# Alabama Archaeological Society

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

NGHAM ANTHROPOLOGICAL SOCIETY STAWHATCHEE CHAPTER MAN COUNTY CHAPTER EAST ALABAMA CHAPTER HUNTSVILLE CHAPTER MARSHALL COUNTY CHAPTER MAUVILLA CHAPTER MONTGOMERY ARCH. SOC. MORGAN-LIMESTONE CHAPTER MUSCLE SHOALS CHAPTER NOCCALULA ARCH-SOC. SELMA ARCHEOLOGICAL SOC. TUSCALOOSA CHAPTER

RODGER L. SCHAEFER, SECRETARY 1414 15TH AVENUE, S.E., DECATUR, ALA, 35601 STONES & BONES NEWSLETTER

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MEMBER OF THE EASTERN STATES ARCHEOLOGICAL FEDERATION

### OUR 1967 ANNUAL MEETING

Sunday, December 10, 1967 THE DATE:

THE PLACE: Birmingham Museum of Art

The Museum will be open at 12:30 PM to enable Chapters and individual members to set up artifact exhibits on display tables located around the lobby. Between 12:30 and 2:00 PM, time and facilities will be available for registration, paying 1968 State Society dues, viewing artifact displays, purchasing available publications, joining the State Society, visiting with folks you haven't seen since last year and meeting our many new members, and taking a quick look at the treasures in the Art Museum including the just opened new wing housing part of a fabulous Wedgewood collection. program as at present made up follows:

#### BUSINESS MEETING:

Call to order at 2:00 PM - T. W. Cornell, President

Reports of Secretary-Treasurer - R. L. Schaefer

Reports of Chapter Activities - by each of our 13 Chapters

Reports on various State Society Activities including proposed constitutional changes

Report of Nominating Committee and Election of Officers for 1968 Introduction of New President and other Officers

COFFEE BREAK - 3:00 to 3:30 PM

#### FORMAL PROGRAM:

Call to order at 3:30 PM by New President

Introduction of Speaker

Illustrated Talk by Charles Roger Nance on "New Archaeological Discoveries in Mountains of Mexico"

Question period and Adjournment

The Birmingham Museum of Art is located at 2000 - 8th Avenue NORTH, on the corner across 20th Street from the City Auditorium, and opposite the park in back of the Jefferson County Court House. Ample parking space is available in a lot back of the Museum, and there is a rear entrance to the Museum, as well as entrances on 20th Street and 8th Avenue.

So load up your car with other members or friends and be on hand Sunday, December 10th for what promises to be one of our best annual meetings yet. There will be plenty of interest to see and hear, and we assure you the trip to Birmingham this year will be well worth while. We are indebted to Dan Josselyn for the following most complete summary of the educational and field preparations of our speaker, and we are sure you will be impressed by his qualifications.

#### CHARLES ROGER NANCE, GUEST SPEAKER

For the 1967 Annual Meeting of our Alabama Archaeological Society, David L. DeJarnette informs us that Charles Roger Nance has been selected as our speaker of choice. This seems to be an unusually happy selection, on several counts.

Foremost is the fact that Mr. Nance is now teaching anthropology at the University of Alabama Birmingham Center - which we would like to see develop full university facilities. And to us, of course, anthropology, the study of that problematical creature we call MAN, is as much the "proper study of mankind" as when Alexander Pope stated it so well. This occasion affords us an excellent opportunity to become acquainted with Mr. Nance, who has expressed a very good opinion of the value of amateurs in introducing a stranger to the archaeology of a new area (and we'd like to use him, too!).

And he comes to us highly recommended. He has studied at several universities noted for their anthropological departments and professors: University of California at Berkeley, University of California at Los Angeles, Washington State University (where he took his MA) and University of Texas, where he did his Ph.D. work (field work also completed and dissertation in preparation). He has worked with and directed work for Drs. Marshall McKusik, Earl Swanson, Claude Warren, Richard Daugherty, Donald Abbott, Jeremiah F. Epstein and in such diverse areas as southern California, Idaho (rock shelters), Hell's Canyon (which few people ever see), Washington State, Vancouver Island, and in the wilds of the Sierra Madre Oriental Mountains of Mexico.

