunting and (c) there is in fact a settlement pattern change in the Late Archaic. Of major importance is the recovery of temporally diagnostic specimens from discovered sites to increase the useable data base, always a difficult task in areas with heavy ground cover.

Hypothesis Three stated that ceramic-bearing Woodland settlements would occur in the active floodplain preceded by smaller Late Archaic occupations. In addition, small Woodland camps were predicted for the uplands adjacent to the floodplains. This survey revealed that three of the seven Woodland sites located on the floodplain were in fact preceded by Late Archaic components, and all sites designated as Late Archaic were followed by Woodland components; only three Early or Middle Archaic sites were reoccupied by Woodland cultures. Admittedly the data base is too small to satisfy at this point, but we may be groping toward the realization that in regard to subsistence there is more similarity between Late Archaic and Woodland than between the Early/Middle Archaic and the Late Archaic.

Seventeen sites within the project area appear to be

eligible for nomination to the National Register of Historic Places. Fifteen of these are rockshelters, and it is recommended that these be considered as a potential historic district. Individual properties which appear eligible are 44Pk9 and 44Pk195. The district would include sites 44Pk78, 79, 86, 89, 90, 92, 93, 129, 131, 154, 159, 161, 198, 213, and 214. The significance of the district, as a whole, is derived from the state of preservation of the rockshelters and the data that these shelters are likely to yield bearing on settlement and subsistence patterns of the late Archaic through the late Woodland periods. The district appears eligible under the National Register's Criterion A (associated with events that have made a significant contribution to the broad patterns of our history) and Criterion D ([significance is present in districts] that have yielded or are likely to yield information important in prehistory...).

The rockshelters provide a rare opportunity to study archeological remains undisturbed by erosion, plowing, logging, or relic hunters. These destructive agents have affected nearly all open sites in the Virginia piedmont, likely obscuring any intrasite artifact patterning produced by discrete activities or activity sets. One, or even several rockshelters may not produce a meaningful patterning of tools, debitage, features and refuse, but 15 such sites within a relatively small area likely would yield a pattern of use informing on (a) the activity or activities conducted within the small upland camps ubiquitous throughout the piedmont, (b) how those activities changed through time in response to natural (e.g. biotic shifts) and cultural (e.g. technological innovations) variables. Also, tool types or features peculiar to the rockshelters may reveal specialized activities for which those sites were selected. Such information can readily be produced through comparison of shelter contents to the numerous open sites of various periods discovered in the immediate environs.

Protection from agents of disturbance makes the shelters equally likely to produce relatively uncontaminated samples of fossil pollen, phytoliths and charcoal informing on paleobotanical questions. Bone preservation in piedmont Archaic sites will occur only in these rockshelters (if anywhere) and thus the shelters provide an opportunity to recover direct evidence of dietary regimes and (possibly) human burial practices, pathologies and genetic and/or epigenetic traits of Archaic populations. Such data from Woodland occupations also can be expected but is not as valuable in that animal and human remains routinely are recovered from piedmont Woodland sites. Comparison of the kind of Woodland remains from rockshelters and from riverine village sites would, however, likely yield data on site-specific food procurement activities and other behaviors associated with upland camps and permanent villages respectively. As mentioned previously the large number of sites included in the district promises to redress the low

artifact density in any one component, and collectively the information yield should be highly significant for understanding Piedmont culture change and stability in prehistory. Data likely to be recovered from the rockshelters are applicable to all the themes for assessing significance contained in the Virginia State Plan as well as most of the research problems defined by Wake Forest (see Chapter Three, Site Evaluation Procedures). The significance of 44Pk195 results from the high probability that the site would yield information important to prehistory (36 CFR 60.4, Criterion D). That probability is based not only on the demonstrated high frequency of cultural debris, possibly in a stratified context, but also on the largely undisturbed nature of those deposits. Information concerning the function(s) of such small upland Woodland sites can provide the data necessary for formulating and addressing hypotheses concerning Woodland subsistence and settlement strategies. Research at Pk195 likely will yield information on the similarities and differences between small upland Woodland sites, intermediat sized "hamlets" mentioned by Taylor (1984), and large Woodland sites on the Smith River floodplain. Site activities and functions, in terms used by Tainter (1979), could be determined and used to assess differences (other than size) between the three Woodland site types. Such information can then be applied to models by Butzer (1982) and Binford (1980) to assess the applicability of those generalized processual concepts to Woodland cultures. Specific questions would include (a) what are the effects of increased populations on land and resource usage patterns, (b) what activities occurred on these small upland Woodland sites, and (c) what are the dates of these sites?

Recent research in Virginia has shown that permanent habitation sites occurred in upland areas away from the floodplains of the major river system in a frequency greater than was thought (Gardner et. al. 1984). Taylor (1984) noted the occurrance of small Late Woodland village sites (hamlets) in upland settings eight to ten miles from the major floodplains of the Smith River. According to Taylor, "These hamlets appear to function much as the larger village sites on the Smith but on a smaller scale (1984:11)." Taylor concluded that population pressure during the Woodland influenced population movement into marginal upland settings and the exploitation of the resources available within the smaller tributary systems (1984:11). In addition, little evidence of agriculture has been reported for Woodland sites in the Smith River area (Gardner et. al. 1984; Taylor 1984; Carter n.d.; MacCord 1969; Plog et.al. 1981; Coleman 1976). These conclusions were found to be consistent with recent research in the North Carolina piedmont which has suggested that the generalized patterns of hunting and gathering established during the Archaic stage continued in the area well into late prehistoric times (Newkirk 1978; Barnette 1978; Ward 1980; Woodall 1975). As in Virginia, little evidence of agriculture has been found in large Woodland sites along portions of the Yadkin River (Barnette

1978; Newkirk 1978). Additional studies prompted by cultural resource management surveys have reported small sites in the uplands away from the Yadkin River that suggest settlement patterns similar to those discussed by Butzer (1982) and Binford (1980) for hunters and foragers.

The probability of collecting relevant data from Pk195 is greatly enhanced by the undisturbed nature of this site, a very rare event in the Piedmont. Such sites likely will contain subsurface features and remains allowing radiometric age determination as well as site function analysis. Data potentially recoverable are applicable to all themes listed in the Virginia State Plan for assessing prehistoric site significance, and also to research problems 1 and 5 provided by Wake Forest (see Chapter Three, Site Evaluation Procedures). Site 44Pk9 has intact subsurface deposits with two distinct middens representing separate Woodland occupations. This resource has the potential of informing on behavior patterns in Woodland sites far upstream of the broad floodplains where such components usually are found; the successive occupations allow comparison of culture change in the Woodland while holding constant variables of the natural setting.

Finally, we acknowledge that site 44Pk171 is not included in this list of significant properties. Despite the large number of artifacts recovered, and the several components identified, we conclude that the site is too disturbed and shallow to yield additional information. It is probable that additional work there would produce additional artifacts, but the data generated would be redundant. This recommendation, or "non-recommendation", is qualified; should subsurface features be discovered the site would assume significance, because such features probably would yield important information on activities associated with Archaic and/or Woodland base camps. Our testing indicated, however, that such features are unlikely because of natural erosion and deflation, and recent cultural disturbances.

Suggestions for Future Research. A particular weakness of the research results for this project is the absence of substantial uplands in the surveyed areas. Ridge crests, saddles and hilltops simply were not included in the project boundaries as defined by the floodpool level, and without sufficient data from those uplands statements concerning general settlement strategies, temporal settlement themes and population estimates are uncertain. Future research should if possible incorporate portions of the uplands as part of the sampling strategy, and review then the entire USRB region's settlement history.

Artifact and settlement pattern analysis from USRB suggest that, during the late Woodland particularly, several kinds of activity-specific sites were linked to form an economic and social unit. The sites include base camps or villages, satellite hamlets and bivouacs, the latter probably hunting

or gathering stations. To verify that these are in fact distinctive functional site types, rather than simply different sizes of sites, excavation is needed to assess the types of, and frequency of, subsurface features. If the large villages (e.g. 44Pk9) served as the social and economic nucleus we would expect to find burials only in those sites; remains of structures and storage pits should be present in villages and hamlets, but absent in bivouacs. Also, both lithic and ceramic artifacts can be expected to vary along appropriate stylistic and functional dimensions if these sites are in fact components of a single cultural system.

Excavation of larger units (than those used in initial testing) in the several rockshelters should be conducted to insure that stratified sites are not being overlooked and, more importantly, to secure a larger artifact sample, C-14 dates and feature data from those sites. While individually the USRB rockshelters appear to have only scanty remains, collectively these may reveal--through additional investigation--a distinctive pattern of remains that will allow definition of their use. The potential significance of the rockshelters is created by their relative immunity to disturbance and the possibility of enhanced preservation and stratigraphy.

The near-absence of large Archaic base camps in an area of high seasonality has been cited previously as contrary to several earlier studies and theoretical constructs. Future research should confirm the absence our reconnaissance indicates; should determine whether base camps exist in higher elevations not surveyed or in areas adjacent to the project area; and should compare and contrast the contents of the small Archaic sites which dominate the USRB area to base camps elsewhere in southwestern Virginia in order to determine whether USRB indeed served as a "hunting preserve" not permanently occupied.

The acquisition and utilization of quartz in USRB was apparently accomplished on an ad hoc basis. Similar useage patterns have been noted by House and Ballenger (1976) for the South Carolina piedmont, where numerous quarry/workshop sites were found in the inter-riverine zone. Those sites were characterized by proximity to homogeneous surface exposures of vein quartz (1976:128). One USRB site, 44Pk116, was identified as a quartz quarry, and its location and its distribution of artifacts was consistent to that described for South Carolina. Further research regarding the procurement and utilization of quartz could be accomplished through location of exposed vein quartz outcrops in the inter-riverine areas surrounding USRB, and some specific questions might include the following:

(a) Do the locations of quartz quarry/workshops follow the pattern reported by House and Ballenger (1976)? (b) What reduction sequences are carried out on those sites in contrast to non-quarry sites? (c) What temporal diagnostics

occur on those sites and, alternatively, how are source-specific quarried materials distributed among non-quarry sites yielding temporal diagnostic materials? and (d) what range of locally quarried lithic materials exists, and how is that range distributed among the non-quarry or habitation sites? Such information would allow the formulation of specific hypotheses concerning lithic procurement, group mobility and possibly exchange systems operating during particular periods of prehistory. Such information might contribute to understanding the movement of non-local lithic materials into the USRB region.

In a similar vein, the geological survey suggested that certain varieties of quartz are most abundant in certain portions of the Smith River, and occasionally chalcedony, jasper and granite cobbles also occur on select cobbblebars. Future research efforts oriented toward identifying those quartz varieties in site assemblages likewise may inform on lithic procurement activities and, more importantly, the movement of raw material and artifacts out of their zone of natural occurrance. This is turn may allow additional hypotheses to be formed relating to group movement, trade networks and/or reciprocity. Any follow-up studies on the geological resources of USRB should attempt to verify the absence of siliceous rock, argillite, chert and rhyolite in the region, thereby vindicating our assumption that these materials are exotics, imported from a distance. More specifically, one research question might be "How does the on-site occurrance of specific varieties of raw material, particularly quartz, pattern in regard to its natural distribution?"

A related aspect of the lithic analysis reported here is the shift through time in raw material used for projectile point manufacture. Two critical needs involving this pattern recognition should be objectives of future research. First is needed the further verification of the shift in raw material selection by observations on stratified sites. Secondly is needed a determination of whether the same change in raw material usage is reflected in other tool forms and in the debitage. That determination can only be made by using stratified sites because most "other tool forms" are not assignable to particular phases of the Archaic, and debitage certainly cannot be assigned. At this time we suspect that a lithic scatter containing a high percentage of chert or argillite flakes belongs to the early Archaic (or late Woodland, depending of the degree of "freshness" of flake scars), but only stratified sites can produce the support for that inference. Data are slowly accumulating to support the thesis that early Archaic raw material procurement and use involved long-distance transport and storage (e.g. Williams 1986), a general pattern that resembles Paleo-Indian behavior. The recognition of specific lithic raw material as indicative of particular prehistoric phases will allow not only the identification of the abundant and presently anonymous lithic scatters in the USRB but also allow

isolation of the individual components in such sites as 44Pk171. The benefits to settlement pattern-related studies would be enormous.

Two topics of ceramic analysis, sherd thickness and clay sourcing, likely would be fruitful research subjects. The range of sherd thickness was relatively consistent across themper themes in the present study, but numbers of occurrences of sherd thicknesses should be computed to give a clearer view of modes within temper themes. Specifically, within the range of sherd thicknesses cited for temper themes, what sherd thickness modes are present in recovered assemblages? It is likely that establishment of sherd thickness modes would demonstrate our now-suspected trends toward thinner vessels between temper themes. A study of local clays and their constituent minerals and trace elements may allow detection of a relationship between local clays and temper themes, and reveal those temper themes which are local variants of tempering traditions (e.g. "quartz sand, micaceous sand" as a variant on the "quartz sand" theme). It also should inform on the question of whether the limestone and shell tempered wares recovered in USRB were imported or represent local attempts to incorporate non-traditional methods and vessel forms (e.g. strap handles). In short, the question is "what is the range of variability of local clays and how do those clays relate to recovered ceramic assemblages?"

Project Impacts. The impact of the proposed USRB project on those sites recorded by this survey, and areas estimated to contain similar remains, will be dependant on the location of the damsite. Obviously the fewest sites will be directly affected if the damsite is placed upstream on alternative site "C." Regardless of the location of the dam, sites within the project area will be adversely affected by the project construction, flooding, erosion caused by the fluctuating flood pool, wave wash, construction of access roads and recreational resources. Indirect impact on cultural resources also can be expected from land development which will likely follow the construction of the proposed USRB project.

REFERENCES CITED

Abbott, Lawrence E., Jr.
1984 An Archeological Survey of the HDR/Tobaccoville Interceptor: Site Location Analysis Along Minor Upland Streams, Forsyth County, N.C. Report on file, Archeology Laboratories, Wake Forest University.

Adovasio, J.M., J.D. Gunn, J. Donahue and R. Stuckenrath
1978 Meadowcroft Rockshelter, 1977: An Overview. American Antiquity 43(4):632-651.

Archaeology of Eastern United States
1982 A Compilation of Fluted Points of Eastern North America by Count and Distribution: An AENA Project. Archaeology of Eastern North America 10:27-46.

Barnette, Karen
1978 Woodland Subsistence-Settlement Patterns in the Great Bend Area, Yadkin River Valley, North Carolina. Unpublished M.A. thesis, Wake Forest University.

Baxter, George
1985 Personal communication, 27 June 1985. Dept. of the Treasury, Bureau of Alcohol, Tobacco and Firearms. Richmond.

Bealer, Alex W.
1978 The Log Cabin. Barre Publishing.

Beckerman, Ira
1981 An Archeological Survey of the Proposed R.J. Reynolds Plant at Tobaccoville, N.C. Wake Forest Publications in Archeology No. 5, Wake Forest University.

Binford, Lewis R.
1980 Willow Smoke and Dogs' Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation. American Antiquity 45(1):4-20.

Braun, David P.
1980 Experimental Interpretation of Ceramic Vessel use on the Basis of Rim and Neck Formal Attributes. In The Navajo Project: Archaeological Investigations, Page to Phoenix 500 KV Southern Transmission Line, Donald C. Fiero, R.W. Munson, M.T. McClach, S.M. Wilson and Anne H. Zier (eds.), pp. 170-231. Museum of Northern Arizona Research Paper No. 13, Museum of Northern Arizona, Flagstaff.

Broyles, Bettye J.
1971 Second Preliminary Report: The St. Albans Site, Kanawha County, West Virginia. Report of Archeological Investigations No. 3, West Virginia Geological and Economic Survey.

Butler, J. Robert and David E. Dunn
1968 Geology of the Sauratown Mountains Anticlinorium and Vicinity, North Carolina. Southeastern Geology, Special Publication No. 1. Geological Society of America, Southeastern Section, Durham, N.C.

Butzer, Karl W.
1982 Archaeology as Human Ecology. Cambridge University Press, London.

Byers, D.S.
1959 Radiocarbon Dates for the Bull Brook Site, Massachusetts. American Antiquity 24(4):427-29.

Caldwell, Joseph R.
1954 The Old Quartz Industry of Piedmont Georgia and South Carolina. Southern Indian Studies 5:37-39.

1958 Trend and Tradition in the Prehistory of the Eastern United States. Memoirs of the American Anthropological Association, No. 88. Illinois State Museum, Scientific Papers, Vol. 10.

Cantley, C.E. and J.R. Kern
1984 Archaeological Investigations of the Areas of Proposed Recreational Development and Proposed Wildlife Subimpoundments at B. Everett Jordon Lake, North Carolina. Commonwealth Associates, Inc., Jackson, Michigan.

Carbone, Victor A.
1977 Phytoliths as Paleoecological Indicators. In Amerinds and their Paleoenvironments in Northeastern North America. Walter S. Newman and Bert Salwen (eds.), Annals of the New York Academy of Sciences, 88.

Carter, L.C.
n.d. Bone Bottom. Manuscript on file, Virginia Historic Landmarks Commision. Yorktown, Virginia.

Cash, W.J.
1941 The Mind of the South. New York.

Chapman, Jefferson and Andrea Brewer Shea
1981 The Archaeobotanical Record: Early Archaic Period to Contact in the Lower Little Tennessee River Valley. Tennessee Anthropologist 6:1.

Chapman, Jefferson, Paul A. Delcourt, Patricia A. Cridlebaugh, Andrea B. Shea and Hazel R. Delcourt
1982 Man-Land Interaction: 10,000 Years of American Indian Impact on Native Ecosystems in the Lower Little Tennessee River Valley, Eastern Tennessee. Southeastern Archaeology 1(2):115-121.

Chapman, Jefferson
1975 The Rose Island Site and the Bifurcate Point Tradition. Report of Investigations No. 14, Department of Anthropology, University of Tennessee.

Claggett, Stephen R. and John S. Cable (assemblers)
1982 The Haw River Sites: Archeological Investigations at Two Stratified Sites in the North Carolina Piedmont. Commonwealth Associates, Inc.

Cleland, Charles E.
1965 Barren Ground Caribou Rangifer arcticus From an Early Man Site in Southeastern Michigan. American Antiquity 30(3):350-51.

Coe, Joffre L.
1952 Cultural Sequence of the Carolina Piedmont. In Archeology of Eastern United States, James B. Griffin (ed.) University of Chicago Press.

1964 The Formative Cultures of the Carolina Piedmont. Transactions of the American Philosophical Society 54(5).

Coe, Joffre L. and Ernest Lewis
1952 Dan River Series Statement. In Prehistoric Pottery of the Eastern United States, James B. Griffin (ed.). Museum of Anthropology, University of Michigan.

Coleman, Gary N.
1976 The Koehler Site. Manuscript on file, Virginia Historic Landmarks Commision. Yorktown, Virginia.

Conley, S.F. and W.S. Henika
1970 Geology of the Philpott Reservoir Quadrangle, Virginia. Virginia Division of Mineral Resources, Report of Investigations 22. Charlottesville.

Cridlebaugh, Patricia A.
1977 An Analysis of the Morrow Mountain Component at the Icehouse Bottom Site and a Reassessment of the Morrow Mountain Complex. Unpublished M.A. thesis, Department of Anthropology, University of Tennessee.

Curran, Mary Lou
1984 The Whipple Site and Paleoindian Tool Assemblage Variation: A Comparison of Intrasite Structuring. Archaeology of Eastern North America 12:5-40.

Damon, P.E., C.W. Ferguson, A. Long and E.I. Wallick
1974 Dendrochronologic Calibration of the Radiocarbon Time Scale. American Antiquity 39:2, pp. 350-366.

Davis, Gary W.
1973 The Hunter Smith Collection: A Study of Pottery and Stone Artifacts from Amherst, Appomattox, Bedford, Buckingham, Campbell, Franklin and Nelson Counties, Virginia. Ms. on file, Virginia Research Center for Archaeology, Williamsburg, Virginia.

Deetz, James and Edwin Dethlefsen
1966 Death's Heads, Cherubs, and Willow Trees· Experimental Archaeology in Colonial Cemeteries. American Antiquity 31(4):502-516.

Delcourt, P.A. and H.R. Delcourt
1981 Vegetation Maps for Eastern North America:40,000 yr. B.P. to the present. In Geobotany II, R.C. Romans (ed.), pp. 123-165.

Dragoo, Don W.
1973 Wells Creek -- An Early Man Site in Stewart County, Tennessee. Archaeology of Eastern North America 1(1):1-56.

Egloff, Michael Barber and Celie Reed
1980 Leggett Site: A Dan River Agricultural Riverine Hamlet. Ms. on file, Virginia Research Center for Archaeology, Yorktown.

Ernest, W.G.
1969 Earth Minerals. Prentice-Hall, New Jersey.

Espenshade, G.H., D.W. Rankin, K. Wier Shaw, and R.B. Newman
1975 Geologic Map of the East Half of the Winston-Salem Quadrangle, North Carolina-Virginia. Miscellaneous Investigation Series, Map I-709-B. Department of the Interior, United States Geological Survey.

Evans, Clifford
1955 A Ceramic Study of Virginia Archeology. Bureau of American Ethnology Bulletin 160, Smithsonian Institution.

Ferguson, Leland
1975 Analysis of Ceramic Materials from Fort Watson, December 1780-April 1781. The Conference on Historic Sites Archaeology Papers 1973, Institute of Archeology and Anthropology, University of South Carolina.

Fitting, James E.
1968 Environmental Potential and the Postglacial Readaptation in Eastern North America. American Antiquity 33(4):441-445.

1978 Prehistory: Introduction. Handbook of North American Indians, Vol. 15. Bruce G. Trigger (ed.), pp. 14-15.

Ford, Richard I.
1974 Northeastern Archaeology: Past and Future Directions. Annual Review of Anthropology 3:385-409.

