Society for American Archaeology, NOTEBOOK, February, 1942

IMPORTANT! NOTICE! IMPORTANT!

THE ANNUAL MEETING
of The Society for American Archaeology
Cincinnati, May 8 and 9

The President of the Society, Mr. Glenn A. Black, has appointed the following members to the Program Committee for the 1942 annual meeting: James B. Griffin, Chairman, Richard G. Morgan and Gust G. Carlson.

In an effort to show the members how good the meetings can be it is requested that titles and abstracts be submitted to the chairman, University Museums Building, Ann Arbor, Michigan by April 15th, so that abstracts can appear in the NOTEBOOK which will be issued before the meetings. The notice was inserted in AMERICAN ANTIQUITY before Griffin's appointment; send your title and abstract to him, not to Deuel.

Cincinnati is on and near a number of famous Ohio Valley sites such as Madisonville, Turner and even Fort Ancient. It also has outstanding archaeological collections in the Cincinnati Society of Natural History and the Cincinnati Art Museum. Individuals wishing to visit the sites (without shovels) or the Museum, should write to Prof. G.G. Carlson, Dept. of Sociology, University of Cincinnati. If sufficient interest is shown, an effort will be made to provide guides to the Museums and to the sites.

HAVE YOU READ IT! ARE YOU GOING TO COME?

THIS IS GOING TO BE A MEETING!

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NOTE FROM THE EDITOR

At last it has been possible to get out another number of the NOTEBOOK. Following a flood of articles -- about four which appeared after last years Annual Meetings very few more appeared. It seems to be about the same old story. Everybody wants to read the NOTEBOOK but only a very few are willing to contribute to it. Those of you who think the publication is worthwhile have got to write stuff to put in it. Here we are already to go, how about sending in something to work on?
A LETTER FROM P. SCHUYLER MILLER

Off and on over the past twelve months I have been looking at Kroeber's article in the July, 1940 AMERICAN ANTIQUITY, rereading it, and gradually assimilating it. May I make the suggestion that most archaeologists, amateur or adept, do not make enough intelligent (or intelligent enough) use of statistics as a tool.

I have had one experience which illustrates a way in which the simplest kind of statistics may uncover relationships which could undoubtedly be arrived at by pure cerebration, but which emerge much less painfully through mathematics.

Some time ago the Van Epps-Hartley Chapter started a survey of Mohawk-Iroquois pottery designs, with the idea of finding what designs were commonest on our Mohawk Valley sites. The project progressed to the recording of some 200 sherds from two sites, then other projects intervened for the people doing the work, and we have done nothing since.

As you know, Mohawk vessels are of two main types, varying in the treatment of the rim. The normal type has the high decorated collar; the "thickened rim" type has a heavy band of clay applied around the lip and then decorated, necessarily less elaborately than the former, "classical" Mohawk ware.

When we went over the rim sherds on which we worked, we had recorded an estimated diameter (obtained by matching with metal templates the curvature of the sherd) and the height of the collar. Several months ago I came across our data and, wanting to practice correlation for another purpose, decided to make a distribution of the vessel diameters against the collar heights, to see how high a correlation there would be between what were apparently related measures.

The distribution at once showed that the sherds divided into two main groups, and a check-back to the sherds themselves showed that for the most part this corresponded with the two types I have mentioned. It is true that measurement of the width of the decorated band on the sloping face of the "thickened rim" sherd is not the same as the vertical height of the collar on the normal sherd, but as it happened the two measurements were different enough to make the two groups stand out.
Replotting by type showed that, while the range of measures for both types overlapped completely, the "thickened" type of pot was smaller than the classic type. In the range of 150 sherds of both kinds which I studied (not statistically comparable in a strict sense because there were considerably more of the classic sherds than of the other) I obtained the following averages: the "normal" vessels had a mean estimated diameter of 9.33 inches with a collar height of 1.36 inches, while the "thickened rim" sherds showed a mean diameter of only 5.55 inches, with a "height" of decoration of 0.72 inches.

These figures are not being advanced as a world-shaking contribution to archaeology: their purpose is to show that the use of simple statistical tools may bring out relationships which might otherwise be overlooked. In this case, it is possible that the two types of vessel had different uses; it is possible that as the study is extended we may find that vessels of a certain type grow larger or smaller, the collars higher or narrower, the proportions of a certain design greater or less as acculturation progressed. The problem is one to which simple measurements may be applied, but there are others, less simple, which every archaeological worker meets, and for which he should have the use of the most potent tools statistics has devised. Statistics should be able to confirm and also point out trends in the frequency of, say, arrowheads of a certain type at various depths in a midden. Statistics should be able to draw out of a mass of depth data relations between the frequencies of certain types. It can probably do much more.

What I am wondering is this: is it possible to find a statistician with sufficient understanding of the kinds of problems which archaeology meets to outline, simply, for the NOTEBOOK, the nature of the main statistical tools and the way in which they are used? I see no need for detailed mathematical explanations if he gives a clear reference to some text which will show how to do a correlation or calculate a median. And it might be possible for someone to offer him a few characteristic problems - hypothetical of course - which would be apt to occur in the field, and have him suggest a statistical attack on each.

I know that workers are using statistics to real advantage in many ways, but just as other points of technique are exchanged to much advantage, so should statistical quirks which help to clarify such things as acculturation, stratification, overlapping sites, etc. be made generally available.
ON BONE DAGGERS
Gertrude Hill

During the summers of 1934 and 1935, the writer was one of a group of students from the University of Arizona, Tucson, engaged in the excavation and restoration of Kinishba (ca. 1050-1350 A.D.), a prehistoric pueblo on the White Mountain Apache reservation, near Fort Apache, Arizona. Long daggers, 8 to 10 inches in length, made from the cannon bones of deer, were quite common in the fill of the ruined rooms. So numerous were these articles that speculation as to their function ranged all the way from weapons to aids in weaving. Several burials suggested that a single dagger was sometimes thrust through the hair covering the parietal region of the skull.

During the 1940 Hopi Craftsman exhibit held annually at the Museum of Northern Arizona in Flagstaff, the writer was extremely interested to find a Hopi man weaving one of the elaborately brocaded ceremonial sashes common to the tribe. His equipment included a long bone dagger, identical to those found at Kinishba, which was used to separate and pick up the warp threads before inserting the colored woof to make the design. Possibly the prehistoric bone daggers of the Kinishba-ites fulfilled a similar function.

SHELL MOUNDS AND OTHER SITES IN
SONORA AND NORTHERN SINALOA
Ralph L. Beals

In the last issue of AMERICAN ANTIQUITY Gifford and Schenk report on shell mounds along the Sonora coast from Guaymas north. In 1930-32, while engaged in ethnographic work among the Yaqui and Mayo, I made a few notes on shell mounds and other archaeological sites which perhaps deserve putting on record.

The coast from the mouth of the Mayo River in Sonora to Playa San Ignacio south of the mouth of the Fuerte River in Sinaloa was examined in a number of spots. From surface indications many parts of the coast appear to be almost continuous shell heaps, often extending many miles.
The deep shell heaps reported by Gifford and Schenk were not found in this southern area, the maximum thickness observed being between three and four feet. At virtually all spots examined, occasional potsherds were found which seem similar to modern Mayo pottery. In a number of places shell heaps occur at considerable distance from the sea, especially near salt playas. In several places the presence of old beach lines suggests an emergence of the coast since the shell heaps were deposited. This is particularly evident near Playa San Ignacio.

In a cut bank of the Mayo River above Tesia I found a few scattered sherds at a depth of about one and one-half meters. A few more occurred at four meters depth. Again the sherds appeared to resemble modern Mayo pottery. Sr. Antonio Merino, storekeeper in Tesia, reported the finding of many sherds, mostly a black ware, at a one-meter depth while excavating for the foundations of his house. Sr. Merino also reported a burial was found at a depth of four and one-half meters near Tesia in excavations for an irrigation ditch. The accompanying artifacts had been lost but included a miniature legless metate and mano.

