

SOCIETY FOR AMERICAN ARCHAEOLOGY  
ANNUAL MEETING

The Annual Meeting of the Society for American Archaeology will be held in Minneapolis, Wisconsin, on May 8 and 9, 1941. Final arrangements for the meeting had not been completed at the time that the NOTEBOOK went to "press". Notices of the program, places of meeting, and other details will be mailed to the members shortly. Members of the Society are urged to attend these meetings. As usual the program will include discussion of many important and interesting archaeological problems. This year, even more than in the past, the discussions should be important and stimulating for, of late, Archaeological work has been progressing by leaps and bounds. Intriguing interpretations of ideas, which a few years ago were little more than wild surmises, are beginning to appear. Discussions of these should be exciting.

One of the most important sections of the program is the Annual Meeting itself. At this meeting the members elect officers and direct the activities of the Society for the coming year. The Society cannot act properly if the members do not inform the officers of their desires. It is the duty of every member to attend this meeting and voice his objection or approval of the way in which the business of the Society is run. Discussion by the members of the policies of the Society is vital, without this the Society is indeed an empty shell.

\* \* \* \* \*

THE NOTEBOOK - WHAT IS SO!

Answers to the letter by Carl Guthe

Sixteen people, upon reading Carl Guthe's letter in the last issue of the NOTEBOOK, wrote to me setting down the ideas which occurred to them. These letters were more than welcome and even though they have been separately acknowledged I wish to say again that the suggestions, advice and friendly criticisms which they

Society for American Archaeology, NOTEBOOK, April, 1941.

contained were valuable, encouraging, and thoroughly appreciated. It is my hope that you all will write again and that others will see fit to take up their pen. It is only in this way that the NOTEBOOK will continue to exist.

Instead of publishing each letter separately I have had the temerity to organize them thus saving some space and reducing some complications. The letters were received from; Robert McCormick Adams, H.F. Antle, Thorne Deuel, Fred Dustin, Mrs. H.H. Gilkyson, Ernest N. Johnson, Roscoe Johnson, Roy A. Keech, Forrest Kirkland, C. Kimball Lubbe, Charles H. Nash, Charles Parks, P.M. Pringle, Mary I. Reynolds, Charles Snow, N.L. Stiles.

Without exception these people have urged that the NOTEBOOK be continued even if it appears less frequently and perhaps in abbreviated form. In addition people with whom I have talked have all been agreed that the NOTEBOOK should be continued. It seems that the NOTEBOOK has supplied information which was of value or interest to a number of people. Because of these opinions, expressed by only a few people, but at least without one dissenting voice, the Society should continue to publish the NOTEBOOK.

The ends and aims of the NOTEBOOK have been stated several times, they were outlined again briefly in Guthe's letter. The correspondants who wrote concerning the purposes proceeded to elaborate upon it, none disagreed with the present ambitions for the NOTEBOOK. One person made an interesting comment. "The NOTEBOOK is the beginning of something which has long been established in other major sciences, namely, a reference for field, laboratory, and library. There is no particular pattern which it must follow at present; when one opens the pages he is likely to find anything from a field report to a discussion of somebody's pet method of pottery restoration. I like this style of editing." One can add to this the thought that the NOTEBOOK may serve as a place where brief mention of new data may be made so bringing to everybody's attention information which might not be otherwise published for years.

In summary I find that the NOTEBOOK should be continued and that the information which has appeared is satisfactory and desirable. If I am right, this means that the NOTEBOOK should remain, above all things, informal, that it should include all kinds of archaeological information in the form of discussions of problems, accounts of field and laboratory techniques, and brief description of work which is under way or accomplished. There should be room, also, for questions and answers and for miscellaneous notes of interest. We have the machinery set up to carry out this program, it only remains to discover why it has not worked smoothly.

The reason why it seemed likely that we would have to cease issuing the NOTEBOOK was that there was nothing to put in it. If you will look at the back numbers of the NOTEBOOK, you will find that the contributors began to fall off in 1940 with the result that nothing was available for the issues scheduled for December and February 1941. This situation is unbelievable at this time when most journals have on hand more material than they can publish.