Funk, Robert E., George R. Walters and William F. Ehlers, Jr.
1969 A Radiocarbon Date for Early Man from the Dutchess Quarry Cave. The Bulletin, New York State Archeological Association 46:19-21.

Funk, Robert E., George R. Walters, William F. Ehlers, Jr., John E. Guilday, and G. Gordon Connally
1969 The Archeology of Dutchess Quarry Cave, Orange County, New York. Pennsylvania Archaeologist 39(1-4):7-22.

Funk, Robert E. and Beth Wellman
1984 Evidence of Early Holocene Occupations in the Upper Susquehanna Valley, New York State. Archaeology of Eastern North America 12:81-109.

Gardner, Paul
1980 An Analysis of Dan River Ceramics from Virginia and North Carolina. Unpublished MA thesis, University of North Carolina, Chapel Hill.

Gardner, William M.
1974 The Flint Run Complex: Pattern and Process During the Paleo-Indian to Early Archaic. In The Flint Run Paleo-Indian Complex: A Preliminary Report 1971-73, William M. Gardner (ed.). Occasional Publication No. 1, Archeology Laboratory, Department of Anthropology, The Catholic University of America, Washington, D.C.

1978 Comparison of the Ridge and Valley, Blue Ridge, Piedmont and Coastal Plain Archaic Period Site Distribution: An Idealized Transect (Preliminary Model). Paper presented to the Middle Atlantic Archeological Conference, Rehoboth Beach, Delaware.

1983 A Preliminary Cultural Resources Reconnaissance of the Proposed Appalachian Power Company 765Kv Axton to Jacksons Ferry Transmission Line. Thunderbird Archeological Associates, Front Royal, Virginia.

Gardner, William M. and William P. Boyer
1978 A Cultural Resource Reconnaissance of Portions of the Northern Segment of Massanutten Mountain in the George Washington National Forest, Page, Warren and Shenandoah Counties, Virginia. Technical Paper No. 2, U.S. Forest Service, Atlanta.

Gardner, William M., Randolph K. Taylor and William P. Barse
1984 Results of Data Recovery Excavations at 44Hr118. Thunderbird Archaeological Associates, Inc. Front Royal, Virginia.

Garrow, Patrick H. and Max E. White
1980 John H. Kerr Dam and Reservoir Archaeological Survey. Soil Systems Incorporated, Marietta, Ga.

Glassie, Henry
1975 Folk Housing in Middle Virginia. The University of Tennessee Press.

1978 The Types of the Southern Mountain Cabin. In The Study of American Folklore by Jan Harold Brunvand, Appendix C:391-420.

Goodall, Harrison and Renee Friedman
1980 Log Structures: Preservation and Problem Solving. The American Association of State and Local History, Nashville, Tennessee.

Goodyear, Albert C.
1982 The Chronological Position of the Dalton Horizon in the Southeastern United States. American Antiquity 47(2):382-395.

Grim, Jacob
1970 Archaeological Investigation of Fort Ligonier, 1960-1965. Annals of the Carnegie Museum, 42. Pittsburgh.

Guilday, John E.
1962 The Pleistocene Local Fauna of the Natural Chimneys, Augusta County, Virginia. Carnegie Museum Annals 36:87-94.

1967 The Climatic Significance of the Hosterman's Pit Local Fauna, Centre County, Pennsylvania. American Antiquity 32:231-232.

Hargrove, Thomas H.
1984 An Archaeological Reconnaissance Survey of Horseshoe Point and Jamison Mill Recreation Areas, Philpott Lake, Franklin County, Virginia. Archaeological Research Consultants for the U.S. Army Corps of Engineers, Wilmington District.

Hawks, S.W., Jr.
1970 Principles of Flue-Cured Tobacco Production. N.C. State University. Raleigh.

Haynes, C. Vance, D.J. Donahue, A.J.T. Jull and T.H. Zabel
1984 Application of Accelerator Dating to Fluted Point Paleoindian Sites. Archaeology of Eastern North America 12:184-191.

Historic American Buildings Survey
1976 Virginia Catalog. University Press of Virginia.

Hoffman, Michael A., R.W. Foss, J. van Atta and R.W. Vernon
1979 Patterns in Time: Human Adaptation in the Blue Ridge from 700 B.C. to 1930 A.D. U.S. National Park Service, Philadelphia.

Holland, C.G.
1970 An Archeological Survey of Southwest Virginia. Smithsonian Contributions to Anthropology, No. 12.

House, John H. and David L. Ballenger
1976 An Archeological Survey of the Interstate 77 Route in the South Carolina Piedmont. Research Manuscript Series, Division of Advanced Studies and Research, Institute of Archeology and Anthropology, University of South Carolina.

Huffman, Aubrey
1985 Personal Communication, 27 June 1985. Dept. of the Treasury, Bureau of Alcohol, Tobacco and Firearms. Raleigh.

Hume, Ivor Noel
1980 A Guide to Artifacts of Colonial America. Alfred A. Knopf.

Hurlbut, Cornelius S. Jr. and Cornelius Klein
1968 Dana's Manual of Minerology, 19th edition. John Wiley and Sons. New York.

Keel, Bennie C.
1976 Cherokee Archeology: A Study of the Appalachian Summit. University of Tennessee Press.

Kerr, P.F.
1959 Optical Minerology, third edition. McGraw-Hill, New York.

Lothrop, Jonathon C. and R.M. Gramly
1982 Pieces Esquillees From the Vail Site. Archaeology of Eastern North America 10:1-22.

MacCord, Howard A. Sr.
1969 The Meador Site, Franklin County, Virginia. Archaeological Society of Virginia Quarterly Bulletin 25(3).

1972 Southwest Virginia: A Prehistoric Crossroads Area. Proceedings of the Twenty-eighth Southeastern Archaeological Conference. Bulletin No. 15, Bettye J. Broyles (ed.).

MacDonald, G.F.
1968 Debert: A Paleo-Indian Site in Central Nova Scotia. Anthropology Papers, No 16, National Museum of Canada.

Matson, Richard G. and William D. Lipe
1975 Regional Sampling: A Case Study of Cedar Mesa, Utah. In Sampling in Archaeology, James W. Mueller (ed.), The University of Arizona.

McEvoy, Thomas J., Terry L. Sharik and David William Smith
1980 Vegetative Structure of an Appalachian Oak Forest in Southwestern Virginia. The American Midland Naturalist 103:96-105.

Mendenhall, William, Lyman Ott and Richard L. Scheaffer
1971 Elementary Survey Sampling. Duxbury Press.

Miller, George L.
1980 "Classification and Economic Scaling of 19th Century Ceramics." Historical Archaeology 14:1-40.

Mueller, J.W.
1974 The Use of Sampling in Archaeological Survey. Society for American Archaeology Memoirs 28.

National Archives
1960 Microfilm Publications, Microcopy T498. Washington, D.C.

Newkirk, Judith A.
1978 The Parker Site: A Woodland Site in Davidson County, North Carolina. Unpublished M.A. thesis, Wake Forest University.

Oliver, Billy L.
1981 The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type. Unpublished M.A. thesis, University of North Carolina, Chapel Hill.

Oosting, H.J.
1942 An Ecological Analysis of the Plant Communities of Piedmont North Carolina. The American Midland Naturalist 28:1-126.

Palmer, Harris A. and James B. Stoltman
1976 The Boaz Mastodon: A Possible Association of Man and Mastodon in Wisconsin. Midcontinental Journal of Archaeology 1(2):163-178.

Pearce, T.H.
1977 Early Architecture of Franklin County, N.C.. Pine Hill Press.

Pedigo, Lewis and Virginia G. Pedigo
1939 History of Patrick and Henry Counties. Stone Printing Co., Roanoke.

Phelps, David S.
1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In The Prehistory of North Carolina: An Archaeological Symposium. Mark A. Mathis and Jeffrey J. Crow (eds.), pp. 1-51.

Pough, Frederick H.
1960 A Field Guide to Rocks and Minerals, third edition. Houghton Mifflin Col.

Rathje, William L. and Wilson W. Hughes
1975 The Garbage Project as a NonReactive Approach: Garbage In...Garbage Out. In Perspectives on Attitude Assessment, H.W. Sinaiko and L.A. Broedling (eds.). Manpower Research and Advisory Services, Smithsonian Institution, Technical Report No. 2. Washington.

Reed, Douglas C.
1977 Log Cabin Mythology. Creative Printing, Hagerstown, Md.

Ritchie, William A.
1956 Prehistoric Settlement Patterns in Northeastern North America. In Prehistoric Settlement Patterns in the New World, G.R. Willey (ed.), pp. 72-80. Viking Fund Publications in Anthropology 23.

1971 A Typology and Nomenclature for New York Projectile Points. New York State Numeum and Science Service, Bulletin 384. Albany.

Robertson, Linda B. and Ben P. Robertson
1978 The New River Survey: A Preliminary Report. Amanda G. Wattlington (ed.). North Carolina Archeological Council Publications No. 8.

Roth, Rodris
1961 Tea Drinking in 18th Century America: Its Etiquette Equipage. Contributions from the Museum of History and Technology, Paper 14, Smithsonian Institution, Washington, D.C.

Russell, S. Gayle
1982 An Archeological Survey of Muddy, Silas, Little and South Fork Creeks. Ms. on file, Archeology Branch, Division of Archives and History, Raleigh, N.C.

Schiffer, Michael B., Alan P. Sullivan and Timothy C. Klinger
1978The Design of Archaeological Surveys. World Archaeology 10(1):12.

Schindler, Debra L., James W. Hatch, Conran A. Hay and Richard C. Bradt
1982 Aboriginal Thermal Alteration of a Central Pennsylvania Jasper: Analytical and Behavioral Implications. American Antiquity 47:3, pp. 521-544.

Schroedl, Gerald F.
1978 The Patrick Site (40Mr40), Tellico Reservoir, Tennessee. Report of Investigations No. 25. University of Tennessee, Department of Anthropology.

Shapiro, Gary
1984 Ceramic Vessels, Site Permanence, and Group Size: A Mississippian Example. American Antiquity 49(4):696-711.

Simpkins, Daniel L.
1985 First Phase Investigations of Late Aboriginal Settlement Systems in the Eno, Haw, and Dan River Drainages, North Carolina. Final report on file, North Carolina Division of Archives and History.

Sinkakas, J.
1966 Minerology: A First Course. D. van Nostrand Co. New York.

Smith, Bruce D.
1980 Middle Mississippi Exploitation of the White-Tailed Deer. Southeastern Archaeological Conference Bulletin 17 and 23.

1985 The Archaeology of the Southeastern United States, from Dalton to DeSoto (10,500 - 500 B.P.). In Advances in World Archaeology, Vol. 4. Fred Wendorf and Angela Close (eds.).

Snavely, Alan N.
1977 Area I Sampling Design. In Final Report of an Archeological Reconnaissance of the Randleman Reservoir Area, pp. 9-12, by J. Ned Woodall. Report submitted to the National Park Service, Atlanta.

1984 Notes on Type Collection prepared in consultation with Joffre L. Coe for Wake Forest University. Ms. on file, Archeology Laboratories, Wake Forest University.

Sokal, Robert R. and F. James Rohlf
1981 Biometry, second edition. W.H. Freeman and Co.

South, Stanley
1958 Excavation Report, Unit S10, Lot 29, Brunswick Town, North Carolina: Nath Moore's Front Yard, 1728-1776. Ms. on file, North Carolina Department of Natural Resources. Raleigh.

1959 Excavation Report, Unit S7, Lot 71, Brunswick Town, North Carolina: The Hepburn-Reynolds House 1734-1776. Ms. on file, North Carolina Department of Natural Resources. Raleigh.

1960 Excavation Report, Unit S25, Lot 27, Brunswick Town, North Carolina: The Public House-Tailor Shop 1732-1776. Ms. on file, North Carolina Department of Natural Resources. Raleigh.

1977 Method and Theory in Historical Archeology. New York.

Spencer-Wood, Suzanne
1979 The National American Market in Historical Archaeology: Urban versus Rural Perspectives. In Ecological Anthropology of the Middle Connecticut River Valley, Robert Paynter, (ed.), pp. 117-128. Research Report #18, Department of Anthropology, University of Massachusetts, Amherst.

Spielmann, Kate
1976 A Consideration of the Archaic Period in Forsyth County, North Carolina. Honors thesis, Harvard University.

Stose, A.J. and G.W. Stose
1957 Geology and Mineral Resources of the Gossan Lead District and Adjacent Areas in Virginia. Virginia Division of Mineral Resources Bulletin 72.

Sussman, Lynne
1978 British Military Tableware, 1760-1830. Historical Archaeology 12, pp. 93-104.

Swaim, Doug (ed.)
1978 Carolina Dwelling. The Student Publication of the School of Design, Vol. 26. North Carolina State University.

Tainter, Joseph A.
1979 The Mountainair Lithic Scatters: Settlement Patterns and Significance Evaluation of Low Density Surface Sites. Journal of Field Archaeology 6:463-469.

Taylor, Randolph K.
1984 Results of Excavations at 44Hr118, a Dan River Phase Hamlet in the Southwestern Virginia Piedmont, Henry County, Virginia. Paper presented at the Upland Archaeology Conference, Harrisonburg, Virginia, March, 1984.

Tuck, James A.
1978 Regional Cultural Development, 3000 to 300 B.C. In Handbook of North American Indians, Vol. 15, Bruce G. Trigger (ed.), pp. 28-43.

Wahlstrom, E.E.
1955 Optical Crystallography, 2nd edition. Wiley, New York.

Watts, W.A.
1980 The Late Quaternary Vegetational History of the Southeastern United States. Annual Review of Ecology and Systematics 11:387-409.

Ward, Trawick
1980 An Archaeological Evaluation of the Proposed Muddy Creek Wastewater Treatment Plant Site. Report on file, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

Waselkov, Gregory
1977 Prehistoric Dan River Hunting Strategies. Ms. on file, Virginia Research Center for Archaeology, Yorktown.

Webb, S. David, Jerald T. Milanich, Roger Alexon and James S. Dunbar
1984 A Bison antiquus Kill Site, Wacissa River, Jefferson County, Florida. American Antiquity 49(2):384-392.

Whitehead, Donald R.
1973 Late-Wisconsin Vegetational Changes in Unglaciated Eastern North America. Quaternary Research, An Interdisciplinary Journal 3(4):621-631.

Whittaker, R.H.
1952 A Study of Summer Foliage Insect Communities in the Great Smoky Mountains. Ecological Monographs 22:1-44.

1956 Vegetation of the Great Smoky Mountains. Ecological Monographs 26:1-80.

Whitwell, W.L. and Lee W. Winborne
1982 The Architectural Heritage of the Roanoke Valley. University Press of Virginia.

Wiggins, Eliot
1972 The Foxfire Book. New York.

Williams, G. Ishmael
1986 The Neuse River Cache Site, Holly Point Recreation Area, Wake County. Archaeological Investigations of the National Register Bennehan-Cameron Plantation Historic District and the Areas of Proposed Recreational Development and Proposed Wildlife Subimpoundments at Falls Lake, Wake and Durham Counties, North Carolina. Draft report submitted to Wilmington District, United States Army Corps of Engineers, Vol. 3. Archaeological Research Consultants, Inc.

Wilmsen, Edwin N.
1974 Lindenmeier: A Pleistocene Hunting Society. Harper and Row.

Wilson, Jack Hubert Jr.
1983 A Study of the Prehistoric, Protohistoric and Historic Indians of the Carolina and Virginia Piedmont: Structure, Process, and Ecology. Ph.D. dissertation, University of North Carolina at Chapel Hill.

Wilson, William F., P. Albert Carpenter III and Stephen G. Conrad
1976 North Carolina Geology and Mineral Resources: A Foundation for Progress. North Carolina Department of

Woodall, J. Ned and Stephen R. Claggett
1974 An Archeological Survey of the Great Bend Area, Yadkin River Valley, N.C. Report on file, Archeology Branch, Division of Archives and History, Raleigh, N.C.

Woodall, J. Ned
1975 Second Archeological Survey of the Great Bend Area, Yadkin River Valley, N.C. Report on file, Archeology Branch, Division of Archives and History, Raleigh, N.C.

1984 The Donnaha Site: 1973, 1975 Excavations. North Carolina Archaeological Council Publication Number 22. Raleigh.

Word, Elizabeth S., Susan Winter, Stephen Plog, Robert A. Johnson and Mark Catlin
1981 Phase I and II Study of the Cultural Resources of the Proposed Ridgeway Hydroelectic Project on the Smith River Near Martinsville, Henry County, Virginia. Ms on file, Archeology Laboratories, Wake Forest University.

Wright, H.E. Jr.
1981 Vegetation East of the Rocky Mountains 18,000 Years Ago. Quaternary Research, An Interdisciplinary Journal 15(2):113-125.

APPENDIX A: SITE LOCATIONS

Appendix A is bound separately from this volumn.

APPENDIX B: SELECTED CLUSTERS AND SAMPLE UNITS, USRB, VIRGINIA.

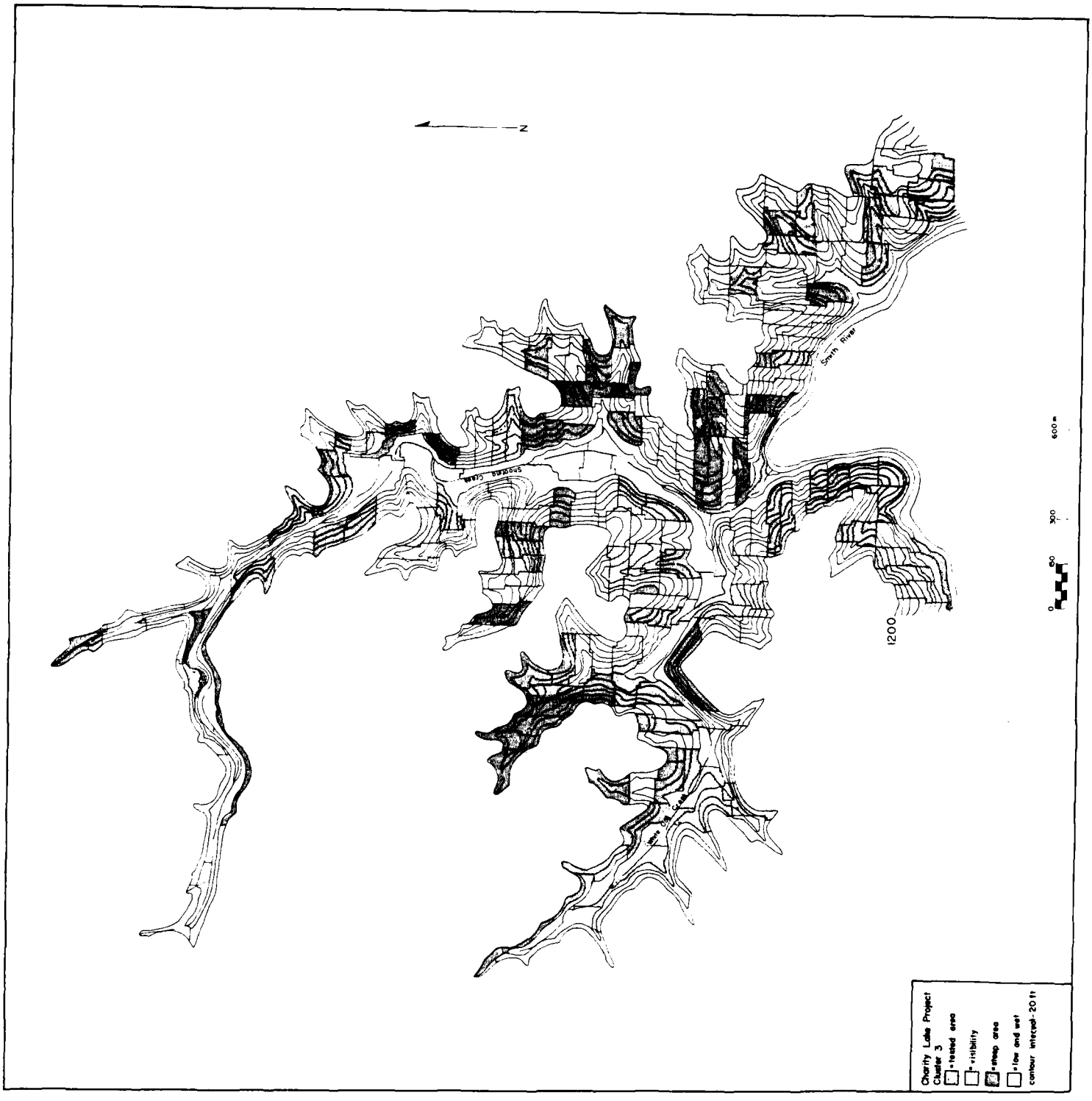


Figure B-1. Cluster 3, selected sampling units with type of coverage. (See Figure 6 for cluster location.) USRB, Virginia.

