

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

EDITOR
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1969 STATE SOCIETY ANNUAL MEETING

Herewith is information at present available - we hope sufficient to influence you to definitely plan on being present! As announced last month, the date is to be Saturday, December 6th, and the place Gadsden, Ala., with the Noccalula Chapter as hosts. Meetings are to be held in Wallace Hall, Gadsden State Junior College.

More complete data will be included in the December Newsletter, but here is the way it looks now: Registration will be from 9:00 AM until 11:00 AM, the fee being \$1.00 each for adults. Tables will be available for artifact displays, and this 2 hour period will enable you to set up your display, view others and visit around among the fine folks in attendance. The business meeting will start at 11:00 AM and continue until 12:00 Noon. Luncheon is to be catered by Carnes Restaurant and served family style, including 3 meats, vegetables, bread and beverage, at a price of \$2.00 a plate for persons over 12. (Since Noccalula Chapter Secretary Mrs. Marjorie Ashley, Route 6, Gadsden, Ala. 35901, needs to know by November 15th the number expecting to be served luncheon, PLEASE drop her a line before that date!)

The main portion of the meeting program will start at 1:30 PM. The principal speaker will be Dr. Dan F. Morse, Arkansas State University at Jonesboro, and his subject is to be "New Discoveries Relating to Early Man in Northeastern Arkansas". His talk will concern the Paleo-Indian and Early Archaic cultures in that section of Arkansas. Other prominent speakers will also be featured, and full information will be included in the December Newsletter. The program will conclude at approximately 5:00 PM, with a coffee break around 3:00 PM.

Motels available for the meeting are HOLIDAY HOST, 3464 E. Meighan, Phone 492-6111, Double \$8 to \$11 plus tax, which is nearest the meeting site; REICH MOTOR HOTEL, 7th & Broad Streets, Phone 547-7551, Double \$10 to \$12.50, Twins to \$15 all plus tax, some 2 miles from meeting site; and HOLIDAY INN, Gadsden-Attalla Blvd. at I-59 Overpass, Double \$12 plus tax, farthest from meeting site.

A map showing location of meeting site and other information will hopefully be included in the December Newsletter; but right now, the important thing for each member to do is to plan on being present, get your artifact displays ready, let Mrs. Ashley know how many will be in your party for lunch, and start looking forward to another memorable annual occasion. See you there!

TEN YEARS OF FUND DRIVE DISCOVERIES

When an archaeological site is excavated, it is "reburied" in field notes, stored artifacts and the minds of the excavators - until it is published and made available to

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all to fit into the vastly complicated jigsaw puzzle which archaeology attempts to fashion into a whole picture.

A most notable result of our 10 years of "citizen attack" on the neglected problems of archaeology has been the Matt Lively discovery, and our subsequent exploration, of "pebble tools" - and other apparently related "cubic tools" of even more crude and "unseeable" nature subsequently discovered by Alice Burns. Curiously, the important thing about these strange artifacts was that we knew nothing about them - they were not in the literature! In its concentration on a "thin biface" technology, American archaeology had largely overlooked them.

We did indeed find, tucked away obscurely in the literature, that we were not the first to make such discoveries. The Black's Fork complex with over 10,000 artifacts, but no projectile points or thin bifaces, was reported as early as 1938 by Renaud. Bartlett reported 70 sites with only crudely percussion-chipped artifacts, in 1943. The Farmington complex, 58 sites with only "crude" tools, was reported by Treganze & Heiser in 1953. Several such sites are currently in the "controversial" throes, as the Simpson-Leakey Mojave site. These things have "been around" (and kicked around), but despite a few such leading figures as Alex D. Krieger urging that something be done about them, nothing has. Hence when we began to find "cubic tools" by the tons in Alabama, we were taken by surprise and at a loss - they were NOT IN THE BOOKS. Certainly, we can make our major contribution by getting them in the books. But how - considering the several failures of others?

All advances in all the disciplines dealing with such matters have begun with "classification". Botany stewed in its own vegetal juices until Linnaeus came along with a workable system of CLASSIFICATION. Archaeology began to get somewhere with potsherds after it arrived at CLASSIFICATION. Recently, America discovered it had a pre-ceramic horizon, and we are off to a rather chaotic classification of projectile points. But what else? Certainly, not a CUBIC TECHNOLOGY CLASSIFICATION - which we must have if we are to probe the possibility of the "pre-projectile point horizon" which Krieger, Willey & others now conceive as the next forward step for American archaeology.

