

**ARCHAEOLOGICAL INVESTIGATIONS IN ELLSWORTH
AND RICE COUNTIES, KANSAS**

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ARCHAEOLOGICAL investigations were carried on by the Museum of Natural History, University of Kansas, from June 19 to August 20, 1948, in the Kanopolis Reservoir area on the Smoky Hill River in Ellsworth County and also along the Little Arkansas River in Rice County, Kansas. The River Basin Surveys of the Smithsonian Institution had undertaken the preliminary reconnaissance and had found more than twenty sites in the area of the Reservoir. William O. Leuty of Ellsworth was helpful in guiding the field parties of both institutions to most of the sites; also he gathered surface collections which were turned over to us.

The Kanopolis Reservoir is situated in the highly dissected terrain which marks the Plains border along the 98th meridian of longitude in central Kansas. The Smoky Hill River meanders eastward, fed by many tributary streams and canyons. Outcrops of Dakota sandstone are common on the bluffs bordering the valley and trees are limited to the edges of the streams.

* The author was assisted in the field by his wife, Judith P. Smith, and by three students, Richard Murray, Ferdinand Okada, and Gary Vescelius.

Rolling grass-covered plains are seen to the north and south of the river above the bluffs. Lake Kanopolis now covers some 3,500 acres, and in times of flood as much as 13,900 acres, of the valley floor. In Rice County, the Little Arkansas River, a tributary of the Arkansas River, flows southeastward through less dissected terrain.

The area around the Kanopolis Reservoir was part of a border land where the territories of several peoples met in the historic period. The Smoky Hill River seems to have formed the northern boundary of the Wichita, who had a number of villages to the south. The land north of the Smoky Hill formed part of the territory of the Pawnee. To the east were the Kansa and to the west were people known as the Padouca (Apache?). Later on, the area was within the range of the wandering Cheyenne and Arapaho.

No documented historic sites are known in the region and traces of protohistoric occupations are rare except in the vicinity of the Arkansas River, where the Great Bend Aspect may represent the protohistoric Wichita (Wedel, 1942). In the Kanopolis Reservoir one petroglyph site offers evidence of an occupation after the introduction of the horse. The other

sites in the reservoir are devoid of any evidence of contact with Western civilization and most of them are assignable to prehistoric cultural complexes previously defined as follows: Woodland, Hopewellian, Upper Republican, and Great Bend. In Rice County one Great Bend site was investigated and specimens were collected from the surfaces of others. Evidence of occupations by more than one cultural complex on some of the sites makes it impossible to present all of the data in historical sequence. As far as possible the approach is from late to early.

PETROGLYPHS

The Indian Hill site (14EW1) consists of an outcrop of Dakota sandstone situated between the mouths of Red Rock and Horse Thief canyons on the north side of the Smoky Hill River. The vertical face of the cliff is covered to a height of approximately 8 feet with petroglyphs which were carved in the soft rock. Three groups of the drawings have been illustrated by Mallery (1893, pp. 80-1, Fig. 44) and were recorded prior to 1869. The only changes since then have been the additions of recent initials, names, and dates. The petroglyphs include representations of owls, cervids, bison, bison tracks, beaver, conventionalized human figures, thunder birds, "turkey" tracks, serpentine motifs, and ladderlike designs. In two places, not shown by Mallery, are equestrian figures. One of them shows a man, holding a long lance, astride a horse. At a point where the talus meets the cliff a diamond-shaped knife, several end scrapers, and a few chips of chert were found. Probably such objects were used in carving the petroglyphs into the face of the cliff. Similar artifacts occur in Great Bend and Upper Republican sites in the Plains and offer little in the way of evidence which can be used in determining the authorship of the drawings.

The presence of petroglyphs depicting equestrians suggests a late date for many of the drawings. The Cheyenne and, possibly, the Arapaho may have contributed their share because local traditions refer to the presence of these groups as late as the 1870's. Grinnell (1915, p. 249) states that the Cheyenne were attacking the stage line along the Smoky Hill River just to the west of the area in 1867.