At a number of points I made surface collections of sherds, all of which I believe to be post-Caucasian in time. Some sherds represent a finer finish than exists on the contemporary pottery of the region, but otherwise it seems comparable. Stone "doughnut rings" are found occasionally. I purchased a broken specimen said to be from the mesa on the north bank of the Mayo River opposite Navojoa. I was also given a grooved ax, well polished, and a specialized legless metate. Both were said to be from an adobe pit near Tetanchopo west of Navojoa. The metate is of granitic stone said to occur no nearer than Alamos, some thirty miles east. Similar metates are used by both Indians and Mexicans today to grind small seeds.

A site disturbed by bee hunters was examined near the top of a bufa-like hill south of the Ciudad Obregon-Tesopaco road about twelve miles from Ciudad Obregon. Shell bracelets closely resembling Hohokam material, small disk shell beads, pink shell beads of odd shape, a few turquoise beads, and what apparently had been a long string of graduated square-cut beads of a hard black stone were found. The site I believe to have been a shrine as no bone fragments or occupational debris occurred.
A visit to the Cedros Valley, a tributary of the Mayo River, revealed no sites although important settlements are mentioned in the early documents. Conversations with vaqueros brought many stories of sites in the hills to the east and uniform denial of sites in the valley.

The absence of indisputably old sites in the area calls for explanation. In the Cedros there is the strong possibility that present towns and haciendas are actually superimposed on prehistoric sites. The settlement of Cedros itself suggests such a situation. In the main river valleys early sites may be deeply buried beneath the alluvium or have been washed out by shifting river channels. The best place for search is probably along the edges of the alluvium on mesas.

One of the important archaeological and ethnological problems in the area is the history of the Cahita speaking peoples. In view of the strongly developed painted pottery to the north and south, one suspects the Cahita with their unpainted pottery to be an intrusive group. Gordon Ekholm has verified this to some extent in his discovery of painted pottery sites on the Sinaloa River. He also found possible Hohokam affinities in a site on the lower Mayo river. Discovery of more painted pottery sites along the Mayo and Yaqui Rivers would do much to clear up a puzzling situation.

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HALIOTIS SHELLS ON THE NORTHWEST COAST
Arthur Woodward

All archaeologists, professional and amateur who have worked on sites along the coast of southern California and in the San Joaquin Valley have accepted without comment or question the presence of haliotis or abalone shell ornaments. Which of course is as it should be. The prevalence of those shells along the coast of California made them a favorite univalve among the Indian inhabitants of California, and elsewhere as the following article indicates. Today the haliotis shell is utilized as far off as China and Japan in the manufacture of ornamental objects. On the Northwest Coast, among the Tlingit, Haida, Kwakiutl, etc., the nacreous shell has been used to ornament masks, head dresses, wooden bowls, boxes,
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hafts of implements, garments and as necklaces. It found its way to the Plains country and into the Southwest.

In an article by Alexander S. Taylor, "Miscellaneous Notes of the Author connected with the California Indianology - No.2" which appeared in the California Farmer, Dec. 5, 1862, the following statements are made.

"From 1820 to 1835, or dating from the beginning of the century, a curious trade was carried on from Monterey in the shells of the aulone. The traders in Monterey, or those who resorted there in whale ships, used to buy these shells and take them down to the Sandwich Islands for sale to the merchants there. They were then shipped to Oregon, Vancouver and Russian America, to exchange for peltries and articles with the coast Indians. The Indians would give one Nor'west sea-otter's tail for one aulone shell. These tails sold in China for from $7 to $10. Higher up north in Russian America the Indians would give one Nor'west elk skin for three aulone shells.

"These Nor'west elk skins which are very large, and preserved by the Indians with smoke would sell to the coast people still further on to the North, for one Nor'west sea otter's skin, worth in China from one hundred to one hundred and fifty dollars. Almost the entirety of the trade was on Boston and Salem account, and immense fortunes were made by the down east merchants in the various ins and outs of the trade in furs and peltries, by their own capturing or by exchanging gew gaws or rum with the simple savages of the Coast from San Lucas to Behring's Straits."

Taylor referred again to the trade in abalone shells at the conclusion of his article:

"The aulone shells before spoken of, appear to have been a medium of exchange, producing a singular social and we may say, political effect. They were taken by the beaver trappers and mountain traders from Monterey into the Sierra Nevada and even the Rocky Mountains and exchanged with the Indians for furs, horses, buffalo robes and other valuables at high prices. A string of them, or wampum, was of great value as they were produced with immense labor. It took an Indian brave twelve months to make a string. They were broken up, or cut with obsidian into small pieces, and then every piece was ground round and a hole bored through it. The possession of several of these strings was an item of immense wealth and power,
they being regarded in the light of a magic charm, medicine and money. Their use extended amongst all the remotest California, Oregon, Vancouver and Northwest Coast Indians, and they were often the cause of bloody and thieving wars, just like the wars of the white people. To this day the aulone is an important article of Indian trade."

In his latter statements Taylor seems to be confusing the smaller clam shell beads with abalone pendants, the clam shell beads were difficult to make and were accepted more as a primitive currency than the abalone, the latter being used more for ornamental purposes.

However, one might well ask, does the period of 1800 - 1820 mark the beginning of the use of abalone shells among the Indians of the Northwest Coast? A small, thin corrugated abalone known as Haliotis kamtschatkana is found from the north Asiatic coast along the Alaskan coast as far south as Central California but this shell was not serviceable as ornaments or as inlay, the shell being too thin and brittle and the workman would have been unable to obtain a smooth piece large enough for inlay purposes. The largest of these shells would not range over 4\(\frac{1}{2}\) to 5 inches. On the other hand, the three types of abalone shells known commonly as the red, green and black are found from Lower California to as far north as Coos Bay, Oregon. The black has a range from Lower California to Coos Bay. The red, from Lower California to Bodega Bay, California and the green from Lower California to the Farallon Islands off San Francisco, California. These shells are large, the black reaching a diameter of 7-8 inches, the red and green 8 to 10 inches. These are the most colorful and the most in demand among the Indians and the white men as well. During the early 19th century these were the ones that undoubtedly found their way north and at the opening of the 20th century there was a demand among the white men for abalone shell jewelry. Mr. George Willett well known conchologist reports that just prior to the first World War, he and his partner sold three gunny sacks filled with the nacreous centers of large black abalone, found on Cedros Island, Lower California for $500. These went to Austria to be manufactured into belt buckles, brooches, etc.

Frequently an examination of early newspaper accounts, old trade lists or other historic documents will yield definite clues useful to the student of ethnology and archaeology. Too often the student is prone to rely only upon the orthodox sources for corroboration of his finds.
and when these are exhausted, the research workers fall back upon the easiest expedient of quoting each other. In a search for information which tends to clarify archaeological or ethnological problems no source of supply should be overlooked. This involves a tremendous amount of labor, but the satisfaction of being able to put one’s finger upon a definite bit of information often outweighs the long and tedious hours spent in combing the documents for these data.

(In this connection see Leechman's paper, "Abalone Shells from Monterey," pp.159-162, AMERICAN ANTHROPOLOGIST Vol.44, No.1, 1942.)

DOMESTIC FOWL AS CEREMONIAL OFFERINGS
Arthur Woodward

Although we know that the turkey was domesticated in Mexico and probably in the Southwestern portion of the United States among the Pueblos in pre-historic times, the use of chickens for ceremonial purposes, particularly in California seems not to have been recorded. Consequently the following account may be of some interest to fellow archaeologists.

In November-December 1939 I excavated a large cave on the south-east end of San Clemente Island which lies about forty three miles off the coast of Southern California. The cave was seventy feet across the mouth, had a ceiling ranging from fifteen or twenty feet at the mouth to six or eight inches at the extreme rear and a depth of about thirty five feet. The deposit of cultural debris was from six inches to five feet in depth.