Our great opportunity and obligation resulting from our 10 years of fund drives, to make our discoveries available to all as an integral part of the mainstream of American archaeology, therefore seems to lie in the direction of a CLASSIFICATION OF CUBIC LITHIC TOOLS. And we are favored by a most opportune moment.

We are most fortunate to have engaged the interest of Dr. Don W. Dragoo - the only professional to take a vigorously active interest in our "pebble" and "cubic" tools. Besides his own prior discoveries in Ohio, and later Wells Creek Paleo site with a couple of thousand large tools in association, he has already visited Alabama 3 times to acquaint himself with our discoveries. He will sit in on the discussions with Bordes here, and later discuss the Kentucky Lake artifacts at the University of Tennessee and his material at the Carnegie Museum of Natural History.

Dr. Dragoo and our Dan Josselyn (who has worked almost constantly for 5 years with such tools), think that the impending visit by Prof. Francois Bordes should be of tremendous assistance in getting a SYSTEM OF CLASSIFICATION started. Both Bordes' ability and his world-wide reputation as an unsurpassed lithic systematist will be of great value in "starting from scratch" and authenticating for the profession.

In short, we think the BEST POSSIBLE plans are in the making to bring to fruit the patient and generous efforts of our donors of 10 long and fruitful years, and to add a new dimension to American archaeology by ESTABLISHING cubic technology and GETTING IT IN THE BOOKS.

12,580 - YEARS - 12,850

No, not in the WEST this time. It is in our foot-dragging (or other) EAST!!! Sigfus Olafson, who serves communication so valuably, quotes from the Newsletter of the Orange County Chapter of the N.Y. Archaeological Society: "President Walters announced the carbon dating from the Dutchess Quarry Cave Site taken from the caribou bone found in context with the fluted point. A dating of 12,580 \pm 380 years."

Is Eastern archaeology at last coming into its own? Look what the fluted point discovery did to boost Western archaeology! Then for a long time, the East was denied any old archaeology. Recently, however, we see such names as Willey mentioning the possibility of an Eastern ORIGIN of fluted points - where they exist in greatest numbers. Does this dating look to add substance to supposition? Will it build a fire under Eastern archaeology? Will it suggest that if the fluted point developed in the East, it developed OUT OF SOMETHING - and that ALABAMA might be a good place to look for that proto-fluted technology/typology? This could be BIG!

Those fine Orange County boys are the ones we reported a short time ago as rescuing a mastodon skeleton from a dragline operation (and chin-deep mud!), now being assembled in the N.Y. State Museum at Albany. The carbon dating on the mastodon was 10,000 years, which seems to verify this as an "old" area despite some assumptions that it was a mile deep in ice.

Sigfus, who has taken special interest in Pleistocene geology, describes the area of the find as a level valley extending to the coast from the Hudson River at Newburgh, N.Y., cutting through some 50 miles of mountains. He assesses it as "one of the delta outlets of the Hudson when it was a major meltwater outlet".

Watch the PENNSYLVANIA ARCHAEOLOGIST for the full report on the 12,580 - yes, YEARS. (Mrs. Vivien M. Marshall, Secretary, Society for Pennsylvania Archaeology, R. D. #4, Salem, Ohio 44460).

"KNOW YOUR BORDES"

The impending visit of Prof. Francois Bordes (an honor indeed) from the Université de Bordeaux, France, could supply us with a most valuable stimulus to take a look at the more mature Old World archaeology.

His 1968 book, THE OLD STONE AGE, is the best introduction we know of. From pebble tools to microliths, technology as well as typology, the discussions are illustrated with 382 excellent drawings, 31 black and white and 10 color photographs, 11 color maps. You will see a lot of lithic tools looking like "something you have seen", but didn't recognize as a tool - among the other advantages. Best of all, perhaps, you will be introduced to more than our one (thin biface) technology. And you will discover why Prof. Bordes was OUR PICK to help us understand America's tonnage of unreported lithic artifacts - also from pebble tools to microliths!

You can get this book in a really handsome paperback for only \$2.45! McGraw-Hill Book Co., Box 402, Hightstown, N.J. 08520. (We suggest that Chapters order in quantity - you will WANT THIS BOOK ON YOUR SHELF and in your mind.) Know your Bordes!

