

Alabama Archaeological Society

UNIVERSITY OF ALABAMA P.O. BOX 6126, UNIVERSITY, ALA. 35486

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STONES & BONES NEWSLETTER

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MEMBER OF THE EASTERN STATES ARCHEOLOGICAL FEDERATION

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PROFESSOR FRANCOIS BORDES!

Universite de Bordeaux
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du

Quaternaire et Prehistoire
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Pour faire visite - to pay a visit! Pas á pas on va loin - step by step one goes far. But who would have thought, 10 years ago when our fund drives began, that Alabama archaeology would become important enough to invite Professor Bordes all the way from France? - or for him to accept?

"Dear M. Josselyn:

Coming back from the A-5 excursion of the INQUA, that I had to show around ...I find your letter. I am very tempted to tell you that I will come, BUT I have first to know what will be my schedule in the next months. The French University is under reorganisation...Would it be possible to come about Easter, for then we have 15 days vacation...If not, then I will manage, I hope, but I am not quite sure how to do it...

This said, I thank you very much for your invitation. I would be very interested to see this material...

I will keep you informed about the possibilities. Tell me, on your side, what would be convenient, and what would not.

I leave at 5 this afternoon to get to Paris, for the INQUA congress itself, so have no time to comment now...I shall do it later.

Very sincerely yours,

F. Bordes"

A hurried drop-in at his office between the big events of the INTERNATIONAL UNION for QUATERNARY RESEARCH - and Prof. Bordes accepts just like that! We shall await his convenience á bras ouverts - with open arms.

This is indeed a surprising, and most unexpectedly successful termination of our 10 years of fund-drive research - which began at the Stanfield-Worley shelter site with the primary interest in getting a much-needed radiocarbon date for southeastern Paleo. Then, in 1964 Matt Lively had us "seeing things" - called pebble tools! Dr. Alex D. Krieger did not hesitate to name this assemblage the "Lively Complex". Dr. H. M. Wormington verified these pebble tools for us with international experts, including Prof. Bordes. Pebble tools in America sounded so improbable that enterprising editor Ed. Boss got 12 professionals to verify their views for publication - from the Alabama professionals most involved, to Dr. L. S. B. Leakey, who has made "pebble tools" widely known around the world.

OCTOBER 1969

Dr. Wormington was perhaps predicting that there would be some resistance by including in her published statement: "It would be ridiculous to ignore these finds simply because they do not fit into presently recognized patterns; that is the very factor that makes them of interest". It did at least prove to be predictive to a very considerable extent - the major paper ignored by reviewers, etc., DESPITE the verdict of the best in 2 hemispheres! Dr. Alan L. Bryan currently states a basic American problem which is perhaps to be blamed: "I often wonder what North American archaeologists would consider 'diagnostic' if there were not flaked stone projectile points to work with" (CURRENT ANTHROPOLOGY, October 1969, p. 361). And how many of us could "throw the first stone" - or pebble tool - at that indictment?

Reach down your latest/best summary of North American archaeology - a fine one, and complete from fluted Paleo through painted pots. But do you find any large, cubic, percussion-flaked lithic tools described, illustrated, classified by context, made meaningful in any sense?????!!!!

Then Alice M. Burns, an absolute beginner at archaeology with none of its visual preconceptions, opened the cubic tool flood gates. She brought in loads of such "horrible hunks", extremely weathered and naturally fragmented cherts and the like, that they were still "invisible" to those of us who had grown accustomed to pebble tools - yet they had similar tools worked on them - if you picked them up, scrubbed them well, examined them closely. Now we know there are hundreds of sites, in many states, and hundreds of tons of large, cubic, percussion-flaked artifacts which "even a collector" wouldn't pick up - fortunately, leaving a largely untouched facet of archaeology! We find them on sites with nothing else but fluted Paleo. Our dig this summer found them in context with Dalton points. Roberts & Harris report them in Archaic context (our June 1969 JOURNAL OF ALABAMA ARCHAEOLOGY) - with the observation that cubic tools will have to be "classified in all contexts", the same as other artifacts, before they can become meaningful.