Because of certain climatic conditions the refuse was quite dry in spite of the fact that it fronted on the ocean. At high tide the fine, almost imperceptible spume floated in and settled in the cave. The salt in this spume impregnated the dust and everything buried in the shelter. Unlike most California caves, which when examined usually prove to have been utilized as storage rather than for burials or habitations, this cave had been used as a residence and for mortuary purposes.
Through the circumstance of finding the remains of a large tawny haired male dog which had been wrapped in a sea otter skin robe and given a ceremonial burial, we named the cavern Big Dog Cave, and as such it will be called in subsequent publications.

Accompanying three human burials were wads of mission woven cloth, burned basketry of mainland type and abalone shells. Consequently when I encountered similar offerings of basketry, cloth and shells in conjunction with two small bundles one carefully wrapped in blue and grey striped cloth of the mission period and tied with fibre cord, and the other swathed in sea otter fur and fastened with the same cordage, I thought they were artifacts accompanying another Indian burial. However, I soon discovered that the offerings were the accompaniment of the small bundles. I unwrapped portions of each package and saw bird feathers but did not continue the investigation further. In the laboratory we discovered that the birds, instead of being owl, hawk or eagle as I had first suspected, were a Spanish fighting cock and a hen. The cock was of the Red Dun variety of game cock used in fighting, which had first gone to England from India thence to Spain and Mexico and eventually arrived in California with the Spanish colonists. The hen was of the Mealy Gray variety.

Apparently these birds fell into the hands of the Indians living on San Clemente, sometime between 1780 and about 1800. The purpose of the ceremonial treatment of the fowl is unknown but if we are allowed a bit of speculation we might suppose that the Indians, unacquainted with domestic birds might have observed the careful treatment accorded the creatures by the Spaniards.

It may be that these two chickens were stolen by the gentiles living on San Clemente while on a visit to one of the mainland missions. Not understanding the care of the fowl, the birds died and instead of eating them, the natives treated them with reverence and gave them burial befitting a human.

This of course is sheer speculation. The fact remains, the dessicated bodies were found, carefully bound in cloth and fur and accompanied by the same type offerings placed with human burials.

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FLINT RIDGE

Arthur R. Altick

Flint Ridge is a range of shaggy hills extending in a westernly and easterly direction in Licking and Muskingum Counties, about half-way between Newark and Zanesville, Ohio. The range forms a part of the Allegheny Plateau, and has an elevation of about 1,200 feet at the western end in Licking County and diminishes towards the eastern end in Muskingum County. The flint quarries of the pre-historic Indians are located in these flint-capped hill-tops where the material was obtained for their implements. In primitive times, the only way the region could be reached was by trails through the black forests, leading there from all parts of the country. Highways of the whiteman now lead in from all directions.

Flint Ridge State Memorial Park, comprising 26 acres, is located in the heart of the flint region, and commemorates the ancient quarries. At this place, they bear mute evidence of a once flourishing industry, and are visible as irregular, grass-covered basins, having become shallow with rubble since the Indians worked them.

At the "Ridge," the first stage in the manufacture of flint implements was quarrying. The greatest activity of the prehistoric quarrymen centered in the vicinity of what is now known as the house of Mr. Wesley White, located at the cross-roads (Flint Ridge State Memorial Park). It is said that the entire area probably would not exceed one hundred acres. In this locality, within an area of about one mile, are the largest and most extensively worked quarries, where the flint was of better quality for prehistoric implements than at either the eastern or western ends, where, due to impurities, it was unsuitable for that purpose.

However, this inferior flint was used in making buhr-stones by the early white settlers. Its rough, grainy texture served well for that purpose, and a booming industry sprang up. The stones were shipped to all parts of the country where they were used for grinding grain into flour. The quarries and several of the old buhr-stones can still be seen at the extreme western and southern ends of the "Ridge".
A buhr-stone made from Flint Ridge material is in the collection of The Clark County Historical Society Museum, and shows plainly the poor chipping quality of the flint, and why it was not used for aboriginal implements.

The author, accompanied by Messrs. Frank G. Burdett and Robert E. Craver of Springfield, recently surveyed the "Ridge". On arriving at the Flint Ridge State Memorial Park, we were met by Mr. Robert D. Ridenour, the custodian of a 700 acre tract of forest and field, privately owned by a gentleman at Newark. This tract is posted against trespassing, and Mr. Ridenour informed us the limits, which we observed, there being enough quarries outside the reservation for investigation.

Before starting our survey, we went over to Mr. Wesley White's house, located on the site of Clark's old blacksmith shop. He was sitting in a chair in his front yard basking in the mellow sunshine. Several, large blocks of flint containing geodes, filled with quartz crystals, were placed around his front yard fence. These, he said, were obtained from the abandoned, buhr-stone quarry located in an old apple orchard southeast of the "Memorial". These crypto-crystalline blocks of chalcedonic silica are much sought after and prized by rock-gardeners.

The second stage in the manufacture of aboriginal implements at the "Ridge", was the blocking out workshop, where the flint was first brought in suitable blocks from the nearby quarries to be blocked out by hand hammers into rough blanks and cores.

Craver had been at the "Ridge" before, and surveyed the edge of a blocking out workshop east of the "Memorial" where he found several rough blanks. He believed this would be a good place to start our survey. The site was in corn which was cut and in shocks, and fortunately the ground had not been sown in wheat, consequently the surface was well leached by rainfall. The entire area of the blocking out workshop, comprising several acres, was literally covered with blocks of flint that the ancient quarrymen had brought from the quarries to be fashioned into rough blanks for implements. We found many rough blanks and blades which had been broken in chipping, due to defective material or possibly careless workmanship.
A number of small, ungrooved, hand hammers, made of imported granitic rocks, and some made from blocks of flint, were found among the thick deposits of flint laying on the surface. Their battered edges showed vigorous usage. The grooved hammer is almost unknown here, possibly due to the fact that a hammer held in the hand and used in that manner, without a handle, was more accurately controlled than one with a handle.

Craver found a sandstone block on the surface in a pile of flint chips. On one side are 23 irregularly spaced cups, and on the other side are 9 cups, spaced in the same fashion. What these cup-stones were used for is unknown. The majority of them are made from sandstone, and they are found on many Ohio sites.

Burdett found the only notched arrow point on this blocking out workshop site, and the author found a small "T" type drill which had the point broken off.

This site was surveyed until well past mid-day, and then, like the Indians of old, we cached our heavy sacks of findings under some sumac bushes before striking out down the road leading back to the "Memorial" where the car was parked containing our lunch.

Mr. White, being an "old timer" on the "Ridge", had hunted and found many implements of the ancient quarrymen, and knew where their workshops were located. We met him coming down the road. He stopped and gave us the locations of several, east of the "Ridge", but unfortunately both had been recently sown in wheat with no rainfall to level the surface, so it was practically useless to hunt on them. However, the trip did not prove futile, for the author spied a cornfield on the southeast which had not been cut. This site, we discovered, had been used extensively for both a blocking out and a finishing workshop, and numerous unfinished, rough blanks and several flint knives and a notched arrow point were found. It was here that Burdett found a large, globular, brown quartz quarrying maul, weighing 21 pounds, near the fence line of a wooded area that contained several ancient quarries. Large mauls are found in the quarries that have not been opened, and occasionally one is found on the surface, but most of them, owing to their large size, have been picked up by relic hunters. They were used by the quarrymen in breaking off blocks of flint in the quarries.
The afternoon was wearing on rapidly, and we started back to where the car was parked, and on the way stopped at one more workshop which had been in soy beans and corn. What we found here, was a duplication of the other blocking out workshops, with the exception of two broken ceremonial artifacts, one found by Burdett, which was a section of a winged slate banner-stone, and the other broken piece was found by the author, being a section of a flat sandstone ceremonial of unknown design.

The day was almost spent, only about a half hour of daylight remained, and we used it advantageously, stopping at a site on the way back to Brownsville. This, we discovered, was a finishing workshop, used for the manufacture of flake knives from cores, made from rough blanks, brought from the blocking out workshops hardby. This was the third stage in the manufacture of flint implements at the "Ridge". Here, all the excess flint was chipped off, making the objects suitable for carrying to distant places. The surface of the ground was strewn with small chips of flint struck off during the manufacture of flint knives, arrow and spear points. In the few remaining minutes of daylight, many flake or spore knives, several cores, and a number of finely chipped blades were found.