This last excavation will be the subject of the Annual Meeting address. The color slides of this wild, incredible country are alone "worth the price of admission". Water had to be brought from 3 miles by burro and keg - for which a local Indian family was employed - and it was lucky if any was left "after washing the rocks, which came first". Romantically, Mr. and Mrs. Nance honeymooned at this excavation. Of special interest to those of us in Alabama, "crude tools" were present in the lowest level.

Among his special research interests listed in his Curriculum Vitae we were particularly interested to note: "EXPERIMENTAL ARCHAEOLOGY: Design and carry out experiments leading to more precise methods for describing finished, unfinished and broken lithic artifacts and chipping detritus" - a "first" which has been relegated to last, if ever! His "extra-curricular" education includes various types of work during his school years, and 2 years in the Army Medical Corps with duty in Korea.

Mr. Nance has been a busy young man. And he is eager and ambitious with youth. Our prognostication is that he will serve archaeology well - he is not afraid of mud and weather and chiggers, and his trowel itches for field research.

We'd like to give Roger, as we are learning to know him most pleasantly, a right royal welcome - and support the good impression he seems to have formed in reading about our work. The best way to do this will be to ATTEND THE ANNUAL MEETING in crowds, for what we are sure will be most interesting meeting (refreshments too!).

#### ANNUAL PROGRESS REPORT

This year of 1967 has been a good one in several respects. Most importantly of all, to our way of thinking, more and more of our members are publishing. This shares and preserves information, inspires others, and makes US (weuns!) a Society - rather than a mere letterhead stating that we are a Society. But rather than enumerate our forward steps, we want to point the progressive direction of the line of march of archaeology as a whole, and our contribution to it. Dr. Don W. Dragoo, as Chairman of the Symposium on Early Man in Eastern North America at our ESAF Annual Meeting, made a most inspiring address from which we can borrow:

"Although fluted projectile points and a few scraper forms have been the best-known artifacts of the Early Lithic (Paleo-Indian) cultures, it is now known that there are

often large, massive, cutting, chopping and scraping tools also present at certain habitation sites. For example, at the Wells Creek site in Stewart County, Tennessee, thousands of these tools have been found along with typical fluted points (Dr. Dragoo showed slides of many of these at our 1965 Annual Meeting). Similar tools have been found in lesser number at other sites in both the East and West.

"There is increasing evidence to indicate that there may be a pre-projectile-point level of technology in the New World. There is a marked similarity of tool types found at the Wells Creek site and at other sites, including those recently discovered in Alabama, with those of various Paleolithic cultures of the Old World. The exact nature of these similarities has yet to be determined in time, space and cultural context. There is little doubt that these relationships extend to the time level of 20,-000 years ago, but our present knowledge also leads us to speculate that these relationships may be even much older. No one, however, is suggesting that the remains found so far in the New World have the same great antiquity and represent comparable cultural stages to those in the Old World, but we must not overlook the possibility that man was present in the New World prior to the fourth, or Wisconsin, glacial period. If so, we should expect to find the cultural foundations of the New World deeply rooted in the Upper Paleolithic of the Old World. Typological studies now in progress strongly indicate such relationships.

"One of the most important goals of American archaeology during the coming years should be the firm establishment of WHEN, WHERE AND BY WHAT CULTURAL GROUPS CONTACT WAS MADE BETWEEN THE OLD AND NEW WORLDS (our italics). The task is not an easy one, for sites are hard to find and, when found, often are difficult or nearly impossible to date. Many early tool forms persisted in use and manufacture through later cultures to the extent that their origins now lie dimly concealed in the past. The time has come, however, when we can no longer ignore the problem by quoting negative evidence or refusing to assault the problem seriously for fear of ridicule by colleagues (which danger, we may interject, has seemed excessive to us). We must use every available scientific method and technique to solve this most intriguing problem of New World prehistory no matter where, or when, the chips may fall. Eastern North America is an excellent laboratory for this study."

Gosh - if you have followed the archaeological literature for long, a statement such as this, and coming from a source with the eminent standing of Dr. Dragoo, representing such an institution as the Carnegie Museum - well, it fairly takes your breath.