Leon J. Salter thought well enough of the possibilities to make it possible to offer Prof. Bordes an appropriate recompense to visit Alabama. We feel that if anyone can "give sufficient authority" and technical assistance in classification to BEGIN TO GET THESE HUNDREDS OF TONS OF CUBIC TOOLS IN THE BOOKS - it is Prof. Bordes. And our prospects magnify geographically with Dr. Guthe involving the University of Tennessee, Dr. Dragoo the Carnegie Museum and Dr. Sensenig the University of Alabama. Where a study of cubic tools will lead, we have no idea - we only hope to get it started. As a study of a NEW TECHNOLOGY, we do think it could add much to the almost exclusively "thin biface morphology" of American classification, perhaps build technological bridges of understanding which morphology cannot. We may well have started more than we expected to - in fact, dreamed of!

***** CLOSING TENTH SUCCESSFUL ANNUAL FUND DRIVE *****

It "couldn't be done", and no one accepted our invitation to emulate - but we never had to "operate in the red"! The "ALABAMA EXPERIENCE" would make quite a book - more about the people involved than the archaeology. The archaeological tragedy is that it has left people out. Uninterested, uninformed, playing no part in it - why should they care? Our fund drive has necessitated interesting and informing, and offered even the most casually interested person, near or far (30 states!), an opportunity to be an important part of archaeology. What under heaven, we ask, is man thinking about that he destroys his own history which could contribute to his knowledge and understanding of his critically difficult self? But should we, rather, ask if we who are concerned have taken the story, and the opportunity, to the multitudes? We are proud of the "Alabama try", and all the good people over the 10 years who have made it so eminently worth while - including these fine folks hereunder listed, who wind us up with a bang:

SOUTHERN LIFE AND HEALTH INSURANCE COMPANY, and the letter President W. R. Lathrop Jr. annually takes the time and thought to write: "I am most impressed year after year ...My company is glad to be a part." And WHAT a part Southern Life has been in this! The late J. Henry McCary Jr. was the retiring President 10 years ago. Son Jim believed his father needed a retirement interest - and archaeology sorely needed his executive experience. Thus, our Archaeological Research Association was "born with brains" and a fine gentleman as President. And we have had the interest and support all these years of the SOUTHERN LIFE AND HEALTH INSURANCE COMPANY - oldest in Alabama!

Mr. & Mrs. E. M. Harris - also retiring - they thought! Took on the job of publishing this Newsletter - this their 97th issue - never missed, late or sloppy! An Archaeological Society needs "indispensables" willing to break their backs - and banks!

Mr. & Mrs. Brittain Thompson - and needs those bonds of friendship which archaeology can tie - friends who can answer a troubled 'phone call with a smile at 3:00 AM!

Mr. & Mrs. Stanford E. Smith - and the sweet people you meet unforgettably an annuals like Stan & Louise - who say they were as surprised as anybody by a son & heir, Stanford Eugene Smith Jr., July 26, 1969, 5 lbs. 12 oz. - their prize artifact, we bet!

Dr. & Mrs. E. M. Lindsey - and archaeology needs vigorous Chapter leadership - ask any soldier if GHQ ever fought a battle. Dr. Mike & Gennie and growing-up family, are reasons why you will be at the Annual, hosted by the Nockalula Chapter, Gadsden.

John E. Wood, M.D. - and we have often told how archaeology would be minus many of its most important discoveries if physicians had not been interested!

W. H. Wesley - and how we do need these amateurs who graduate up to publishing - think how different American archaeology would be if thousands of tons of information, rather than destruction, had been collected!

Richard A. Humbard - and the steady CHARTER donors, who also report, and make artifacts available for study - reflecting all the good influences of a State Society.

Joe Van Ells - and welcome indeed to Joe, a NEW member of our illustrious group who CARE about archaeology - and prove it. (Joe, not very long ago, the ancestors of our good member Ed Mahan homesteaded not far from Montevallo and gave the name to Mahan Creek - where Indians also lived at the time!)