We kept a keen lookout for implements made from a green, splotched flint, but were unsuccessful in finding any. This color is a rarity in Flint Ridge material. It is occasionally found and highly prized. The quarry from which it was obtained has never been re-located.

It is believed that Flint Ridge was neutral ground, and the Indians buried the "tomahawk", while quarrying their supplies of flint, but after that, it was a different story. A dearth of war-like implements exists at the "Ridge", which seems to confirm the theory.

Aboriginal implements made from Flint Ridge material are discovered over a wide area. They are found in Hope-well, Adena, and Fort Ancient Mounds, rock stations, and on habitation sites in Ohio and other states. Thus, it was much desired and extensively used by prehistoric man.

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Little has been written specifically about house types, their evolution, form, and distribution, in the Americas, except in the areas of Incan, Mayan, and Aztec occupation. There is a broad field of research in this study and this paper is intended solely to stimulate interest and comment, and perhaps initiate some sort of research program, on the topic.

In the Old World there was a definite transition from the cave to circular dwelling to rectangular structures. In the Americas, we are faced with the problem of cave and cliff dwellers emerging into a glorified period of building imposing communal rectangular houses, retrogressing, then re-emerging, to again give a decadent expression of their former architectural achievement.

Meanwhile other cultures were living in structures which ranged from subterranean circular dwelling, with ingress through the smoke-hole, to a modification of this form in a semi-subterranean or surface location, and with ingress by means of a covered or uncovered doorway.

Some of the circular structures were the predecessors of semi-rectangular and straight rectangular forms, while in other cases the evidence seems to point to a rectangular house form giving way to a more convenient circular type.

In some cases the evolution progressed, or degraded, be it as it may, to produce simple lean-tos, wigwams, and the tipi, the latter the popular conception of an Indian abode.

In both rectangular and circular houses the mode of construction varied considerably. In some, there was an abutment about the periphery to from a base against which poles were placed to lean against an outer set of posts. From the top of this outer ring, rafter poles were laid to an inner square or circle of poles, so that roof and wall were distinct. Other rectangular and circular houses simply combined roof and wall in long arching poles.

In some cases only grass or tree branches were used to form covering for the exterior; in others, a mixture of
clay and grass was used. Still others formed a somewhat elaborate framework of laced poles and grasses and covered with clay to form the wattle-work familiar in the Mississippi Valley.

All evidence points to American aboriginal architecture as a rapidly changing picture and a complex problem which can be worked out only through a gathering of all the known facts and arranging them in an order of cultural association and time sequence.

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ARCHAEOLOGICAL REMAINS IN PLATT NATIONAL PARK,
OKLAHOMA
H.R. Antle

Working under an exploratory permit obtained through the Region III office of the National Park Service at Santa Fe, New Mexico, the writer sunk three test pits in the eastern portion of Platt National Park, Oklahoma, to ascertain the presence of archaeological material.

The area lies at approximately 34½ north latitude and 97 west longitude; it is bounded on the north by the Indian Base Line and is in the second east Township.

The Park has long been a favored camping ground of Indians because of its medicinal waters. There are thirty-two springs in the area, most of them being mineral. The Park itself was obtained by treaty from the Chickasaw Nation at the turn of the present century.

Flowing from the north and entering the Park at a mid-point location, thence westward and across the boundary of the Park, where it turns to the southwest to enter the Washita River, is Rock Creek, a permanent fresh-water stream which marks the path of Indian migration from Southwest to trading points in northeast Oklahoma.

Just within the Park and at the location where Rock Creek turns west, there enters a swiftly-flowing tributary from the eastern-most end of the Park. This stream is fed by two major springs, Antelope and Buffalo, which produce an estimated ten million gallons of water daily.
It was in the vicinity of Antelope Springs that the test-pits were dug, the location being made through two minute potsherds turned up during construction of a water line.

This portion of the Park is an open rocky prairie encompassing a thicket of hardwoods, briars, shrubs, and vines, in the immediate creek bottom. The rock prairie slopes sharply down to the creek, giving a quick run-off to meteoric waters. The site investigated lies just within the wooded belt, one hundred yards north of the creek, and seventy-five feet south of the rocky hill slope. The soil on the surface is a heavy black loam, covered with a profusion of grasses, brambles, and trees. There is no surface indication of archaeological material.

Three test-pits were dug within a fifty-foot radius. At a depth of one and one-half feet the black viscous soil gave way to a red gravel and clay layer. The topmost portion of this layer marks the prehistoric occupation level. The northernmost test-pit was sterile. The other two disclosed charcoal, sherds, projectiles, and game animal remains. The potsherds are of a heavy grit-tempered variety. Some are smooth on the exterior while a few are cord-marked. All sherds were heavily coated with soot. The few projectile points recovered ranged in size from three-fourths of an inch to an inch. No large ones were found; however, due to the limited testing, this does not mean that they do not exist. All of the points were poorly made, possessing none of the fine chipping technique which typifies projectiles in sites to the west and north of Platt National Park. Animal remains were representative of deer and bison, once common in this locality. In comparison with other material recovered, they seemed rather plentiful.

A recommendation has been made to Superintendent William E. Branch of Platt National Park that a systematic and more extensive excavation of the area be made.

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FEMUR LENGTH AND THE CARDIFF COMPLEX

H.R. Antle

Rarely is a new discovery of prehistoric human remains made that the Cardiff Complex is not expressed by some sincere but over-enthusiastic individual. We refer
to those numerous accounts of giants brought to light by accident or otherwise.

The investigator himself is not always to blame; generally the statements find their way into the press through gross misunderstanding on the part of the feature writer who is accustomed to gathering sensational news. An innocent remark that a certain human skeleton was unusually large may find its way into print as being seven feet tall. Interviews will sometimes also be made with local natives or chance bystanders and their unskilled observations quoted. It is too bad that once in print such statements cannot be recalled.

Since archaeology is now the hobby of many persons, and societies exist, and excavations are carried on in regions often devoid of anatomists other than the local M.D., we present here two mathematical formulas for approximating the height of an individual by means of the femur length. The "French Measure" is used; however, any grade school arithmetic will give a metric equivalent if the final result is desired in common units of measure.

Now it is not possible to say with accuracy that a given femur is of a male or female. In using the formulas the results will show the height, if the specimen was a male, or the height, if a female.

Formula I. Multiply the total femur length by 1.88 and to the result add 813.06. This will give an answer in millimeters. This is for a female.

Formula II. Multiply the total femur length by 1.945 and to the result add 728.44. This is for a male.

According to the grade school arithmetic book, we can divide the answer by ten and get it in centimeters and then divide this result by .3937 and change it to inches.

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A PROPOSED BIBLIOGRAPHY SERIES
Holmes Ellis

At the Minneapolis meeting of the Society for American Archaeology, Frederick Johnson and the writer discussed the possibility of making available for general use the
vast amount of bibliographical material which has been compiled during the past three years in the Ohio State Museum.

The outcome of this discussion was the decision to publish in the NOTEBOOK a series of sample bibliographies on specific subjects to get the reaction, if any, from the readers. These bibliographies would not be complete but would contain enough material to steer the individual in the proper direction.

If there is a general interest in this sort of thing, it might prove feasible to run the bibliographies on unnumbered pages so that they could be removed from the NOTEBOOK and filed for ready reference.

As an example of what might be done a short series of papers on Indian agriculture is appended. As stated before, this does not pretend to be an exhaustive list, but merely "hits the high spots."

On some subjects where there are not many references available, all of the material which we have listed could be included and interested readers invited to send in additional titles to Mr. Johnson.

INDIAN AGRICULTURE A BIBLIOGRAPHY

GENERAL STUDY


BEANS


CORN


Weatherwax, Paul, Story of the Maize Plant. 247 pp., illus., maps, University of Chicago Press, 1923.

COTTON


FOODS AND FOOD PREPARATION


MAPLE SUGAR


MEDICINALS


Shonle, Ruth "Peyote, the Giver of Visions." AMERICAN ANTHROPOLOGIST, n.s., vol.27, no.1 (January-March, 1925), pp.53-75.