Returning to Alabama, it is our proud thought that we may have contributed to the daring of this statement. On his 3 trips to Alabama, Dr. Dragoo viewed a wide variety of "crude" tools apparently related, in a technological sense, with the pebble tools discovered and reported by Matthew Lively. And he mentioned what seems to be a technological progression, as if this lithic industry might have developed over a long period of time - an observation which had impressed us, too.

We hope, also, that we may have contributed to a more flexible "archaeological climate" more tolerant and less ridiculing of such matters. Of late, we have received quite a number of letters asking if we "were not overdoing pebble tools" in the Newsletter. We did not think so - a new idea, and somewhat "radical" in orthodox circles, has to be driven home with a hammer. And the literal tons of large, crude, unexplained and even uninvestigated lithic tools in Alabama seemed to impose an immense promotional obligation on us. Whatever they may ultimately prove to mean, they seem more important than the "neck we stuck out". As Charlie Nash wrote us recently, that is one of the prerogatives and obligations specially conferred upon the amateur. Professionals, with both standings and institutions to consider, must necessarily lean toward conservatism. And understandably so, as most of those who "go out on a limb" only fall off.

But after h years of pushing pebble tools (and in close to 1,000 letters also), it begins to look as if they might become "respectable" enough to permit wide professional

interest, which should in time lead to exploration and study. That has been among our aims - we want to know WHAT THEY MEAN, and we need help. It would be our guess that this technology will teach us something new, and perhaps important. It would also be our guess that a new quest might valuably invigorate archaeology - the last shot of archaeological hormones, injected by the discovery of the Folsom point a generation ago, is wearing off. An attitude of "just working here" and "the same old thing" is not too good.

As Dr. Dragoo says: "Eastern North America is an excellent laboratory for this study". And as far as is presently known, Alabama seems to be a particularly rich area. It seems to us that we could have made no greater contribution to archaeological progress than to stick out our necks, and put our best foot forward, in this matter. We think our report on our first digs at pebble tool sites will be another important step - and we hope there will be others, and finance for them, in the immediate future. More and more we hear that our work is attracting wide attention - we MUST exploit that potential to the full with some DEFINITIVE FACTS.

We hope this PROGRESS REPORT may help to fatten your Christmas stockings, and to inspire your New Year.

Daniel W. Josselyn

# U.S. AND WORLD ARCHAEOLOGICAL NOTES, HAPPENINGS AND ABSTRACTS

"THE INTERAMERICAN", Newsletter of the Instituto Interamericano, Dr. Carl B. Compton, Director, 5133 NT, Denton, Texas 76203, Nov. '67 issue, included the following:

"CULTURAL ANTHROPOLOGY by Walter Goldschmidt, Public Affairs Pamphlets, 381 Park Ave. South, New York, N.Y. 10016, pp 40, 60¢. Now and again a "gem" comes along which can be a boon to instructors. This is one of these. We are fully aware that many of our colleagues are going to condemn this as oversimplified, authoritarian or something of the sort. Nevertheless we find it most valuable in its presentation of facts which beginning students of anthropology must have as "ballast" for their subsequent studies. We think that we will find it most useful in various aspects of teaching the humanities - not, of course, as a "text" but as a source of ideas for procedure. Spend 60¢ and see for yourself and argue with us."

"BASAL GRINDING? It has long been assumed that the bases of certain types of projectile points were ground in order to dull the edges so that they would not cut the lashings of the points to the shaft and also that they would not tend to split the shaft. E. A. Johnson, writing in the Saskatchewan Archaeology newsletter has a different idea based upon some extensive research. His idea is that these points were used as scrapers and cutters and that the dulling is due to this use. Only the basal area was used in order to preserve the sharpness of the remainder of the point. He claims that microscopic examination of points shows a totally different character of the smoothed edge from that found in a point which was ground. While not denying that some points were basally ground, he contends that a large proportion of so-called "basally ground" points actually were dulled by use as knives or scrapers. He is very persuasive."

