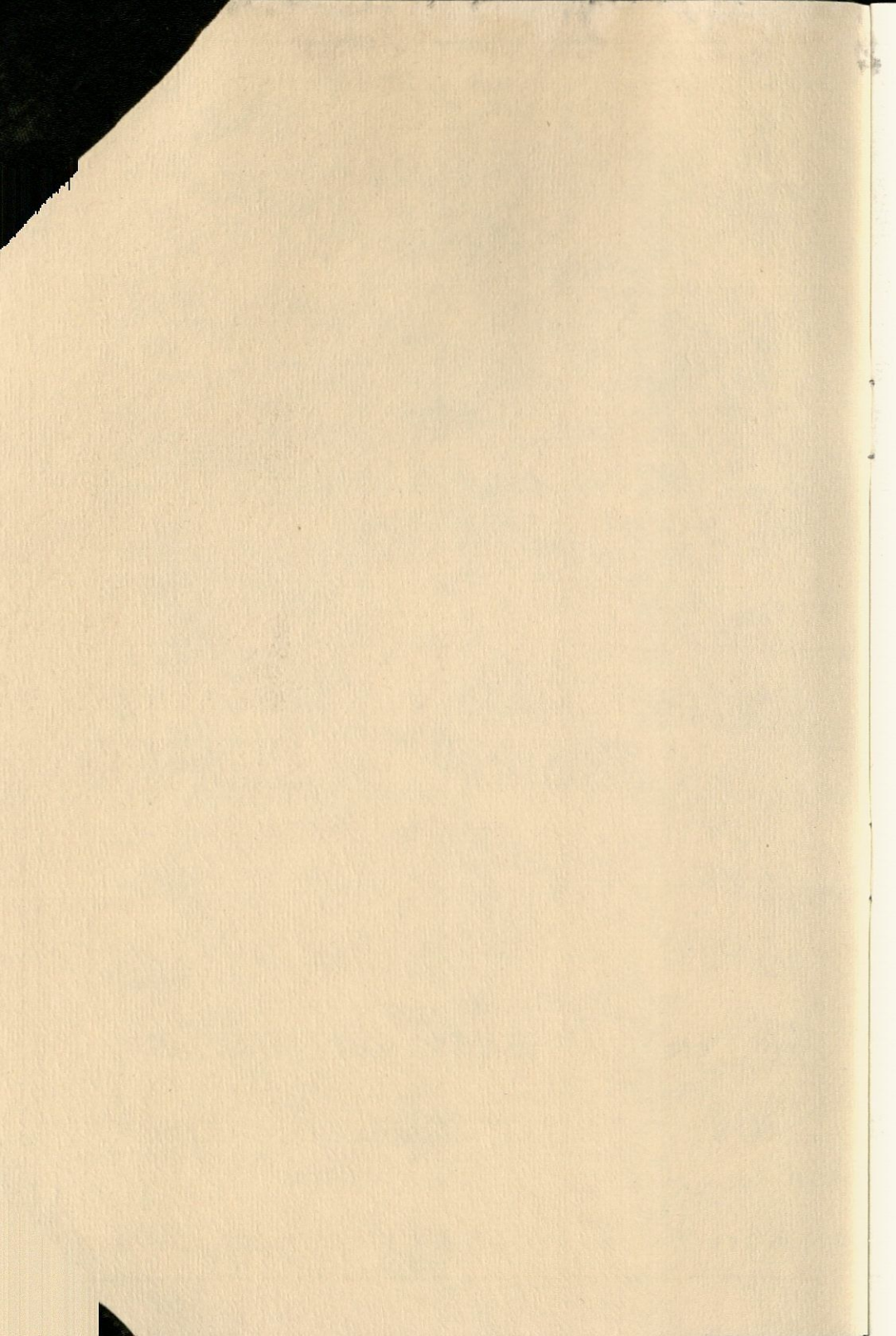
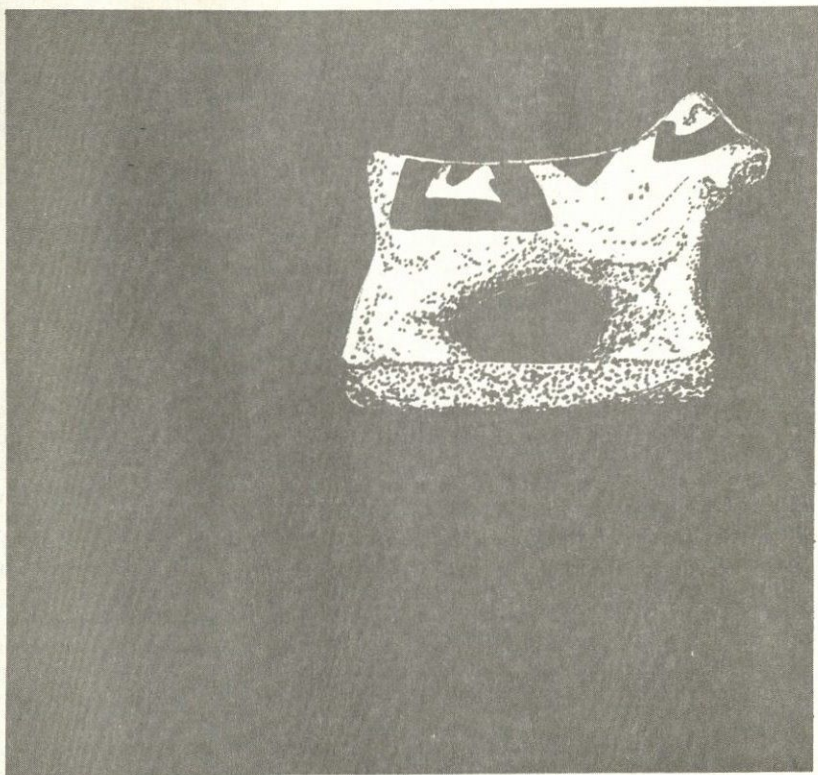