GREAT BEND SITES

The Great Bend or Paint Creek culture (Wedel, 1942) is represented in the Kanopolis

Reservoir by two stratified levels in the Thompson Creek site (14EW6). The site consists of four habitation levels exposed in a road cut near the confluence of Thompson Creek and the Smoky Hill River. Alternating sterile zones and layers of dark soil containing hearths filled with white ashes extend along the road for a distance of approximately 75 feet. A profile 60 feet long was trimmed along the bank and the layers were designated A, B, C, D from top to bottom

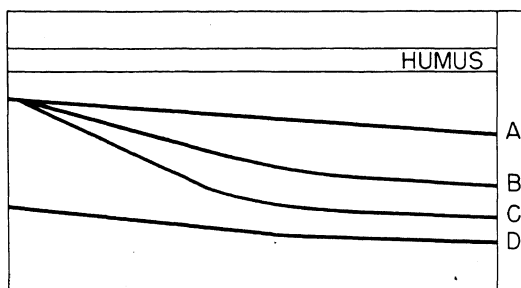


FIG. 71. Profile showing four cultural horizons at the Thompson Creek site. Vertical scale exaggerated.

(Fig. 71). All four layers dip toward the stream and are more deeply buried where they reach it. Samples of the contents of each layer were obtained by cutting back the face of the profile. Later, a bulldozer was used to remove some of the overburden. The heavy rains which occurred during the field season caused the reservoir to rise and cover the site before the investigations could be completed.

Level A, overlain by humus and massive sediment, consisted of a dark line containing occasional flecks of charcoal and traces of white ashes. At the northern end of the profile the horizon was 1 foot 6 inches below the surface and dipped to a depth of 3 feet 9 inches at the southern end. The layer yielded two sherds of Great Bend pottery identifiable as Genesee Plain (Wedel, 1948c), one fragment of an elongate mano, one small flake retouched on all edges, and numerous animal bones.

Level B, overlain by a deposit of compact silt, was made up of a layer of stained soil, charcoal, and white ashes averaging 2 inches in thickness. Several basin-shaped hearths composed of white ashes underlain by burned earth were noted. The layer dipped from a contact with Level A to a depth of 4 feet 6 inches at the south end of the profile where a thin layer of silt intervened, dividing the layer into two parts. Level B was the richest in artifacts. The

Great Bend culture is represented by 100 sherds of Geneseo Plain (Fig. 72, A, B), 17 sherds of Geneseo Simple Stamped, one triangular projectile point with a straight base, three crude side scrapers, two sandstone abraders, one fragment of polished bone, and numerous animal bones.

Level C, overlain by a deposit of massive sediment, was marked by a thin zone of stained soil containing a few basin-shaped hearths filled with white ashes and underlain by burned earth. The layer joined Level B at the northern end of the profile and dipped to a depth of 5 feet 9 inches at the southern end. Two small sherds with little or no outer surface remaining were found. Comparative study suggests that the sherds belong to a ceramic tradition other than Great Bend. The temper and texture are coarse, suggesting Upper Republican or some Woodland manifestation. In this connection it is noteworthy that a large body sherd of Woodland pottery was found in the talus when the bank was being cleaned to reveal the profile. Broken animal bones and fragments of charcoal complete the inventory of Level C.

Level D, overlain by a deposit of compact silt, consisted of a thin layer of stained soil, charcoal, and a few basin-shaped hearths filled with white ashes underlain by burned earth. Level D did not contact Level C at the northern end of the profile where Level D appeared at a depth of 3 feet 3 inches and dipped southward to a depth of 6 feet 9 inches. The only objects found were broken animal bones. The layer was underlain by a deposit of massive sediment.