"NEW CLOVIS SITE: Dr. George A. Agogino, F.I.I. and Dr. Robert H. Weber of New Mexico Tech worked a site which they named the Mockingbird Gap Site. Over 90 Clovis points have been found at this site, making it the most productive location of Clovis materials to date. Dr. Agogino, who is Director of the Eastern New Mexico University Paleo-Indian Institute, says that this is one of the largest Paleo-Indian sites to be found in the Americas."

"ATLATLS: In our July-October issue we noted a paper by Don R. Dickson on the use of weights on atlatls. Nor Campbell Grant says: "...he is basing his findings on a false premise. I, too, have done much experimenting with an atlatl using a facsimile of a Basketmaker weighted example from Arizona. (Dickson) is quite right, with the weight less distance is achieved - but - los Indios were not interested in distance casts. Judging from the many hunting blinds in the Coso Range gorges, along bottoms of narrow canyons, the average cast the hunter would have to make is between

50 and 75 feet. We found that on short casts, greater force was possible with the weighted weapons...Australians have made casts of up to 400 feet to entertain the white man but...75 feet for a moving target...In the Tennessee Archaeologist 4:4,1948, there is a long article by a retired engineer who experimented with many types of atlatl...His conclusion...was the same as Dickson's and mine on weights and distance throws".

#### CHAPTER NEWS

Birmingham Chapter meets at 7:30 PM on the first Wednesday of each month at the Birmingham Public Library. At the November meeting, Arthur Dunning spoke on "Indians and Copper", discussing the use of copper by Alabama Indians; how it was obtained by trade from its Great Lakes source; and showed tools used to break up nuggets of native copper. The December meeting will comprise election of officers & State Meeting plans.

THE PASTFINDERS, Birmingham Chapter Ladies' Auxiliary, held its November meeting at the home of Mrs. Josiah Carmichael, where Mrs. Harold Simon showed color slides and spoke on her recent trip to Morocco, with old Roman ruins of particular interest. The group will serve as Hostesses at the State Meeting in lieu of a December meeting.

Choctawhatchee Chapter meets on the 1st Thursday of each month at Houston Memorial Library, Dothan. Mrs. William Lazarus of Temple Mound Museum, Ft. Walton, Fla., spoke to the November meeting on "Pottery Types of Southeast Alabama and Northwest Florida", showing slides of artifacts found in the Buck Mound in the Ft. Walton Beach area. At the December meeting, election of officers for the year 1968 will be held.

Cullman County Chapter meets at 7:30 PM on the 3rd Monday of each month at City Hall Auditorium, Cullman. James W. Cambron, Decatur Chapter, gave an excellent talk to the September meeting on uniface tools. At the October meeting, Dale White discussed the Bay of Mobile Indians and the influence on these tribes of a Welsh prince who visited there in 1170 AD. Chapter members Eulis King and Don Wilbanks set up displays and talked to 4th & 5th grades at St. Paul's Lutheran School on North Alabama Indians, and plan similar visits to Eva School P.T.A. and Dowling School. The Chapter had an excellent booth at the Cullman County Fair in September.

Huntsville Chapter meets on the 3rd Tuesday of each month at the Madison County Court House. At the October meeting, members enjoyed the informal "workshop" where many artifacts were discussed and displayed. Chapter officers gave their annual reports, and Bart Henson reported on the recent Birmingham Board of Directors' Meeting.

Mauvilla Chapter meets on the 2nd Tuesday of each month at 7:30 PM at the Phoenix Restored Fire Station, Mobile. At the November meeting, Mrs. R. B. Andridge gave the first portion of her program on "Archaeological Definitions and Terminology", and the second half will feature the December meeting along with election of 1968 officers.

Montgomery Chapter meets on the 1st Tuesday of each month at the Montgomery Museum of Fine Arts. Dave Chase reviewed 1965-6-7 field work at the November meeting, showing slides of field efforts. Discussions were held concerning scientific archaeology and how it helps to learn about prehistoric events. "Stone Tools and Artifacts will be the subject of discussion at the December meeting.