THE PREHISTORY OF CHEVELON
DECEMBER 1974

AN EXHIBIT SPONSORED BY
THE UNIVERSITY ART GALLERY
AND
THE ANTHROPOLOGY DEPARTMENT

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON





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This exhibition is a joint project of the Department of Anthropology and my Museum Technique class. The major function of the University Art Gallery is to support the teaching programs and to enrich the university and the community at large with our cultural heritage.

Michael Milkovich

Director

Assistant Professor of Art History

INTRODUCTION

"Chevelon" is the name of a stream that drains an area of about 1000 square miles in north-central Arizona. The stream flows through a great variety of environments from ponderosa pine forest in its mountainous southern headwaters to desert in the north where it flows into the Little Colorado River. In this regard Chevelon is no different from the other streams flowing from the mountainous Mogollon Rim out onto the Colorado Plateau. Similarly, the contrast between the few hundred individuals who live in the drainage today and the many thousands who lived there between AD 1000 and AD 1400 does not distinguish it from nearby drainages. For our purpose, it is distinctive only because for the last four years it has been the natural laboratory for archeologists from this and other universities who have tried to understand its prehistory and the lessons which those who live today can learn from those who lived hundreds and thousands of years ago.

The Chevelon Archeological Research Project began its work in the drainage in 1970. From that time the project has grown in size, and scope, and the goals on which its work has focused have changed and been redefined. The goals have involved both training and research.

A project which is intellectually vital is educationally vital. Three professional archeologists, nearly two dozen graduate students and over five dozen undergraduates have participated in the past four years of work in Chevelon. For many of the undergraduates the project has provided a first opportunity to do archeological field work; for many of the graduate students, a first opportunity to direct field work. Numerically, the product of the project will have measured by the end of this year three doctoral dissertations, six MA theses, and over 50 student course papers as well as roughly a half dozen published papers and a monograph. Qualitatively, the project has provided a rich and stimulating learning experience. Numerically and qualitatively much remains to be done in pursuit of the project's research goals.

Whatever the questions an archeologist asks about the past, his ability to answer those questions rests on his success in finding data that can be used in formulating the answers. Notes on nearly one thousand sites that have been located in four years of reconnaissance in Chevelon, the records of excavation at dozens of sites, hundreds of thousands of artifacts, dated tree-ring and radiocarbon samples, and the record of subsistence activities reflected in floral and faunal remains as well as fossil pollens form the basic record with which Chevelon archeologists work. Our concern has been not only with collecting such data but also with attempting to improve the techniques used in collecting and analyzing it. Probability sampling, and computer and statistical analyses are necessary to insure that the small sample with which the archeologist works (about 1% in the case of Chevelon) can be used in generalizing about the past.