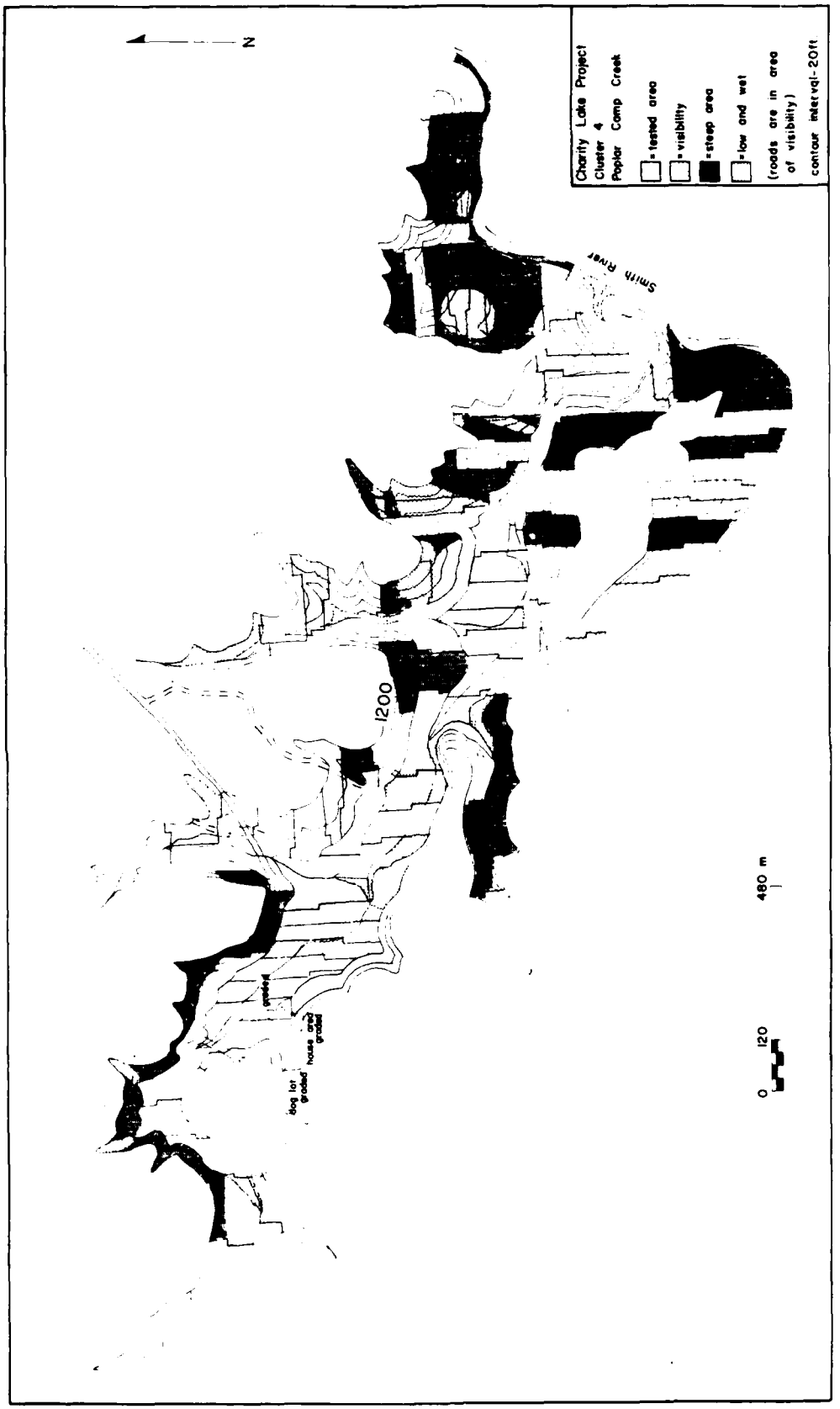


Figure B-2. Cluster 4, selected sampling units with type of coverage. USRB, Virginia.



Figure B-3. Cluster 6, selected sampling units with type of coverage. USRB, Virginia.

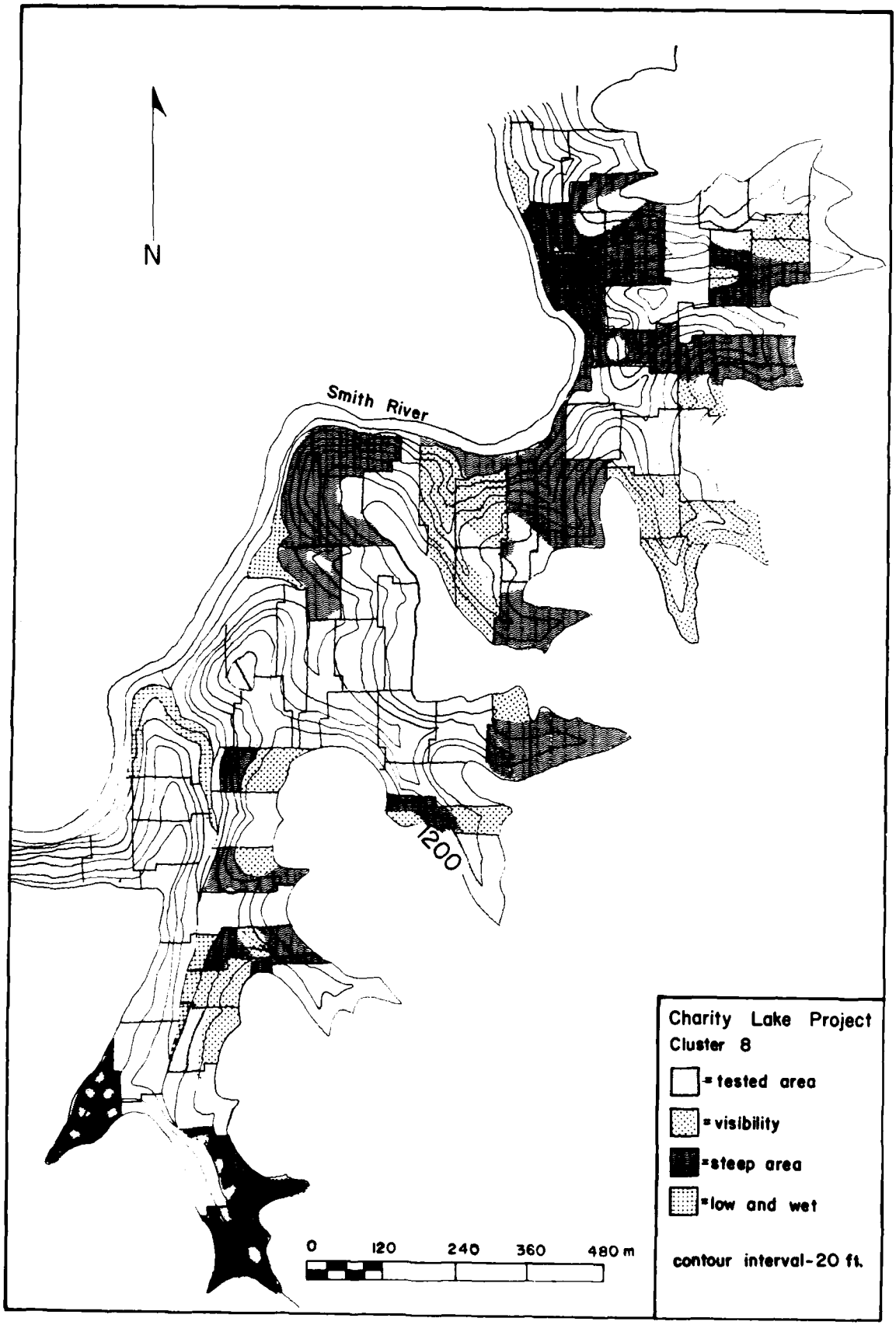


Figure B-4. Cluster 8, selected sampling units with type of coverage. USRB, Virginia.

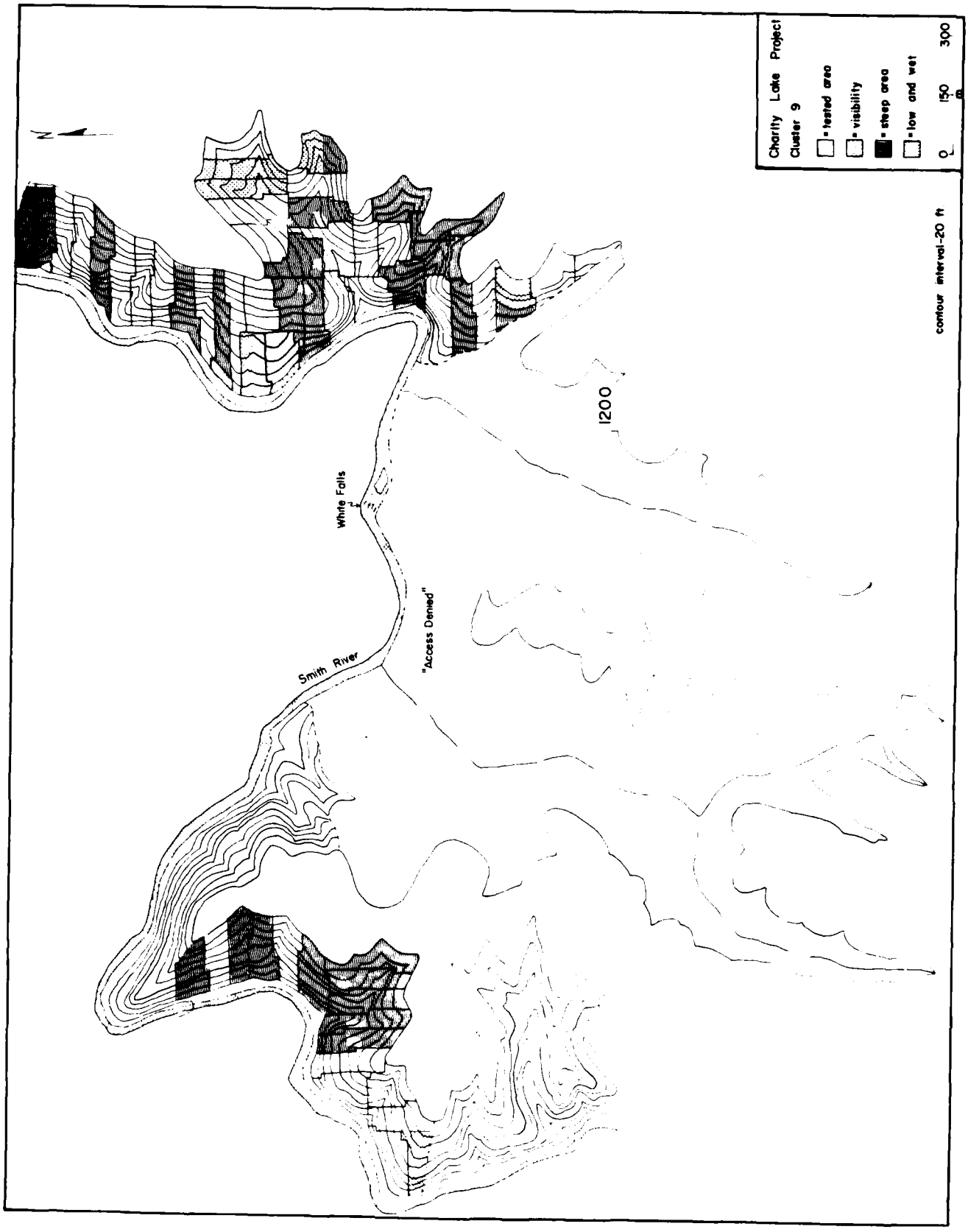


Figure B-5. Cluster 9, selected sampling units with type of coverage. USRB, Virginia.

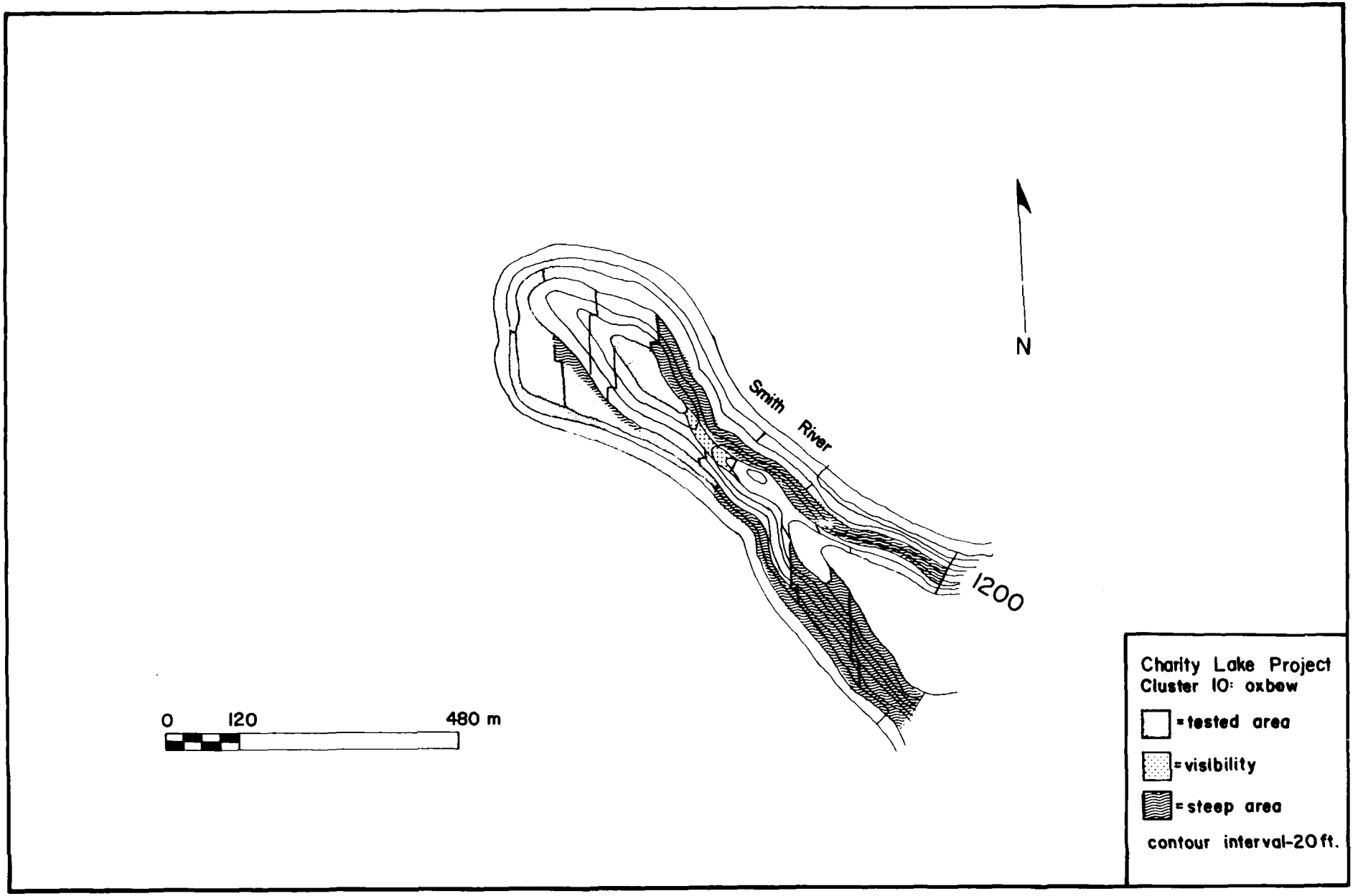


Figure B-6. Cluster 10, selected sampling units with type of coverage. USRB, Virginia.

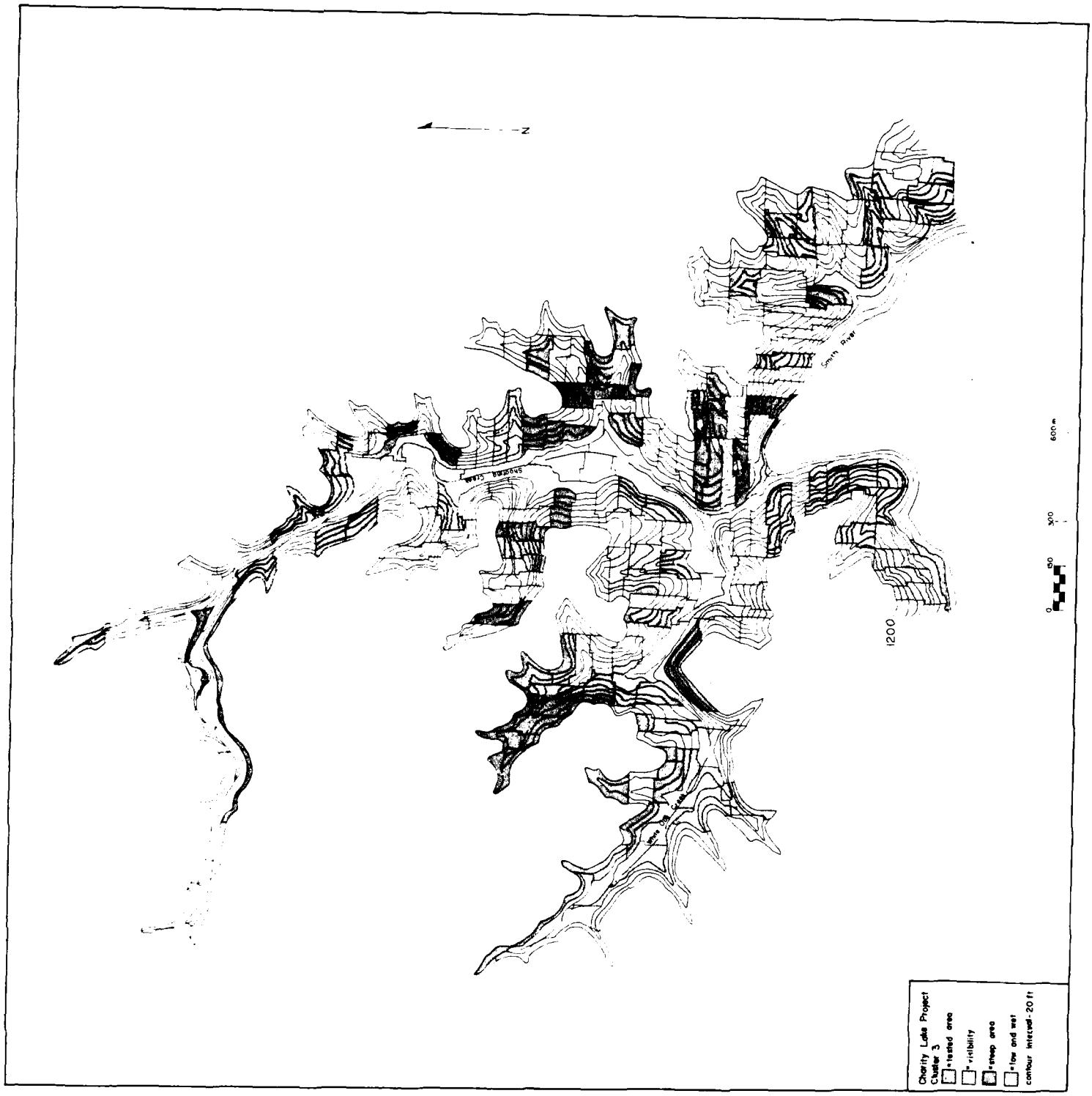


Figure B-1. Cluster 3, selected sampling units with type of coverage. (See Figure 6 for cluster location.) USRB, Virginia.

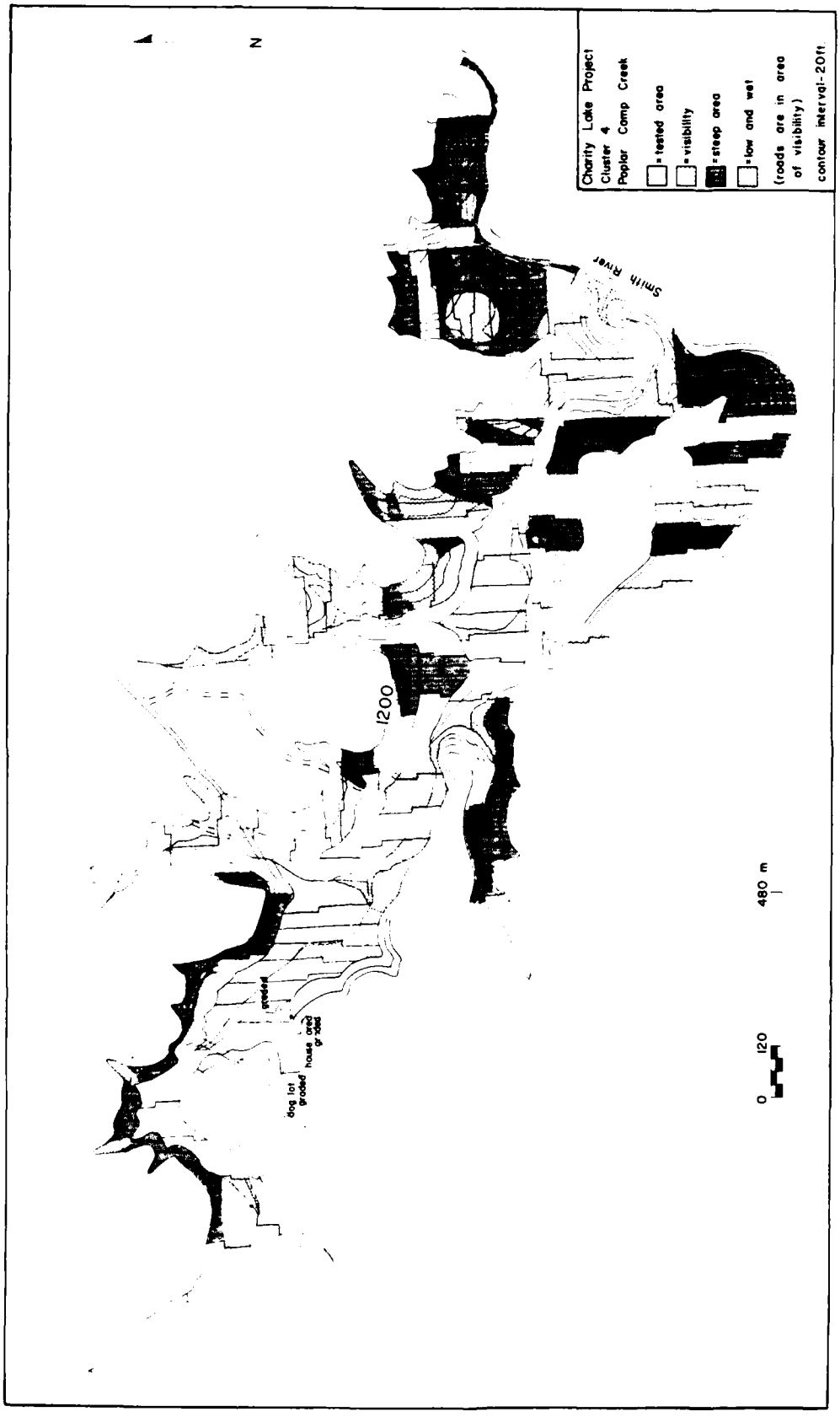


Figure B-2. Cluster 4, selected sampling units with type of coverage. USRB, Virginia.