Additional specimens were collected from the surface of a plowed field a few hundred feet to the northwest of the main exposure. They include 12 sherds of Geneseo Plain, one unclassified cord-roughened sherd, one unclassified incised sherd, and one broken plano-convex end scraper. In establishing the profile at the main exposure the following artifacts were found: 15 sherds of Geneseo Plain, eight sherds of Geneseo Simple Stamped, one cord roughened Woodland sherd, two side scrapers, one flake knife, one bone punch or flaker, and one bone awl.

To summarize the data from the Thompson Creek site: Four superimposed occupation levels were found. No artifacts were found in the earliest horizon, Level D. The meager yield from Level C suggests an occupation by a pottery-using culture other than Great Bend. Level B represents the heaviest occupation and

is assigned to the Great Bend culture. Level A is assigned to the same culture on the basis of two sherds. The position of the site at the junction of two streams suggests that the sterile zones of sediment may have been deposited in times of flood. Wedel (1947*a*, Fig. 51) shows a range in time from approximately 1475 to 1675 for the Great Bend Aspect. The sediments overlying Levels A and B suggest that the Smoky Hill River and Thompson Creek were flooding their valleys and depositing sediments at this time. Since the cultural identity of the people who occupied the site at Levels C and D cannot be determined, any attempt to correlate the various periods of flooding with climatic cycles in the Plains would be premature. On the basis of the data recovered, the distribution of the Great Bend Aspect is extended westward from Paint Creek and northward from the Little Arkansas River to the Smoky Hill River, but the yield of artifacts is too meager to suggest any regional or temporal variation from the culture as defined elsewhere. The site appears to mark periodic camps and it is doubtful whether complete excavation would have furnished data comparable to those found in the large village sites. The filling of the Kanopolis Reservoir precluded further work.

The Major site (14RC2) yielded a considerable amount of data on the Great Bend culture. The site consists of a series of small mounds of refuse scattered along a low ridge between the Little Arkansas River and Horse Creek in the township of Galt, Rice County. One refuse mound was tested by digging a trench 4 feet wide and 28 feet long through it. Another mound was excavated in 8-inch levels within 5-foot squares. In both mounds the refuse was from 16 to 36 inches thick and was composed of stained soil mixed with fire-cracked stones, broken animal bones, charcoal, potsherds, and implements of flint, of sandstone, and of bone. Some portions of the second mound had been disturbed by the intrusion of large bell-shaped cache pits filled with similar detritus.

The artifacts closely resemble those found at other Great Bend sites such as the discovery site on Paint Creek (Udden, 1900; Wedel, 1935*c*) and those found on Cow Creek and the Little Arkansas River by Wedel (1942). The pottery falls readily into the types established at the Fifth Plains Archaeological Conference (Wedel, 1948*c*). Geneseo Plain (Fig. 72, c, d, e) predominates over all of the other types.

Geneseo Simple Stamped (Fig. 72, G) is second in prevalence. Geneseo Red Filmed and Cowley Plain are also present. I have added another type, Little River Cord Roughened (Fig. 72, F), which includes the cord-roughened sherds mentioned by Wedel (1942, p. 5). The pottery from the site is characterized by fine grit or sand tempering and occurs in the form of jars which are usually less than one foot in height. A few sherds are shell tempered. The rims may be straight or flaring. The shoulders are rounded and the bottoms often flattened. Handles are present in three principal forms: strap, perforated lug, and loop (Fig. 72, C, D, E). Most of the vessels lack decoration on the rim but some bear incised lines or notches on the lip. Plain vessels outnumber those with roughened surfaces. Of secondary importance are those bearing the impressions of a grooved and/or thong-wrapped paddle. Some vessels are coated with a fugitive red paint. A smaller proportion have cord-roughened surfaces suggestive of the ceramic tradition of the earlier Upper Republican culture.

A study of the stratigraphic distribution of the types in the undisturbed portions of Mound 2 indicates that Geneseo Plain increased in popularity from the bottom to the top of the deposit. It predominates at all levels, however. Cowley Plain, the shell tempered pottery, is rare but tends to occur near the top. All of the other types decrease toward the top of the mound. When the statistics are available from other Great Bend sites it may be possible to arrange them in a seriation which will suggest their relative chronological positions.