Our knowledge of the past begins with an understanding of the prehistory of Chevelon, the record of past populations who lived in the area. When work began, the prehistory of Chevelon was not known - no major research project had ever been carried out within the drainage. Moreover, the drainage lay between the traditional boundaries of three of the four major "culture areas" of the American Southwest: the Mogollon, Sinagua, and Anasazi. We know now that humans first occupied the drainage at least 6,000 perhaps as many as 12,000 years ago. The earliest inhabitants of the drainage hunted and gathered, with their larger campsites concentrated along the canyon of Chevelon Creek itself. This way of life persisted for between 4 and 5 thousand years. About 1000 years ago, populations in the drainage began to depend on domesticated food sources: corn, bean, and squash. These agriculturalists occupied the drainage for about 500 years and left it, possibly to live in the area now occupied by the Hopi Indians. During this period, many thousands of people lived in the drainage, but primarily in small settlements of a family or two clustered around ceremonial structures known as kivas.

For some archeologists, knowing the prehistory of an area like Chevelon is an end in itself. For those who have been involved in this project it is only a beginning: the end is understanding the processes that shaped changes which we see reflected in the archeological record.

Our specific interest has focused on four patterns of change. First, there is technological change. Over the history of the drainage, populations used a variety of tools: tools of chipped stone, bone, and pottery in adapting to the local environment. What patterns of change in that environment and in the social and cultural environments shaped these processes of technological change causing some innovations to be adopted while others were not? Why do some periods evidence rapid adoption of innovations while in others it is slow? Second, there is change in subsistence practices - from hunting and gathering to a mixture of this strategy with agriculture to a largely agricultural practice. What factors shaped the development of this strategy, and why did it ultimately prove unsuccessful leading to the abandonment of the drainage? Third, there is demographic change: changes in human numbers. There were periods of expansion, periods of contraction and varying rates of both. Why? Finally, there are important changes in the forms of exchange, interaction, and community structure reflected in the changing nature of sites and site distribution in the area. What is the relationship of these changes to changes in the natural environment? In technology? In demography? In subsistence?

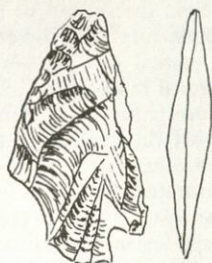
It will be several years before the data that we have obtained have been analyzed and answers to these questions provided. What you see reflected in this exhibit is a basic characterization of the major changes in Chevelon's prehistory as we understand them at present.

Fred Plog

The Chevelon Project has viewed the prehistory of Chevelon as it relates to pattern of change. The exhibit hopes to demonstrate these adaptations and changes by presenting a representative sample of artifacts from three distinctive time periods.

EARLY PERIOD (AD 400 - 700)

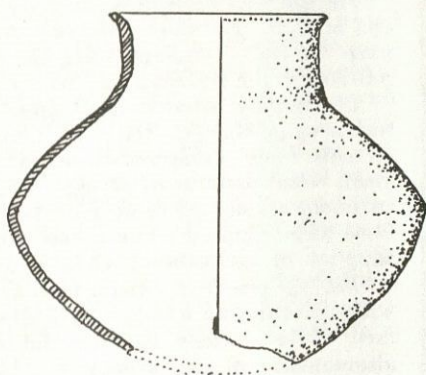
- E-1 Chopper; Limestone
- E-2 Core; Silicious
- E-3 Core; Silicious
- E-4 Hammerstone; Limestone



EARLY PERIOD (AD 400 - 700)