Alvin V. Walls - scholarly member way back in the days when archaeology surely needed him to help hold the interest together with bits of string and baling wire, CHARTER and unfailing donor - a fine loyalty to archaeology, Society and friends!

BIRMINGHAM ANTHROPOLOGICAL SOCIETY - remember, Alvin, those slim days when we were "midwifing" archaeological interest here? And this "daddy of them all" survived to set the pace in donations all these 10 years!

THE PASTFINDERS - the unique LADIES' AUXILIARY of the Birmingham Chapter, to accommodate the routines of the distaff side of life - and only recently we learned how much archaeology needed this happy invention! (They have plans!)

Madge Hahn - the inventress of this daytime meeting arrangement for wives who have families, supper, dishes, kids to bed in the evening. She brings to archaeology that prime ingredient - a never-failing enthusiasm - everything is the mostest! And Madge also contributed a gratuity received from the Montcrest Garden Club, to which she had been spreading the good archaeological word, a very great need if we are ever to try and interest all the good folks who can help in avoiding archaeological destruction.

Mr. & Mrs. Arthur B. Dunning - and how rich life would be if all had their wealth of cultural interests, and put as much into these interests! Let us never forget that all the organized cultural hobby groups can help to introduce constructive elements to make better citizens and communities - and aim at more Dunnings!

Dan Josselyn - and archaeology can use professional writers to help tell and SELL what it needs, and what it has to offer in return to give life more purpose & reward.

Such is the diversity of people who have something to offer, in addition to financial support, which archaeology needs, and sorely needs - it has not prospered by itself alone, and cannot. If we only had more of whom we could thus boast - BY the people!

OUR SINCEREST REGRETS

We have just learned of the sudden death of Mrs. Sigfus Olafson - and it hurt deeply. For the past 10 years, when Sigfus became a charter donor to our struggling young and unprecedented fund drive, we have enjoyed a wonderful correspondence with Sigfus, and he has visited us in Birmingham. We have come to know him as one of the great friends of archaeology, and one of the "real people". We couldn't have been happier if it had been ourselves when he recently retired and returned to Madison, W.Va., where he had lived so long - to his old friends, including archaeology, "living it up" in their new home. But they had hardly moved in when Sigfus had to undergo a difficult operation - the problem arising suddenly. Now, before he had fully recovered, Mrs. Olafson, hospitalized for other conditions, has had a sudden fatal heart attack. The many people who have known, and have only known of, the Sigfus Olafsons will want us to pass along this sad news which our friends Roger and Barbara Cunningham (who lost a son of 17 in an accident!), of Friendship, Ohio, send us. It would seem most appropriate for everyone interested in archaeology to express their deep sympathies to Sigfus - 507 Kanawha Ave., Madison, W.Va. 25130.

ARCHAEOLOGY IN A HURRY

AIR MAIL, SPECIAL DELIVERY - \$2.95 postage. We were a bit shook up - but we thought this hurried communication from Leon J. Salter, 1,000 miles away, appropriately symbolic of the hurried, pressured situation in which American archaeology finds itself. And, again appropriately, this hurried communication was just in time to supply us with the quotation from CURRENT ANTHROPOLOGY and Dr. Bryan, above - and really just what was needed to express our thoughts "academically". This was from a paper on the problem of "Early Man" in America - one of the most serious "missing links" in world archaeology - and we were pleased indeed to see reference to the Lively Complex pebble tools. There is much other in this paper we can extract for future reference, and among the 17 archaeologists and others who accepted the invitation to comment on Bryan's "hypothesis to be tested" we wish to quote 2. Dr. Robert E. Ackerman remarks: "...will undoubtedly stir up controversy. This is a very good thing; the pot of American archaeology needs an occasional stirring." Amen - when a pot gets too sacrosanct and inviolate to stir - something burns, and smells. And Dr. Robert E. Bell remarks: "There is need for new approaches and new data...The matter of confusing simple or potentially ancient complexes with 'quarry-workshops' should be carefully considered... Microscopic studies of wear and indications of use should segregate simple artifacts from quarry debris. Assemblages dominated by pebble and flake tools resembling the East Asian Chopper/Chopping Tool Tradition require considerable attention...may provide the clues or evidence that Bryan and others are seeking." That hits where it hurts - the archaeological sins which have been called "quarry workshops" and the like - they literally weigh hundreds of tons. We know of such a site in Alabama, unmolested even by collectors, where the large CLASSIFIABLE tools will surely run to tens of tons. In another paper in this same issue, we note that even in more mature Old World archaeology "waste flakes have been kept or counted at few other sites" -