NUTS


OILS


RICE


Stickney, Gardner P. "Indian Use of Wild Rice." AMERICAN ANTHROPOLOGIST, o.s., vol.9 (April, 1896), pp.115-121.

ROOTS

Society for American Archaeology, NOTEBOOK, February, 1942

TOBACCO


West, George Arbor "Uses of Tobacco and the Calumet by Wisconsin Indians." WISCONSIN ARCHAEOLOGIST, o.s., vol. 10, no.1, (March-June, 1911), pp.5-64.

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REFERENCES TO ANCIENT MAN IN AMERICA

Gertrude Hill

The following references have been chosen from an extensive bibliography supplied by Miss Hill. The editor plans to publish these from time to time as space permits.


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IMPORTANT! NOTICE! IMPORTANT!

THE ANNUAL MEETING
of The Society for American Archaeology at the Hotel Gibson, Cincinnati, Ohio, May 8 and 9

It is hoped that as many as possible of the members of the Society will attend this meeting both because of the papers which will be presented and because of the opportunity to see the collections in the Cincinnati museums and nearby archaeological sites. Furthermore, at the Business Meeting contemplated changes in the Constitution and By-laws will be of interest to the entire membership.

In an effort to awaken interest in the meeting the following abstracts have been included in this issue of the NOTEBOOK. They are presumed to entice rather than repel. These papers will be presented on Friday at the morning and afternoon sessions.

THREE DIAGNOSTIC POINTS FROM EASTERN MISSOURI
Robert M. Adams

As a result of investigations by the Academy of Science of St. Louis-WPA expedition in two neighboring rock shelters 30 miles south of St. Louis and two miles west of the Mississippi River three point forms probably are of considerable antiquity.

The first is a short thick side notched point found without pottery associations at a depth of 210 centimeters with other long spearpoints and end scrapers. The pottery bearing deposits terminated at a depth of 75 centimeters in the shelter. The same type of point was found with others like it in deep deposits in an old stream bed in another shelter nearby. These were found with some 75 other chipped stone artifacts and two sherds. The implements are of varying age but they lay under undisturbed late Indian occupations where sherds were far more plentiful than stone implements. One of the thick short side notched points has the familiar channels usually associated with the Fluted point. With these points were found the Black Sand and Signal Butte I points believed to have some antiquity in Illinois and Nebraska respectively. Not one of the points in deep levels from either shelter were of the isosceles triangular variety which are almost inseparable adjuncts of the Mississippi Pattern of known late date. These latter points were plentiful from the superficial deposits, however.
The second point also with side notches but much longer than the aforementioned point and somewhat thinner in relation to its length has a polish due to weathering. A twin to this point was found 60 centimeters from the surface, 50 centimeters over an extinct bison tooth and on the same level as a mastodon bone from the Kimmswick, Mo. bone bed ten miles north of the shelters. This point lay in a loess-like soil with high vertical cleavage but was above the gravel and talus bed in which the bones lay, nevertheless it was found close to the contact zone.

The third point, a long finely chipped spearpoint having an expanded stem with concave tip and an elongate s-shaped profile was found to one side of the stream bed mentioned above as being in one of the rock shelters and at a slightly deeper level together with heavy iron precipitates. Other spearpoints of this type were found at the same level. There were no pottery associations.

It may or may not eventually prove to be of significance to note that the bottoms of both rock shelters were well above remnants of a river terrace in the vicinity known to be of late or middle Quaternary age. However, no predictions of absolute age can be given at the present time. Dr. Louis Ray is shortly to make an exhaustive study of terraces in relation to both the shelters and the Kimmswick bone bed.

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THE EARLY CULTURES OF THE GEORGIA COAST
Joseph C. Caldwell

No abstract

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EARLY HORIZONS IN THE SOUTHEAST
T. N. N. Lewis

No abstract

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PROGRESS SUMMARY OF THE ARCHAEOLOGICAL SURVEY OF THE NATCHEZ TRACE PARKWAY
Jesse D. Jennings

The paper offers a summary of the results of a survey program carried on in conjunction with the location and development of the Natchez Trace Parkway. The Parkway, a high standard park road commemorating the old Natchez Trace, in
Society for American Archaeology, NOTEBOOK, April, 1942

connecting the towns of Nashville, Tennessee, and Natchez, Mississippi, passes through a relatively unknown archeological area. With the exception of one short excavation program, the survey has been exclusively of a surface collection nature. Results, therefore, are heavily weighted on the ceramic side, except for northeast Mississippi, where the excavations revealed a sequence of cultures observed in stratigraphic situations.

As mentioned above, the survey's work is restricted by Act of Congress to terra incognita except at the crossing of the Tennessee River at Colbert Shoals and at the south end which impinges upon the northern periphery of the Louisiana State University sphere of activity. Since the sequence of cultures was known on the basis of previous work in the vicinity of the Tennessee River and at Natchez, the search for sites and materials have been concentrated in the zones where no reported research had ever been conducted.

Probably the most important single contribution of the survey is the establishing of a sequence of temper types in the cultures best known through their preponderant use of cord-wrapped paddle-stamped decoration. These cultures have, in Mississippi, been characterized in the past as Deasonville. It is apparent, however, that the Deasonville cordmarked material represents a late type and was preceded in northeast Mississippi, at any rate, by a pottery complex similar to Deasonville in form and application of decoration but which is heavily tempered with sand.

Of equal importance was the discovery of a heavy and widespread occurrence of an Archaic non-pottery horizon in the broken, hilly section of Tennessee between the Alabama line and Nashville. It is a region of steep hills and ridges cut by hundreds of small branches and creeks. On the second bottoms along each creek and minor water course one or more sites will be found. Called knapping sites in the past, these sites yield flint artifacts typologically identical with the prepottery remains of the Tennessee River Shell heaps. They are regarded as small village sites of Archaic age.

It has also been found that the pottery types, characterized by Quimby as Natchezan, extended up through central Mississippi as far as Tupelo; this is particularly true of the type known as Fatherland Incised which has been found on the surface at site after site.

On the basis of excavations near Tupelo in northeast Mississippi, the vague outlines of three prehistoric levels have been deciphered. The earliest level, characterized as Miller I, appears to be coeval with the fiber tempered levels described by Webb from the Tennessee Basin. Successing it is
the Miller II horizon correlated with the Alexander-Tchefuncte and Marksville periods, probably overlapping both of these. Miller III seems to be an outgrowth of the Miller II level and is correlated with the Early Middle Mississippi and Deasonville cultures.

Most recent in the area, of course, is the historic Chickasaw occupation. There is some vague evidence that the Chickasaw were employing a Miller III type of culture at the time of De Soto's visit. Fragmentary as the data are, it is felt that the foundations of a valid culture sequence has been demonstrated for the area south of the Tennessee River and north of Jackson, Mississippi.

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CULTURE SEQUENCES IN A STRATIFIED CADDIAN MOUND SITE
BELCHER

C. H. Webb

The Belcher mound site in Northwest Louisiana offers stratigraphic evidence of sequential alterations in Caddo pottery types, as well as variation in house types. A brief description of the archaeological findings is presented, with correlation of house types, burial customs, pottery sequences and other artifact types with the four stratified levels in Mound B. The general relationships of the Caddo Confederation of North Louisiana, East Texas and Southwest Arkansas to other Caddoan peoples and the possible connections between the archaeological findings in this area and other surrounding cultures are briefly reviewed.

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EXCAVATION OF A MIDDLE MISSISSIPPI MOUND AND VILLAGE
IN NEW MADRID COUNTY, MISSOURI

W. M. Walker

Investigations just completed by a WPA Archaeological Project sponsored by the St. Louis Academy of Science near the town of Matthews, Mo. in the bottomlands of the Mississippi Valley have yielded important information on the lives and customs of a prehistoric occupation of a large settlement comprising mounds and house sites surrounded by an embankment overlooking an ancient watercourse. The people were agriculturalists who also enjoyed a hunting and fishing economy as evidenced by large masses of bones of deer, bison, carnivores, and smaller animals and the presence of small finely chipped arrowpoints of the Middle Mississippi flint chipping technique. Some of the points were serrated and may have been more used in warfare.
The evidences of agriculture were found in the form of large chipped flint blades for use as hoes or spades, and also the presence of a small-grained corn still adhering to the cobs. Bone tools for flakers, needles, and awls were also found.