LITHICS

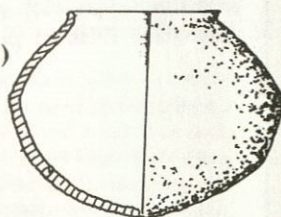
- E-1 Chopper; Limestone
- E-2 Core; Silicious
- E-3 Core; Silicious
- E-4 Hammerstone; Limestone
- E-5 Bec; Limestone
- E-6 Bec; Silicious
- E-7 Denticulate; Limestone
- E-8 Scraper/Knife; volcanic
- E-9 Scraper/Knife; volcanic
- E-10 Sraper/Knife; Limestone
- E-11 Scraper/Knife; Limestone
- E-12 Scraper/Knife; Quartzite
- E-13 Scraper/Knife; Quartzite
- E-14 Scraper/Knife; Silicious
- E-15 Notch; Silicious
- E-16 Point Fragment; Limestone
- E-17 Projectile Point; Silicious
- E-18 Burin; Limestone



E26

CERAMICS

- E-19 Little Colorado Grey Ware Sherds
- E-20 Tusayan Grey Ware Sherds
- E-21 Alameda Brown Ware Jar Sherd (polished)
- E-22 Alameda Brown Ware Jar Sherd (polished)
- E-23 Alameda Brown Ware Jar Rim Sherd (volcanic)
- E-24 Alameda Brown Ware Jar (polished)
- E-25 Alameda Brown Ware Seed Jar (volcanic)
- E-26 Alameda Brown Ware Jar (polished); restored
- E-27 Corrugated Grey Sherds
- E-28 Alameda Brown Ware Jar (sand)



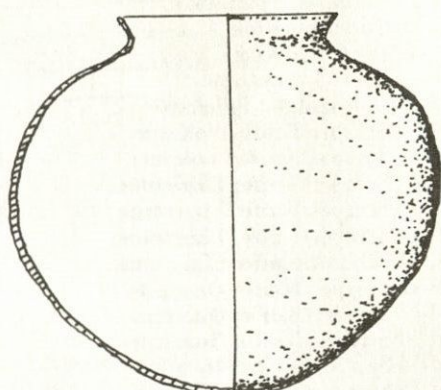
E25

MISCELLANEOUS

- E-29 Bone Bead Fragment
- E-30 Shells
- E-31 Shell
- E-32 Shell Ornament
- E-33 Shell Bead Blank (?)
- E-34 Shell Pendent Fragment
- E-35 Shell Bead
- E-36 Shell Needle
- E-37 Shell Fetish Fragment
- E-38 Shell Bead
- E-39 Jet Beads and Bead Blanks

GROUNDSTONE

- E-40 One-Handed Mano
- E-41 Metate Fragment
- E-42 Mano Fragment
- E-43 Mano Fragment; Volcanic
- E-44 Metate Fragment; Volcanic



E28

The "early period" of the exhibit does not in fact reflect the earliest human occupation of the Chevelon area. Rather it reflects an early agricultural stage when pottery manufacture, permanent settlement, and limited farming of corn, beans, and squash were beginning to play important roles. "Pithouses" (single room dwellings dug into the earth and roofed) were the normal dwelling unit for the time and appear to be most heavily concentrated in the northern and western part of the drainage. Large pithouse villages appear with populations as large as those of late pueblo villages.

Pottery consists mostly of "Plainware". This brown, undecorated ceramic utilized by the Chevelon peoples right up until they abandoned the area, is most common during this period. Made by the coiling technique (as were all subsequent ceramic types) it is classified largely on the basis of tempering material. Temper, material mixed with the unfired clay to increase its "workability", has been found to be of either a crushed rock, sand, or volcanic material. Often Plainware has been found in connection with Tusayan and Little Colorado Grey Wares. These are coarse, generally sand tempered ceramics. Within this group is found the area's first painted pottery: Lino black on grey. The Grey wares, like the Plainware, serve as temporal indicators for sites of this time period. Unlike the Plainware, however, they are seldom found in quantity after this phase.

The varied lithic or chipped stone artifacts show a high degree of technical expertise. The knapping technique and the basic forms remain similar throughout the area's prehistory. However, the type of materials utilized for tool making appear to vary both from area to area and through time. In this period, tools made from silicious rock predominated in the northern sections, whereas limestone tools were favored to the west (in the canyon areas); Volcanic and quartzite tools are in small quantities throughout the drainage. Projectile points are somewhat diagnostic of this time period, even though a great deal of variability is found. Generally they are large, heavy objects and were utilized in connection with a spear thrower rather than a bow.