Figure B-3. Cluster 6, selected sampling units with type of coverage. USRB, Virginia.

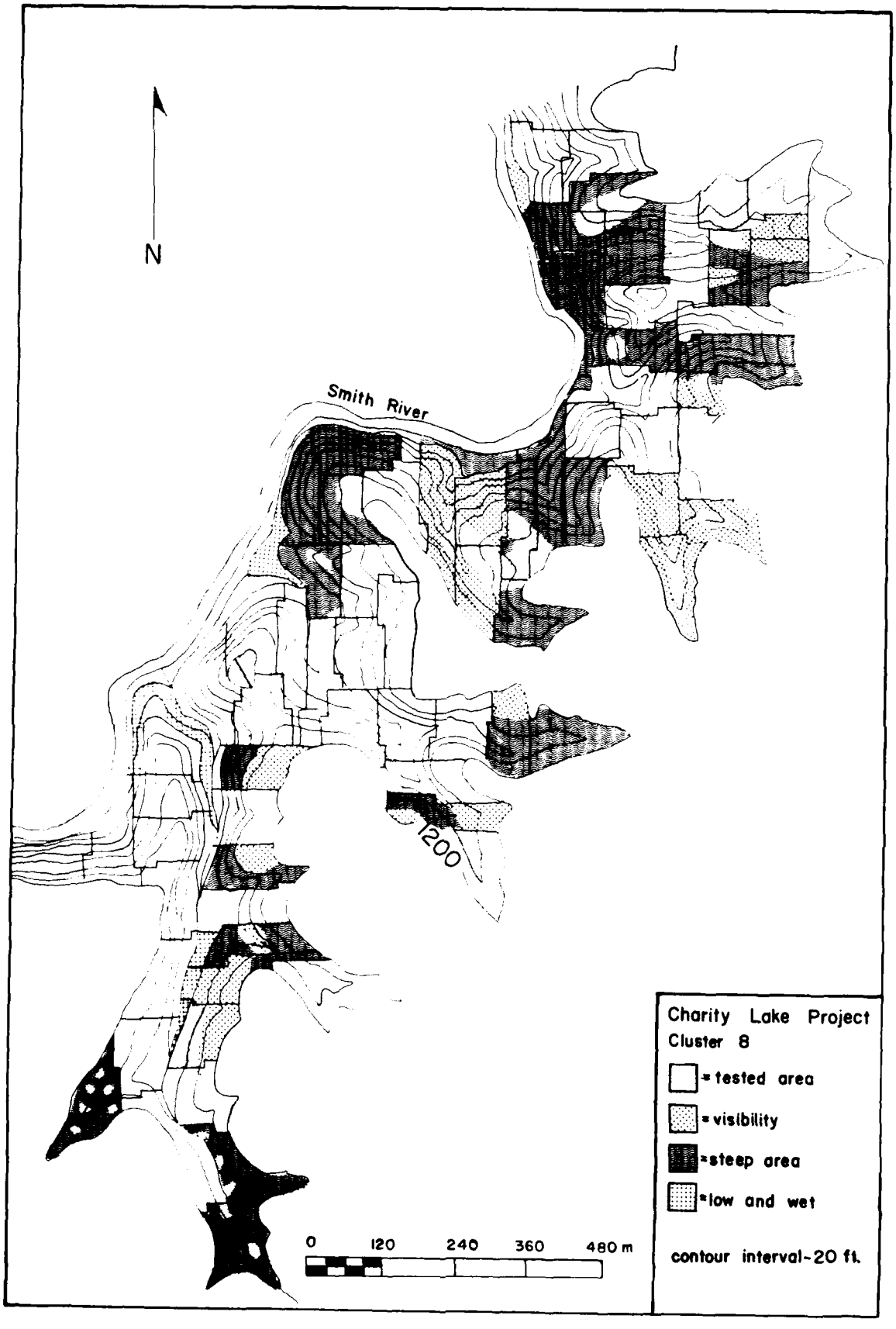


Figure B-4. Cluster 8, selected sampling units with type of coverage. USRB, Virginia.

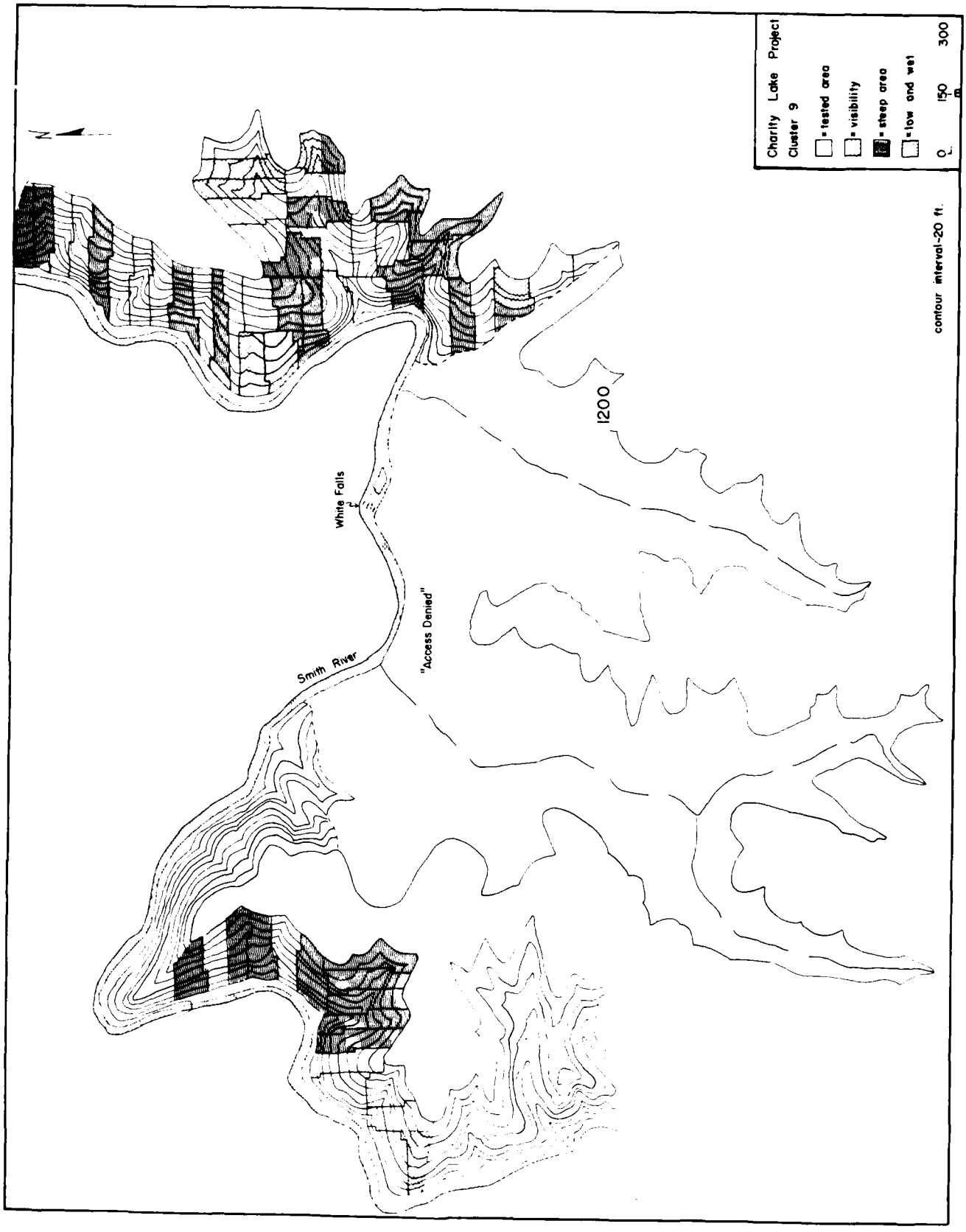


Figure B-5. Cluster 9, selected sampling units with type of coverage. USRB, Virginia.

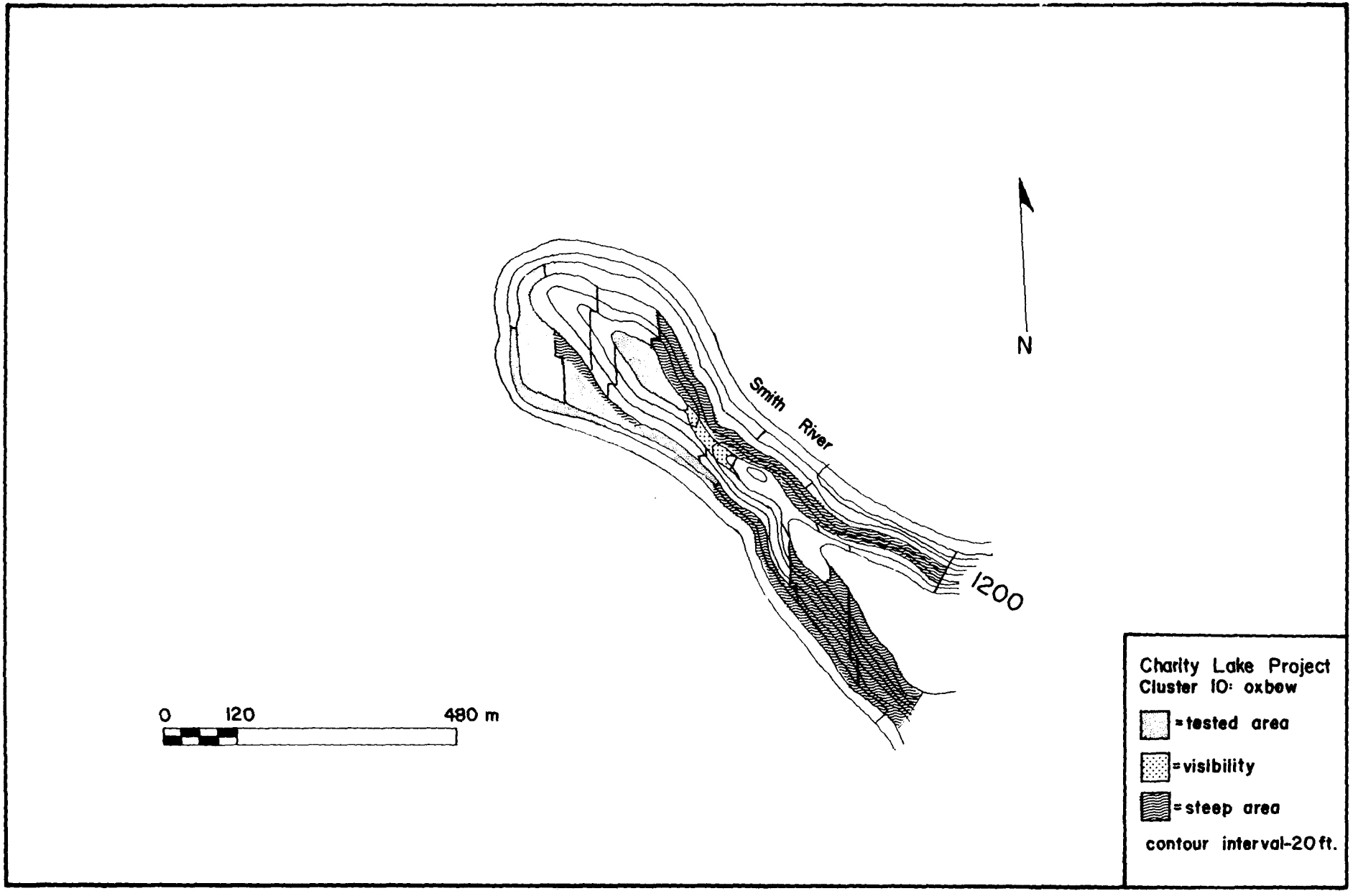


Figure B-6. Cluster 10, selected sampling units with type of coverage. USRB, Virginia.

APPENDIX C: PHOTOGRAPHS OF STANDING STRUCTURES, USRB, VIRGINIA.



a



b



c



d

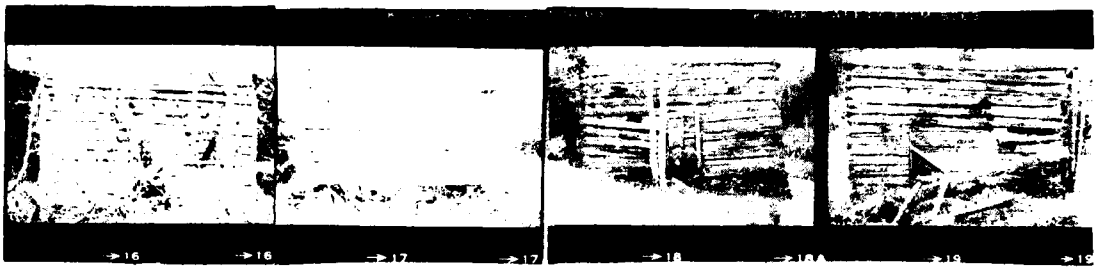


e

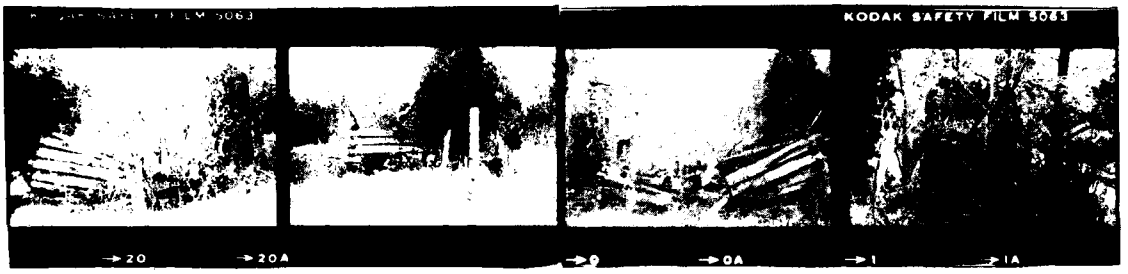
Figure C-1. Standing structures, Charity Lake, Virginia. a, 44Pk80; b, 44Pk138; c, 44Pk147A; d, 44Pk147C; e, 44Pk147D.



a



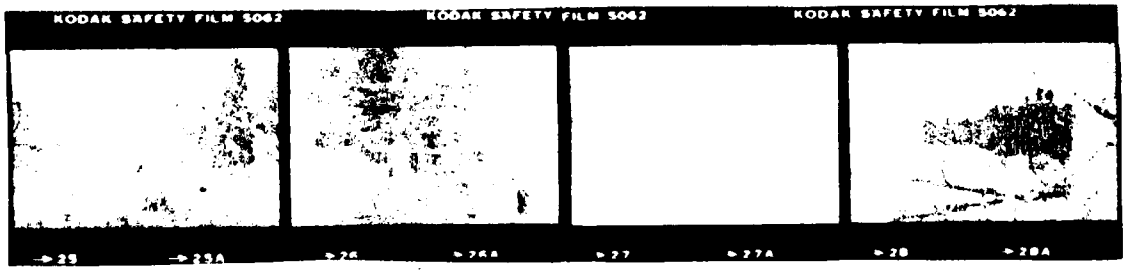
b



c

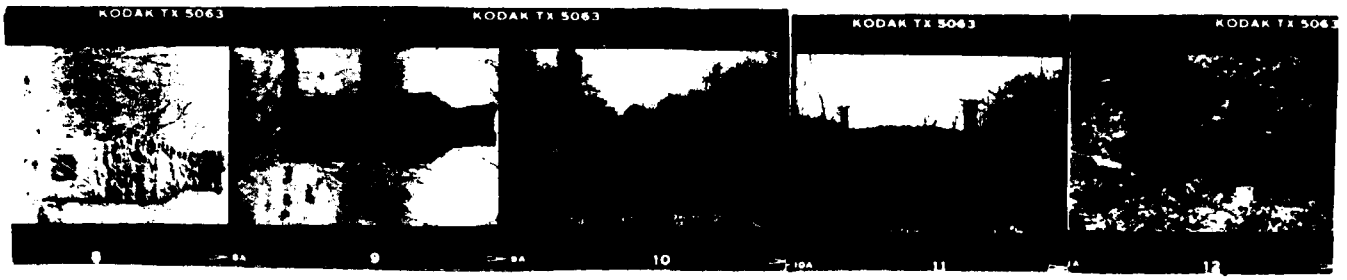


d

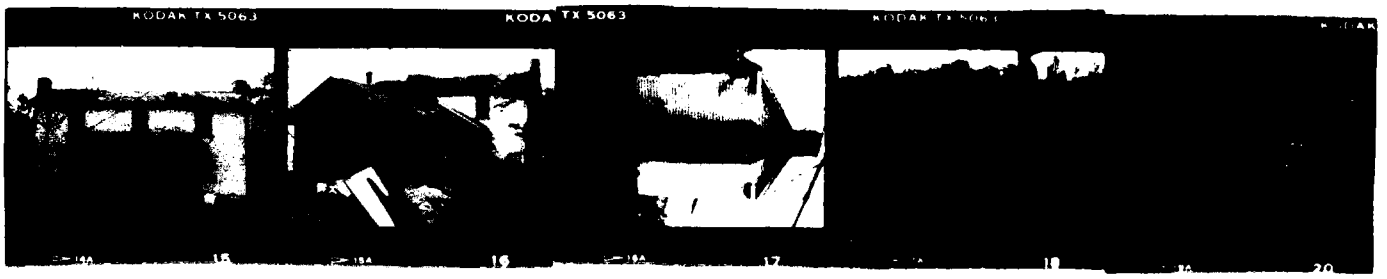


e

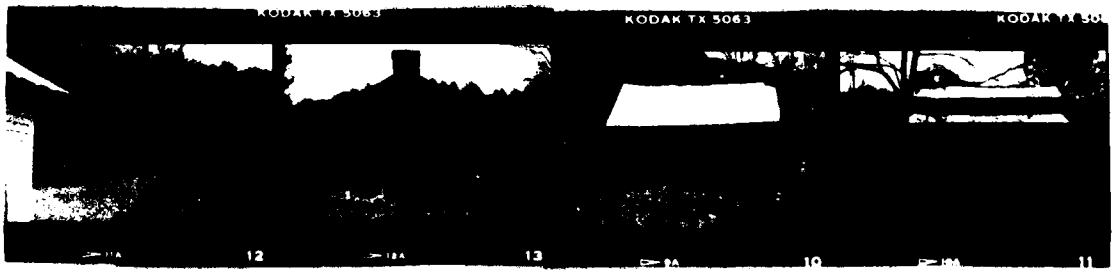
Figure C-2. Standing structures, Charity Lake, Virginia. a, 44Pk149; b, 44Pk155A; c, 44Pk155B; d, 44Pk158 (extreme left), 44Pk164; e, 44Pk177.



a



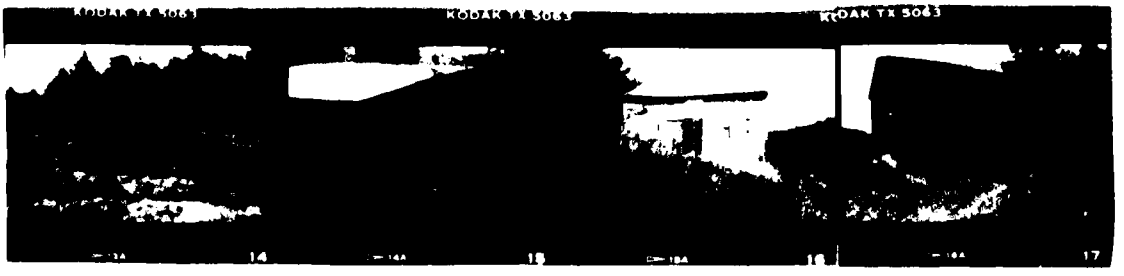
b



c



d

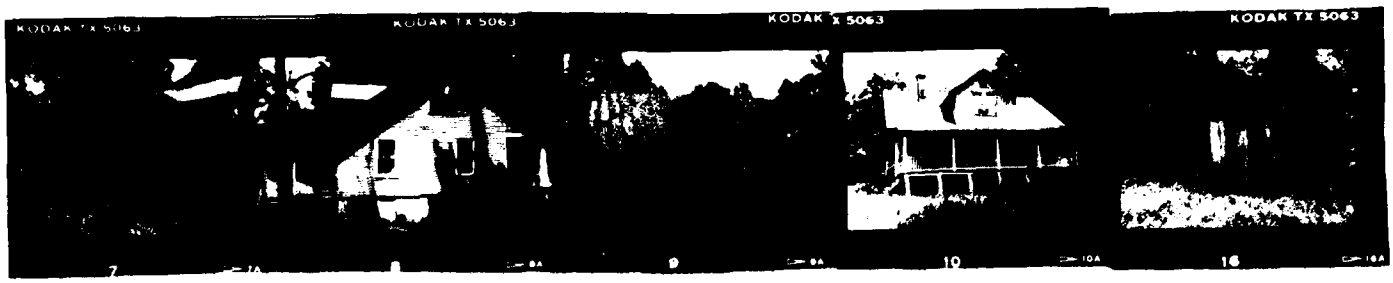


e

Figure C-3. Standing structures, Charity Lake, Virginia. a, 44Pk190; b, 44Pk207; c, 44Pk209A; d, 44Pk209B; e, 44Pk209C.



a



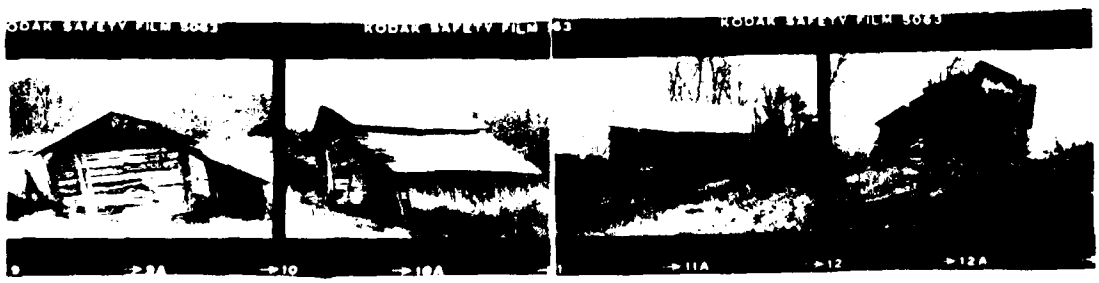
b



c



d



e

Figure C-4. Standing structures, Charity Lake, Virginia. a, 44Pk218; b, 44Pk168A; c, 44Pk168B; d, 44Pk169; e, 44Pk229.