and admit the years it took us to learn that most of these usually are not "waste flakes" (and even as such have something to tell). This paper also included a map of the known Old World hand axe sites - causing us to wonder when America will have such a map! Thus the importance of COMMUNICATION - without which no one can know - and we thought it very appropriately symbolic of our great need both to haste and communicate for Leon to invest \$2.95 postage in our better information.

THE ARCHAEOLOGY OF YOU

If you were playing poker with a deck of millions of cards, the hands you would get would somewhat resemble the infinite combinations of hereditary genes which in 9 months manufactured you from a single, amoeba-like cell - retracing the millions of years of evolution in only 9 months! These gene combinations are so incredibly infinite that no 2 people in all the world have even identical fingerprints! And imagine - well, of course you can't - but at least contemplate that this has been going on for the more than 2 billion years that life has been on earth - all these infinite possibilities of gene combination going on for all that incomprehensible time! Try to contemplate, too, the radiations popularly known as "cosmic rays", which bombard the earth - 10,000 per second per square yard strike the earth in our northern states - hence hundreds to thousands per second go through us! Or make that roughly 100 billion times a day that a cosmic ray passes through us! Or 36 quadrillion, 500 trillion times a year! In a reproductive lifetime of say 20 years, even one of the incredibly small genes which carry the messages of heredity may be struck by a cosmic ray. Then what is called a "mutation", an entirely new characteristic which was not in the countless traits of the hereditary package, develops. Now try to grasp all this going on for over 2 billions of years on billions of billions of billions of living creatures - hereditary combinations plus mutations - both numerous beyond our comprehension. Is it any wonder that this incredible "shuffling of the gene cards" of life has produced an incredibly strange diversity of life - like the fellow said about the giraffe: "There ain't no such animal"? Darwin himself couldn't grasp the infinity of happenstances involved, and puzzled much over the problem of speciation - the development of new species. It had puzzled paleontologists ever since, limited to bits of fossil evidence far apart in time. The Eohippus in 3 gigantic evolutionary hops lost all but one toe and became a horse. That was all the bones told - not the infinitely small gradations between. But some 30 years ago "biospeciation" began to be studied - the small changes in living things. Now some of the modus operandi of speciation is beginning to be understood. If you are interested in the seemingly impossible mystery of how you became you, after billions of years of cosmic ray mutations and reshuffling of your genetic cards uncounted times, the Harper Science Library publishes a little paperback, \$1.35, ANIMAL SPECIES AND THEIR EVOLUTION, by Dr. A. J. Cain. Our own wonderments in this matter are 2: that so much trouble was taken to make us - and if we are worth it! Might we try a little harder to be?

CHAPTER NEWS

Birmingham Chapter meets at 7:30 PM on the 1st Thursday of each month in Room 213, Reid Chapel, Samford University. The September meeting was held at the Birmingham Art Museum, where Mr. William M. Spencer Jr. gave a most delightful color slide illustrated talk on "Pre-Columbian Art" and also discussed various such items on display in the room where the meeting was held. At the October meeting, Mrs. George Seibels, wife of Birmingham's Mayor and a member of THE PASTFINDERS, will speak on "The First Southerners - Men of Honor". The chapter is planning to assist Dr. Kerin Joines, Samford University, in the excavation of a site early next year.

Cullman County Chapter meets at 7:30 PM on the 3rd Monday of each month at City Hall Auditorium, Cullman. Tom Cornell, Huntsville Chapter, spoke to the August meeting on "Collecting Artifacts as an Amateur", showing interesting slides and displaying arti-

facts found as an amateur. At the September meeting, a University of Texas color film entitled "North Indian Village" will be shown. The Chapter is sponsoring an artifact display at the Cullman County Fair, September 22-27.