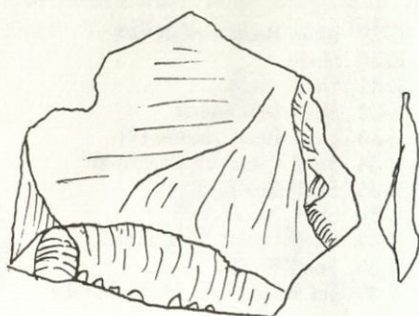
Stone grinding tools show a characteristic shape indicating particular grinding techniques. The basin metate and the one-handed mano were widely utilized.

Little in the way of ornamental art has been recovered from this period. Beads and ornaments of jet, shell and bone were most certainly in use.

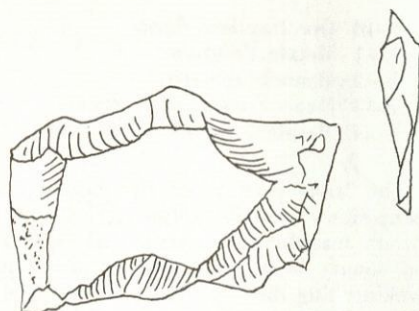
MIDDLE PERIOD (AD 700 - 1000)

LITHICS

- M-1 Chopper; Silicious
- M-2 Core; Silicious
- M-3 Core; Silicious
- M-4 Beek; Limestone
- M-5 Denticulate; Silicious
- M-6 Scraper/Knife; Volcanic
- M-7 Scraper/Knife; Volcanic
- M-8 Scraper/Knife; Limestone
- M-9 Scraper/Knife; Limestone
- M-10 Scraper/Knife; Limestone
- M-11 Scraper/Knife; Limestone
- M-12 Scraper/Knife; Quartzite
- M-13 Scraper/Knife; Quartzite
- M-14 Scraper/Knife; Quartzite
- M-15 Scraper/Knife; Quartzite
- M-16 Scraper/Knife; Silicious
- M-17 Scraper/Knife; Silicious
- M-18 Scraper/Knife; Silicious
- M-19 Scraper/Knife; Silicious
- M-20 Notch; Limestone
- M-21 Notch; Limestone
- M-22 Biface; Limestone
- M-23 Point Fragment; Limestone
- M-24 Projectile Point; Silicious
- M-25 Projectile Point; Silicious
- M-26 "Bird" Point; Silicious
- M-27 Projectile Point; Volcanic
- M-28 Burin; Limestone



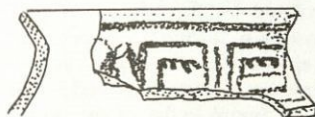
M12



M13

CERAMICS

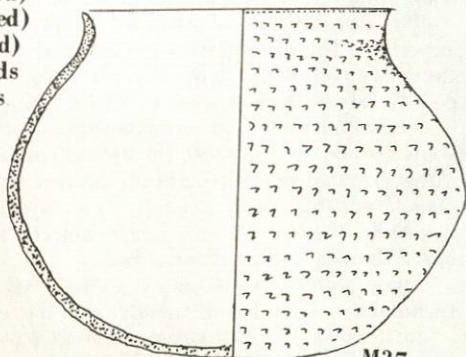
- M-29 Little Colorado White Ware Ladel Fragment
- M-30 Little Colorado White Ware Ladel Fragment
- M-31 Little Colorado White Ware Jar Sherd
- M-32 Little Colorado White Ware Jar Sherd
- M-33 Little Colorado White Ware Jar Sherd
- M-34 Cibola White Ware Jar Fragment (restored)
- M-35 Little Colorado White Ware Jar Sherd
- M-36 Corrugated Jar Fragment (restored)
- M-36a Corrugated Jar Fragment (restored)
- M-37 Corrugated Jar Fragment (restored)
- M-38 Little Colorado White Ware Sherds
- M-39 Tusayan White Ware Bowl Sherds