1969 - LIST OF DONORS - 1969

ANONYMOUS DONOR, and valued CHARTER and CONSTANT donor, also our good friends Art and Alice Turner who reach a helping hand all the way from Pennsylvania, we add this month to the long list of donors who, over a 10 year period, from 30 states, have pioneered some "archaeology by the people" - displaying the archaeological conscience

and intelligence which we all should have. Even this tiny drop in the bucket has shown the immeasurable value of intelligent, ethical and financial participation by an alerted public. Would to heaven that this could be universal, and in many fields besides archaeology. We'd have "all the answers". But it is indeed a pleasure to know that there are a few such people - our admiration is equal to our gratitude, for which we have not adequate words. Here are the names of 1969 donors, their home towns and number of years making donations:

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Dr. John E. Wood, Haleyville, Ala.
Dr. R. W. Work, Raleigh, NORTH CAROLINA
Mr. & Mrs. Amos J. Wright Jr., Huntsville, Ala.

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U.S. AND WORLD ARCHAEOLOGICAL NOTES

Dr. Carl B. Compton, Ret. - as we append to scarred old warriors in retirement - is having that familiar retirement problem - more to do than ever! He says everybody figures "well, now that you're retired you have a lot of time, so would you please run up to Chicago for a spool of thread?" We hope he will pick up several spools while there, and have some time for some things we'd like to see him do. And of course continue his Newsletter of the Instituto Interamericano. We note in his June issue that Dr. Dwight B. Heath, F.I.I., after researching "huaquerismo" (grave-robbing) in Costa Rica, came up with the startling (though hardly surprising) finding that "there are more huaqueros in Costa Rica than there are trained archaeologists in the world!" Ouch! (But need he have gone to Costa Rica?) And Jose Cruxent, F.I.I., who has done such notable work in South America, "has found a projectile point piercing the femur of a mastodon in Venezuela, State of Falcon...at least 16,000 B.P." - maybe Venezuela will turn out to be an "archaeological paradise", at that! And we note that Dr. Phil C. Orr, long Curator of Geology and Anthropology, Santa Barbara Museum of Natural History, has also retired - to the Directorship of the Western Speleological Institute, 797 Ashley Road, Santa Barbara, Cal. 93103. One more item - you know how Dr. Carl can always "top that" - he mentions that in REVISTA ESPANOLA DE ANTHROPOLOGIA AMERICANA, Vol. IV, 1969, there is a 55-page paper by Dr. Jose Alcina Franch, "one of the most outstanding scholars" of Spain, "on the TRANSATLANTIC ORIGIN of the Indigenous Culture of America". Habla usted Espanol?

George Groundhog, Chairman of the Original Cherokee Community Organization, has filed suit in Federal Court challenging the right of the President (U.S.) to appoint their Principal Chief (current title holder appointed by Truman in 1949). (But is even Groundhog capable of predicting what the weather might look like through the Supreme Court?) (George, religion is not legal, but obscenity is - so speak your mind!)

MOST OVERLOOKED IN ARCHAEOLOGY: Lucretius (Titus Lucretius Carus) spent most of his life producing his De rerum natura of 7,415 dactylic hexameters - the only epic of scientific philosophy. Though he died in 55 B.C., he treated extensively on atomic physics - nearly 2,000 years ahead of his time. It may be another 2,000 years before his utter contempt for superstitions of all kinds is appreciated. But of interest here is that his De rerum natura gave the successive industrial ages of man as lapides, aes, ferrum - stone, bronze, iron - 19 centuries before Christian Jurgensen Thomsen "discovered" it independently (no diffusion, sorry). Such long practice in "overlooking" perhaps accounts for how archaeology got so adept at it?

AND HOW MUCH ARCHAEOLOGY? Some 16 miles from the sea the Santee River, S.C., divides into 2 channels and the 100,000 delta acres between them were once an Eden of rice crops, a haven of wild ducks darkening the sky, a wonderful place. Then the Santee was diverted into the Cooper for a hydroelectric project, and the ocean came in when the head of fresh water was lowered. The great delta is now dead salt marsh - no rice, no ducks, no nothing - destroyed. And we were wondering how much archaeology is buried beneath the salt marsh - though it should keep well there for tomorrow.