Morgan-Limestone Chapter meets on the 1st Monday of each month at Decatur City Hall. Terry Tarkington spoke to the November meeting on "What Do You Find In Caves", presenting an exceptionally fine slide series on explorers' findings in caves, including the types of cave formations, unusual animal life present, and many challenging and danger ous caving situations. Tom Cornell will speak to the December meeting on "The Whites—burg Bridge Site (Ma 10), an Archaic Shell Mound".

Muscle Shoals Chapter meets on the 4th Monday of each month at Wesleyan Hall, Room W-3, Florence State College. At the October meeting, Horace J. Holland showed slides and gave an interesting account of his recent European trip on which he & Mrs. Holland

visited England, Belgium, Holland, Denmark, Germany, Switzerland, Italy, Greece & the Holy Lands. He reported having seen very few American archaeological specimens.

Noccalula Chapter meets on the 1st Tuesday of each month at the Etowah County Court House, Gadsden. At the November meeting, election of officers for 1968 will be held and Dr. E. M. Lindsey will show some special slides. Also, plans will be completed for the December dinner meeting and installation of new officers.

#### ANNOUNCEMENTS - STATE NEWS

NEW MEMBERS DURING NOVEMBER: (Nice to have you aboard for 1968!)

Winnie L. Hanson, Route 3, Georgiana, Ala. 36033 Rev. Silas Lang, Route 4, Moulton, Ala. 35650 Gerald P. Smith, 15 Switzler Hall, Univ. of Missouri, Columbia, Mo. 65201 Russell B. Stebbins, 2413 Springhill Ave., Mobile, Ala. 36607 (Family)

BAD ADDRESSES: (Please notify State Secretary Rodger Schaefer if you can help us!) NE Louisiana Archaeological Society, formerly c/o C.B.Sprague, POBox 2721, Monroe, La. Ronald Fowler, Route 1, Arab, Ala. (Previously listed)
Robert M. Heath, 3309 Drake Ave. SW, Huntsville, Ala. (Previously Listed)

James L. Tilzey, 4212-B Boxwood Court, Huntsville, Ala. (Previously Listed)

CHAPTER ACTIVITY REPORTS: A representative from each chapter will be called on at the December 10 Annual Meeting to give a report on his chapter's activities during 1967, and it is hoped all 13 chapters will be present, or otherwise mail a concise written report to State Secretary Rodger Schaefer to be read at the meeting.

ARTIFACT DISPLAYS: An outstanding feature of our Annual Meetings is the displays by Chapters and individual members of artifacts surface collected during the year, these to be shown on tables provided. Let us all see what you have been so fortunate as to have found, so we can share your good fortune and know what we might still discover.

THAT NOVA SCOTIA PALEO - which wasn't supposed to be there at that time when milethick glaciers presumably covered the area! Ed Mahan and Mary were down to Birmingham on one of their too-rare and welcome trips - with 96 pounds of huge, exciting lithic tools which Ed collected many years ago and on which he is preparing to publish. He also brought the report which Dr. Douglas S. Byers sent him on the recent Paleo site in Nova Scotia, near Debert, which so astonished everybody. Thirteen C-14 determinations on charcoal samples averaged 10,794 years, average ±159 years. The average of 5 major western sites is 11,212, average ±310. Hence margins of error actually overlap. With Paleo Man "just about everywhere" at about that time, must we not allow considerable time for such a broad peopling of America? We need "evidence" of even EARLIER Man, yes, but such distribution seems itself to be considerable evidence - perhaps more reliable than a dozen C-14 dates! This publication appears in QUATERNARIA, VIII, Roma, 1966, and the authors are Byers, Borns, MacDonald and Struckenrath Jr. We noted that Byers attributes "Llano Complex scraper types and pierces" to the Stanfield-Worley ("piercing or perforating tools sometimes called gravers" caused us to wonder if he has subjected graver wear to microscopic examination). And we noted that Struckenrath puts the Stanfield-Worley in the "Dalton Archaic" but Russell Cave (though it is yet unreported) in the Paleo/Archaic transition. To our knowledge, the Stanfield-Worley study was the first to make a persuasive case for a Paleo/Archaic transitional culture. (And while we are mentioning such matters, the September NATIONAL GECGRAPHIC, p. 441, is in error - the Stanfield-Worley is man's OLDEST KNOWN HABITATION in the southeast!)