M32

MISCELLANEOUS

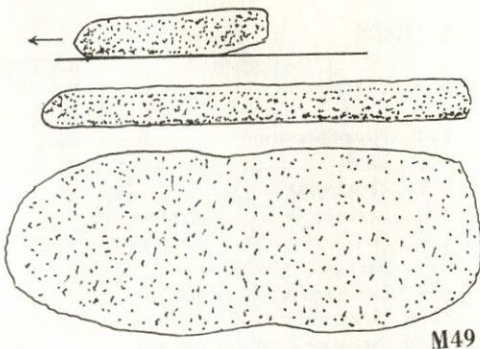
- M-40 Sherd Comb
- M-41 Stone Pipe Bowl (?) Fragment
- M-42 Shell Ornament Fragment
- M-43 Shell Ornament Fragment
- M-44 Shell Bead
- M-45 Jet Bead and Blanks
- M-46 Jet Beads and Blanks



M37

GROUND STONE

- M-47 Trough Metate
- M-48 Trough Metate Fragment
- M-49 Two-Handed Mano
- M-50 Two-Handed Mano
- M-51 Two-Handed Mano
- M-52 Hoe (?)



The exhibit's "Middle Period" represents a point in time a few hundred years after the early phase. During the intervening time, slow, orderly changes in settlement patterning and artifact assemblage came about. The inhabitants of Chevelon are still to be found in pithouses although village size appears to have been substantially reduced. The pithouses are occasionally found side by side with small, generally one room, above ground buildings. The population appears to have shifted slightly north, perhaps in response to increased demands for agricultural land. The population of the drainage has increased dramatically by this time.

It is during this period that what is known as "Corrugated" pottery becomes widespread. This utility ware was most likely used for cooking and storage. Vessels were large, without refinement, and were produced in great quantity. A far more refined type of black on white pottery appeared, probably evolving out of the previous Grey Wares. It is characterized by sherd tempering and a slip of fine white clay. It is classified as a form of Little Colorado White Ware. The slip provided a smooth field for decoration and a wide assortment of decorative motifs occur. Two other forms of black on white pottery are distinguished during this period. A sand tempered ware (Tusayan White Ware) which appears to be decreasing in use, and an unslipped white pottery (Cibola White Ware).

The lithic assemblage is by and large the same. A shift to a greater utilization of volcanic and quartzite materials appear to have occurred in the northern section of the drainage. Projectile points, smaller than those found in the preceding time period, probably reflect the adoption of the bow.

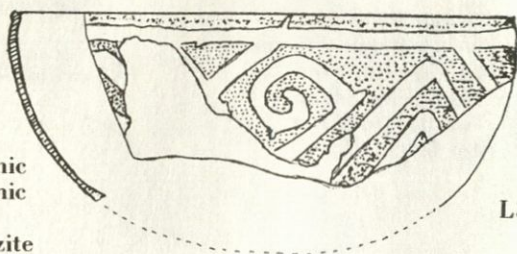
The shape of metate grinding surfaces begins to change, reflecting the introduction of the two-handed mano. The gradual transition to long, thin manos might demonstrate a change to a more efficient grinding technique. By the end of the period basin metates have been largely replaced by trough metates.

Little change has been found in the kinds of artifacts used for ornamentation. Materials used for their creation are by and large in the "exotic" category and probably were traded or brought in from a distance. The shell, for example, is only found in coastal regions.

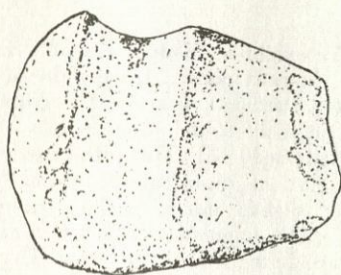
LATE PERIOD (AD 1000 - 1400)

LITHICS

- L-1 Chopper
- L-2 Core
- L-3 Hammerstone
- L-4 Beck
- L-5 Denticulate
- L-6 Scraper/Knife; Volcanic
- L-7 Scraper/Knife; Volcanic
- L-8 Scraper; Quartzite
- L-9 Scraper/Knife; Quartzite
- L-10 Scraper/Knife; Silicious
- L-11 Scraper/Knife; Silicious
- L-12 Notch; Volcanic
- L-13 Notch; Volcanic
- L-14 Biface Knife; Silicious
- L-15 Projectile Point; Silicious
- L-16 Projectile Point; Silicious
- L-17 Burin; Silicious