Huntsville Chapter meets on the 3rd Tuesday of each month at the Madison County Court House. Mr. Jack East, Oak Ridge, Tennessee, spoke to the August meeting on "Lithic Materials", showing slides and artifacts. Mr. Houston Wright, Huntsville Chapter, will be the speaker at the September meeting.

Morgan-Limestone Chapter meets at 7:30 PM on the 1st Tuesday of each month at Decatur City Hall. State Society President T. R. Gray, Birmingham Chapter, was the speaker at the September meeting, on "Geologic History of North Alabama", illustrated with slides, explaining the relative age of the various mineral layers and how they were formed, also the economic importance of the mineral industry in Alabama. Dr. Jim Kirby, Anniston Chapter President, will present a display of point types found in the Anniston area, at a meeting to be held on October 2 in Room B, Aquadome, Decatur.

Muscle Shoals Chapter meets at 7:30 PM on the 4th Monday of each month in Room 100, Science Hall, Florence State University. At the August meeting, Mr. Jack East, Oak Ridge, Tennessee, discussed "Lithic Technology", covering the different types of silicate rocks the Indians used, and difference in flaking properties and patinating characteristics, showing color slides of artifacts from east Tennessee, with actual artifacts for comparison with types found in the Muscle Shoals area.

Noccalula Chapter meets at 7:30 PM on the 1st Thursday of each month at Etowah County Court House, Gadsden. An HUD film "How Will We Know It's Us?" was shown at the August meeting, depicting how selective preservation of older buildings can improve an entire neighborhood. The entire September meeting was devoted to exhibit plans for the September 20 celebration of "Alabama's Heritage - 150 Years of Progress" sponsored by the Chapter and the County Historical Society. The Chapter has been invited by Warren Musgrove to participate in the October 4 groundbreaking for a museum at Horsepens 40, and is also participating in the pageant on September 19, 20 & 21, for dedicating the Noccalula Indian Maiden statue. At the October meeting, a film on tourist attractions will be shown.

ANNOUNCEMENTS - STATE NEWS

NEW MEMBERS DURING SEPTEMBER: (Delighted to add you to our lists!)

Mr. & Mrs. Neil M. Hepler, P O Box 467, Deerfield Beach, Fla. 33441 (Family) 1969
E. Sam Jones Jr., 6455 Arlington Drive, Dunwoody, Ga. 30338 1969
James M. Burt, c/o Woodward Co., Woodward, Ala. 35189 (Family) 1970
Neil Holloway, Crab Orchard, Tenn. 37723 1970
Etowah High School Library, Attalla, Ala. 35954 1970

BAD ADDRESS: (Can't someone in Huntsville help us on this member?)

Joe L. Barnes - formerly 4809 Governors Drive N.W., Huntsville, Ala.

HODGES HOSPITALITY: The State Society wishes to thank the people of Hodges and the surrounding community for the help and friendliness shown to the summer dig crews. It is not possible to thank each person individually, but 2 of the folks deserve special attention. Mrs. L. A. Lawler was kind enough to provide always delicious and abundant evening meals for the student crews of both sessions, and much appreciated living quarters for the girl crew members. Mayor Roy Emerson and the Hodges Aldermen were most cooperative in providing housing for the crews in the apartment in City Hall, as well as lab space; also storage space in the old jailhouse.

JOURNAL ARTICLES: Editor Dave DeJarnette is badly in need of material for inclusion

in the December 1969 issue. Unless these are forthcoming shortly, publication will be further delayed. So if you are in the midst of a paper, hurry completion; or if you have one ready and have just delayed submitting it, get busy; or if you have one in mind, get it on paper and mail it in. And do it NOW, PLEASE!