APPENDIX D: SCOPE OF WORK AND PROPOSAL,

USRB, VIRGINIA.

PART I - THE SCHEDULE
SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

SCOPE OF WORK
FOR
ARCHEOLOGICAL AND HISTORICAL SURVEY
OF THE
DAMSITE AND ARCHEOLOGICAL SAMPLING OF THE IMPOUNDMENT AREA
OF THE
PROPOSED CHARITY LAKE
PATRICK AND FRANKLIN COUNTIES, VA

1. Introduction. The purpose of this contract is the completion of archeological sampling of the approximately 3,000-acre impoundment area and archeological and historical survey and testing of the 400 acres immediately adjacent to the proposed alternative damsite locations of the proposed multipurpose pumped storage Charity Lake located above existing Philpott Lake, Patrick and Franklin Counties, VA (see attachments 1 and 2). In addition to the above work; maps showing site location, maps showing areas of projected high, moderate and low sensitivity for archeological resources in areas not surveyed or sampled, and a list of research concerns which may guide further work will be required. Each of the work items is described more fully in the following paragraphs.

2. Items to be Furnished to the Contractor by the Contracting Officer.

a. The plans and documents (item 2b) to be provided to the Contractor under terms of this contract are "Preliminary" and furnished for use by the Contractor in fulfilling the terms of the contract. Under no circumstances shall these plans and documents be reproduced or released by the Contractor without prior written approval of the Contracting Officer or the Contracting Officer's Representative (COR). Upon completion of this contract, these items must be returned to the Wilmington District as property of the U.S. Government.

b. Plans and documentation relating to the planning effort of the proposed project. (NOTE: DUE TO THE CURRENT STAGE OF PROJECT PLANNING THESE PLANS AND DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE AS THE STUDY PROGRESSES.)

c. 1:4,800 scale maps entitled "Roanoke River, South Boston and Vicinity, N.C. and Va., Charity Va., Multipurpose Project." (1 set mylar, 2 sets paper).

3. Consultation. Prior to initiating fieldwork, the Contractor will become thoroughly familiar with the available documentation and will initiate a process of comprehensive consultation with staff archeologists and historians at the Virginia Historic Landmarks Commission (VHLC) and with selected authors of the reports listed in paragraph 4, Literature Review, below. The authors consulted will include Roy S. Dickens, Jefferson Chapman, Joffre Coe, and Stephen Plog. Insofar as practical, the Contractor

should consider initiating some consultation during the preparation of research proposals.

4. Literature Review. A large body of literature is currently available addressing various aspects of history and prehistory in the region. The listing below is minimal and is intended to serve as a guide to specific work items and as an introduction to fuller bibliographies. The Contractor and his field personnel shall become thoroughly familiar with the available literature in order to make informed field judgments on the nature of encountered archeological features. A review of the literature listed below is not sufficient to meet this requirement. Prior to beginning field survey and testing, the Contractor will have completed a thorough document research, will have conducted interviews of residents and local historians, and will have exploited resources available through VHLC.

Ayres, Harvard G., 1965, An Appraisal of the Archaeological Resources of the Blue Ridge Project. River Basin Surveys, Smithsonian Institution, Washington.

Caldwell, Joseph R., 1951, Archaeological Investigations in Western Virginia. Quarterly Bulletin Archaeological Society of Va (QBASV) 5, No. 3.

Carter, Loy, 1948, Bone Bottom. (QBASV) 3 No. 2.

_____, 1951
Report of a Cache Found in Patrick County, Va. (QBASV) 5 No. 4.

Claggett, Stephen R. 1981, Archaic Stage Adaptions in the Piedmont. An Evaluation of Four Models Using Data From North Central North Carolina. MA Thesis, Wake Forest University.

Claggett, Stephen R. and John S. Cable (Assemblers) 1982, The Haw River Sites, Investigations at Two Stratified Sites in the North Carolina Piedmont. Report prepared by Commonwealth Associates for the U.S. Army Engineer District, Wilmington, N.C.

Coe, Joffre L. 1964, The Formative Cultures of the Carolina Piedmont. Transactions of the American Philosophical Society, NS, Vol. 54, No. 5.

Coe, Joffre L. and Ernest Lewis, 1952, Dan River Series Statement in Prehistoric Pottery of the Eastern United States. J. B. Griffin (ed), Museum of Anthropology, University of Michigan.

Coleman, Garry N., 1976, The Koehler Site. MS. on file, VRCA, Williamsburg.

Commonwealth Associates, Inc., 1978, Cultural Resources Survey and Evaluation at Falls Lake, Wake, Durham, and Granville Counties, N.C. Report submitted to Interagency Archaeological Services, Atlanta.

Custer, Jay F., 1979, An Evaluation of Sampling Techniques for Cultural Resources Reconnaissance in the Middle Atlantic Area of the Eastern United States. Phd. Dissertation, Department of Anthropology, Catholic University.

De Hass, Wills, 1851, History of the Early Settlement and Indian Wars of Western VA; Embracing an Account of the Various Expeditions in the West Previous to 1795. Philadelphia, printed by King and Baird.

Dickens, Roy S., 1970, The Pisgah Culture and Its Place in the Prehistory of the Southern Appalachian. Ph.D Dissertation, University of North Carolina, Chapel Hill (UNCCH).

_____ 1976, Cherokee Prehistory: The Pisgah Phase in the Appalachian Summit Region. University of Tenne see Press, Knoxville.

Egloff, Brian J., 1967, An Analysis of Ceramics from Cherokee Towns. MA Thesis, UNCCH.

Egloff, Keith T., 1971, Methods and Problems of Mound Excavation in Southern Appalachia Area. MA Thesis, UNCCH.

Evans, Clifford, 1955, A Ceramic Study of VA Archaeology. Smithsonian Institution, Bureau of American Ethnology (BAE), Bull. 160.

Ferguson, Leland G., 1971, South Appalachian Mississippianism. Ph.D Dissertation, UNCCH.

GAI Consultants, Inc., 1981, Phase II Archaeological Investigations at Ten Specified Locales in the Falls Lake Reservoir Area, North Carolina. Report prepared for the U. S. Army Engineer District, Wilmington, N.C.

Gardner, Paul S., 1980, An Analysis of Dan River Ceramics from Virginia and North Carolina. MA Thesis, UNCCH.

Gardner, William M., Eugene Ham, Joseph McNamara, Dennis Curry, S. Gayle Russel, and Kevin Cunningham, 1976, An Archaeological Survey of Proposed Dam Sites Along the Upper New River, Virginia. Report submitted to the Smithsonian Instituion and Appalachian Power Company.

Griffin, J. B., 1944, An Interpretation of Siouan Archaeology in the Piedmont of NC and VA, American Antiquity, 10: 321-330.

Holland, C. G., 1948, A Preliminary Survey of Indian Sites and Material on Dan River and Certain Tributaries near Danville, Va. (QBASV) 2, No. 3.

Holland, C. G., The Revised Blue Ridge Project: An Archaeological Survey and Summary. Smithsonian Institution and American Electric Service Corp., 1969, MS on file. North Carolina Division of Archives and History.

Holland, C. G., 1970, An Archaeological Survey of SW VA Smithsonian Contributions to Anthropology. No. 12, Smithsonian Institution Press.

Holmes, W. H., 1903, Aboriginal Pottery of the Eastern U.S.. 20th Annual Report of BAE, Washington.

Lewis, Ernest, 1951, The Sara Indians 1540-1768 an Ethno Archaeological Study. MA Thesis, UNCCH.

Mathis, Mark A. and Jeffrey J. Crow eds 1983, The Prehistory of North Carolina, An Archaeological Symposium. N. C. Division of Archives and History Department of Cultural Resources.

McCord, Howard A., Sr., 1970, The Brubaker Site Franklin Co. VA.(QBASV) 24, No. 4.

_____, 1971, The Meador Site Franklin Co. VA, (QBASV) 25, No. 3.

Mooney, James, 1894, The Siouan Tribes of the East. Smithsonian Institution, BAE Bull. 22.

Myers, W. E., 1928, Indian Trails of the Southeast. 42 Annual Report, BAE, Washington.

Speck, Frank C., 1935, Siouian Tribes of the Carolinas. American Anthropologist, Vol. 37.

Soil Systems, Inc., 1980, Archaeological Survey John H. Kerr Dam and Reservoir. On file U. S. Army Engineer District, Wilmington, N. C.

Swanton, John A., 1936, Early History of the Eastern Siouian Tribes. In Essays in Anthropology in Honor of Alfred Louis Kroeber, Berkeley.

Wisler, Kit Wayne, 1977, Archaeology and Culture Contact in the Middle Atlantic Region. MA Thesis, UNCCH.

Word, Elizabeth S., Susan Winter, Stephen Plog, Robert A. Johnson, and Mark Catlin, 1981, Phase I and II Study of the Cultural Resources of the Proposed Ridgeway Hydroelectric Project on the Smith River Near Martinville, Henry County, Virginia. R.W. Beck and Associates, Seattle, Washington.

5. Services to be Provided by the Contractor.

a. Fieldwork. Survey of the alternative damsite locations and the selected sampling units will include surface collection, subsurface testing along equal interval transects, and deep testing in areas where deep deposits are encountered. The actual placement of transects shall be determined by the Principal Investigator (PI) but will contain at least one subsurface sampling point per 1,600 square meters in areas designated by the

Contractor as high intensity survey, one subsurface sampling point per 2,500 square meters in areas designated by the Contractor as moderate intensity survey and one subsurface sampling point per 5,000 square meters in areas designated by the Contractor as low intensity survey. No subsurface testing is required in areas where slope exceeds 15 percent. On slopes greater than 15 percent, the investigations will consist of a pedestrian survey of the area to locate rock quaries and/or rock shelters. Changes in research strategy and/or level of testing after contract award will require approval by the COR. The test units to be used for subsurface testing will be either a 0.3 - 0.5 meter shovel test, a 1 x 1 meter test pit, or a deep-test trench cut. The PI shall use the most appropriate, least-costly option available. For instance, in areas of shallow deposition, shovel cuts may be appropriate as a means of determining presence/absence of cultural horizons. In other areas more complex stratigraphic conditions may necessitate deep testing before appropriate sampling measures can be determined. When a site is encountered, the following information will be sought: cultural affiliation, stratigraphic condition, state of preservation, areal extent, elevation, Universal Transvere Mercator (UTM) coordinates, and condition of features. The PI will determine whether or not discovered sites are duplicated on the Virginia State file and will prepare Virginia site forms for all newly discovered sites. When a site is encountered which the contract PI feels has the potential to be included in the National Register of Historic Places (NRHP), the Contractor shall test the site to obtain sufficient information to prepare a fully documented request for a determination of eligibility from the NRHP as outlined in paragraph 5b(1) below. Upon completion of the investigations, all areas surveyed and tested for cultural resources will be restored, insofar as possible, to their preinvestigation appearance. All cultural resource investigation activities on project lands will be coordinated with Corps of Engineers' Resource Manager, Philpott Lake, particularly as they relate to safety, access, excavation, or other disturbance of areas. On lands which are not in Federal ownership it will be the responsibility of the Contractor to obtain permission from the land owner (in cooperation with the Corps of Engineers Area Real Estate office in Cary, North Carolina) to perform the necessary investigations required by this Scope of Work. Areas of land where survey was not possible because access was denied by the land owner shall be clearly marked on 1:4,800 Project Maps and be labeled "Access Denied."

(1) Sampling of the 3,000 Acre Impoundment Area (see attachment 1). The sampling of this area shall include: construction of a sampling design based on topographic, geomorphological, environmental, and other factors; identification of sample units based on the sampling design; and survey of selected sample units in order to provide an estimate of the numbers and kinds of historic and prehistoric properties present in the project and to allow for the construction of site sensitivity maps. The sampling design and preliminary definitions of the sampling units must be submitted with the initial technical proposal.

(2) Survey of the 400 Acres Adjacent to the Proposed Alternative Damsite Locations (see attachment 2). The survey of this area shall include surface collection and subsurface testing for both historic and prehistoric resources. A detailed survey plan with a comprehensive fieldwork and analysis strategy based on various environmental factors and existing archeological knowledge of the project area will be submitted as part of the proposal. The PI shall make clear the criteria to be used in selecting areas for various levels of survey and testing effort.

(3) Photographs of Standing Structures. Black and white photographs of the front, rear and side exterior elevations of each standing structure located in the surveyed or sampled areas will be provided. Standing structures include: dwellings, dams, mills, privies, cribs, cabins, churches, barns, sheds (and other outbuildings), garages, and stores. The location of the structures will be drawn on the Charity project mapping (using a symbol which is distinguishable from archeological sites). Contact prints (or screened offset printed reproductions) of the photographs of each structure as required above will be appropriately labeled and included as an appendix to the draft and final report.

b. Evaluation. Sites discovered as a result of the fieldwork must be evaluated in terms of the National Register of Historic Places criteria, and expected project impacts. In addition, mitigation recommendations (preservation, avoidance and/or data recovery) must be presented for sites which are felt to be significant. Further details of the requirements are presented below.

(1) Evaluation of Significance and National Register Eligibility. The cultural resouces to be located and evaluated include both historic and prehistoric properties. All sites, buildings, structures, and objects which are significant in terms of National, State or local history or prehistory, and for which there is either subsurface evidence or above ground level components will be considered. Resource evaluation should be completed with strict adherence to the criteria presented in 36 CFR Part 60, National Register of Historic Places, Nominations by State and Federal Agencies, and 36 CFR Part 800, Advisory Council on Historic Preservation, Protection of Historic and Cultural Properties. It will not be considered adequate to evaluate a resource on the basis of its inferred potential and to call for future testing. The potential must be demonstrated and evaluation of every resource will be fully accomplished under this contract. For all sites that the Contractor and COR consider eligible for nomination to the National Register of Historic Places, the Contractor will prepare a fully documented request for determination of eligibility in accordance with the guidelines referenced above. The completed requests will be submitted (six copies of each) with the project draft report unless otherwise requested in writing by the COR.

(2) Project Impact. In addition to evaluating individual resources in terms of National Register criteria (36 CFR Part 60.6), each resource will also be analyzed with respect to the impact that operation of the project will have upon it (36 CFR Part 800). For instance, it should be

clear if operation of the project will ultimately destroy the resource, have only a partial effect on the resource, or have minimal or no effect. Any other pertinent information having to do with this subject should be included in the evaluation. Particular attention should be given to evaluating the impact of pool level fluctuations on sites which will be occasionally inundated.

(3) Mitigation and Data Recovery Recommendations. Resources will also be evaluated in terms of mitigation recommendations. The Contractor will indicate whether or not further work should be undertaken with respect to a particular threatened resource, and an estimate will be made as to how much time and what type (preservation, avoidance or data recovery) of mitigation is required. Where no further work is recommended, that should be stated, along with the reasons for arriving at that conclusion. Similarly, where data recovery is recommended, it will not be adequate to write simply that mitigation is necessary. Rather, these recommendations shall be supported with statements as to what information would be expected to result from data recovery and why this information would be significant in terms of expanding the knowledge of the area's history or prehistory. In other words, mitigation recommendations for both data recovery and preservation of archeological sites shall be justified, and these justifications shall be applied to both positive and negative evaluations. The proposals for a program of mitigation should include preliminary man-hour requirements and should be as specific as possible.

c. Research Concerns and Questions. The Contractor shall formulate a series of research concerns and questions for the study area which maybe used to guide future research for the project. These research concerns and questions will cover both prehistoric and historic resources and will be formulated based on the consultation, literature review and field investigations required by paragraph 3, 4, and 5a and b, respectively.

6. Items to be Provided to the Contracting Officer by the Contractor.

a. Weekly Progress Reports. The Contractor will, during the entire period the contract is in force, be required to submit verbal weekly progress reports by the close of business on Monday of each week. The progress report will normally detail the field and/or laboratory activities of key personnel and actions taken to accomplish each designated task during the previous week. Methodological problems, results of test excavations, results of analysis and requests for conferences will also be discussed.

b. Monthly Progress Reports. Monthly progress reports shall be submitted to the COR by the 7th day of each month during the entire period the contract is in force. All or any part of any partial payment requested may be withheld if monthly progress reports are not submitted on time or in a satisfactory manner. These reports shall contain an accurate, up-to-date account of all laboratory and fieldwork procedures, and results, and will also specify the percent of completion of each of the basic tasks outlined above. Standard forms for submission of monthly reports will be furnished

by the Corps of Engineers (see attachment 3). Monthly progress reports will also serve as interim cultural resource evaluation reports. Each monthly report will include an evaluation of the archeological investigation. If, in the opinion of the PI, it appears that more intensive survey and/or mitigation will be required in the area under study, this need will be documented and justified as early as possible in a monthly report.

c. The Final Report. The draft and final reports of investigations shall reflect and report the analysis required by 36 CFR Part 66 and this Scope of Work. They shall meet current professional standards, be suitable for publication and be prepared in a format reflecting contemporary organizational and illustrative standards of the current professional archeological, architectural, and historical journals. The general style guide for this report shall be the same as that found in the 1983 "Editorial Policy and Style Guide for American Antiquity" American Antiquity 48:429-440. The final report will be prepared on 8-1/2 by 11-inch paper and typed, single-spaced. All pages must be numbered. Final reports will be bound in perfect binding, and, in addition, draft and final reports will either contain the following or meet the following criteria:

(1) Maps showing the actual areas investigated and the method of investigations performed will be provided. The maps will also show survey methodology when more than one survey technique is used.

(2) Actual site locations will be drafted on the Mylar set of Corps of Engineers provided "Roanoke River, South Boston and Vicinity, N.C. and VA., Charity, VA.," Multipurpose Project Mapping (item 2c). The Contractor shall also prepare one set of overlays (pin registered to base) showing inferred potential of areas not surveyed (high, moderate, or low) based on fieldwork, topographic, environmental, and other relevant factors (site locations will be shown on the base maps not the overlays). One 8 1/2 x 11-inch set of offset prints (without overlays) will be furnished as appendix B (see paragraph 6c(9) below) with each copy of the draft and final report. In addition, one full size reproducible set (with overlays) will be required.

(3) High quality original black and white photographs, (or screened offset printed reproductions) or measured drawings, as appropriate, shall be provided with documentation and show details of features, profiles, standing structures, or other evidence of human occupation. Upon completion of the report, all photo negatives will be forwarded to the COR, Corps of Engineers, Wilmington District, for permanent record. In addition, an overall site plan, showing the relationships of any features to one another, will be included in the reports. When drawings are used, they shall conform to the following cirteria:

(a) Mechanical lettering shall be used in accordance with good drafting practice. In no cases shall lettering height be less than 1/8 inch.

(b) Pencil shading on finished drawings will not be accepted. Shading will be accomplished with hatching or preprinted "stick-on" screens. Lettering shall not be obscured with hatching or screening. Hatching on the reverse side of the drawing is preferred. The Contractor will furnish original reproducible charts, graphs, and drawings of features on 4 millimeter Polyster Matte (both sides) Drafting film or equivalent for all charts, graphs, and drawings of features prepared under this contract.

(c) Finished drawings shall be prepared to produce clear and sharp images on 35-millimeter microfilm in order to avoid filled loops or leaching of lines and/or characters on blowbacks.

(4) If a report has been authored by someone other than the contract PI, the cover and title page of the publishable report must bear the inscription, Prepared Under the Supervision of (Name), Principal Investigator and the PI must at least prepare a foreword describing the overall research context of the report, the significance of the work, and other background circumstances relating to the manner in which the work was undertaken. The PI is required to sign the original copy of the report.

(5) The title page of the report must bear an appropriate inscription indicating the source of funds used to conduct the reported work including the contract number and the date of the report.

(6) The cover of the report must bear the Corps of Engineers Logo (Castle) and the Inscription: "Prepared by (Name of Firm) for the Wilmington District Corps of Engineers."

(7) If the Contractor expects to publish all or part of the final report, he must provide the Corps of Engineers with a letter specifying the expected date, place, and name of publication. This letter must be submitted with the final report.

(8) Specific locations (UTM coordinates) of sites found or otherwise identified as the result of investigations under this contract will be submitted by the Contractor as a separate document designated as appendix A simultaneously with the final report. References to specific site locations will not be made in the main body of the report.

(9) The Contractor shall submit maps (see paragraph 6c(2) above) showing the area investigated and the method and intensity of investigation carried out within each of the areas. These maps will be included as appendix B of the final report. The photographs of standing structures, required by paragraph 5a(3) above, will be included as appendix C of the final report.

(10) This Scope of Work and the research design submitted in response to it by the Contractor will be included as appendix D to the draft and final reports.

(11) An abstract suitable for publication in an abstract journal must be prepared. This should consist of a brief, quotable summary useful for informing the technically oriented professional public of what the author considers to be the contributions of the investigation.