MAN VERSUS CHALLENGE: Man's flowering to Cave Art in the shadow of the Pleistocene glaciers of Europe...in the deserts of the Near East developing agriculture...building the great Inca Empire on the straight-up-and-down slopes of the Andes...the Old Whaling Culture on Arctic ice...does man prosper as he is challenged? Have "civili-

zations" always come a cropper because they became fat, soft, unchallenged? But they thus become the biggest challenge of all - so maybe there is hope if we can react to that!

UNEQUAL (or more so?):

We're quite perplexed to know how can The anthropologists just say "man"
To designate the human species - When year by year the tribe increases!
Were there no women to seduce us Just think how soon Time would reduce us!
We'd still be apes, for all of that, Except for those who have begat
Two million years to seek solution Of ape-man through his evolution.
The anthropologists must opine That Woman's not human - she's divine!

THE ARCHAEOLOGY OF KISSING: The Papuans of New Guinea have been among the most successful people in clinging tenaciously to their "natural man" freedom from the cares and trinkets of "civilization". Like the poor fox who lost his tail and tried to persuade all foxes of the inadvisability of tails, we call the enviable Papuans "primitive". From the Latin, primitivus, it set us to pondering first things, origins. Was all kissing originally the nose-rubbing method of the Papuans, then one warm day when sweaty noses slipped..... You of course recall the entirely accidentally discovery of roast pig, as Charles Lamb documented it. One day a house burned, and delicious roast pig was discovered in the embers - starting an epidemic of house-burning. Well, on that celebrated day when sweat-slippery noses first slipped, and kissing was thereby discovered - what do you bet the entire village burned down?

THE WARRIOR WHO KILLED CUSTER: (or so he claimed 55 years after the Battle of the Little Big Horn), pictographic and annotated account by Pte-san-hunka (Chief Joseph White Bull), translated and edited by James B. Howard, will probably be of interest to those who follow Indian history. \$7.20, University of Nebraska Press, 901 N. 17th St., Lincoln 68508. Also available, HISTORY OF THE SANTEE SIOUX, "Under the combined assault of missionaries and government officials, the culture of the Santee Sioux was shattered", Roy W. Mayer, \$7.75. (Sounds as if it might make you sympathetic with a wayward young friend of ours, age 8, who wanted to "go west and join the Soo-ex".)

COULD YOU IDENTIFY "pieces esquilles"? G. F. McDonald describes them at the pure Paleo Debert site in Nova Scotia, where they comprised 15% of the artifacts, as "primary flakes used as wedges". The wedge "begins as a simple primary flake and disintegrates through pounding", ending as a nubbin of its original size with "battered and crushed edges". Well, could you?

THE ARCHAEOLOGY AND ETHNOLOGY OF ARCHAEOLOGICAL DESTRUCTION: Peter Kalm, with mostly botanical intentions, visited America in 1750 for the Swedish Academy of Sciences. His 2-volume 796 pages comment interestingly on just about everything. On p. 232 he remarks: "The early stone implements of the Indians are still found now and then in the ground when digging or plowing, but no longer in as great numbers as in the days of the old settlers." The January, 1961 JOURNAL of the Birmingham Historical Society published a map of 44 sites in its satellite city of Homewood - badly mauled traces of 2 of them are now known to have survived. They ranged from Paleo to gun flints. Yet farming and urban expansion, together the greatest destructive agency, do not rate as "salvage" prospects - which mostly concerns modern river bottoms where little "old stuff" is ever found. Alabama archaeology was 6,000 years old as long as it stuck to riverine salvage. And by 1750, these overlooked agents of destruction - oh, well!

CHAPTER NEWS

Birmingham Chapter meets at 7:30 PM on the 1st Thursday of each month in Room 213, Reid Chapel, Samford University. Mrs. George Seibels, a PASTFINDER member, spoke on "The First Southerners - Men of Honor" at the October meeting, giving much insight

into the life and customs of the early Indian. The program at the November meeting will be given by Chapter Member Joe Watkins, who will show slides made on a recent trip to the Galapagos Islands.

The Pastfinders, Birmingham Chapter Ladies' Auxiliary, met October 9 at the home of Mrs. S. W. Smyer Jr., and was entertained by Mr. Walter F. Coxe, speaking on the subject: "Nature in Our Own Back Yard".

Cullman County Chapter meets at 7:30 PM on the 3rd Monday of each month at City Hall Auditorium, Cullman. The University of Texas color film "North Indian Village" was shown at the September meeting and much enjoyed. At the October Meeting, Morgan-Limestone Chapter Member James Cambron will speak on "Petroglyphs and Pictographs". The Chapter enjoyed a good response from its display at the Cullman County Fair.