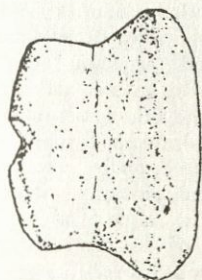
L36



L73

CERAMICS

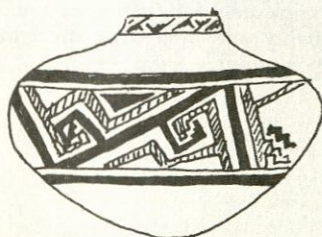
- L-18 Cibola White Ware Bowl Fragment
- L-19 Black on Red Bowl Fragment
- L-20 Black on Red Bowl Fragment
- L-21 Cibola White Ware Jar Fragment
- L-22 Black on Red Bowl Fragment
- L-23 Cibola White Ware Jar Fragment
- L-24 Cibola White Ware Pitcher Fragment
- L-25 4 Little Colorado White Ware Sherds
- L-26 Cibola White Ware Jar Fragment. (restored)
- L-27 Cibola White Ware Jar Fragment. (restored)
- L-28 Corrugated Jar (restored)
- L-29 Painted Corrugated Jar Fragment
- L-30 Painted Corrugated Jar Fragment
- L-31 Cibola White Ware Jar Fragment. (restored)
- L-32 Black on Red Rim Sherd
- L-33 Black on Red Rim Sherd
- L-34 Black on Red Rim Sherd
- L-35 Black on Red Rim Sherd
- L-36 Polychrome Bowl Fragments
- L-37 Small Painted Corrugated Bowl
- L-38 Cibola White Ware Sherds



L72

MISCELLANEOUS

- L-39 Figurine Fragment
- L-40 Dog Figurine, stone
- L-40a Dog Figurine Fragment; ceramic
- L-41 Shell
- L-42 Shell Pendant
- L-43 Jet Pendant Fragment
- L-44 Shell



L-52 Shell
 L-53 Pendant
 L-54 Carved Shell Frog Pendant
 L-55 Bead
 L-56 Ceramic Figurine; Dog
 L-57 Bone Shuttle
 L-58 Pendant
 L-59 Pendant
 L-60 Turquoise Bead
 L-61 Bead
 L-62 Fetish
 L-63 Worked Shell
 L-64 Bead
 L-45 Shell Pendant
 L-46 Bone Needle
 L-47 Beads: 1 Jet, 2 Shell
 L-48 Stone Bead
 L-49 Fetish
 L-50 Pendant
 L-51 Bead

GROUNDSTONE

L-65 Trough Metate
 L-66 Two-Handed Mano
 L-67 Two-Handed Mano
 L-68 Two-Handed Mano
 L-69 Hoe
 L-70 One-Handed Mano
 L-71 Arrow Straightener
 L-72 Stone Hammer
 L-73 Stone Axe
 L-74 Stone Axe
 L-75 Stone Axe Fragment
 L-76 Slab Metate