(12) A brief, nontechnical summary of the survey results and their significance to the study of human prehistory and history will be prepared and submitted separately from the final report. The narrative should be oriented toward the nonprofessional public. The purpose of this document is to inform the interested public of the results of research conducted by the anthropologists using public funds. The nontechnical report should give a complete synopsis of the findings and should be in a style and length adaptable to a project level public information bulletin. Photographs and/or drawings of significant artifacts and sites shall be included.

(13) The final report will include a management summary to be used by the Corps of Engineers planners in determining the probable impact of any given project development on the archeological/historic values in the affected area. The management summary should describe the significance of the cultural resources in each recreation area and/or ecological zone as appropriate. The text should be readable by nonanthropologists and must contain sufficient detail to enable the planner to judge the degree of impact on cultural resources of any given development. The summary will also be used in determining which areas should be avoided in the development process.

(14) The draft report will include a bibliography of all historical documentation consulted under this contract.

(15) The draft report will be submitted in 10 copies which need not be bound but must be stapled. The final report will be submitted in 25 copies, plus the unbound originals.

(16) The final report may be submitted by the Corps of Engineers to the Virginia Historic Landmarks Commission for publication.

(17) The Contractor shall complete a DD Form 1473 (Government furnished) and submit three copies with the final report.

d. State Cultural Inventory Forms. All sites will be recorded on current Virginia Site Forms (Contractor provided). Instructions published by the Virginia Historic Landmarks Commission will be followed when filling out the site forms. Appropriate USGS quad sheets needed as supplemental information for these forms will be Contractor provided.

7. Personnel/Agency Standards. Agencies, institutions, corporations, associations, or individuals will be considered qualified when they meet the minimum criteria given below. As part of the supplemental documentation, a

contract proposal must include vitae for the PI and main supervisory personnel in support of their academic and experiential qualifications for the research. In the event that support personnel have not been identified at the time of contract proposal, vitae on these positions may be omitted until such time as they are identified with the provision that those to be selected meet the minimum professional standards stated below and that their retention is subject to approval by the COR.

a. Archeological Project Directors or Principal Investigators. Persons in charge of an archeological project or research investigation contract, in addition to meeting the appropriate standards for archeologists, must have the doctorate or an equivalent level of professional experience as evidenced by a publication record that demonstrates experience in field project formulation, execution, and technical monograph reporting. Suitable professional references may also be made available to obtain estimates regarding the adequacy of prior work. If prior projects were of a sort not ordinarily resulting in a publishable report, a narrative should be included detailing the proposed project director's previous experience in sufficient detail to allow for a determination of the adequacy of this earlier work.

b. Archeologist. The minimum professional qualifications in archeology are:

(1) A graduate degree in archeology, anthropology, or closely related field or equivalent training accepted for accreditation purposes by the Society of Professional Archaeologists;

(2) Demonstrated ability to carry research to completion, usually evidenced by timely completion of theses, research reports, or similar documents; and

(3) At least 16 months of professional experience and/or specialized training in the archeological field, laboratory, or library research, administration, or management including at least 4 month's experience in archeological field research and at least 1 year of experience and/or specialized training in the kind of activity the individual proposes to practice. For example, persons supervising field archeology should have at least 1 year or its equivalent in field experience and/or specialized field training, including at least 6 months in a supervisory role. Persons engaged to do archival or documentary research should have had at least 1 year of experience and/or specialized training in such work. Archeologists engaged in regional or agency planning or compliance with historic preservation procedures should have had at least 1 year of experience in work directly pertinent to planning, compliance actions, etc., and/or specialized historic preservation or cultural resource management training. A practitioner of prehistoric archeology should have had at least 1 year of experience or specialized training in research concerning archeological resources of the prehistoric period. A practitioner of historic archeology should have had at least 1 year of experience in research concerning

archeological resources of the historic period. Experience in archeological research in the region where the project will be undertaken is usually desirable.

c. Historian. The minimum professional qualifications in history are a graduate degree in American history or a closely related field or a Bachelor's degree in history or a closely related field plus one of the following:

(1) At least 2 years of full-time experience in research, writing, teaching, interpretation, or other demonstrable professional activity with an academic institution, historical organization or agency, museum, or other professional institution; or

(2) Substantial contribution through research and publication to the body of scholarly knowledge in the field of history.

d. Architectural Historian. The mininum professional qualifications in architectural history are a graduate degree in architectural history, historic preservation, or closely related field, with course work in American architectural history; or a Bachelor's degree in architectural history, with a concentration in American architecture; or a Bachelor's degree in architectural history, historic preservation, or closely related field plus one of the following:

(1) At least 2 years of full-time experience in research, writing, the teaching of American history or restoration architecture with an academic institution, work experience with a historical organization or agency, museum, or other professional institution; or

(2) Substantial contribution through research and publication to the body of scholarly knowledge in the field of history.

e. Consultants. Personnel hired or subcontracted for their special knowledge and expertise must carry academic and experiential qualifications in their own fields of competence. Such qualifications are to be documented by means of vitae attachments submitted with the proposal or at a later time if the consultant has not been retained at the time of proposal. All individuals hired as consultants must be approved by the COR in writing.

f. Institutional or Corporate Qualifications. Any institution, organization, etc., obtaining this contract, and sponsoring the PI or Project Director and meeting the previously given requirements must also provide or demonstrate access to the following capabilities:

(1) Adequate field and laboratory equipment necessary to conduct whatever operations are defined in this Scope of Work.

(2) Adequate facilities necessary for proper treatment, analysis, and storage of specimens and records (not necessarily long-term curation)

likely to be obtained from a given project. This does not necessarily include such specialized facilities as pollen, geochemical, or radiological laboratories, but it does include facilities sufficient to properly preserve or stabilize specimens for any subsequent specialized analysis.

8. Disposition of Data. When the recovered data has been removed from nonfederally-owned lands such as State, municipal, corporate, or privately held land, then negotiated arrangements must be made. The principle which governs these negotiations is that in instances where public funds are expended for the recovery of data, the public must be the benefactor. All data removed from federally-owned lands are the property of the Federal Government.

9. Curation. All artifacts recovered from work performed under this contract will be washed, stabilized (as necessary), labeled, and bagged by provenience. The artifacts shall be returned to the COR for final curation if no other suitable repository is found and agreed to by the COR. At a minimum, information to be supplied with labeled artifacts will include site number and name, provenience unit number, county name, investigator or company name, name of project, and date of collection. If the COR designates a repository for disposition or if the contractor negotiates an agreement for disposition of artifacts for the contract and this repository is approved by the COR, the institutional curation standards of the repository take precedence over the ones listed above. If a repository is found, a letter from the repository agreeing to curate the artifacts and a description of the facility must accompany the Contractor's request for approval. No separate additional payment above that agreed to during the initial negotations will be made for this item.

10. Controversies. In the event of controversy or court challenge, Principal Investigator(s) shall be placed under separate contract to testify on behalf of the Government in support of findings presented in the report.

11. Release of Information. Neither the Contractor nor his representatives shall release any sketch, photograph, report, or other material of any nature obtained or prepared under the contract without specific written approval of the Contracting Officer prior to the time of final acceptance of the report(s) by the Government. (See paragraph 2 for information on release of Government-furnished data.)

12. Period of Services. The Contractor will be required to commence work under this contract within 20 calendar days after receipt of a signed contract and to adhere to the following deadlines:

Completion of all fieldwork 100 days from contract award date.

Completion of analysis 300 days from contract award date.

Submittal of Draft Report 360 days from contract award date.

Submittal of Final Report and all remaining work 510 days from contract award date.

A reasonable delay of up to 90 days can be expected for District review and approval of the draft and final reports prior to acceptance by the Government.

13. Method of Payment. Partial payments to the Contractor for services performed under this contract will be made at the end of each month, based on an approved estimate of value of work accomplished during the month. The dollar value of each stage of work will be indicated on a progress schedule. The amounts of partial payments due the Contractor shall be determined by the Contracting Officer's Representative on the basis of approved monthly progress reports expressed as a percentage of work accomplished. Ten percent (10%) will be deducted from each partial payment estimate, such deductions to be retained until all work has been completed and accepted, at which time all remaining amount due, together with retainage, will be paid to the Contractor.

PROPOSAL TO

THE U.S. ARMY ENGINEER DISTRICT, WILMINGTON,

CE FOR AN ARCHEOLOGICAL AND HISTORICAL SURVEY

OF THE DAMSITE AND ARCHEOLOGICAL SAMPLING OF THE

IMPOUNDMENT AREA, CHARITY LAKE, PATRICK AND

FRANKLIN COUNTIES, VIRGINIA.

ABSTRACT

This proposal is for the execution of an archeological sampling design for a 3,000 acre impoundment area, along with an archeological/historical survey and testing of 400 acres adjacent to alternative damsites for the proposed Charity Lake facility. The proposed construction area lies northwest of Philpott Lake, Patrick and Franklin Counties, Virginia. A sample area of approximately 750 acres (approximately 25% or more of the total impoundment area) is to be examined and relevant data collected on archeological sites and standing structures. Another 400 acres (100% of the total area encompassed by the alternate damsites) will be surveyed. Each cultural resource found will be evaluated in terms of the National Register of Historic Places criteria and expected project impacts. Suggestions for preservation, avoidance or mitigation of adverse effects will be offered for each site believed to be significant, and the total number and nature of cultural resources present in the impoundment area will be projected.

THE SURVEY AREA

The survey area is located in Patrick and Franklin counties, Virginia, along the Smith River. The planned reservoir will impound the river northwest of Dodson, Virginia, approximate UTM Northing 4077430, Easting 579280, Zone 17. The lake will cover all areas below the 1200 foot level of the Smith River Valley and its adjacent tributaries to a point approximately 698 meters north of Rock Castle Creek, approximate UTM Northing 4071750, Easting 567990, Zone 17.

Several sets of topographic features within the impact area may have affected aboriginal settlement patterns. Each of these features deserves to be examined as part of the prehistoric and historic cultural ecology of the region. These features include, but are not limited to, the following: floodplains of the Smith River and its major tributaries (both natural levee areas and backswamps); alluvial terraces of the Smith River and its tributaries; the confluences of the Smith River and its tributaries; and interstream areas, the clay uplands. Additional natural features such as rock shelters or major lithic outcrops encountered in the survey may be differentiated and incorporated into the sampling design described below.

THE SAMPLING DESIGN

A dual stage sampling design is proposed for this project. It involves the definition of two superstrata, one of which will be further divided into 11 units of comparable size with samples to be drawn from at least 6 of these units (clusters), a stratified cluster sampling design. The creation of two universes for sampling is necessitated by the 100% survey coverage required for the 400 acres adjacent to the alternate dam sites (Scope of Work, Part 1, Section C-5a2). The following is a description of each universe and the sampling strategy for each.

SUPERSTRATUM I

Except for the area defined as Superstratum II (see below), the impoundment area (approximately 3,000 acres) will be sampled by collecting data from 6 clusters of topographic features. Each cluster has been defined in order to include as complete an occurrance of the various topographic features as possible. These features include floodplains (levees and backswamps), alluvial terraces, the confluence of the Smith River and its major tributaries, and the lower and upper elevations of interstream uplands. These features comprise the strata to be sampled within each cluster of Superstratum I.

The 11 cluster units of Superstratum I have been defined as follows:

Cluster I: The Puppy Creek Drainage, from the upper extent, 1200 foot contour, of the arm, UTM Northing 4073670, Easting 574880, downstream to its merger with the Smith River, UTM Northing 4076530, Easting 577450, to points 1 kilometer on both sides of this confluence, a total of 1002 acres.*

Cluster II: The Small Creek Drainage, from the upper extent of two separate arms, UTM Northing 4079920, Easting 574870 and Northing 4079900, Easting 576020 respectively, downstream to a point 183 meters upstream from the confluence of the stream and Smith River, UTM Northing 4078710, Easting 576505. The total area equals 342 acres.

Cluster III: The Shooting and White Oak Creeks Drainage, from the upper extents of Shooting and White Oak Creeks, UTM Northing 4079780, Easting 573000 and Northing 4078580, Easting 572940 respectively, downstream to its merger with the Smith River, UTM Northing 4077700, Easting 574719, to points 1 kilometer on both sides of this confluence, a total of 533 acres.

* The acreage has been measured by planimeter from 1:24000 U.S.G.S. topographic maps. It should be noted that the acreage total for the clusters is greater than the 3,000 (3,349) acres for the reservoir as stated in the SOW. The discrepancy is not understood at present.

Cluster IV: The Poplar Camp Creek Drainage, from the upper extent, UTM Northing 4077440, Easting 571380, downstream to its merger with the Smith River, UTM Northing 4076100, Easting 573850, to points 1 kilometer on both sides of this confluence. This cluster comprises 283 acres.

Cluster V: The Crack Creek Drainage, from the upper extent, UTM Northing 4075070, Easting 570565, to its merger with the Smith River, UTM Northing 4074365, Easting 571624, to points 1 kilometer on both sides of this confluence. The total acreage is 111.

Cluster VI: The Widgeon Creek Drainage, from the upper extent, UTM Northing 4073610, Easting 568740, to its merger with the Smith River, UTM Northing 4072890, Easting 569840, to points 1 kilometer on both sides of this confluence, a total of 176 acres.

Cluster VII: The Sycamore Creek Drainage, from the upper extent, UTM Northing 4070000, Easting 569910, to its merger with the Smith River, UTM Northing 4071530, Easting 569490, to points 1 kilometer on both sides of this confluence. This cluster contains 44 acres.

Cluster VIII: An unnamed drainage area across the Smith River from Poplar Camp Creek, from the upper extent, UTM Northing 4074880, Easting 573970, to its merger with the Smith River, UTM Northing 4075920, Easting 573770, to points 1 kilometer on both sides of this confluence. Cluster VIII emcompasses 265 acres.

Cluster IX: An unnamed drainage, from the upper extent, UTM Northing 4075660, Easting 575510, to its merger with the Smith River, UTM Northing 4077000, Easting 575610, to points 1 kilometer on both sides of this confluence. This area totals 388 acres.

Cluster X: An oxbow area on the south side of the Smith River, UTM Northing 4076050, Easting 572900. This area covers 44 acres.

Cluster XI: An oxbow area across the Smith River from Puppy Creek, UTM Northing 4076730, Easting 578150. This total area covers 161 acres.

Fifty percent of each selected cluster will be surveyed. One cluster will be chosen from Nos. X and XI, and the other 5 from Clusters I-IX; all selected randomly. The acreage of each topographic feature (i.e. each sampling stratum) within the cluster will be determined using topographic maps, project maps and soil survey (USDA) maps. The acreage of each stratum within the cluster will be totaled, and a 50% sample of each stratum will be randomly selected for survey. If low acreage clusters are selected, additional clusters will be chosen until a total of 750 acres have been studied.

For the uplands--above the floodplain or terraces (if present) to the 1200 foot contour--transects will be used for sampling. Because the floodplains and terrace remnants are "patchy" in their occurrance these will be sampled in units of varying shape, but the 50 percent sample to be taken from each stratum in the cluster will be taken from at least two non-contiguous areas within that stratum.

A stratified cluster sampling strategy is proposed for several reasons. First of all, it has been shown to be an effective method for sampling archeological resources (Matson and Lipe 1975). One of the most compelling reasons is cost-effectiveness. In the field it is time-consuming and often difficult to move from one randomly selected quadrant of an environmental zone to another quadrant of another zone. In addition, a cluster sample may make evident variability in the content of neighboring sites located in different environments. In effect, the investigator is holding constant one potential variable (distance) affecting cultural diffusion, thereby allowing those differences attributable to resource zone specialization activities to become better defined.

It should be noted that cluster units have been defined on both sides of Smith River, rather than defining single cluster units transecting the river. This is done so as to allow the delineation of cultural differences that might emerge as a consequence of any sociocultural boundary defined prehistorically by the river. If the Smith River has functioned as a boundary between social units, or acted as a deterrant to cultural diffusion, variation in the material remains from sampled contemporaneous sites on either side should be noted.

It must be pointed out that the techniques used are not designed to sample archeological sites or historic structures. Rather, we are sampling areas (geographical units) believed to be representative of the total area. Hence the project area itself is our population (in the statistical sense), and the proposed methods are intended to produce a representative sample of that population so as to allow the use of certain inductive statistical techniques. Those techniques in turn will tell something about the nature of the population, in this case the number and variability of archeological sites in it.

SUPERSTRATUM II

Superstratum II is an approximate 400 acre area that is encompasses the location of three alternate dam sites proposed for the Charity Project. The northern boundary of this area lies within 1 kilometer south of the border of Franklin and Patrick Counties. The northern boundary of this superstratum approximates that of the U.S. Reservation Boundary defined on the Charity Quad of the USGS 7.5 series map. The southern boundary proceeds northwest following the general course of the Smith River. This area is as shown on attachment 2 of the Scope of Work. All other areas outside of this 400 acre space that are within the project boundaries are included within Superstratum I.

Superstratum II will be assessed for prehistoric and historic resources by a 100% pedestrian survey. The 100% coverage of this area will encompass the confluence of Smith River and the Small Creek Cluster to 183 meters upstream along Small Creek. This area will be included within the 100% pedestrian survey and will not be calculated as part of the Small Creek Cluster, should that cluster be selected for sampling.

METHODS

Before any fieldwork is begun, a literature search will be initiated by the Principal Investigator and members of his staff. All the literature listed in the Scope of Work, in addition to any other literature or research in progress, will be sought and reviewed. The field supervisor will contact and consult members of the Virginia Historic Landmarks Commission (VHLC) and the appropriate personnel in the Environmental Planning Branch of the Corps of Engineers, Wilmington Office, and other agencies and/or individuals with knowledge of historic or prehistoric remains in the project area. The field supervisor will also consult Drs. Roy S. Dickens, Joffre L. Coe, Jefferson Chapman, Stephen Plog, William M. Gardner and others in regards to their research interests in the general area. Their comments and recommendations will be incorporated into the data collection procedures initiated in the field in order to gather the maximum amount of data that could be applied to numerous research questions. Local collectors, relic hunters and/or amateur societies in the general project area will be contacted concerning site locations and private collections.

Rights of entry and permission to perform subsurface testing will be acquired from private landowners before any crews begin work in those areas. It will be the responsibility of the field supervisor to be accountable to private landowners for the presence of the field crews on non-government lands during this project. The randomly selected units to be sampled within the 3,000 acre impoundment area and the 400 acres comprising the alternate damsites will be examined by pedestrian survey by persons with previous experience in archeological survey and formal training in archeological methods. Access to the study areas will be by existing roads, trails, or by overland hiking.The areas selected will be surveyed along one or more transects with a crew of 3 to 4 individuals advancing abreast at 30 meter intervals. The ground surface will be visually inspected for signs of cultural activity in places where visibility is greater than 60% and ground slope is less than approximately 15%. Where visibility is estimated to be less than 60% or deemed necessary by the field supervisor, .5 meter shovel tests will be made at 30 meter intervals along the transect in areas of high site probability. In areas of low site probability, i.e. standing swamps, gulleys, areas disturbed by severe erosion and/or previous recent construction, etc., the .5 meter test intervals will be more widely spaced, i.e. one test per 2500-5000 square meters. The .5 meter shovel tests will be dug to a depth sufficient to expose the sub-humus soil. The soil from these holes will be screened through 1/4" mesh. The profiles and the floors of the test holes will be troweled and inspected for stratigraphy and/or features.

A 3" bucket auger will be used to augment shovel tests within floodplains and other areas suggestive of complex stratigraphic conditions. At least one auger test will be made at each 30 meter interval along the transects in these areas. The auger tests will be taken to the maximum depths allowed by the water table, bedrock or the auger itself (2.15 meters). Each stratigraphic change will be recorded in terms of color (using the Munsell color code), texture, compactness, presence/absence of cultural material and depths of horizons. Auger tests will not be made on the sides of slopes or in wet, swampy areas.

Knowledge of the location of all previously recorded sites in the project area will be acquired before the start of fieldwork. These sites will be plotted on a USGS map in order to avoid duplication in the field. All previously unrecorded sites found by this survey will be systematically collected using one or more areal units dependant on the size of the site boundaries. A "site" is defined as any manifestation of human cultural remains that has an age greater than 50 years or significant status in the development of the local or regional community. These manifestations may take the form of art, artifacts, standing structures or other culturally manipulated places or things. A site may be defined by only one artifact. The site boundaries will be determined by the use of red pin flags to mark the location of each individual artifact. Small sites, 50-100 meters square in area, will be collected using one collection unit with a 100% collection. A datum will be established

and a sketch map made for each site located. The following information will be collected for each site: soil type(s), distances to local resources (water, etc.), cultural affiliation, stratigraphic condition, state of preservation, areal extent, elevation, slope, exposure, UTM coordinates and presence of, or condition of features. At least one .50X.75 meter pit will be dug in those sites revealing more than 10 artifacts on the surface. These pits will be dug and evaluated in the same manner as the .5 meter shovel tests. Photographs will be taken of those pits that reveal any statigraphic information of cultural or geomorphic nature pertainent to the survey.

All sites located will be evaluated according to presently accepted regional research goals and the guidelines established by the National Register of Historic Places (36 CFR 60.6). The importance, or significance, of any archeological sites found will be assessed within the context of the following research problems:

A. Chronological sequence of artifact style in southwest Virginia. Stratified, multicomponent sites will be considered significant.

B. The presence or age of Paleo-Indian remains will be considered significant. All identified Paleo-Indian remains will be considered significant.

C. The age of Archaic projectile point styles in southwest Virginia. Single-component Archaic sites with intact sub-surface features suitable for radiometric age determination will be considered significant.

D. The formal characteristics of Archaic burial patterns. All Archaic sites with undisturbed sub-surface remains which may include human burials will be considered significant.