No artifacts of European or Pueblo origin were found at the Major and Thompson Creek sites but Wedel (1942) reports such items as chain mail and painted pottery from other sites in the region. Marjorie F. Tichy (letter, September 10, 1948) of the Museum of New Mexico has identified a number of sherds found in the Little River area. A surface collection from the Hayes site (14RC3), one mile west of the Major site, contains a Pueblo sherd associated with Great Bend pottery. It is of Rio Grande glazed ware, Late Glaze E or F, dating from the seventeenth century. At Spriggs Rocks (14RC1) approximately 3 miles south of the Major site, a collection of Pueblo sherds was gathered from the surface of a sandy slope devoid of other ceramic remains. The sherds seem to have formed part of one olla identifiable as Late Glaze C to Early D, characteristic of the

Galisteo Basin and dating from the pre-Spanish portion of Pueblo IV. These dates compare favorably with those suggested by Wedel (1947a) for the Great Bend culture, *ca.* 1475-1675. The absence of objects of European and late Pueblo origin at the Major and Thompson Creek sites suggests that both of them date from the period prior to the Coronado expedition of 1541.

In connection with Southwestern potsherds it is worthy of note that the painted sherds found by Williston and Martin (Martin, 1909) in 1898 at the Scott County Pueblo have been identified by Tichy and indicate a late seventeenth century date for the ruin. Wedel (1947a) reports Great Bend sherds along with a sherd of Tewa Polychrome and an incised pipe stem which are assigned to the latter part of the seventeenth and the early part of the eighteenth centuries. The Williston and Martin sample shows the presence of Tewa and Pojoaque Polychrome, "Kapo" black ware, late red wares, and Rio Grande culinary wares. Taken as a group, these varieties indicate a late seventeenth to early eighteenth century date for the site. Along with the Southwestern pottery and the few sherds of Great Bend pottery were numerous specimens of Dismal River pottery (Hill and Metcalf, 1942). Some of the sherds previously classified along with sand-tempered sherds as Dismal River are identified by Tichy as "late Rio Grande micaceous culinary ware." I suggest, however, that the mica-tempered ware of New Mexico may represent an instance of diffusion from the Plains into the Southwest. The need for a detailed study of Rio Grande utility ware is apparent. The data indicate, then, a partial overlap in time in Kansas for Great Bend, Dismal River, and refugee Pueblo groups from the Upper Rio Grande.

UPPER REPUBLICAN SITES

The Upper Republican culture is represented in surface collections from a number of small sites throughout the Kanopolis Reservoir. Probably the remains of earth lodges are present at sites along Clear Creek on the north side of the Smoky Hill River but the limited amount of labor and time available caused our attentions to be directed toward the collecting of data pertinent to the definition of cultures which are less well known in the Great Plains. Upper Republican sherds were found at the Elm Creek site (14EW12) described below. The only rim sherd pertaining to the Upper