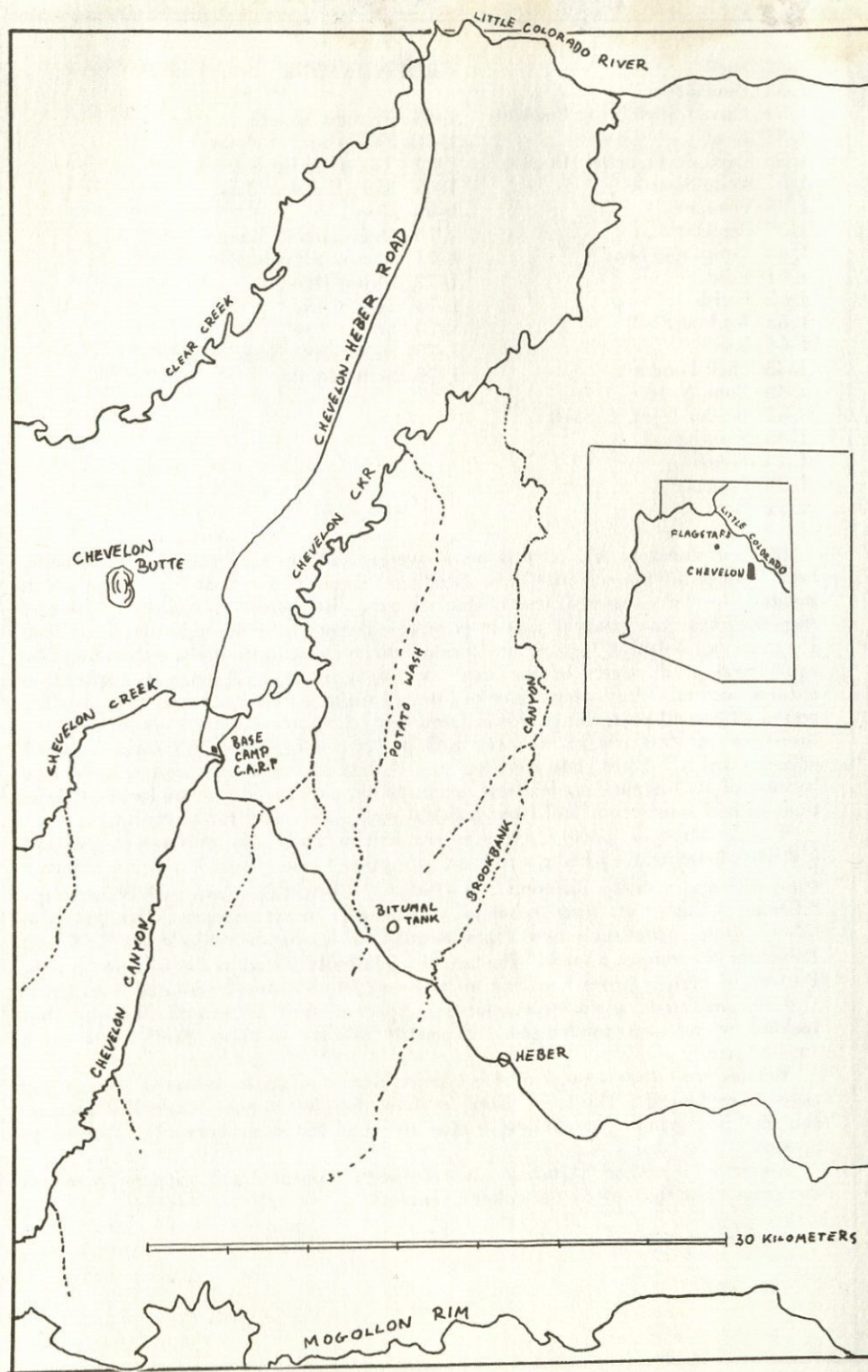
By approximately AD 1000 stone, above ground, pueblo structures were being built throughout the region. These dwellings ranged in size from simple one room buildings to many roomed, true pueblo villages. Site density is highest in the east suggesting that the gradual shift in population continued throughout the period. Extensive agricultural terrace and check dam systems were built, enhancing the agricultural productivity of the area. A return to large villages and population clusters occurred. A greater degree of internal organization can be seen in the late period settlement patterning. Kivas (large, round, subterranean, ceremonial structures) become the integrative focus both in large villages and in groups of small villages. By AD 1300, however, the area had been largely abandoned, probably because of its marginal agricultural productivity and the failure of local populations to find subsistence and organizational strategies suited to the area.

A wide range of pottery types appear in this phase, the greatest proportion (outside of corrugated) being a form of unslipped Cibola White Ware. Its internal composition is visually different from the older Little Colorado variety, perhaps reflecting a change in firing technique, or use of different materials. Alongside the Cibola White Ware such new types as painted Corrugated, Black on Red and Polychrome ceramics appear. The last two generally found in the form of bowls. Pottery of earlier times continue to be found, but in much reduced quantities.

Lithic materials again experience an apparent shift in favored material, but technology remains unchanged. Projectile points continue their shift to a smaller size.

Metates are either trough or slab type, and a wide variety of mano shapes and sizes are evidenced. The later "Hopi" style wedge shaped mano - so called because the modified grinding technique tended to wear the stone unevenly - begins to appear.

A greater profusion of ornaments have been recovered and appears to reflect the general enrichment of the cultural remains.



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The Prehistoric People of Chevelon, Arizona

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