DISLOYALTY TO OUR CAUSE is compounded by the delicacy with which it must be remonstrated. Often we dodge the responsibility, but now and then the infraction is so flagrant - Well, one of the nice hotels in Naples (Florida, not Italy - and NOT Venice) has a fine fountain of crystal water "flowing down onto a mass of beautiful, smooth, white

pebbles" - we quote a well-informed informant. But even for that enticement, Milt Harris "won't even wade in and turn them (the pebbles) over to check about noses!!... he isn't even willing to go to jail for his 'convictions', like everybody else is doing these days". What'stheworldcomingto?

DOES IT SEEM A BIT SILLY? Remember the oft-published photos of the largest Viking ship ever excavated, 82 feet long, at Sutton Hoo in Suffolk? At least the residual imprints and stains of the timbers were excavated - most painstakingly. Then England threw her hat into World War II - and of course the Army simply had to have that area for a battle school! The excavation was hastily back-filled for protection, which did not prove too effective against huge tanks racing back and forth. Now it has been reexcavated in an attempt to recover sufficient information to build a full-scale wooden replica. In "overcrowded" America, we recall, the Army had to bulldoze a mound city for space! Sometimes we suspect that we have 3 feet, and never will fall into step with "things".

"A GUARD WILL BE ON DUTY" we note in the Tennessee Newsletter invitation to display at their Annual Meeting. If archaeology can ever get financed, perhaps we can afford an "archaeological bughouse" devoted to the treatment of the "artifact lifter".

OH NO, NOT ANOTHER PILTDOWN! Harvard itself seems to be pretty high on the possible "over 40,000 years old" Mexican Puebla evidence. But the Newsletter of the Instituto Interamericano, Dr. Carl B. Compton, Director, now tells us that Prof. Jose L. Lorenzo, head of the Mexican Monumentos Prehispanicos, says the evidence is a hoax. Lorenzo, whose statements are "documented and notarized", says the excavation was poorly attended by the archaeologists and workers "planted" evidence to extend their good jobs! Compton offers Xerox copies of the article (in Spanish) by Lorenzo for 40¢ in stamps (5133 NT, Denton, Texas 76203).

MONKS MOUND: With over a million and a half dollars (mostly Illinois State Funds) devoted to procurement, restoration and preservation, perhaps the "white man" is trying to pay some of his debts - though we have not heard that the Indians got anything for the "land they actually built". A basketfull of earth at a time, it was a monumental job to build this mound covering 16 acres, and 100 feet high - and some 80 lesser mounds! It was once a great Middle Mississippian temple city, beginning about 750 A.D., and in the opinion of Dr. James B. Griffin terminating with the impact of our disease-carrying, gun-toting, gold-hungry ransacking invasion of America. The name "Monks" derives from Trappist Monks who lived in the vicinity and tilled their austere gardens on the top of the great mound. The Trappists are a branch of the Cistercian Order, take vows of silence, sleep in their clothes (on the hard board dining tables in a monastery we visited), rise at 2 AM, work the fields all day, exist on a restricted diet, etc.

THE NORTH JERSEY ARCHAEOLCGICAL SOCIETY limits membership to 25, in the beginning had to "deal sternly" with some members, but "gradually set up a good solid foundation and today have a group that spells QUALITY any way you look at it!" (INTERNATIONAL MEMO, Guild of American Prehistorians, Ron Miller, Editor.)

FUBLICATION BARGAINS: "The Distribution & Implication of Fluted Points in Saskatchewan" & "The Small Side-Notched Point System of the Northern Plains", Kehoe, 50¢ each, reprints from AMERICAN ANTIQUITY, all projectile point students need, from Wm. Long, Secretary, Saskatchewan Archaeological Society, 875 Elphinstome St., Regina, Sask., Canada. "The Paleo-Indian Occupation of the Holcombe Beach", Fitting, DeVisscher & Wahla, \$2.50, a real advance in site study and lithic technology, Museum of Anthropology, University of Michigan, Ann Arbor. LEAKEY PAPERBACKS: "White African", fascinating and inspiring early autobiography, \$3.95; "Adam, or Ape?", \$2.95; "Unveiling Man's Origins", \$3.95, Schenkman Publishing Co., 1 Story St., Cambridge, Mass. 02138.