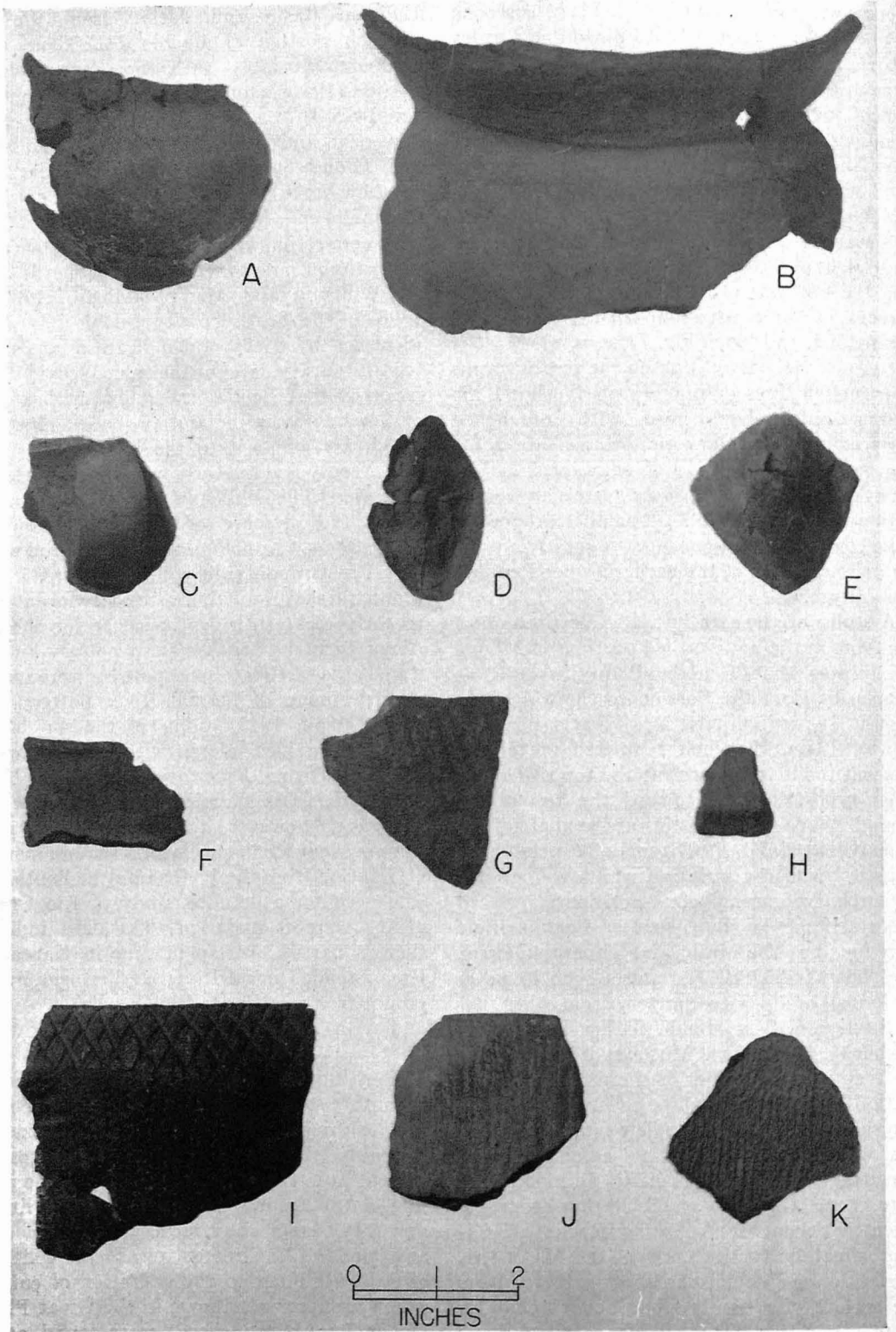


FIG. 72. Pottery from Ellsworth and Rice counties, Kansas. (See facing page for identifications.)

Republican culture found at the Elm Creek site is of the braced variety and is cord roughened (Fig. 72, H). The sherds are medium in texture, flaky in structure, and appear to be tempered with particles of shale. Two triangular projectile points with straight bases suggest assignment to the same culture. The greater prevalence of cord-roughened sherds (Little River Cord Roughened) in the deeper part of a refuse mound at the Major site suggests a carry-over of an Upper Republican ceramic trait into the Great Bend complex. Otherwise the Great Bend Aspect is without known antecedents in Kansas as far as our present knowledge extends.

A HOPEWELLIAN SITE

The Hopewellian culture is represented at the Ward site (14EW17), which is situated on a branch of Ash Creek, a tributary of the Smoky Hill River, some ten miles south of Ellsworth. Our attention was drawn to the site through the finding of rocker stamped pottery by William Leuty and by the field party of the River Basin Surveys. A limited area in a plowed field was marked by a concentration of burned fragments of Dakota sandstone and broken bison bones. When the plowed soil was stripped from the area a circular feature approximately 20 feet in diameter composed of jet-black soil was revealed.