E. The function(s) of Woodland sites in upland or small backswamp locations. All Woodland sites with evidence of undisturbed sub-surface remains will be considered significant.

F. The role of historic commerical or residential sites in the evolution and development of the local or regional community. All historic commerical or residential sites with an age greater than 50 years thought to have had a profound role in the development of the local and/or regional area will be considered significant.

All sites considered significant and thought to be eligible for the National Register of Historic Places will be tested and evaluated in accordance with the criteria presented in 36 CFR 60, National Register of Historic Places, Nominations by State and Federal Agencies, and 36 CFR 800 (Advisory Council on Historic Preservation, Protection of Historic and Cultural Properties).

The testing methods may vary from site to site, but in most cases will consist of at least two 1X2 meter test pits excavated at least 30 cm. into sterile soil, with bucket auger tests below the lowest level to check for deeply buried cultural strata. Each test pit will be documented by at least one scale profile and photograph, and photographs of each site setting will be made. Excavated pits will be mapped in reference to established datum points. The testing will be adequate for satisfying the National Register's published "Guidelines for Level of Documentation Necessary to Make

Determinations of Eligibility for Inclusion in the National Register of Historic Places" (copy on file, Archeology Laboratories, Wake Forest University).

All standing structures older than 50 years will be recorded, photographed and mapped. A consultant will be employed to evaluate the sites and issue a report (to be included as a separate section in the final report) regarding the nature and significance of such sites. Dr. Margaret Supplee Smith will serve as a consultant in this phase of the project. Her vita is attached with this proposal.

All data generated by the survey will be returned to the Archeology Laboratories for analysis and temporary curation (please see the enclosed lab manual for curation and storage procedures). Current Virginia site forms will be completed following the guidelines set forth by the Virginia Historic Landmark Commission. Twenty five copies of a final report along with 3 copies of DD Form 1473 will be submitted to the Corps of Engineers within 510 days after the contract award date.

THE RESEARCH DESIGN

Before addressing the specific hypotheses to be tested by the sampling design, some general problems, concepts or theories involving prehistoric cultural dynamics in southwest Virginia and the Carolina Piedmont must be reviewed. This is necessary because the hypotheses and derived models listed below are formulated to provide additional information bearing on these more general problems.

The first concept involves population growth during the Archaic, associated with increasing specialization of economic pursuits and more restricted foraging territories. Data collected in the Piedmont region of Virginia and the Carolinas suggests that thoughout the Archaic stage aboriginal population was increasing (Ward 1983:66-69; Oliver 1981:26-27). One effect was probably to decrease the range of any single band, encouraging more thorough exploitation of locally available resources, the experimentation with resources previously unused, and interband exchange to allow access to commodities not locally available (Ford 1974:393-394). Such a process, once developed as an exchange network, would explain such Late Archaic phenomena as base camp sites, the production of goods appropriate to a semi-sedentary life style (e.g. steatite bowls) and the occupation of alluvial bottomlands, previously avoided, rich in riverine products.

A second concept, related to the above, states that pottery, fully sedentary villages, palisaded settlements and status differentiation occurred without reliance on horticulture (Woodall, in press). The increased population, coupled with a food supply heavily augmented by riverine products, was able to settle in relatively large permanent villages with satellite hamlets specializing in wild game procurement contributing to their maintenance. Such a pattern is suggested by recent excavations at the Donnaha Site near Winston-Salem, North Carolina. There is a low frequency of domesticates, although conditions for their preservation are excellent. The only significant technological innovation present in the Woodland occupation was the bow and arrow, which may have increased the carrying capacity of the mixed forest sufficiently to have allowed the increased population concentration. It would seem that cultural processes underway throughout the Archaic culminated during the Savannah River period to produce a sociocultural context into which pottery was readily assimilated. The bow and arrow, introduced at about the same time, increased the allowable size of villages and possibly encouraged a new settlement pattern, this characterized by large bottomland villages with related hamlets scattered in the adjacent uplands.

HYPOTHESIS #1

During the period 8,000 B.C.-0 A.D., aboriginal population within the survey area increased in overall density, with little or no change in the size of individual sites.

ARCHEOLOGICAL MODEL FOR HYPOTHESIS #1

The frequency of Archaic sites within the survey area will increase as a function of time, with the areal extent of the sites remaining constant. To test the hypothesis, it is not necessary to demonstrate actual contemporaneity of sites. Using chronological divisions of the Archaic of equal length, then a greater number of sites attributed to Late Archaic occupations than to Early Archaic occupations may be explained several ways:

1. The population remained the same, but the size of groups creating sites decreased through time. This consideration is obviated by examining site size.

2. The increased number of sites is attributable to increased mobility of the population; the same number of people are creating more sites as a result of increased settlement impermanence. This option can be examined by the collections from the sites, yielding artifact density statistics and limited activity evidence in relative frequency of artifact classes.

3. An increased number of sites is due to overall increase in the human population. One consequence of population growth in the eastern woodlands is assumed to be a decrease in the mobility of exploiting groups (Ford 1974; Cohen 1975).

HYPOTHESIS #2

Early Archaic settlements were located in "high probability" areas such as the high ground adjacent to stream confluences, or

in ecotones located at higher elevations. Late Archaic settlements are found not only in high probability areas, but in less attractive areas as well, e.g. in backswamp settings, centered in ecozones, or distant from water sources.

ARCHEOLOGICAL MODEL FOR HYPOTHESIS #2

Archeological sites attributable to the Early, Middle and Late Archaic will be located in settings corresponding to those specified in the covering hypothesis.

HYPOTHESIS #3

Ceramic settlements occurred in the active floodplains, with smaller Late Archaic settlements preceding the Woodland occupation. Small Woodland camps were present in the uplands adjacent to the floodplains.

ARCHEOLOGICAL MODEL FOR HYPOTHESIS #3

Woodland sites and Late Archaic sites will be present in the setting corresponding to those specified by the covering hypothesis. Hunting camps of the Woodland stage will be characterized by the presence of triangular points and few or no ceramics.

The sampling methods proposed are intended to provide data bearing on the test implications or models for these hypotheses. The sampling method will allow an estimation of the total number of sites in the project area, the topographic

settings associated with phases or periods of prehistoric occupation, and changes in site size and site frequencies through time.

ALTERNATIVE RESEARCH OBJECTIVES

Alternative research objectives have been formulated in case the field data do not allow assessment of the primary questions posed above. For example, this will happen should sites occur in very low frequency (producing a too-large probability of error in our statistical treatment to measure site type/phase correlation with topographic setting).

One research objective is to further assess the distribution of the Dan River ceramic series and to clarify its taxonomic status vis-a-vis the Wythe Series (Evans 1955) and Clarksville Series (Holland 1970) of Virginia. The Archeology Laboratories recently completed a study of the Donnaha Site, a Late Woodland site containing a ceramic sequence of late Uwharrie to early Dan River series (Woodall in press). The radiocarbon dates obtained indicate the ceramic changes were occurring between A.D. 1100-1400; the Buzzard Rock site in Roanoke County, Virginia yielded Dan River wares dated about this same time (Gardner 1980:10), but samples from the intervening region typically date several centuries later. A ceramic sample of this Late Woodland pottery from the Smith River will be used to compare with the Yadkin River and Dan River samples to define regional variants and, possibily, clarify the rate and direction of diffusion for the series.

Another objective is the study of the relationship between raw material and stone tool morphology. In a study now in its sixth year, a PhD. candidate at Pennsylvania State University has worked in the Archeology Laboratories analyzing an extensive collection of Archaic and Woodland projectile points (Snavely personal communication). One result is confirmation of a correlation of certain stone types with particular projectile point types (Hay and Stevenson 1984:43-45), similar to patterning observed by others analyzing Paleo-Indian materials (Goodyear 1979; Dragoo 1973; Gardner 1977). Data from the Smith River will reveal whether this is a local pattern (points under study all are from the northwestern N.C. piedmont) or is regional in scope. If the latter, then debitage alone holds promise as and indicator of site phase. These and other research questions emerging from the consultation process and literature review will be addressed in addition to our primary research goals should our sampling design and methods allow it.

Finally, we anticipated that some information can be brought to bear on our primary research questions even if the site frequency is unexpectedly low. This can be accomplished by "collapsing" our defined sampling strata so that, for example, first terraces and uplands combined could be compared to floodplains and stream confluences combined. While this will not provide the resolution we desire, it may yield a gross indicator of settlement pattern shift and, in turn, a somewhat weaker test of the hypotheses. It also will allow an estimation of site frequency within the universe although the sample variation may be affected.

REFERENCES CITED

Cohen, Mark N.

1975 Archaeological Evidence for Population Pressure in Pre-Agricultural Societies. American Antiquity 40(4), pp. 471-475.

Dragoo, Don W.

1973 The Wells Creek Site, Stewart County, Tennessee. Archeology of Eastern North America 1:1-56. Eastern States Archeological Federation.

Evans, Clifford

1955 A Ceramic Study of Virginia Archeology. Smithsonian Institution, Bureau of American Ethnology Bulletin 160.

Ford, Richard I.

1974 Northeastern Archeology: Past and Future Directions. Annual Review of Anthropology 3, pp. 385-413.

Gardner, Paul S.

1980 An Analysis of Dan River Ceramics from Virginia and North Carolina. Unpublished MA Thesis, University of North Carolina at Chapel Hill.

Gardner, William M.

1977 Flint Run Paleo-Indian Complex and its Implications for Eastern North American Prehistory. In Amerinds and their Paleoenvironments in Northeastern North America, W.S. Newman and B. Saliven (eds.), Annals of the New York Academy of Sciences 288:257-263.

Goodyear, Albert C.

1979 A Hypothesis for the Use of Cryptocrystalline Raw Material Amoung Paleo-Indian Groups of North America. Research Manuscript Series No. 156, Institute of Archeology and Anthropology, University of South Carolina.

Hay, Conran A. and Christopher M. Stevenson

1984 The State College By-Pass Archaeological Project: Final Mitigation Research. Technical Report No. 1, Department of Anthropology, Pennsylvania State University.

Holland, Charlton G.

1970 An Archeological Survey of Southwest Virginia. Smithsonian Contribution to Anthropology 12.

Matson, Richard G. and William D. Lipe

1975 Regional Sampling: A Case Study of Cedar Mesa, Utah. In Sampling in Archaeology, James W. Mueller (ed.), The University of Arizona Press.

Oliver, Billy L.

1981 The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type. Unpublished MA Thesis, Unversity of North Carolina at Chapel Hill.

Ward, H. Trawick

1983 A Review of Archaeology in the North Carolina Piedmont: A Study of Change. In The Prehistory of North Carolina, Mark A. Mathis and Jeffrey J. Crow (eds.), pp. 53-81.

Woodall, J. Ned

in press The Donnaha Site: The 1973 and 1975 Excavations. Division of Archives and History, Raleigh.

Supplemental Proposal For
RFP DACW54-84-R-0015

From

Wake Forest University

July 9, 1984

TABLE OF CONTENTS

Research Objectives	2
Prehistoric Artifact Analysis	4
Historic Research Design	10
References Cited	20
Enclosure A - Catalogue Form	
Enclosure B - Petrographic Analysis Form	
Enclosure C - Ceramic Code Sheet	

RESEARCH OBJECTIVES

Additional research objectives have been formulated to supplement the primary questions posed above. These issues will assume primary status should sites occur in very low frequency, producing a too-large probability of error in our statistical treatment to measure site type/phase correlation with topographic setting. However, we anticipate that some information can be brought to bear on our primary research questions even if the site frequency is unexpectedly low. This can be accomplished by "collapsing" our defined sampling strata so that, for example, first terraces and uplands combined could be compared to floodplains and stream confluences combined. While this will not provide the resolution we desire, it may yield a gross indicator of settlement pattern shift and, in turn, a somewhat weaker test of the hypotheses. It also will allow an estimation of site frequency within the universe although the sample variation may be affected.

Another research objective is to further assess the distribution of the Dan River ceremic series and to clarify its taxonomic status vis-a-vis the Wythe Series (Evans 1955) and Clarksville Series (Coe 1964:100; Holland 1970) of Virginia. The Archeology Laboratories recently completed a study of the Donnaha Site, a Late Woodland site containing a ceramic sequence of late Uwharrie to early Dan River series (Woodall in press). The radiocarbon dates obtained indicate

the ceramic changes were occurring between A.D. 1100-1400; the Buzzard Rock site in Roanoke County, Virginia yielded Dan River wares dated about this same time (Gardner 1980:10), but samples from the intervening region typically date several centuries later. A ceramic sample of this Late Woodland pottery from the Smith River will be used to compare with the Yadkin River and Dan River samples to define regional variants and to better understand the relationship between southwest Virginia ceramics and northwest North Carolina Piedmont ceramics.

Complementing the study of ceramic artifacts will be research on the lithic assemblages. A specific focus of this research will be an examination and critique of a model of lithic material utilization through time. As developed by Snavely (n.d.), this model asserts that the observable and documented (Bass 1977:50-62; Goodyear 1979; House and Wogaman 1977:52) macro-trends in selection of lithic material throughout prehistory may be extended to a much finer degree of resolution. The significance of this lithic patterning is that it allows definition of discrete occupation loci at multi-component sites. As a result, the research hypotheses posited above can be tested using larger and more accurately defined data sets.

ARTIFACT ANALYSIS

In order to address the research objectives regarding the Charity Lake artifacts, the following program of analyses will be implemented.

Laboratory Preparation:

Artifacts recovered from survey and excavation will be processed by accepted techniques according to artifact class. The artifact collections will be cataloged using the standard Wake Forest University archeology laboratory form (Enclosure A). Ceramic and lithic artifacts will be processed by washing, labeling, sorting into artifact classes, and bagging by analytic units. A critical component of this processing is artifact labeling. Unique artifact identification is necessary not only for replication of analysis, but also for maintenance of collection records. For ceramics and lithics, the site number and provenience is written on a small patch of white Gesso with India Ink. This label is then covered with a protective coat of clear polyurethane. Each artifact will receive a unique ID number, specific to each site. Different colors of Gesso on the ID field aid as a visual key to artifact provenience during analysis. Artifacts will be boxed alphabetically by county and numerically by site number.

Ceramic Analysis (Prehistoric)

The analysis will be conducted in four phases: Phase One--Data Preview; Phase Two--Data Description; Phase Three--Data Patterning; and Phase Four--Data Synthesis and Interpretation.

Phase One:

In preparation for the extensive analysis of pottery gathered from the sampling clusters, literature will be collected pertaining to south-western Virginia ceramics and ceramic types. A comparative collection of these ceramic types will be assembled to give greater precision to the typological analysis. The ceramics analyst will meet with a professional from the southwestern Virginia area to discuss and define these types. Phase One will be a typological analysis based on current literature typologies for the area. The objective of this phase will be to establish relative dates for sites sampled and coordinate field data with current studies.

Phase Two

Phase Two, Data Description, will view the pottery sample as a descriptive data summary including a statistical review. This phase of analysis will begin at the site level. Each sherd will be assessed according to attributes presented in Enclosure C. It should be noted that the attributes presented on the ceramic code sheet are an exhaustive listing; only those attributes appearing in the Charity Lake data will be incorporated into analysis. Statistical Review will include univariate and bivariate statistical summaries as well as frequency distributions.

It is anticipated that the descriptive profile of pottery attribute co-occurrence emerging from this analysis will reinforce existing typologies. The quantitative precision of the Charity Lake ceramic analysis will nevertheless provide an opportunity to better evaluate these typologies.

At this stage of analysis, descriptive data patterning will emerge. Analytical comparisons can be made between the assemblages

within the sampling clusters as well as between clusters. Interpretation of data patterning will be guided by the perspective discussed below in Phase Three.

Phase Three

Phase Three will deal with data patterning. Longitudinal research on northwestern Piedmont ceramics (Newkirk 1978; Barnette 1978; Snavely 1979a, 1978b; Snavely and Raber 1982) has indicated that variability in populations of ceramics can perhaps best be patterned by reference to technological considerations. It has been observed in northwestern Piedmont North Carolina that certain general ceramic trends based on an increased sophistication in selection and utilization of clays exist. These technological changes are manifest in changes such as the clay matrix (fabric), mineral inclusions and degree of vitrification (Claggett and Cable 1982:771). For example, the Haw River research has shown that there appears to be a pattern of greater selectivity in choosing clay sources to obtain a desired final product. We might anticipate then that the early ceramics in the project area may be made from readily available poor quality clays. During the next ceramic period we can anticipate evidence of a deliberate selection of clays and inclusions to obtain a thinner, tougher and more durable fabric. Mixture of clays implies an attempt to control pottery quality by the selective use of several local clays and tempering materials. Better clay mixing and processing results in greater success in reducing shrinkage and ultimately a thinner, tougher ceramic with increased strength and durability.

Analysis of the Charity Lake ceramics will provide an opportunity to evaluate the utility of this typological construct.

Phase Four:

Phase Four, Data Synthesis and Interpretation, will be concerned with comparisons between the ceramics from the Virginia drainage area (Smith River-Dan River drainage) and those of the Yadkin River drainage. Of special interest will be similarities of style (interior and exterior surface treatments, vessel shape, rim treatments, and decoration) and technological attributes (temper, firing, and clay utilization) as well as comparisons of relative dates of pottery sequences and sites between areas.

Technological changes such as those mentioned in Phase Three have been observed in the Yadkin River drainage at the Donnaha Site (Woodall in press) and at the McPherson Site (Woodall personal communication). By studying the southwestern Virginia pottery in terms of this model, possible information can be gained concerning whether this technological pattern of change observed throughout Haw River and Yadkin River sites is a local phenomenon or a regional technological pattern.

Lithic Analysis: Assemblage Classification

Classification of the lithic assemblages recovered from Charity Lake sites will involve two schema. The first classification will establish artifact membership in item-category sets. These sets are defined primarily by technological considerations, with associated morphological and functional connotations. The lithic assemblage item-categories will include, but not be limited to

(1) core/core fragment

(2) blade/flake-blade - $\bar{x}$ = 4 - 5 cm^2, 1.5 gms) - analysis of lithic collections from NW Piedmont N.C. has suggested that true blade technology is difficult to isolate. Rather, blades appear to be a morphological variant of utilitarian flakes removed from a tool-core.)

(3) large flakes - primary flakes from cores or quarry nodules - measurement data indicate a bimodality of flake size contrasting with Category (2) flakes

(4) formal tools - highly curated artifacts such as thumbnail scrapers, drills, adzes, etc.

(5) projectile points/hafted knives

(6) shatter

(7) tertiary/retouch flake (less than 2.5 cm^2) - small flakes resulting from tool edge re-sharpening, platform maintenance/preparation

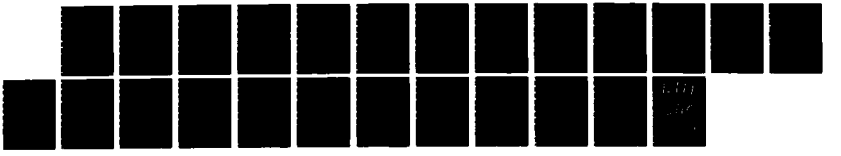
(8) other - e.g., ground stone, fire-cracked rock

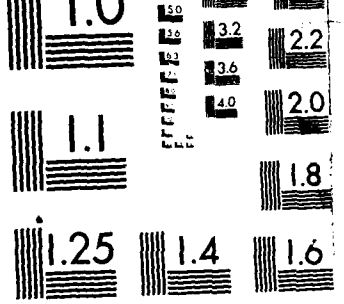
The assemblage profiles presented by these data categories will provide the information necessary to develop statements of behavioral differences occurring at site locales.

The second classification of lithic artifacts will focus on lithic material. The effective congruence between the lithic material inventory of NW Piedmont N.C. and that understood to occur in the project area suggests the appropriateness of the classification model described below. This classification, as developed by Snavely, proceeds from a set of working assumptions. The first, mentioned above, is that the aboriginal selection and utilization of lithic materials changed through time. That these

AD-A168 104 ARCHEOLOGICAL SURVEY OF THE PROPOSED CHARITY LAKE HYDROELECTRIC PROJECT U (U) WAKE FOREST UNIV WINSTON-SALEM NC ARCHEOLOGICAL LAB L E ABBOTT ET AL. 7/7

UNCLASSIFIED APR 86 DACW54-84-C-0038 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

changes are visible in the archeological record is a reflection of the conservative nature, hence slow rate of change, in hunter/gatherer societies.

The second assumption, supported by the recovery of lithic caches in Piedmont N.C., is that the majority of lithic material enters a site initially as toolblank cores. Importantly, the caches of these types of cores indicate a high degree of homogeneity in lithic material. Thus, the reduction of a tool-blank core -- or set of cores -- at a site for a specific number of activities yields lithic artifacts readily associated by virtue of common origins from a finite number of cores.

A third assumption is that the various kinds of lithic material each undergo a unique and differentiable weathering trajectory. By expanding the concept of weathering trajectory to include the sum of cultural and natural processes affecting the macro-states of a lithic specimen, it is possible to control the apparent extreme variation in lithic material at a site. This control is ultimately anchored in replication and geochemistry studies.

Repeated success at the Archeology Labs, Wake Forest University, in creating lithic material categories from multi-component site assemblages (e.g., Beckerman 1984), indicates that discrete sets of materials combine into material "theme" groups. These lithic groups are interpreted as temporarily distinct occupation assemblages. It is significant that the lithic material groups manifest spatial integrity; this spatial information is recovered by the horizontal provenience control initiated during field reconnaissance. It should also be noted that this model of lithic classification has been successfully applied to assemblages from central Pennsylvania

(Hay and Stevenson 1984;43-50). In that study, both chronological control and behavioral interpretations were enhanced by this structural approach to lithic variability.