Huntsville Chapter meets on the 3rd Tuesday of each month at the Madison County Court House. Chapter Member Houston Wright led the group in a slide-illustrated discussion on "Early Man in Alabama" at the September meeting. At the October meeting, Chapter Member Amos J. Wright Jr. will speak on "Mound Builders of the Ohio Valley", showing slides of mounds and museum pieces, also charts showing background of Mound Builders and regions of trade, etc.

Morgan-Limestone Chapter meets at 7:30 PM on the 1st Thursday of each month at the Aquadome, Decatur. Anniston Chapter President Dr. Jim Kirby entertained the October meeting with a discussion and display of artifacts found in his area, some not being typical of those shown in our point type book. At the November meeting, Don Wilbanks who is Cullman County Chapter President, will review sites and artifacts found in Cullman County, and also films entitled "Story of Prehistoric Man" and "Prehistoric Man in Northern Europe" will be shown. (Note changed date & place of meetings.)

Noccalula Chapter meets at 7:30 PM on the 1st Thursday of each month at Etowah County Court House, Gadsden. At the October meeting, State Secretary-Treasurer Rodger Schaefer explained the intricacies of holding a State Meeting; and the November meeting also will be devoted to details of the Annual Meeting of the State Society to be held in Gadsden on December 6th. Preliminary reports on the Horsepens 40 project analysis will also be made.

ANNOUNCEMENTS - STATE NEWS

NEW MEMBERS DURING OCTOBER: (We're always happy to welcome you!)

Tom Ambrose, 1750 Vestaview Lane, Birmingham, Ala. 35216

Clarence Echols, P O Box 275, Ragland, Ala. 35131

Mrs. Shirley L. Flowers, P O Box 128, Laurel Hill, Fla. 32567

Robert F. Maslowski, 170 Gilson Ave., Weirton, W. Va. 26062

BAD ADDRESSES: (Can't someone from Auburn and Gadsden let us know about these?)

Nancy Antoine, formerly Dorm 3, Room 104, Auburn University, Auburn, Ala.

Larry V. Shoemaker II, formerly P O Box 1051, Gadsden, Ala.

HANDBOOK OF ALABAMA ARCHAEOLOGY, PART I, POINT TYPES: Yes! A check with Jack Cambron brings the news that the new printing (slight revisions plus 6 added points) will be ready for distribution at our December Annual Meeting. May we suggest you poll your members and pick up your chapter and friends' needs at that time?

RED FACE: We are always grateful, but not always willing to be responsible, for newspaper publicity. As one can understand - the hurried, harried Press has to cover everything. We can think of 1,000 things we'd hate to have to report after a brief interview. This pertains to the handsome spread the BIRMINGHAM NEWS gave Dan Joselyn recently. You know his house - you wouldn't "know where you were at" after a

week, let alone a brief interview. Well, however the misunderstanding arose, Dan was quoted as saying: "It is not impossible that man was here before he was in the rest of the world". He admits that tons of pebble tools might be persuasive of that interpretation, but otherwise cannot account for it, nor go along with it unless one Christopher Columbus was right. Pero Vazquez de la Frontera fired Chris with tales of "islands beyond the Sargasso Sea". The Commission of Santa Fe, called by Queen Isabella to consider these tales, rejected them as too "tall" but later capitulated and commissioned Columbus to "discover and take possession of certain islands in the sea of whose existence Columbus knew". His log book discarded island after island as his "Cypangu", and he kept looking, and on his third voyage discovered the mainland of South America. Apparently pretty confused by then, he decided that "Paradise must be situated in the interior of the modern Venezuela". If this surmise would ever prove correct, Dan is willing to admit that the "Garden of Eden" might also be in America - then man would "need no ancestors" - no trace of which has been found in the Americas to date.

Bob and Marjorie Gay, those loyal "annual meetings", report that the Tennessee Annual Meeting, October 3-5, was a good one, including a trip to restored Fort Loudon and the University of Tennessee excavations at the Village of Echota. The Bart Hensons, Huntsville, were also there. Loyd Chapman is the Tennessee Archaeology Society President for 1970. These "Gay" travelers hope to make the ESAF Annual Meeting at Morgantown, W.Va., and the SEAC in Macon, Ga! On top of Bob's soil conservation job, the planting and haying - and Marjorie's correspondence course in archaeology!