The deposit of dark soil contained numerous fragments of sandstone which were rarely larger than the size of a man's fist. It was lenticular in cross section, being 8 inches thick at the center and tapering in all directions. The soil below it was stained as though it had been disturbed and the same coloration extended at least 5 feet to the southeast of the margin of the overlying black deposit. Within the black area four pits occurred. Two were circular; one was rectanguloid, and the other irregular in outline. All of them had rounded, basin-shaped bottoms and contained highly concentrated masses of burned sandstone, broken animal bones, traces of white ashes, charcoal, and black soil. They ranged in depth from 17 to 24 inches. One centrally situated pit had a large amount of white ashes at the bottom and

was intrusive into another pit to the southwest. No traces of post molds or other features could be found. The presence of a pit used as a fireplace near the center of a circular area showing intensive human occupation suggests the former existence of a dwelling but if such ever existed it must have been of a perishable nature.

The excavations yielded two sherds of brownish black pottery heavily tempered with grit. One is a rim sherd which slopes inward above a slightly constricted neck-area (Fig. 72, I). The lip is flat and there are three exterior bosses formed by deep punctates entering from the interior surface. The surface between the bosses and the lip is covered with broad, deep incised lines arranged in a crosshatched pattern. Below the bosses on the area of the neck there is a rectanguloid plat filled with vertically oriented lines of dentate stamping, bordered on two sides by two broad incised lines which are U-shaped in profile. The other sherd is from the body of a vessel and bears an area of dentate stamping bordered by a broad incised line. There can be little doubt as to the Hopewellian affiliations of the two sherds. The rim sherd cannot be duplicated in all its features in the Kansas City Hopewell culture but the characteristics are distributed among the several varieties of sherds found by Wedel (1943).

Other artifacts from the excavations include a side notched projectile point and one which is lanceolate with a straight base; an elongate knife with a convex base, nearly parallel sides, and a rounded tip; two flake knives; three plano-convex end scrapers; two chipped disks or blanks; one quartzite chopper; several sandstone abraders; two polished splinter awls. The surface of the site yielded ten grit-tempered sherds. Eight are plain; one has large deep exterior punctates; another exhibits a zone of smooth rocker stamping. Projectile points include one with an expanded base and another which is corner notched. Two plano-convex end scrapers, a fragmentary chipped celt, and a sandstone abradar complete the list.

The Ward site offers the first definite evidence of a Hopewellian habitation site west of the 98th meridian. Wedel (1940a) has reported the

EXPLANATION OF FIG. 72. A, B, Geneseo Plain, Thompson Creek site; C, D, E, Geneseo Plain, handles, Major site; F, Little River Cord Roughened, Major site; G, Geneseo Simple Stamped, Major site; H, cord-roughened braced rim, Elm Creek site; I, incised, stamped, and bossed rim, Ward site; J, cord-roughened, belled rim, Elm Creek site; K, cord-roughened body sherd, Red Rock Canyon site. A-G, Great Bend Aspect; H, Upper Republican Aspect; I, Hopewellian Phase; J, K, Woodland Pattern.

finding of one Hopewellian sherd in association with Woodland pottery on Salt Creek in Lane County, west of the 100th meridian, where Upper Republican houses were superimposed upon a site of Woodland affiliation. Too few specimens were found at the Ward site to permit detailed comparison with material from other Hopewellian sites found in the vicinity of Kansas City. More information is needed on the nature of the Hopewellian invasion of the Plains, for if Griffin (1946, p. 67) is right, it may have contributed materially to the development of Upper Republican pottery, giving it the incised and collared rim.