Jim Spotswood, our good friend on the BIRMINGHAM NEWS staff, who did such a fine job of giving our first fund-supported dig, the Stanfield-Worley, the publicity it deserved, now finds the impending visit by Prof. Bordes again newsworthy. And we might add, also the interest of our new UNIVERSITY OF ALABAMA IN BIRMINGHAM. Dr. E. Carl Sensenig, Chairman of the Department of Anatomy and an old friend of Alabama archaeology, brought this matter to the attention of our new President, Dr. Joseph F. Volker of the UAB. Dr. Volker wrote Prof. Bordes a gracious letter of invitation to be Visiting Professor in Dr. Sensenig's department while here. This interest shown by the UAB, which now has its own Department of Anthropology, is most encouraging.

OUR 1969 WINTER ANNUAL MEETING: We hope to have more information on this for next month, but bear in mind the place - Gadsden, and the date - December 6th!

EDUCATIONAL ARTICLE

ARCHAEOLOGY OF ALABAMA

Archaeologists study extinct cultures. They attempt to reconstruct these cultures from what they find still preserved at ancient habitation sites. Aid in such a reconstruction is obtained from a knowledge of primitive cultures which have been observed in operation in other parts of the world. This knowledge can be compared to the collected remains of extinct cultures which seem analogous, and inferences made concerning what the culture looked like. That is, archaeologists can make shrewd guesses that a certain object was probably a scraper, that the group was small and mobile, that the society observed patrilineal descent, etc. However, though many are good, sound guesses, they are still guesses. Research continues and new ideas and relationships are thought up, tested and either incorporated or discarded.

The age of a culture can be decided by several methods. Through time, some cultures become more complex. For example, the sheer number of things we use today is greater than that which our great grandparents had. Individual traits or fashions, like pottery or projectile points, are always changing. Hence, while working within a major culture area, one can state that one collection of artifacts (man-made tools) is probably older than another by observing the relative complexity of the assemblages. Since some sites contain layers of artifacts, one can demonstrate the relative ages of archaeological collections through scientific excavation. Normally, the deeper they are, the older they are. Of tremendous help, in recent years, has been the development of Carbon-14 dating. It is known that every living thing absorbs C-14 and maintains a constant amount of it. The C-14 isotope is radioactive and its rate of disintegration is known. At death, Carbon-14 is no longer absorbed. Since the amount of Carbon-14 yet remaining in charcoal, bone or shell can be determined by a sort of Geiger counter apparatus, the years which have elapsed since death can be calculated.

Since few of the peoples studied by archaeologists left written records about themselves, they are not known by tribal names. Instead, many cultures are known by terms borrowed from geographic points, or by names of sites where they are best known or were first described. Because there are many of these, archaeologists have defined broad categories, called traditions, into which cultures can be grouped. These were determined following a comparison of the characteristics of several cultures. Those cultures most similar in content were grouped under a general term,

or phase name. The major cultural groupings of the eastern United States in order of their appearance through time are: Paleo-Indian, Archaic, Woodland, Mississippi and Historic. Because these major phases extended over much of the eastern United States, the archaeology of Alabama is best understood when studied with reference to the eastern United States.

The Americas appear to have experienced several waves of immigrants based on currently accepted evidence. These early immigrants to America are believed to have traveled by way of the Bering Strait land (or ice) bridge from Siberia to Alaska, probably following game. These migrations may have taken several thousand years in all. By 7,000 B.C., they had reached Tierra del Fuego, the southernmost tip of South America. Practically nothing is known about the earliest Americans. This is because they probably used only very generalized tools which are the sort used by almost every stone age culture. But it is only a matter of time before a decent collection will be found in a stratified deposit which can be dated.

The tools of the first recognizable culture in America, called Paleo-Indian and dating around 10,000 to 15,000 years ago, were not greatly diversified. Stone choppers, scrapers, knives, gravers and a distinctive type of spearpoint are about all of their material culture which has been preserved. They undoubtedly also utilized bone and wood for tools and ornaments. These early spear points are unique in that they exhibit a channel or flute on each surface - made by striking a long flake from the base toward the tip of the point. Animals hunted and eaten were bison, mammoth, mastodon, giant sloth, camel and horse. Here in Alabama, deer was probably more important to Paleo-Indian man as a food source than were the larger animals such as the mammoth. Smaller game, wild plants and fish supplemented their diet. The larger animals were either found or driven into an area where they could be killed and butchered with ease. The size of the pursuing group was of necessity small and mobile, with the hunting party and the immediate family being essentially the same. Seasonally, several such families probably congregated together for small animal drives and wild plant and insect gathering. A relatively large and varied economic area probably was exploited by the band.