H. E. Willey, a Tennessee member recently removed to W.Va., ordered the booklet we mentioned recently on gold mining in Ala., and would like to know more about the locations of the mining towns and about their histories. We wonder if Arthur Dunning might devote an Educational Page to that vanishing bit of history? (Thanks, Arthur!)

TALLADEGA - GOOD NEWS: Talladega is undoubtedly one of Alabama's really "growing cities". Everyone knows of the community and State effort, coupled with private enterprise, that just recently culminated in the Talladega Raceway - a track with the potential to break all kinds of records. What many may not know is that the same drive and local pride is currently strongly behind an effort to "Build an Indian Museum" (best in the nation). A glance at the names of the members of the Historic Museum Board which was appointed by the City Commission less than a month ago, gives assurance the museum project will have the leadership that brings results. More on this later - keep thinking how we can help!

BARTRAM TRAIL PROJECT: The Alabama Conservancy under the chairmanship of Mrs. Thomas Horne, Fairhope, Ala., is spearheading a drive to establish a Bartram Trail in Ala. William Bartram traveled through Georgia, Alabama, Florida, Mississippi and Louisiana in 1776, keeping a journal of many things of interest. This list included such items as Indian villages, animal life, plants, streams, etc. The 200th anniversary of his trip in Ala. will be in 1976 and the Conservancy hopes to have the trail established by that time. This project would come under the Bureau of Outdoor Recreation, an agency of the U.S. Department of the Interior. The Conservancy asks our support in their endeavor by writing the Bureau at 810 New Walton Bldg., Atlanta, Ga. 30303, letting them know that our State Society as a group is also behind this project. This appears to be a good opportunity to help another organization as well as our own.

PUBLICATIONS WANTED FOR CHAPTER LIBRARY: Because publications on archaeology and related sciences are not generally available to the amateur archaeologist, the Muscle Shoals Chapter recently inaugurated a chapter library on archaeology and anthropology. The Chapter Librarian brings all publications to each meeting, where they may be checked out from one meeting to the next. Though presently quite small, it is hoped the library will grow and become a valuable tool to all amateur archaeologists in

northwestern Ala. Donations of publications, or money to purchase them, will be sincerely appreciated by the Chapter. Copies of back issues of our JOURNAL OF ALABAMA ARCHAEOLOGY are especially needed. Please package carefully and mail to Chapter Librarian Bill Witt (Phone 332-4587), Route 3 Box 224, Russellville, Ala. 35653.

H. C. Hughes (who sent the material on Osceola's reburial which attracted so much attention in our March issue) now sends information that "the largest Council House evidence ever discovered" will be destroyed by a "centennial pavilion" of 60,000 feet floor space (competition?) as part of the "millions of dollars of state funds...to make 1970 a year to remember in South Carolina". Destroying history in the name of history? How absurd can one get! Think how much older "centennial" they might boast archaeologically! And H.C. has his own complaint - he didn't hear anything "about my request to attend the summer dig". Golly, we don't know - except that we have too few Chiefs and virtually no Indians to do the countless things which should be done. Whether we are coming or going - well, we meet ourselves coming back (going or returning). We regret every bit of it - including the overwork! Sure wish you had just up and attended the dig - there was a bit of work to be done there, too!

TOO-HOOL-HOOL-ZOTE, Ten Doy, Hoo-Shed-Skoot, Sarpsis Ilppilp - do these names sort of get you, too? When we have space, we want to tell you more about them, the deadly Lolo Trail, the Stinking Water River, "an Indian with a telescope rifle was picking off our men" - plenty bluddenguts. We just mention them here to help influence you to pay your dues for next year - pronto!

THE ARCHAEOLOGY OF ONLY YESTERDAY: We were reading a letter written in 1800 by the Rev. Francis Asbury, when the Lord's business was still booming in Cumberland, Tenn.: "They hold sacramental meetings 4 days and nights...it is in the woods; no house can contain the people...wagons, food, fires, some 10, 20, 30, 50 and 100 miles from home...preach and pray until evening, then retire to refresh with food; and come again, and continue the whole night...7, 8, 9, 10, 12, one o'clock, till morning". The late Bill Steele used to regale us with tales about those delightful old "camp meetings". As once when the preacher was unusually successful in invoking the devil, redolent with fire and brimstone and hungry for errant souls, a youngster intent on "selling out" landed, as Bill expressed it, "knee deep in a basket of apple pies". Let us preserve for our future the memories of man's incredible past, from pebble tools to pie baskets - and be "people with pedigree".