WOODLAND SITES

The Elm Creek site (14EW12) is situated on the east bank of Elm Creek near its junction with the Smoky Hill River. The principal occupation is referable to a culture affiliated with the Woodland Pattern. A secondary occupation by the Upper Republican culture has been discussed above. Extensive tests made in the site failed to reveal any evidence of prolonged occupation by either culture, however. Most of the specimens were found on the surface or within the plowed soil. A thin deposit of refuse containing Woodland pottery was found at the southwestern corner of the site, whereas Upper Republican pottery was common toward the northeast on the surface and in the plowed soil. Two varieties of Woodland pottery are distinguished on the basis of tempering material. One variety contains angular particles of calcite and the other contains rounded sand grains or crushed particles of quartz. The paste of both varieties is coarse and granular. All of the sherds are cord roughened but some bear vertically oriented impressions while others bear diagonal imprints which often cross each other. Although a few sherds from neck-areas suggest flaring rims, the only rim sherds found are straight in profile with flattened lips. One sherd (Fig. 72, j) is slightly belled, suggesting the cambered rim of the Hopewellian culture. Nearly all of the projectile points are equilateral in proportions, having barbed blades and stemmed or corner notched bases. Other artifacts are less diagnostic and could belong either to a Woodland or to an Upper Republican occupation; they are plano-convex endscrapers, a chipped celt, and numerous side scrapers of shapes seemingly determined by the outline of the original flake.

The Red Rock Canyon site (14EW13) is situated on a bluff between the canyon of the

same name and Elm Creek on the north side of the Smoky Hill River. The specimens seem to indicate an affiliation with the Woodland pattern. Test excavations were made in three areas where burrowing animals had unearthed flint chips and fragments of fresh water shells. Tests made with a soil auger at other places in the site failed to reveal any other concentrations of cultural material. At the southern edge of the bluff two disturbed cairns built of sandstone slabs were excavated. They had rectangular cists at the center. Probably they once contained burials which had been removed when loose stones had been gathered from the area for the purpose of building a stone-walled corral farther to the east. One flint chip and a fragment of a plano-convex end scraper were found in removing the soil from around the cairns.

The remainder of the site yielded pottery closely resembling that found at the Elm Creek site. The sherds are cord roughened with the impressions more often arranged vertically (Fig. 72, k) than in a criss-cross pattern. Most of the sherds are grit tempered but a few contain fragments of calcite and still others fragments of shale. The shale-tempered sherds may be Upper Republican rather than Woodland in culture. One sherd has a hole drilled through it. The only rim sherd found is straight in profile and has a rounded lip. Some of the sherds have irregular interior surfaces covered with brush marks and impressions of finger nails. No sherds definitely identifiable as Upper Republican were found.

The projectile points are typically small, averaging less than three-quarters of an inch in length, with sharp barbs and expanded stems. One has a serrated blade. They suggest the projectile points found in Hopewellian mounds along the Republican River in Kansas (Schultz and Spaulding, 1948, Pl. XXIX) in association with Hopewellian and Woodland pottery. Other artifacts include a T-shaped drill with a concave base, plano-convex end scrapers, amorphous side scrapers, a flat sandstone grinding slab, a perforated shell hoe, and a small shell pendant with two perforations.

The Woodland culture appears at more sites in the Kanopolis area than do any of the other cultures. Even so, less is known of the Woodland culture because of the meager yield of data from any one site. The projectile points and a few of the ceramic traits suggest a relationship to Hopewellian, but it is not clear whether this indicates contemporaneity of the two cultures

or whether the Woodland culture lasted long enough to receive diffused traits prior to the actual entry of Hopewellian groups into the Plains. The sites suggest the presence of small hunting and gathering groups who did not linger long at one place.