Pottery was of two principal types, shell-tempered and clay-grit tempered. The finer vessels were all shell-tempered, bowls, bottles, plates, and effigy forms and were commonly found with the burials. Coarser shell-tempered pottery and cord-marked clay-tempered ware were used for the large jars and bowls and domestic vessels. Painted ware in red and white, and a red slipped ware were found only in the burial mounds.

House sites were rectangular in plan with doorway generally towards the water, a central fireplace, and wattle and daub construction. Two types of walls were noticed, one a single line of post molds not set in trenches, the other a double line of posts set in wall trenches. This might have indicated summer and winter habitations. House sites were found only at one level not more than 3 feet deep in the village, but in the mounds an upper and lower level was present separated by a water laid sand stratum. Houses near the surface had generally been burned and the bones of one of the occupants were found beneath the charred timbers.

Burials were in small family plots near the houses and also in burial mounds. Those in the mounds contained the finer specimens of pottery usually decorated. Intrusive bundle reburials were found on the upper levels of the ceremonial mound.

Cross-sections through the large ceremonial mound revealed the existence of an earlier truncate mound with a fireplace near the top and center. A small cup or dipper in the shape of a Busycon Shell suggests a southern origin for the builders. Later a mass of grey clay had been added to the west side of the inner mound and successive layers finally gave it a height of 11 feet, length of 110 and width of 70 feet as recorded in 1878. Five of the seven mounds were arranged about a square or plaza in the center of the village as is characteristic of mound groups all the way down the Mississippi Valley.

No objects of white man's culture were found so the site is certainly prehistoric and probably belongs to a late stage of Middle Mississippi phase.
EXCAVATION OF MOUND F, ANGEL MOUNDS GROUP,  
VANDERBURGH COUNTY, INDIANA  
Glenn A. Black.

Mound F was the second largest of the Angel Mounds Group. It stood 1538 feet southwest of the principal mound and at the west end of what we believe was the village square.

It was approximately square, having basal dimensions of 193.75 feet northwest - southeast by 190.7 feet northeast southwest. The apex was truncate forming a flat terrace 78.2 feet long by 65.7 feet wide --- the long axis being northeast - southwest. The maximum elevation was 13 feet above the average village level.

The square of the mound was not oriented with the cardinal points in any way. A median line established through the mound was found to bear north 21°30' east, paralleling the principal mound the long axis of which bears north 20°0' east. The slight difference in bearing between the two mounds suggests the possibility of planned alignment.

An exploratory technique was used which permitted discovery of a primary earth structure without penetrating the earlier mound at any point. The mantle of earth constituting the secondary mound was removed in such a way as to reveal the primary mound in its entirety, including the mound slopes.

The upper surface of the primary mound was troweled to expose post holes, house wall trenches, pits and other features. Complete plotting of these features indicated the use to which the mound had been put.

The top of the primary mound had been used as a foundation for a rectangular structure 91 feet in length, overall, by 44 feet in width with the long axis northeast-southwest. It appeared as though this structure had been divided into two rooms, the one on the south being the larger and surrounded on the four sides by a clay banquet. The floor, in the center of the banquet, was therefore depressed. A circular fireplace was found in the floor within the south end of the house as was a rectangular fireplace north of the banquet.

Within the house clusters of post molds and stake holes were found in such a way as to suggest the former presence of tables or stick supported benches around the walls of the north room.
A square pit was found inside the house which had been roofed over, or covered, with a stick supported cover of cane. Within the pit the fragments of two or more very large pottery vessels were found.

Outside the house outline clusters and rows of post holes were found at the four corners of the mound apex. There was a suggestion of their having served as porticoes, anterooms or unattached structures.

Completely surrounding the edge of the mound apex was a row of post molds marking the position and configuration of a stockade which had surrounded the house. A break on the east side, near a ramp-like structure in the east slope probably indicates the means of entrance.

Intrusive bundle burials with stone used in various ways in grave construction were limited to the east slope of the secondary mantle.

The structure, or house, was of the wattle and daub type with grass and cane thatched roof. The house had been burned and most of the debris cleared away before the eight feet of earth, forming the secondary mound, was added.

At this writing the primary mound remains to be removed.

AN ADENA DWELLING HOUSE IN BOONE COUNTY, KENTUCKY
William S. Webb.

A circular house, 26 feet in diameter, constructed of paired posts in outer wall and with six posts in an interior circle, to support the roof, had on its central fired area, the deposited cremated remains of at least eleven individuals. A small earth mound was built over this deposit inside the house and the house was then destroyed by fire and a mound erected over all. Mound grew by increments as additional Adena log burials were added until it had 52 tombs and contained 89 additional burials.

AN ADENA TOWN HOUSE IN BOONE COUNTY, KENTUCKY
William S. Webb.

A circular town house 58 feet in diameter, with paired posts in the wall and four interior posts for roof support, had beside these, a covered doorway, a central fire place,
Society for American Archaeology, Notebook, April, 1942

with "wind brake" about it, a raised "dias" for the "presiding officer", covered by a four post construction (canopy?), and 2 rows of seats against the house wall for the "council members".

The house was burned and an elaborate log tomb 16' X 25" was erected squarely on the "dias" within the area marked by the four posts of the "canopy". This tomb of bark and logs contained one extended burial, covered in part by red ochre and in part by powdered graphite, and was accompanied by the deposited cremated remains of two individuals, each placed in a corner of the log tomb. A mound was erected over this tomb - later a mound was erected over all, to cover the Town house floor. Later 6 other small Adena log tombs were intruded into the side of the mound.

AN INDIAN MOUNDS NATIONAL MONUMENT IN PROSPECT

Charles R. Keyes.

No abstract.

MECHANICALLY COUNTING BY FIVES, MAYA STYLE

Robert H. Merrill

In four pages this paper presents Maya calendar tables claimed equivalent to Goodman's 114 pages. Instead of turning 13 pages, a transparent tabulation may be slid up or down 13 lines. Direct work in Maya positional notation is actually easier than transforming into Arabic decimals. Aboriginal procedure was probably as simple as we now think our familiar arithmetic to be; if only we discover their rules. Counting by fives as on an abacus is one such simple method, which this paper endeavors to apply.

THE LOCATION AND DELIMITATION OF ARCHAEOLOGICAL SITES BY MEANS OF DIVERGENT VEGETATION

Volney H. Jones.

A number of archaeologists and botanists have observed that the location and outlines of archaeological sites can often be ascertained by differences in the nature, quantity,
or vigor or the plants growing on the site, as compared to the flora surrounding it. Three explanations of this phenomenon have been offered:

1. Enrichment of the soil by former occupation, resulting in a more vigorous vegetation on the site.
2. Physical and chemical alteration of the soil resulting in qualitative floral differences.
3. A concentration of economic plants during occupation, and a persistence of these to the present.

In addition to the value of this phenomenon in assisting the archaeologist in finding and delimiting sites, the data involved should also be of value and interest to the plant ecologist. It is suggested, therefore, that before destroying this evidence, the archaeologist should call it to the attention of botanists.

Such divergencies of flora on archaeological sites are apparently not confined to any particular region or kind of site. They have been reported from Tierra del Fuego, Alaska, California, Louisiana, Indiana and other diverse places on several kinds of sites, and can therefore be expected in almost any situation.

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AN INTERPRETATION OF SIOUAN PREHISTORY
James B. Griffin

At the beginning of the colonization of the United States territory various Siouan tribes were located from the northern Mississippi and Missouri Valleys to the Gulf of Mexico, and from the Central Plains to the Atlantic Piedmont. Beginning with the archaeological cultures attributable to these historic groups an attempt is made to identify the prehistoric archaeological cultures which might be assignable to Siouan units.