It seems to me that everyone who does some archaeological work has something worth contributing regardless of whether the work is the result of a Sunday afternoon picnic or whether it originates in a highly organized and extensive project. In one sense archaeologists are under an obligation to their fellows and should make their discoveries and ideas known. When a person, who because of his opportunities has been classified as a professional, fails to disseminate the information he is particularly reprehensible. It is part of the business of these people to inform the world of the results of their work. When this is not done these professionals have failed miserably. Usually they do not contribute because they are lazy or because they are stuck in some rut which does not permit them to use what faculties they have. Other archaeologists who, unfortunately and erroneously, have been classed as amateurs are under similar obligation but their failure to publish is, to some extent, excusable. It is often difficult, especially after a hard day at the office, to sit down and write. Nevertheless, it should not be difficult or impossible to write an informal letter to the editor of the NOTEBOOK, or upon occasion, to write a short

Society for American Archaeology, NOTEBOOK, April, 1941.

account of the work which is being accomplished. Such notes bring to a climax the work which has been in progress and should leave one with the pleasant feeling that here is a thing completed. One should not be afraid that a letter or an account is not suitable for the NOTEBOOK, it is the editor's job to see that if need be these accounts are organized in proper form -- all he wants is the data.

Setting aside such excuses we come down to particular reasons why the NOTEBOOK does not receive contributions. The principle reason seems to involve fear of criticism often arising from a lack of cooperation between the so-called professional and his amateur friends. The "amateur" hesitates to write anything because he is afraid that he does not know enough about archaeology. He is afraid that some "professional" will criticize his work and thus hold him up for ridicule. Such feelings on the part of the amateur and such criticisms on the part of the professional are traditional. I would not be surprised if they reached back into the Middle Ages. At the present moment, however, the tradition is groundless. Archaeology is a young science in which most of the principles are as yet undefined. One man's ideas and facts are just as important and useful as another's regardless of respective opportunities. If one man has the opportunity to do more archaeological work than another, he is not entitled to become a conceited snob. Any archaeologist who ignores or looks down upon the work of others becomes narrow-minded and his work is usually worthless.

Criticism, of which there is so much fear, is one thing and discussion or dispassionate argument is another. In the archaeological literature we find criticism which frequently goes beyond the bounds of discussion. In following this through one finds, all too often, that such criticisms do, in the end, amount to nothing except as they throw light upon the narrow-mindedness of the authors. Such criticisms certainly do not further archaeological work. Fortunately such criticisms are becoming less numerous and we can hope that they will eventually disappear. They are certainly not going to appear in the NOTEBOOK if I can help it.

Society for American Archaeology, NOTEBOOK, April, 1941.

The discussion of archaeological facts is another thing. Archaeologists, no matter who they are or what their opportunities, are in search of facts and they are continually trying to arrange these facts in their logical order so that they may be properly interpreted. The facts secured, no matter how or by whom are unassailable. The interpretation of the facts is, however, a matter of opinion. In this case one man's opinion is as good as another's. There should be, and in reality there is, no stigma attached to a difference of opinion. The name and standing of one man does not make his opinions any better than those of another -- it is the facts that count. Furthermore differences of opinion, no matter what their source may be, are valuable and healthy. When such a difference appears it can be cleared up only by the addition of new facts. The possibility that one person is in possession of more facts than another does not reflect upon his personality or standing. It seems that there is absolutely no reason why an archaeologist should be afraid of setting down his ideas. There is no basis for the belief that one group is trying to ambush another group. As a matter of fact the division into groups is specious. Every archaeologist is in search of facts regardless of their source. Archaeologists are also hoping for interpretations of the facts, hoping that in the development of these interpretations additional facts and new interpretations will appear. In this process the simplest ideas are often the most important. When an argument changes it does not reflect upon the ability of the proponents, no one should be afraid of his ideas and most of all one should not fear anyone else's ideas. By offering an opinion, hypothesis, or theory one stimulates others to think about your problem and their contributions aids you in improving and adding to your ideas. There seems to be no reason why you, no matter how much you think you know or do not know about archaeology, cannot contribute something to the NOTEBOOK particularly when this publication is informal and unauthoritative, when it is intended for mutual discussions of problems of all kinds.

Turning from this long comment on one of the problems of the NOTEBOOK which was mentioned in the correspondence and which has been the subject of many conversations, we can come back to some suggestions which have been made.

Society for American Archaeology, NOTEBOOK, April , 1941.

A suggestion that, possibly through the medium of the NOTEBOOK, a campaign for the archaeological education of the interested public be initiated. In this particular discussion the possibility of introducing simple Anthropological principles into grammar and high schools was mentioned. By preparing and distributing, for school children, simplified but authoritative information about the Indians it was thought that a general interest might be awakened in some. The result of this would be the development of a large nucleus of young folks who knew what it was all about and who could be of considerable future influence. The possibility that some such program might aid in reducing the number of pot hunters and produce, in the general public, a more intelligent attitude was considered.