In the following Early Archaic phase, there was a change from big game hunting to gathering, fishing and hunting smaller game. The main reason for this change was a climatic change which, together with the hunting activity of man, led to the extinction of the really large mammals at about the end of the Ice Age some 10,000 years ago. Fluted points were no longer made. Several unfluted lanceolate forms, and slightly later, stemmed and notched points, were manufactured instead. It is possible that the atlatl was introduced at about this time. In the latter part of the Early Archaic, projectile point forms became more varied and new tools began to be invented. Undoubtedly, the immediate family was larger, less nomadic and hunting areas were probably more sharply defined. The groups were probably small and their very survival depended to a great extent upon the effectiveness of a very few excellent hunters.

The Late Archaic phase began around 3,000 B.C., and is characterized by larger sites, many new tool types and ground stone implements. The grinding of stone was a very important innovation. Stone axes were grooved for hafting. Near the latter part of Late Archaic, these axes were left ungrooved, which may be a good example of an increase in the technological effectiveness of a tool. The ungrooved axe, called a celt, apparently is looser within its haftings, thus providing less chance for breakage. The atlatl weight is another new ground stone tool. An atlatl is a spear thrower, and the weight seems to have been made in the shape of a stylized bird (called banner-stones, birdstones and boatstones). Maybe this was thought to insure "true flight" for the spear. Stone pendants, bowls and tubular pipes are also new traits in Late Archaic.

In the Tennessee Valley, the Late Archaic is known as "the Shell Mound Archaic". Along the edges of the river are large mounds of mussel shell. The mussels were collected to be eaten and the shells discarded in the village area. A typical mussel is not quite a mouthful of meat, and it therefore took a lot of mussels to make a meal. Since shell will neutralize otherwise acidic soil, many bone and shell artifacts have been found in an excellent state of preservation. Storage and garbage pits as well as burial pits are common throughout the shell mounds. These shell heaps apparently were the sites of seasonal habitation for there are many other non-shell mound sites on which are found the same kinds of artifacts. These latter sites were probably occupied while hunting and gathering, and it is probable that very elderly people and very young children may have stayed behind at the shell heaps while the rest of the village broke up into family units to hunt more effectively. This sort of settlement pattern probably persisted throughout the rest of prehistoric Indian culture, with the main village becoming more permanent and the hunting parties becoming fewer and smaller.

The beginning of Early Woodland around 1,000 B.C. is marked by pottery making. Pottery was made by the coiling method. Lumps of clay were rolled into large, thick strands, and the base and vessel walls constructed by coiling the clay strands on top of each other. A broken piece of pottery or some other object was held inside the vessel, and the outside struck with a wooden paddle. Hence, the coils were beaten together, forming a uniform surface. These paddles were decorated with fabric, incised lines or crossed lines, and thus decorated the exterior surface of the vessel.

Several other important cultural changes also took place during this phase. The beginnings of agriculture are seen in the practice of corn cultivation, acquired from northern Mexico. The first burial mounds were constructed. Social groups, or tribes, became larger. Houses were more substantial - probably made of logs set in a circular pattern, interwoven with twigs and plastered with sun dried clay (known as wattle and daub construction).

With the introduction of corn cultivation, the whole way of life changed - hunting, fishing and gathering became a secondary economy, though still very important, and probably was mainly pursued while living in small, seasonal camps away from the main villages. Villages were located in areas good for farming, mainly the river bottomlands, in contrast to earlier times when choice sites were selected for hunting, fishing, gathering and raw stone resources. Religion changed to include deities and beliefs which would put people at ease when their very survival depended mainly upon a good harvest. More people could survive in a smaller area than before, and consequently their social organization changed to regroup people and social relations. Religion, again, had to support and explain the new social relationships. In short, a cultural revolution took place which was similar to what happened in the Near East about 7,000 B.C., and in the Valley of Mexico and the Coastal Valleys of Peru about 2,500 B.C.