A final component of lithic assemblage material classification is the data recording necessary for replication, critique, and curation control. The varied states of lithic material expression effectively eliminate the utility of simple descriptive and/or conventional geological terms. Similarly, the detail of petrological analyses such as those presented for the Haw River data (see Appendix 4 in Claggett and Cable 1982) is much too fine-grained for regional studies. This precision is necessary for foundation reference, but not sufficient for broader areal application. It is therefore necessary to describe lithic material expression by reference to an attribute profile. The variables and attribute states comprising this profile are exhibited in Enclosure B.

The Historic Research Design

Analysis of the eighteenth and early nineteenth century frontier in the Smith River Valley will contribute information concerning European settlement pattern in the antebellum Piedmont of southwest Virginia. Anderson-Green (1978) points out that scholars, in general, focus on the antebellum south in terms of only three classes of individuals; planters, slaves, and poor whites. These writings tend to overlook the contributions to the development of the "old South" by the poor whites or "plain folk" (Owsley 1949) who inhabited and opened the frontier areas to the east. According to Anderson-Green, "although recent historians have issued some correctives to this misunderstanding of the southern frontier few

detailed studies of individual Southern back-country pioneers, and their settlements, have yet been published" (1978:413).

As a result of her work regarding the New River frontier settlement on the Virginia and North Carolina border, Anderson-Green makes note of a particular settlement pattern operational in the South during the pioneer period using the experience of Andrew Baker, a pioneer in the New River Valley, circa 1754, to illustrate this pattern. According to Anderson-Green (1978), Andrew Baker was one of the first pioneers to claim land on the New River near the Virginia-North Carolina line. He was driven out of the area by Indians in 1754, but returned in 1765 with additional families to permanently settle the area. The settlement pattern arises in the fact that early southern pioneer groups did not move into an area in ignorance of their exact location; rather, certain individuals were sent ahead to assess the land and prepare an area. Owsley (1969) delineates the same pattern: "The method of migration and settlement in the South was fairly uniform during the pioneer period. Friends and relatives living in the same or neighbor's communities formed one or more parties and moved out together, and when they had reached the promised land constituted a new community, which was called a 'settlement' and still is so called. Settlements were frequently miles apart, and the inhabitants of a single settlement would be more scattered then they had been in the old community in the East; and other settlements would come in after the first trek in smaller groups or in single families and fill in the interstices. These later comers would often be relatives or friends of those who had come first, or friends of their friends" (1969:21).

Once settled, the pioneers practiced cultivation and built numerous churches in order to introduce the middle-class lifestyle that most had known in the East into the area. Status was usually reflected in the architecture of the plain folk. As the basic stage of early pioneer life slowly evolved into a more prosperous agrarian society, the prominent families began to replace log cabins with the southern "I" architectural style, two storied houses with white clapboard siding and long, one-storied porches. These houses echoed the agrarian stability of middle-class farmers who carried on much of the English folk culture of the eastern portions of the South (Glassie, 1968).

One important social feature notable among the early groups of the Piedmont region was the lack of division between the members in terms of social standing. According to Owsley, "important forces that diminished the feeling of class stratification and helped in the creation of a sense of unity...were the association of rich and poor in all religious activities and in the schools, and the frequent ties of blood kinship between them" (1949:37). Kinship ties played an important role in reducing the level of social stratification. The earliest inhabitants of a particular frontier area held the largest and best tracts of land in addition to the most prominent positions of leadership. Later arrivals had to settle on smaller, more remote areas between and adjacent to the large land owners. Despite the differences in wealth, the population was still small and the choice of mates limited; therefore, marriages and interfamily alliances took place regardless of social status (Anderson-Green, 1978). In time this interconnection of families through marriage made literally everyone in a given area

kin. Cash supports this assumption thusly: "the degree of consanguinity among the population of among the old southern back country was very great...hence by 1800 any given individual was likely to be cousin, in one degree or another, to practically everybody within a radius of thirty miles about him" (1941:27)

Historians have noted that the leadership contributed to the south by these frontier families, in alliance with the planter-aristocrates of the East, was a major factor in antebellum southern culture (Owsley, 1969). The leaders on the southern frontier, i.e. militia officers, lawyers, teachers, merchants, physicians and clergy, imitated aspects of the aristocratic style of life in the East; however, opinions vary concerning the degree of aristocratic or democratic characteristics in the lifestyle of the southern back country. Cash (1941) emphasizes the democratic characteristics that the frontier produced. Abernathy (1940) and Sosin (1967) emphasize the aristocratic tone of life in the frontier south. Owsley (1949) emphasizes the interconnections of folk and gentry showing that leadership for the South, in general came out of the most talented and refined families of the plain folk.

The Charity Lake project provides an opportunity to study individuals and families who initiated the frontier development process in the Piedmont of Virginia. According to Robert W. Ramsey, "many able historians have recognized in their works that the frontier was really synonymous with the people who occupied it...yet the writing has been largely general in nature, particularly with regard to the colonial period...remarkably few individuals are identified and assessed" (1964:xi). Several hypotheses can be generated and tested in regard to the statements above. These

hypotheses and the research question that accompany them will be addressed by collecting data from archeological, archival and natural resources. This study will be anthropological not historical, in that aspects of historic southern settlement patterns and the economic and social evolution of a specific area will be studied rather than the particular events of a group of people.

Hypothesis #1

A few closely associated and/or related families represent the first-generation settlers within the survey and surrounding areas.

Archeological Model for Hypothesis #1

The settlement pattern described by Anderson-Green (1978) and Owsley (1949) can be used as a model to test the above hypothesis. Settlement origins can be traced using the traditional architectural forms discussed above to note the development of the early population.

Certain research questions arise:

(1) Is the settlement pattern noted by Anderson-Green and Owsley applicable to the survey area?

(2) Who were the first generation inhabitants of the survey area? What were their origins? What were their motives for migration and settlement of this area?

(3) Are there any direct decendants of the first generation settlers presently within the area?

Hypothesis #2

The economic development of the area is reflected in the architecture.

Archeological Model for Hypothesis #2

The architectural forms are expected to be simple, straight forward, and vernacular, reflecting the subsistence economy, mostly tobacco farming, in the area. The majority of the buildings will be primarily log or frame construction, with few brick structures. A conservative, pragmatic, and functional building practices are expected (Margaret Smith, personal communication).

Certain research questions have been noted by Smith in regard to the above hypothesis:

(1) What are the effects of a market economy on a subsistence economy in terms of architectural expression?

(2) What is the relationship between current architectural style and technology and folk or vernacular building traditions?

(3) Is there a continuation of the frontier in traditional, indigenous architectural forms, i.e., log cabins?

Hypothesis #3

The social evolution of the area is reflected in the settlement pattern, architecture and ceramics.

Archeological Model for Hypothesis #3

The residences of subsequent generations of immigrants should be located in areas where the soils are less conducive to cash crop

farming, i.e. the clay uplands. The majority of the very fertile lands, i.e. river bottoms, would have been claimed by the first generation settlers. The ownership of the larger, more fertile tracts of land would allow greater yields of cash crops and accumulation of more wealth by the owners.

The presence of the southern "I" architectual style should indicate an increase in affluence and the shift from subsistence farming to a state of agrarian stability and middle-class status. The degree to which the affluent frontiersman imitated the aristocratic east should be manifest in higher frequencies of fine or imported ceramic wares, in addition to the architectural style of their houses.

Certain research questions are generated:

(1) Can the development of the antebellum south be traced through the existing architecture in the area? Does this architecture and its implied stability change after the Civil War?

(2) What soil types are present in the survey area? Are there relationships between soil types and settlement patterns of first generation settlers and successive generations?

(3) What types of ceramic wares were being used in the survey area? Are there high frequencies of fine and/or imported wares within the area? Which architectural style(s) are associated with these fine and/or imported wares?

(4) Who were the notable individuals that arose from the "plain folk" of the area? What were their contributions to the development of the general area?

(5) What was the degree of consanguinity in the area?

(6) Were aristocratic or democratic characteristics dominant in the lifestyle of those within the survey area?

Analysis

First generation Smith River families will be studied using county land, tax and marriage records. In addition, court records, wills, militia lists, pensions and census records will be sought for information. Published works concerning the local history of the area will be consulted. In particular the works of Hurt (1982), Pedigo and Pedigo (1939) and Wingfield (1964) will be used as references.

A total of the four historic cemeteries lie within the boundaries of the survey area. The UTM coordinates of these burial grounds are as follows:

(1) N4075570, E577195

(2) N4076770, E577770

(3) N4077100, E575710

(4) N4079400, E575175

These cemeteries will be assessed by recording the following information, if available:

(1) Names of individuals

(2) Dates of birth/death

(3) Names of spouses and offspring

(4) Maiden names of women

(5) Any other information recorded on the headstone (in the event of unmarked graves, efforts will be made to learn the identities of those individuals)

If the cemeteries are located in one of the randomly chosen clusters to be sampled, then it will be included within the discussion of that cluster. If the cemeteries are not located within one of the sample units, then they will be dealt with on a separate basis. The information gained will be used to assess the consanguinity of the individuals in the area.

Information concerning the origins of the surrounding communities of Charity, Dodson and Elamsville, Virginia will be compiled. Information concerning the origins of local churches will be gathered. The information will consist of the church name and denomination, charter date, and the original members (if available).

Information concerning historic structures encountered during the survey will be gathered in accordance with the guidelines issued by the Scope of Work. The works of France (1976), Swaim (1978) and Whitwell and Winborne (1982) will be used as references to assess those structures recorded.

Information concerning soil types will be gathered from the Soil Conservation Service. Information concerning soil type, acidity, permeability and recommended crops will be correlated to the locations of historic sites dating to the pioneer period. It is assumed that the first generation settlers would have occupied areas with the best soils.

Ceramics will be classified using South (1971), Hume (1970, 1977), Miller (1980) and a comparative collection of ceramics from Williamsburg, Virginia on loan to the Archeology Laboratories at Wake Forest University. The frequencies of fine or imported wares occurring on a site will be computed and compared to the frequencies of local and/or utilitarian wares. The types and frequencies of

wares present and absent between sites will be noted in relation to site location and soil type. It will be assumed that the presence of fine and/or imported wares on a site are related to the level of affluence attained by the inhabitants. It is also assumed that fine or imported wares would have been too expensive for the less affluent.

Glass will be classified in terms of Hume (1970), White (1978), Lorrain (1968) and Bauman (1968). Nails will be classified according to Nelson (1968). Buttons will be classified in terms of Olson (1963) and South (1963).

All historic artifacts will be prepared for curation using methods described by Singley (1981).

REFERENCES CITED

Abernethy, Thomas P.
1940 Three Virginia Frontiers. Baton Rouge.

Anderson-Green, Paula H.
1978 "The New River Frontier Settlement on the Virginia-North Carolina Border." In The Virginia Magazine of History and Biography. 86:4 pp. 413-431.

Barnette, Karen
1978 Woodland subsistence-settlement patterns in the Great Bend area, Yadkin River valley, North Carolina. Unpublished M.A. Thesis, Department of Anthropology, Wake Forest University.

Bass, Quintin R. (II)
1977 Prehistoric Settlement and Subsistence Patterns in the Great Smoky Mountains. M.A. Thesis, Department of Anthropology, University of Tennessee, Knoxville.

Bauman, Richard
1968 "Glass and Glasswares. "In Handbook for Historical Archaeology, Part 1, John Cotter, (ed.), pp. 30-36.

Beckerman, Ira
1983 The Greater Yadkin River Archeological Survey Project: Interim Report. Manuscript submitted to the Archaeology Branch, Division of Archives and History, Raleigh.

Cash, W.J.
1941 The Mind of the South. New York.

Claggett, Steve R. and John S. Cable, Assemblers
1982 The Haw River Sites:Archeological Investigations at Two Stratified Sites in the North Carolina Piedmont. Commonwealth Associates, Inc.

France, Mabel M.
1976 Primitive Architecture:Lifestyle 1776 to 1976, Franklin County and Southwestern Virginia. Private Printing.

Glassie, Henry
1968 Pattern in the Material Folk Culture of the Eastern United States. Philadelphia.

Goodyear, Albert C.
1979 A Hypothesis for the Use of Cryptocrystalline Raw Material Among Paleo-Indian Groups of North America. Research Manuscript Series No. 156, Institute of Archeology and Anthropology, University of South Carolina.

Hay, Conran A. and Christopher M. Stevenson
1984 The State college By-Pass Archaeological Project: Final Mitigation Research. Technical Report No. 1, Department of Anthropology, Pennsylvania State University.

House, John H. and Ronald W. Wogaman
1978 Windy Ridge: A Prehistoric Site in the Inter-Riverine Piedmont in South Carolina. The University of South Carolina, Institute of Archeology and Anthropology, Anthropological Studies No. 3.

Hume, Ivor Noel
1970 A Guide to Artifacts of Colonial America. Alfred Knopf, New York.
1977 Early English Delftware from London and Virginia. Colonial Williamsburg Occasional Papers in Archaeology, Vol. 2, Williamsburg.

Hurt, Frank B.
1982 The Heritage of the German Pioneers in Franklin County, Virginia. Stone Printing Co., Roanoke.

Lorrain, Dessamae
1968 "An Archaeologist's Guide to Nineteenth Century American Glass." Historical Archaeology 2:35-44.

Miller, George L.
1980 Classification and Economic Scaling of 19th Century Ceramics. Historical Archaeology 14:1-41.

Nelson, Lee H.
1968 Nail Chronology:as an aid to dating old buildings. American Association for State and Local History Technical Leaflet 48, History News, Vol. 24 No. 11.

Newkirk, Judith A.
1978 The Parker Site: a woodland site in Davidson County, North Carolina. Unpublished M.A. Thesis. Department of Anthropology. Wake Forest University.

Olson, Stanley J.
1963 Dating Early Plain Buttons by Their Form. American Antiquity. 28 (4) pp. 551-553.

Owsley, Frank L.
1949 "Forward." In Plain Folk of the Old South. Baton Rouge.
1969 "Patterns of Migration." In The South, Old and New Frontiers, selected Essays of Frank Lawrence Owsley. Harriet C. Owsley. (Ed.), Athens, Georgia.

Pedigo, Lewis and Virginia G. Pedigo
1939 History of Patrick and Henry Counties. Stone Printing Co., Roanoke.

Ramsey, Robert W.
1964 Carolina Cradle: Settlement of the Northwest Carolina Frontier, 1747-1762. Chapel Hill.

Singley, Katherine R.
1981 Caring for Artifacts after Excavation--Some Advice for Archaeologists. Historical Archaeology 15: pp. 36-48.

Snavely, Alan N.
n.d. Prehistoric Human Populations in Piedmont North Carolina: An Archaeological Study. Ph.D. Dissertation, The Department of Anthropology, Pennsylvania State University. University Park, PA. In Preparation.
1978a Quantitative investigation of ceramic variability at 31Dv4, a Woodland site in Piedmont, North Carolina. Appendix A, unpublished M.A. thesis, The Parker Site: A Woodland Site in Davidson County, North Carolina by Judith A. Newkirk, WFU.
1978b Multivariate assessment of prehistoric ceramic variability in the Great Bend are, Piedmont, North Carolina. Appendix A, unpublished M.A. thesis by Karen Barnette, Woodland Subsistence-settlement patterns in the Great Bend area, Yadkin River Valley, North Carolina, WFU.

Snavely, Alan N. and Paul Raber
1982 Technological and Statistical Assessment of Ceramic Assemblages. In: The Haw River Sites: Archeological Investigations at Two Stratified Sites in the North Carolina Piedmont. Assembled by Stephen R. Claggett and John S. Cable. Commonwealth Associates. Jackson, Michigan.

Sosin, Jack M.
1967 The Revolutionary Frontier, 1763-1783. New York.

South, Stanley
1963 Analysis of the Buttons From the Ruins at Brunswick Town and Fort Fisher, North Carolina. North Carolina Department of Archives and History, Raleigh.
1971 Ceramic Analysis Tools for the Interpretations of Eighteenth Century British America Sites to Accompnay a Paper on "Evolution and Horizon as Revealed in Ceramic Analysis in Historical Archaeology. Institute of Archeology and Anthropology, University of South Carolina.

Swaim, Doug
1978 Carolina Dwelling, North Carolina State University, School of Design Student Publication, Vol. 26.

White, John R.
1978 Bottle Nomenclature: A Glossary of Landmark Terminology for the Archaeologist. Historical Archaeology 12:58-67.

Whitwell, W.L. and Lee W. Winborne.
1982 The Architectural Heritage of the Roanoke Valley. University Press of Virginia, Charlottesville.

Wingfield
1964 Franklin County, Virginia, A History. Chesapeake Booke Company, Benville.

Woodall, J. Ned
in press The Donnaha Site: The 1973 and 1975 Excavations. Division of Archives and History, Raleigh.

PROPOSAL TO

The U. S. Army Engineer District, Wilmington, CE for a lithic material sources survey of a portion of the Smith River, Virginia. A Supplemental Proposal for an Archeological and Historical Survey of the Damsite and Archeological Sampling of the Impoundment Area, Charity Lake, Patrick and Franklin Counties, Virginia.

TABLE OF CONTENTS

Abstract 3

The Survey Area. 4

The Research Orientation 5

The Sampling Strategy and Field Methods. 6

Enclosure A - Personnel

ABSTRACT

This proposal is submitted as a supplement to the proposal submitted to the U. S. Army Corp of Engineers, Wilmington District for an archeological and historical survey of the proposed Charity Lake. This proposal is for a lithic material sources survey along the Smith River to document the range of variation of the local lithic resources within the proposed area. This survey is intended to provide information concerning the nature of the local resources. This information will be used to augment the assessment of the cultural materials recovered within the project area. The necessity of this survey is justified by the high, nearly inclusive, occurrance of quartz and quartzite artifacts on sites recovered as a part of this project.

THE SURVEY AREA

The survey area is located in Patrick County, Virginia along the Smith River. The survey will follow the course of the Smith River beginning at the intersection of the Smith River and Road #704, UTM Northing 4073350m Easting 571285m Charity, VA Quadrangle (USGS)7.5' Series, and proceeding 14 kilometers downstream to a point approximately 914 meters downstream from the confluence of Small Creek and the Smith River, UTM Northing 4078160m Easting 577490m. This section of the Smith River will be physically walked. All exposed sandbars within this segment of the river will be plotted. In the event that more than 10 sandbars are located, a random selection of the total will be made until a minimum of 10 sandbars are sampled.

CHARITY LAKE -- Lithic Analysis

Proposal for lithic material sources

This proposed phase of research is designed to study the occurrence and variability of lithic material sources used during prehistory in the project area. This study is necessary to establish a data framework for the analysis of lithic artifacts recovered from archeological sites in the proposed Charity Lake Reservoir. The absence of detailed geological mapping in the reservoir is a strong argument for the acquisition of this background data.

Preliminary lithic analysis conducted during artifact cataloging clearly demonstrates the almost exclusive use of quartz and quartzite by aboriginal societies. There are several indications that the subtle variation in attribute states from one quartz specimen to another is significant in understanding both the temporal and behavioral aspects of a given lithic assemblage.

The interpretation of lithic assemblages bears directly on models of settlement pattern and spatial interaction. The model of Archaic stage population growth outlined as a research objective in the proposal is one example. In this model, one hypothesized effect of population growth was inter-band exchange to allow access to non-local commodities. In order to document this exchange, a framework of lithic material occurrence is required.

The proposed study is directly relevant to other research objectives. Lithic material source data will provide a reference collection of fresh, unaltered specimens. These specimens can be profitably contrasted with prehistoric lithic artifacts which may have been altered by cultural activities such as fire, or deposition in a soil matrix distinct from naturally occurring contexts.

These reference data are especially applicable to the research objectives of lithic assemblage classification. The successful application of the classification schema outlined in the proposal depends upon a set of working assumptions. These assumptions are derived from an understanding of attribute definition, variability, and co-occurrence. It is precisely these attribute data which the proposed study of lithic sources will address.

Sampling Strategy and Field Methods

The objective of field survey is to obtain a representative sample of lithic materials used during prehistory in the project area. Lithic materials recovered to date from site survey indicate approximately 95% of the material is quartz and quartzite.

Geological principles of stream channel erosion dynamics suggest that a representative sample of available lithic materials can be retrieved from exposed sandbars in Smith River. The bias introduced by sampling only along the river can be minimized by considering (1) the cost-efficiency of data acquisition and (2) an assumption of

aboriginal lithic procurement from the highly visible and easily accessible sandbars. Thus, a sample of quartz and quartzite cobbles will be retrieved from sandbars as a statement of lithic material variability and availibility.

A pedestrian survey of Smith River in the project area will define the population of cobble sandbars. The size of this population and budget constraints will determine the exact sample recovered. It is anticipated that at least 50% of the sandbars recorded during reconnaissance can be sampled, although this fraction may be modified by field data.

The specific sampling strategy employed to collect a data sample of cobbles from each sandbar will depend on the number of sandbars and cobble density. A small number of sandbars will mean that each can be sampled. Alternatively, a large number of sandbars of variable size would require systematic or random sampling.

Any given sandbar selected for data collection will be sampled proportional to its size. A line transect will be situated along the major axis of the sandbar, and each cobble on the surface which intersects this line will be measured for quality of material.

Quality of material will be measured by visual inspection of a fresh surface. Material quality will be recorded as one of several ordinal categories. The material quality categories will be determined by (1) review of site lithic inventories, (2) field inspection of lithic variability, and (3) consultation with geologists. Cobble fragments (samples) will be collected from each

sandbar transect. Field logistics dictate that only a portion of inspected cobbles be collected. The specific number of cobbles collected will be determined during river survey and field pre-test of sampling strategy. Collection strategy will be explicitly defined and consistent from one transect to another.

Complementing each formal sample transect will be a "range collection" of each sandbar. This collection strategy will allow documentation of rare events, such as down-washed cobbles of chert. This sampling strategy is purposive in that specimens of high-quality crypto-crystalline material will be collected to document their presence.

END

DTIC

7-86