SPACE ARCHAEOLOGY: When we hear about the millions of pounds of hardware now orbiting in outer space, we wonder if "space archaeologists" will study our "primitive rockets" up there in the future. Also, if they will "mine space" for metals when we exhaust them. Oh well, we'll "orbituary" with that.

EDUCATIONAL PAGE

CONSIDERATIONS IN RADIOACTIVE CARBON 14 DATING

One of the most fascinating questions in archaeology is "How old is it?" Radiocarbon 14, discovered to be of value in dating by Dr. Willard Libbey, has been enthusiastically welcomed by most archaeologists, and as it is the best method available, perhaps relied upon with more dependence than is wise.

Dr. Libbey obtained his first C14 from the methane gas found in Baltimore's sewers, and assuming the present level of C14 ingested into an organism was also the level taken in 30,000+ years ago, the basis for this type dating was formed. The remaining C-14 in the dead organic matter, measured against a calibrated scale based on the radioactivity of modern carbon, is "counted" to determine its age.

But HAS the supply of Cl_4 been constant during these 30,000+ years? The amount available to plant and animal life varies depending on the volume, temperature and acidity of the ocean water, as the greater part of Cl_4 is stored in the sea. To the degree any of these factors vary, the amount of Cl_4 available to plant and animal life also varies to the same degree. For instance, if 2,000 years ago the average ocean temperature were considerably less than it is now, then much more Cl_4 would have been dissolved than is now dissolved and there would be less available for plants to assimilate. Plants living then would have contained less Cl_4 than plants living today. Hence, if dated, they would appear older than they would be in actuality. Ocean levels and temperatures have varied widely in the past. There is general agreement that the level at one time was some 450 feet below that of today.

Availability of nitrogen must have been constant during the past 30,000 years, and the cosmic ray bombardment should have been essentially constant. Since the amount of cosmic radiation entering the earth's atmosphere is determined by the strength of the earth's magnetic field (the stronger the field, the less cosmic radiation), it should be asked whether the intensity of this magnetic field varied during the last 30,000 years. The February 1957 issue of SCIENTIFIC AMERICAN and the December 1, 1956 issue of NATURE report the results of the studies of 3 American geophysicists. These studies, based on magnetic field research, show that the rate of Cl_4 production in the past has been less than at the present. This makes radiocarbon dates appear older than they actually are. These studies show that the total intensity of the magnetic field has dropped 65% during the past 2,000 years.

It is assumed that the constancy of the rate of decay of the Cl_4 atoms is unaltered; that the dead organic matter is not later altered in carbon content by any biologic or other activity. One of the major problems in dating by this technique has been contamination. The sample must have been buried or otherwise protected from infiltration since its death. "...the most significant problem is that of biological alteration of materials in the soil. This effect grows more serious with greater age. To produce an error of 50% in the age of a 10,000 year old specimen would require the replacement of more than 25% of the carbon atoms. For a 40,000 year old sample, the figure is only 5%, while an error of 5,000 years can be produced by about 1% of modern materials. Much more must be done in chemical purification of samples." (Conclusion resulting at a conference on radiocarbon dating held in October, 1956.)

Ernst Antevs adds that laboratory analysis determines only the amount of radioactive carbon present, but not whether the Cl_4 is all original, in part secondary, intrusive, or whether the amount has been altered in still other irregular ways besides by natural decay.

The amount of Cl_4 in the atmosphere has increased since the industrial revolution due to the hydrocarbons released into the atmosphere. Allowances must be made for this, and for "background" radiation of cosmic rays and of the vary materials of which the counter is made. Dr. Hessel de Vries (University of Groningen, Netherlands) tells us that the amount of Cl_4 in the atmosphere has increased as much as 10% since hydrogen bomb testing began in 1954. (This reference was 1958).

If there has been a gigantic catastrophe in the earth's last 30,000 years (and there is much evidence there has been), it would have greatly altered several or all of the assumptions involved in radiocarbon dating. The idea is brilliant; the man ingenious to have uncovered it. It is a promise, but one which needs further investigation and refining before we can accept with confidence the older dates obtained by it.

Marjorie Ashley, Noccalula Chapter

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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.

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