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NEGATIVE PAINTING AND THE SPREAD OF MIDDLE MISSISSIPPI CULTURE
Philip Phillips

A description of negative painting is given with certain assumptions, based mainly on Middle American sources, with respect to the technique by which it was produced. Whatever the precise technique it was essentially the same
in the two areas, Southeast and Middle America, because of the similarity of the product. This similarity cannot be accidental. A brief description and illustration of types in Tennessee-Cumberland, Lower Ohio, and Southeast Missouri will be followed by a map showing the distribution for the Southeast generally. The discussion will emphasize that the distribution of this technique centers in the Tennessee-Cumber land area rather than in the central Mississippi Valley. This same situation may be shown for a number of associated elements, making up the so-called "buzzard" cult. It has been assumed that the appearance anywhere in the Southeast of these specialized cultural items is the result of Middle Mississippi spread from the central Mississippi Valley. This concept of Middle Mississippi, I am beginning to feel, is both terminologically and culturally unsound. The paper will close with remarks on the distribution of negative painting generally, Middle America, Southwest, Antilles, and South America, emphasizing again the seeming unimportance of the Mississippi Valley as a route of entry. If this is also true of other "diagnostic" Middle Mississippi traits it would seem that the concept of Middle Mississippi is in need of re-examination.

THE PRESENT STATUS OF OHIO ARCHAEOLOGY
Richard G. Morgan.

A resume of the archaeological cultures now recognized in Ohio is presented with some remarks on their distribution in the surrounding areas. The chronological and cultural inter-relations of these groups from Folsom to Fort Ancient are briefly outlined.

The following papers will be presented at this meeting under the auspices of the Central States Branch, American Anthropological Association.

The "Neolithic" In The Near East. R. J. Braidwood.
Anthropology and History. F. C. Cole.
Some Self-Punishment Behavior Patterns A. Halperin.
Of The Pomo
Geographical And Cultural Position Of G. M. Foster, Jr.
The Popoluca Of Vera Cruz.
On The Use Of Tools By Primates. L. A. White.
When Doctors Disagree. J. A. Mason.
Anthropology and Psychoanalysis P. Honigsheim.
STONE ARTIFACT TERMINOLOGY

In May, 1940, the Society for American Archaeology, meeting in Indianapolis, determined to work toward a uniformity in archaeological nomenclature and to that end appointed a committee composed of Andrew H. Whiteford, Chairman, Richard G. Morgan, and J. Vladimir Perkes. Sub-committees were then approved to study various aspects of this undertaking. In March, 1941, the Sub-committee on Stone Artifact Terminology issued a questionnaire to approximately one hundred archaeologists in the eastern and mid-western states. This questionnaire, which brought a forty percent response, was concerned with the terms which apply to specific parts of projectile points. It was hoped that in this way a start might be made and the proper method of approach determined.

In May, 1941, the Society for American Archaeology, meeting in Minneapolis, held a special evening meeting for members interested in discussing stone artifact terminology. The discussion, centered on the returns from the questionnaire, resulted in this presentation of the problem to the membership as a whole.

Appended to this brief introduction is a list of numbers and terms. The numbers refer to the specific areas indicated on the accompanying sketches; the terms, listed in order of preference, are those returned with the first questionnaires. Anyone interested in this problem is invited to check his preference or add his terms to the following list and return it to H. Holmes Ellis, Lithic Laboratory, Ohio State Museum, Columbus, Ohio.

In the following list and sketches several areas indicated in the original questionnaire have been omitted, since it was the consensus that no terms were needed to cover these particular areas.

1  Shoulder
   Part of Secondary edge
   Offset
   Barb

2  Neck
   Stem
   Shank

3  Stem
   Tang
   Shank
   Heft
   Haft
   Shaft
   Basal face

4  Blade
   Face
   Body

5  Point
   Tip
   Apex

6  Edge
   Side
   Blade
   Shoulder
7 Barb
Corner
Shoulder
Shoulder corner
Tang
Spur
Shoulder tip
Wing tip

8 Notch
Corner
Crotch
Angle

9 Corner
Tang
Basal tip
Basal shoulder
Flange
Spur
Stilt

10 Basal
End

11 Notch
Corner
Crotch
Stem angle

12 Barb
Corner
Tang
Shoulder corner
Primary shoulder
Spur

13 Shoulder
Part of secondary edge
Offset
Edge
Corner to neck
Barb

14 Notch
Bifurcation
Groove
Fork
Flute

15 Neck
Stem
Shank
Throat
Blade

16 Notch
Channel
Crotch

17 Stem
Part of body
Basal segment
Heft
Haft
Blade
Basal face
Tang
Shank
Shaft
Tang base
Stem base

18 Corner
Barb
Basal tip
Ear
Primary shoulder
Tang
Spur

19 Channel
Flute
Groove
Fluting groove
Basal notch

20 Barb
Corner
Spur
Ear
Barbed corner
Basal tip
Tang
Primary shoulder
Eared shoulder
21 Serrations
Dentate
Notched edge
Edge
Dentation
Teeth
Cogged

22 Serrations
Edge
Retouch
Wavy
Crenulation
Crenate serrations
Rippled
Scalloped

23 Face
Side
Surface
Width
Flank

24 Bevel
Edge
Side
Thickness
End
Chamfer

25 Edge
A Committee on Archaeological Terminology was appointed by the Society for American Archaeology at the annual meeting in Indianapolis, in May, 1940. A sub-committee on Burial Terminology was formed which consisted of James B. Griffin and Georg K. Neumann. The first statement of this sub-committee was sent to a selected list of archaeologists. An introductory paragraph in the first issue read:

It is believed that this particular subject does not lend itself readily to the True or False, or Supply-the-Missing-Word type of presentation. For that reason the larger part of this paper will be in text and outline form. As previous and subsequent initial papers by the sub-committees dealing with archaeological terminology, this paper is intended to introduce the subject and to provoke comments and criticisms which are to be returned to the sub-committee chairman. In preparing the more formal part of this presentation it has been necessary to use certain words and to exclude others. It is hoped that such use will not prejudice the minds of the collaborators either for, or against, these particular words. Some effort has been expended in the selection of the words and objections should be made on the basis of indefiniteness, colloquialism, or reduplication. Please send replies to J. B. Griffin, University Museums Building, Ann Arbor, Michigan.

A satisfying number of replies were received and many of them were objectively critical. A particularly enthusiastic response was made by the field and laboratory staff of the Department of Anthropology of the University of Tennessee. One individual felt that Yarrow had done a much better job, but others seemed to feel that this particular sub-committee should carry on.

It will be noted that the majority of terms and references are those pertaining to Eastern United States Archaeology. This limitation will freely be removed if a collaborator familiar with another field offers himself as a member of the sub-committee. It is hoped that the comments and criticisms provoked by this paper will justify a more permanent statement to be made in the future.

The following outline has been prepared as an aid in the preparation of a description of the burial practices encountered in an archaeological site or group of sites. It is the fifth but not the final draft of the outline.
A SUGGESTED CLASSIFICATION AND NOMENCLATURE FOR BURIAL LOCATION, POSITION, AND DESCRIPTION

I. Location. The place in which disposition of human remains is made.

A. Cemetery. An area set apart for the remains of the dead. As used in this outline the concept is similar to that in our own culture which usually has single graves in a concentrated area.

Examples: Black, 1933, pp. 269-284; Webb and DeJarnette, 1942, Pl. 15, No. 1; ibid., Pl.240; Moore, 1915, pp.190-6.

B. Burial Mounds. An artificial hill or elevation of earth erected as a cover for human burials. If the mound is not of earth it cannot be called an earth mound but can be a stone mound, or a stone and earth mound.

1. Form of mound
   b. Dome shaped. A mound which has a circular or elliptical base with gently rising sides forming an arc. Example: Webb and DeJarnette, 1942, Pl. 15.
   c. Conical. A mound which has a circular base, is relatively high and peaked. Example: Shetrone, 1931, Fig. 100.
   d. Effigy. A zoomorphic shaped earth structure. Example: McKern, 1928, Fig. 45, 46 and 50.
   e. Linear. Long, low, parallel sided and frequently flattened on the upper surface. Example: McKern, 1930, Fig. 85

2. Mound structure
   b. Constructed as one or more units of a planned single structure. Black, 1936; Shetrone and Greenman, 1931, pp.356-369.