The Middle Woodland phase in Alabama lasted from about 100 B.C. to 500 A.D. In some parts of the east, this was a period of large burial mounds, elaborate earthworks and exotic artifacts. It was during this period that the Hopewell culture existed. The center of development was in the Ohio River Valley where there was a great deal of heterogeneity in the division of labor. Through trade to this area, possibly because it was regarded as a sort of "Mecca", flowed obsidian and Grizzly Bear teeth from the West, copper from the Great Lakes region, mica from the Carolinas, and even barracuda jaws, conch shells and shark's teeth from the South.

There were hundreds of different artifact types, and workmanship in stone, bone, shell and copper was very highly developed. Pipes were characteristically made as

bird or animal effigies. Elaborate log tombs and crematories were constructed. Re-tainer burials and trophy or ancestor skulls are found in the mounds. Hopewell village sites increased in size from 2 to 10 times the size of Early Woodland sites. All the cultivated plants found in historic times probably were domesticated at this time.

In most of the Southeast, Hopewell was not quite as elaborate. One of the most distinctive traits was the carving of extremely complicated designs on the pottery paddles. The Copena culture in North Alabama is a southeastern manifestation of Hopewell. The name Copena was derived from a combination of the words copper and galena, both of these materials figuring prominently in the Copena culture. Copper was made into several types of artifacts, but copper bracelets, earspools and beads are those most commonly found in mound graves. Galena was used mainly for white paint, though its silvery, metallic appearance no doubt intrigued the Indians. Graves were rectangular pits with clay foot and head rests for the body. By the end of the Middle Woodland, the bow and arrow had come into general use, replacing the atlatl as a means of propelling a projectile.

In most of the eastern U.S., the Late Woodland phase was an apparent period of degeneracy. That is, with the possible exception of the southern portions of some of the southeastern states, there were no large mounds and not very many elaborate artifacts. This may have been a period during which the technology, social organization and ideology were finally being adjusted to each other from the relatively recent technological advances. Why the previous elaborateness of material things should have declined so quickly, completely and universally is not known. Unfortunately, this phase has been least investigated but it presents an extremely interesting problem. Early Mississippi was named as a hypothetical state to refer to the transition between Woodland and Mississippi. Today, the term is still largely hypothetical since there is not universal agreement on terminology and time.

The Middle Mississippi phase lasted only about 400 to 500 years but it was the most highly developed of all the prehistoric phases in the eastern U.S. Mexico was almost a primitive state and there was probably some indirect influence from there. The Middle Mississippi culture began in the Mississippi River valley and spread by both cultural diffusion and the actual migration of people. Pottery and flint were made into fantastic shapes, and shell, copper and mica ornaments are very elaborate. Large, flat-topped mounds were built to support temples. The temples were of 2 types: for ceremonies to the corn and sun deities; and for the preparation of the remains of dead priest-chieftains for burial. There were ceremonial sites, almost towns, with smaller supporting villages scattered for miles around.

After the florescence of Middle Mississippi, sites became less elaborate and thus less well known. About this time, the Spanish got a foothold in the southeast, and later the French and English intruded into the rivalry for the New World. Large, sweeping cultural changes took place due to the introduction of firearms and the European trade economy. Diseases introduced by the first Europeans reached plague-like dimensions. For example, between DeSoto's visit and the French occupation in 1750, Indians in the Lower Mississippi Valley became virtually non-existent. The end of this phase was marked by the total extinction of some cultures, mass migration of others, and in some cases a jump from the Stone Age into a state organization. Historically known tribes in Alabama include the Choctaw, Chickasaw, Creek and Cherokee. Habitation sites are recognized by the presence of glass beads, portions of flint-lock rifles, iron and brass kettles, horse and pig bones, and other European trade items.

(Adapted from class notes by Dr. Dan F. Morse)
Fletcher Jolly III, Muscle Shoals Chapter

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