Several have written to suggest that local or State Archaeological Societies would have a lot of information which would be of considerable interest. This, I believe to be a fact and I hope that some arrangement may be worked out whereby the results of the work of the members of these societies may appear either as original articles or briefs of the bulletins and other publications which they issue. I will gladly reserve a section of the NOTEBOOK for anything that these societies will send me. The securing of this information is difficult for I know but a few addresses and since there is no directory I cannot get in touch with many. This I think is an idea worth considering, if you think so, send me the address of someone in your society so I may write them and set the wheels in motion. This is a direct appeal to you -- what will you do about it?

There have been a number of comments on the contents of the NOTEBOOK. Articles on field and laboratory methods and techniques have aided a great many people. I hope that some of you will feel free to write some more on these subjects surely they cannot be exhausted. Culture trait and artifact classification have been suggested. These terribly important subjects have been barely mentioned in the NOTEBOOK. There are all kinds of problems; what is the system you employ on your collection? Have you any ideas about classification of artifacts or culture traits from your county or State? How do you feel about a standard classification for national use? If you have any ideas send them in, they are as good, probably better than those which some people are jealously guarding at home.

It has been suggested that the NOTEBOOK include also Ethnological data. Within reason this can be very valuable. For example, discussion of tools used by present day Indians in order to explain some of the "problematical" artifacts which have been dug up would remove a lot of the mystery from our specimen lists. The identification of prehistoric sites with historic Indian survivors is extremely important. Some ideas about European trade goods have already come out, more of these would be helpful.

The suggestion that a bibliography be published jogs the memory of the Editor. I apologize for not having included lists of books and articles which might prove interesting. I will attempt to make amends in the near future.

CHANGES WHICH HAVE BEEN INAUGURATED WITH  
THIS ISSUE

Since the manuscripts have come so slowly that when publication dates roll around there has been nothing to publish it has been decided that the NOTEBOOK will be issued irregularly as available copy permits.

I have decided that the NOTEBOOK in its present form is a little unwieldy, Pages now number 163 and when these are put together they make a rather thick volume. The paper is not strong enough to stand up under very much handling. For this reason I have discontinued the practice of numbering the pages consecutively. This issue begins with page 1 of Volume 2, no.1. I propose to continue with volume 2 until it reaches p.150 or thereabouts and then begin another volume, Volume 3. A change of this sort is always inconvenient at the start, but it seems to me that sooner or later we are headed for a greater inconvenience unless we change. If you object, please let me know.

\* \* \* \* \*

Society for American Archaeology, NOTEBOOK, April, 1941.

### CORRECTION

In the article "Pottery Restoration" by Howard Torrey pp.136-138 the editor left out a request. "Can any of our readers offer helpful suggestions?" The editor apologizes for this omission and asks, how about it, can any one give Mr. Torrey a hand with his problem?

\* \* \* \* \*

### ADDENDA

Robert McCormick Adams writes, "In my last contribution to the NOTEBOOK, p.153, I failed to include Dellinger's investigations." The missing references are:

Dellinger, S.C.

Report of the Ozark Bluff Dwellers (In National Research Council Conferences on Southern Prehistory, Birmingham, Alabama).

Dellinger, S.C.

Baby Cradles of the Ozark Bluff Dwellers (American Antiquity, Vol.1, pt.3, pp.197-214, Feb. 1936. Also, Research Papers No.403, Journal Series of the University of Arkansas).

\* \* \* \* \*

### BUILDINGS MADE OF REUSED MATERIAL

A note by Paul Rowe

While putting in foundations for various buildings Mr. Rowe found in a trench back of a commercial garage cinders, mud off cars, all the major pieces of a model "T" Ford, also several parts of a Dodge car. In another trench he found masonry from several old buildings, bottles, scrap iron and what not. These were all used as reinforcement of the new work and he comments, "In this small community where every man writes his own building laws almost half of the buildings put up are built with some or nearly all old materials. If this be true in this modern time, why should it not have been even more true when timber had to be cut with a stone axe."

\* \* \* \* \*

Society for American Archaeology, NOTEBOOK, April, 1941.

HOUSE STRUCTURES INDICATED BY CONCENTRATION OF  
POTSHERDS

Robert McCormick Adams

A few months ago we ran into a curious situation. We noticed that potsherds enclosed a rectangular area. There was no indication of a boundary other than the rectangle indicated by the distribution of these potsherds. Tentatively we believed it to be a house structure, all traces of it having disappeared except the potsherd refuse. However, when we cut down 20 centimeters further we ran across a faint but definite outline of a thin wall exactly under the periphery of the rectangular formation indicated by the potsherds above. This had been a shallow pit house.