3. Mound Burial Type
   a. Single or multiple simple burials on primary or secondary floors. Cole and Deuel, 1937, Fig. 17; Ford and Willey, 1940; McKern, 1928, Fig. 38.
b. Sub-floor pits or tombs either single or multiple. Cole and Deuel, 1937, Pl. XXVI, Fig. A; Jennings, 1941, pp. 191-2; McKern, 1928, Fig. 32; Mills, 1902, Fig. 1.
c. Single or multiple tombs on primary or secondary surface. Black, 1936; Mills, 1907, p. 139.

C. Village Site Burials
1. In floor of habitations. Jennings, 1941, Fig. 3.
3. In areas adjacent to or between houses. Mills, 1906, Fig. 6.
4. In refuse areas
   b. Restricted midden debris.

D. Ossuary. A depository in which large numbers of dead are placed without individual separation.

E. Individual cave, rock shelter, crevice burials.

F. Aerial
1. Scaffold
2. Tree

II. Disposition. The technique used in the removal of human remains from the living society.

A. Inhumation. The placing of human remains either in whole or in part, in pits, graves, stone graves, or cists, in mounds, beneath or in buildings, or in caves, or receptacles such as burial urns.
1. Primary inhumation. The placing of usually complete human remains in anatomical order in a prepared burial area.
2. Secondary inhumation. The placing of previously exposed, prepared or cremated remains in a special burial area.
B. Cremation.

1. Total or partial. If the former, a chemist would be needed to identify the remains. The body can be burned either in situ or at some other spot removed from the burial area. Black, 1936, p. 237; Shetrone and Greenman, 1931, Fig. 19; Webb, 1941, Fig. 7; Webb and DeJarnette, 1942, Pl. 114, No. 2; ibid., Pl. 142, No. 2.

III. Position. The posture or arrangement of the skeleton.

A. Fully extended in a dorsal (Webb and DeJarnette, Pl. 241, No. 1), or ventral (ibid., Pl. 74, No. 1) position. The burial was made at full length, or nearly so, and was placed either on the back or on the chest and abdomen. The arms are often extended at the side. Legs are sometimes crossed at the ankles (Funkhouser and Webb, 1931, Fig. 14).

B. Trunk extended dorsally (on the back) with the legs tightly flexed (upper and lower legs parallel) to the right (Moore, 1915, Fig. 17), or left (Webb and DeJarnette, 1942, Pl. 212, No. 1), vertically (Moore, 1915, Fig. 13; Webb, 1938, Pl. 113), or superimposed on the ventral surface of the torso.

C. Trunk extended dorsally with legs partly flexed (a distinct angle at the knee joint) to the right or left (Webb and DeJarnette, Pl. 142, No. 1), or vertically.

D. Trunk extended dorsally, upper legs extended and lower legs bent backwards and on top of femurs (Webb and DeJarnette, 1942, Pl. 211, No. 1), or beneath femurs (ibid., Pl. 232, No. 2).

E. Trunk extended ventrally, legs tightly or partly flexed to right (Webb and DeJarnette, 1942, Pl. 215, No. 2), left (Webb, 1938, Pl. 115 a), underneath, or bent back on body.

F. Fully flexed in dorsal (Webb and DeJarnette, 1942, Pl. 108, No. 1), ventral (ibid., Pl. 211, No. 2), or vertical position (ibid., Pl. 71,
A flexed burial usually has the arms bent at the elbows, with the hands close to the face. The legs are also strongly contracted and drawn up close to the chest and abdomen.

G. Semi-flexed on right or left side with upper and lower legs contracted and parallel (Griffin and Morgan, 1941, Pl. 21, Fig. 1,) or with upper and lower legs partly contracted (Moore, 1915, Fig. 71, No. 70).

H. Bundle burial. The remaining skeletal parts from a previous temporary burial. McKern, 1928, Pl. XLI; Webb, 1938, Pl. 127.

I. Partly articulated burial either pre- (Webb, 1938, Pl. 12 a) or post-interment (Hooton and Willoughby, 1920, Pl. 4 a and d).

J. Rearticulated burial. Greenman, 1937, Pl. IX.

K. Fragmented burial. Intentional fragmentation of the remaining skeletal parts of an individual or individuals. Webb and DeJarnette, 1942, Pl. 88, No. 1; Black, 1934, p. 231.

IV. Containers

| Pottery urns | Wooden coffins |
| Cloth or feather blankets | Stone box graves |
| Bark wrapping | Stone cist graves |
| Hollow logs | Crematory basins |
| Huts | Boats |
| Hides or animals | Baskets |

In the outline which was sent out to the restricted list mentioned above a series of words which have been employed in describing burials and burial practice was given, and the collaborators were asked to express their opinion as to the suitability of the various words and phrases. The following words and phrases were quite universally frowned upon.

| Prone | Contracted |
| Supine | Group |
| Reclining | Collective |
Squatting Disposition
Hunched Anomalous
Frog Plundered
Bunched Burial attitude
Folded Burial headed west
Compound Charnel house
Mummification Surface burial

The following words or phrases were almost universally acceptable:

Dorsal Primary
Ventral Secondary
Lateral Ossuary
Sitting Disarticulated
Bundle Rearticulated
Single Urn
Double Desiccated
Multiple Stone box graves
Partial Stone slab mounds
Scaffold Stone vault graves
Aerial Stone cists
Platform Stone mounds
Burial Burial mound
Interment Burial pit
Inhumation Log tomb
Cremation Crematory basin
Deposition
Deposition
Orientation

It is not the intention of the sub-committee to restrict archaeologists in their use of words applied to burial description. There is no compulsion regarding the adoption of the terminology suggested in this and future statements nor will an individual be castigated if he refers to burial pots, ollas, or jars, instead of burial urns. If an archaeologist insists that Burial 91 was headed west we can infer that that particular Indian shade was following the well known advice attributed to Greely. The following definitions or statements regarding burial terms are offered for further comment and criticism.

A cairn is a dome shaped stone mound erected over the remains of the dead.

A stone cist is a relatively small, usually rectangular box-like grave which contains a single or multiple burial. It is usually enclosed on all sides by stone slabs. Example: Black, 1934, Pl. 12.
A stone vault is a relatively large, usually rectangular area with a stone slab enclosure which is relatively high, carefully constructed, and completely or almost completely encloses a large number of burials. Example: Fowke, 1910, Pl. 6 and 7. It has been objected that a vault implies an enclosed roof. What is your opinion?

A stone box grave is constructed of stone slabs in a usually long, rectangular box structure. It is suggested that this phrase be restricted to the type common in the Tennessee-Cumberland area. Example: Moore, 1915, Fig. 9.

Orientation refers to the arrangement of the body with relation to the points of the compass, or with relation to the grave or tomb outlines.

Primary burial. Burial in the flesh in any number of positions.

Secondary burial. Burial following primary interment, exposure, cremation, or defleshing.

Disarticulated. A Burial not in anatomical order—used in describing some secondary burials.

Rearticulated. A secondary burial in which an attempt has been made to rearticulate the skeletal parts.

Log tomb. One of the collaborators wrote:
Some log burial structures are, in reality, "Log tombs", inasmuch as the roof logs are supported in such a way as to form a burial cavity. When this type of structure is encountered the term is perfectly proper. I think you will agree, however, that most log structures consist of a burial area outlined on the four sides by log walls, not accompanied by roof logs. In this case it seems to me that another term should be used to define a distinction between the two structures and that this term should be in the nature of a log pen or log crib, although the word crib might again suggest a roof.

A crematory basin is a carefully prepared fired area containing the remains of cremated burials. Example: Shetrone and Greenman, 1931, Fig. 9.

A desiccated burial is one in which the soft parts have been preserved by drying and occasionally by chemical action.
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