IT WILL BE SO NICE TO HAVE YOU IN BIRMINGHAM ATTENDING THE 1967 ANNUAL MEETING!!

#### EDUCATIONAL PAGE

#### ARCHAEOLOGICAL DATING

Whenever the layman or the professional sees that an artifact is a certain number of years old, the first thing that he may wonder is how this date was established. There are many tests, both scientific and speculative, and the dates established are both relative and absolute. Listed below are a few of the more common techniques:

HISTORIC DATING: This involves establishing the time by searching old records and data. It is no problem to date historic sites and this is the best method when adequate facts are available.

ASSOCIATION DATING: If the date of one artifact is known, the scientist can reason that the accompanying artifacts are of the same age. Similar types found at other sites are assumed to be of the same age as the original dated item. This is a technique which is especially used by amateur archaeologists who depend upon the professional for the original date of the "pattern type".

GEOLOGICAL DATING: The geochronology within the Pleistocene can be determined relatively precisely in many areas in the world. Four primary glaciations caused 4 climatic cycles. Debris was left at the points where the glaciers ended. In the Southern Hemisphere, pluvial periods corresponded to the glaciers. Rainy conditions caused floods and layers of silt were systematically deposited.

STRATIGRAPHIC DATING (the analysis of geological deposits in discernible layers): The archaeologist assumes that the oldest material is that which is located deepest in the earth - unless a disturbance has changed the natural pattern.

PALEONTOLOGICAL DATING: In many cases, the antiquity of certain animal and plant life has been established. Naturally, artifacts found in association with these are assumed to be of the same era.

FLUORINE DATING: The analysis of the fluorine amount present in associated organic objects will reveal whether they are the same age.

PALYNOLOGY (the analysis of the relative frequency of certain kinds of pollen): Climatic conditions may be established and related to geological time.

PHYSIOCHEMICAL DATING: Certain chemicals gradually disintegrate into other elements at a given rate. Each radioactive isotope has a fixed rate expressed by the term "half-life". By measuring the remaining amount of isotope, it is possible to establish the age of the object. Some of the minerals which are frequently used in these tests are: Carbon 14, Thorium 231, Potassium 40-Argon 40, Helium 4, Protactinium 231, Chlorine 36, Uranium 234 and Rubidium 87.

Many new tests are being discovered. The above are only a few of many.

#### THE ALABAMA ARCHAEOLOGICAL SOCIETY

Following are the objectives stated in our Constitution, slightly modified for emphasis: To promote informed interest in the study of Archaeology in Alabama and neighboring States; to encourage careful scientific archaeological research in such ways as surface scouting, mapping, marking, studying and especially reporting; to promote and support professionally directed excavations and discourage unsupervised "digging"; to promote the conservation of archaeological sites and to favor the passage of laws prescribing such; to oppose the sale of antiquities, and the manufacture and sale of fraudulent artifacts; to encourage and develop a better understanding of archaeology through providing Newsletters, Journals, Chapter and State meetings, helpful associates and good fellowship; to serve as a bond between individual archaeologists in the State, both non-professional and professional; and perhaps most importantly, to give everyone the opportunity to "do something about archaeology" through the accomplishment and enjoyment of these high aims.

The Society needs and welcomes as members, all persons whose ideals are in accord with the objectives set forth above. Active members receive the JOURNAL OF ALABAMA ARCHAEOLOGY, devoted to articles on the archaeology of Alabama and nearby States, and also receive the STONES & BONES NEWSLETTER, published monthly, containing news of members and their activities, also State, national and worldwide events of archaeological importance.

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The coupon below may be used EITHER to APPLY FOR MEMBERSHIP in the Society, or for the PAYMENT OF ANNUAL DUES. Please be sure that your name and address are CLEARLY entered, and that checkmarks appear in applicable blanks!

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# Alabama Archaeological Society

c/o E. M. Harris 3237 Carlisle Road Birmingham, Ala. 35213





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