Since the discovery of the above house several more have been found only by distributions of potsherds or by rectangular stains on the surface of our excavation floor. Fortunately underneath each such indication have been disclosed wall outlines.

Perhaps, therefore, in some instances it is advisable to leave all potsherds in position before taking them out as they might indicate such structures.

\* \* \* \* \*

PRESERVATION AND CLEANING OF SHELL MATERIAL

Ernest N. Johnson

I think nearly everyone who has excavated and tried to restore articles made from shell of thin laminated structure such as our Pacific abalone, has found that many specimens literally fly to pieces when put in water. I have found that the best plan is to place all shell ornaments, etc, in a can of fine sifted soil to transport them to the lab, then on removing them they are brushed as free of dirt as possible and allowed to dry slowly for 24 hours. Then, either by immersion or brush application, they are treated with a fairly thin solution of any of the celluloid preparations such as Ambroid. They may, after drying, then

Society for American Archaeology, NOTEBOOK, April, 1941.

be handled easily. Now, if any specimens should be needed for display, take a piece of clean soft cotton cloth such as gauze or cheesecloth, moisten it with acetone or other suitable solvent for the coating used, and clean only the surface of the shell object. The idea is to remove the coating from the surface you wish to restore only, leaving the ambroid between the laminations to hold them firmly together. When the surface is free from ambroid, the object can then be immersed in the usual acid cleaning solution, which will effectually remove most surface discolorations by dissolving the calcium which is in most cases decomposed at the surface. I find that a short immersion in a fairly strong solution is better than a long immersion in a weak solution. A bath in common baking soda to neutralize the acid, and a rinse in clear water, and the piece is again dried and re-coated with ambroid, much improved in appearance. I have learned not to apply ambroid to such specimens as may have a coating of asphaltum, which is not uncommon here, as the solvent liquefies the asphaltum also.

\* \* \* \* \*

ETHNOBIOLOGY AS A DETERMINATE FACTOR IN DELIMITING  
CULTURAL AND NATURAL BOUNDARIES

H.R. Antle

Ethnobiology is a science which treats with aboriginal man in America, having particular reference to his utilization of the plant and animal life about him for food and other purposes.

In working out this picture it has been found that a more accurate delimitation of cultural and natural areas is possible. Just as dendrochronology was found to be the key to dating archaeological manifestations, not its primary purpose, so ethnobiology brings a new concept in time and space when the aborigine is studied from the standpoint as to how, where, and when, he utilized a given life form.

Anthropology, it has been said, as studied in America, does little more than show the sociology of native American culture. The true idea of anthropology is to coordinate all the data of man's culture--language and

Society for American Archaeology, NOTEBOOK, April, 1941.

anatomy-- past and present, with a view of solving his origin with an interpretation of his culture. From this it is seen that archaeology would have as an objective the revelation of those factors not within the memory of recorded history of man.

Geographical distribution of the forms of human life and their historic sequence from the earliest to present time are included in anthropological researches. This is supplemented by the investigation of physiological reactions of the body determined by heredity and environment; of mental processes under stress of social and natural environment; of behavior of society.

In some instances history leads the way into the past. Beyond, into the prehistoric archaeology attempts to reveal two anthropological principles, bodily form and culture content. From the cultural elements it is possible to gain a limited insight into the mental processes of the prehistoric individual.

To contemplate the archaeological picture, which, by the way, is never complete, brings the wish and necessity of assigning to it name, date, and focal location. Here the trouble begins.

Given a discovery there arises first the question, is it prehistoric? History, in the New World, begins with Old World contact at and following 1492. What may be prehistoric at one place may be historic, in matter of time, at another. Prehistory of the West Indies ended in 1492. Among the Maricopa it ended in 1800. This considerably alters the aboriginal sub-stratum.

With the disclosure of any form of agricultural pursuit dating can pretty well lie within the past fifteen hundred years. Presence of implements of cultivation amidst Pleistocene remains could never denote great antiquity.

Prehistoric manifestations are identified according to their culture content. Since this content is, in the main, expression of the mental process of the group composing it, an attempt is made to point out

Society for American Archaeology, NOTEBOOK, April, 1941.

other related manifestations on the basis of a limited number of elements.