BURIAL CAIRNS

The bluffs along the Smoky Hill River were favorite places for the erection of cairns over the bodies of the dead. Unfortunately most of the cairns have been destroyed by persons who gathered stones for walls as well as by collectors of artifacts. Two cairns were investigated at the Red Rock Canyon site and our attention was directed to a group of seven cairns on the Hudson site (14EW24), which is situated on the top of a grassy butte south of the Smoky Hill River, overlooking a branch of Thompson Creek. The cairns are barely discernible in the grass, a condition which undoubtedly led to their survival. Four cairns were excavated. In one of them a flexed skeleton, crushed by the weight of the overlying rocks, was found. The cairn containing the burial was a rounded mound of Dakota sandstone measuring approximately 12 feet in diameter and 15 inches in height at the center. The base rested upon sterile subsoil but humus lapped up on the sides of the cairn to a thickness of 9 inches. The rocks forming the top of the mound were exposed to view on the surface over an area measuring 8 feet in diameter. The perimeter of the cairn was marked by flat slabs which may have been placed there to retain the small, irregular fragments of sandstone of which the cairn was composed. At the center of the cairn was a rectangular cist measuring approximately 66 inches from east to west and 30 inches from north to south. In a few places vertically placed slabs marked the edges of the cist but in most places the mass of sandstone fragments forming the cairn ended irregularly, giving way to the fill in the cist which was composed of dark soil mixed with rock fragments. The overlying stones had sunk into the cist and had compressed and broken the bones of a human skeleton of indeterminate sex. The skeleton rested upon its right side with the head to the east, facing north. The legs were partly flexed. The right hand rested upon the pelvic region while the left hand was at, or near, the chin. Most of the skull had disintegrated and the other bones were fragmentary. There were no artifacts associated with the burial.

The three other cairns at the site were built

of larger stones and did not contain recognizable cists. Under one of them was an area of stained soil with a filled animal burrow leading into it. If any burial had been present below the cairn, burrowing mammals probably have removed all traces of it. Perhaps they were commemorative monuments or protective coverings for caches of perishable material. No artifacts or other cultural materials were found at the site. The presence of these culturally unidentifiable cairns in the area suggests the westward extension of mound building, but the lack of artifacts precludes identification of the cairns with any known cultural complex.

SUMMARY AND CONCLUSIONS

A study of the archaeological remains from Ellsworth and Rice counties, Kansas, reveals a progression of cultural complexes which occupied the area on different time levels. Generally speaking, the cultures contrast sharply with each other and very little evidence of transition from one to the other is present. Thus far there are no data on preceramic cultures in the area studied. Although the burial cairns which were excavated are devoid of artifacts they probably will be linked with a pottery-using culture when more work has been done.

Sites attributable to the Woodland Pattern are common in the area but produce few specimens and therefore do not lend themselves to further classification at this time. The distribution of the Hopewellian Phase is now extended west of the 98th meridian but the sites are rare, suggesting a brief period of occupancy. Sites of the Upper Republican Aspect are fairly common but no earth-lodge remains were found. The Great Bend Aspect is well represented in Rice County. The discovery of a Great Bend camp site on Thompson Creek extends the known distribution of the complex farther north and west than previously known. The stratigraphy at the Major site implies that it will be possible to arrange many of the Great Bend sites in chronological order, thus giving us time perspective within the culture. The identification of the sherds from the Rio Grande pueblos adds additional support to the dates arrived at by Wedel (1947*a*). The data gathered from the Indian Hill petroglyph site will be of greater comparative value when other petroglyph sites in the Plains are reported on.

Using Wedel's dates for the ceramic cultures, we find that the area covered by Ellsworth and Rice counties was occupied from approximately 1000 A.D. on. The earliest cultures are those

affiliated with the Woodland Pattern. Toward the close of the twelfth century, Hopewellian groups had ventured into the area. The Upper Republican Aspect may have been present as early as the beginning of the thirteenth century. The cord-roughened sherds in the Great Bend culture suggest contact with, or a genesis in, the Upper Republican culture. No data establishing contemporaneity are present. The Great Bend Aspect must have existed from the late

fifteenth until the latter part of the seventeenth century. Data on the occupation of the area by bison-hunting nomads are limited archaeologically to petroglyphs showing men riding horses. The last aboriginal occupation was that of the Cheyenne and Arapaho, which extended into the last half of the nineteenth century.

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