Linguistics and culture should not be placed on a par for the former is a part of the latter and not equal to it. There has been confusion in the past due to the application of a name of a language of known culture to a manifestation whose elements, other than language, coincide throughout. To illustrate, consider the Caddoan people as the historian knows them. Then consider those people who spoke a branch of the Caddoan tongue but differed culturally from the Caddoan people. How can the archaeologist assume that a late prehistoric people, with all physical traits in common with some known historic group identified according to their language, are to likewise be classified along with the historic group? Apply the question in reverse also.

Time and space must be considered in any group whether prehistoric, late prehistoric, early historic, or historic. Some of our best reference books fail to consider these two conditions.

The study of culture process needs to be analytic and, if all traits are considered at once, definite culture areas can be established. The culture climax is related to the culture area but when dealing with timeless data, as does the ethnologist, the approach of the climax is one of caution.

One culture area cannot be described on the basis of a group of psychological traits and another on a particular element such as grit-tempered pottery. Culture is not due to a single item but could roughly be focused as resulting from the hereditary pattern, environment, and other culture phenomena. And just as the law of probability prevents a duplication of conditions responsible for the production of a new species so would the law allow the production of a single culture group which, as with a given species, would have a concentration of type form with modifications leading to complete annihilation of the outmost fringes.

A single trait of a culture might be adopted entire by another unrelated group and form the nucleus for a complete change within the latter group.

Society for American Archaeology, NOTEBOOK, April, 1941.

Let us consider a certain plant as an example. One culture group may use it for food; another would use it for a dye; another would only wear it; a fourth would perhaps assign it the ranking of a deity. If the archaeologist finds the plant occurring in remains in one area need his interpretation of its use be applicable to appearances of the plant in remains whose other traits are isolated from the primary location of discovery? The answer is obviously no, but such a process of reasoning is to be found in many an archaeological report. To illustrate: a historic people were known to have grown tobacco and smoked it in a pipe. A pipe is found in an archaeological ruin; ergo, the prehistoric group here disclosed grew tobacco. As a matter of fact, a pipe might show that the inner bark of the red willow, or mullien, or oak leaves, or sumac, might have been utilized. Actually, tobacco is of South American origin and reached as narrow ramifications into the not too far northern areas. Use of a pipe and the art of smoking, a culture trait, could have diffused, even into non-agricultural areas.

The biological factors of an environment may influence and control a culture but need not dictate it. Environment, which includes geographical location and geological condition, will reflect in the biota of the region and any culture group therein will be influenced by it. Since food is the basic necessity for existence, the classification of a food area in relation to a culture area would at least roughly coincide.

A culture is nothing more or less than a regionally individualized type, dependent upon a rudimentary pattern of inception. By this is meant that one group may utilize its environmental factors, develop and reach its climax while another group would perish under the same basic conditions.

No one group has a complete cultural independence and the line of demarcation cannot be drawn between culture areas. It is true that natural barriers will, if extant, sometimes limit a particular culture, but the foregoing statement excludes this condition. Distinction must be made between innate and acquired elements in the activity complexes. In depicting a

Society for American Archaeology, NOTEBOOK, April, 1941.

culture area, therefore, it is concluded that it cannot be said, that this was here, and that was there, and this came up to that and is not found over there.

Flint corn is found among the people of Taos which places it beyond its accepted prehistoric biotic zone. It was secured by trade from the Plains. Corn and basketry is found among the nomads of certain areas. They occur here through trade. Historically, we could prove statements of this sort. Archaeologically, a misconception might arise as to the significance of the occurrence of some such item in an otherwise different manifestation.

The Ohio mounds disclose coiled basketry but did they make it, and if so, to what extent? Can we say that coiled basketry is a part of the Ohio culture? Historically, such questions are somewhat easily answered. Archaeologically, they are not.

Fifteen culture areas are now recognized where there were only eight a few years ago. In North America there are seven major areas which are divided and sub-divided to encompass historically known groups and merge into the late prehistoric. Food factors are a strong criteria in formulation of the areas.

Since food and clothing are dependent upon the biota of the region, they should be given as careful consideration as were metal, stone and clay. Yet, few archaeological reports do more than indicate the occurrence of vegetative and animal material. Such substances are, generally, biologically classified.

To make an analytic ethnobiological study, to be used in connection with all other traits, every animal and plant remains should be tabulated with respect to the ratio they bear to each other, quantitatively and qualitatively so.

Highly inaccurate statements have been made in the past relative to the plant and animals utilized and the place they hold in time consideration. It is important to know that millet and honey are not indigenous to hative North and South America; likewise, an important factor such as the growing of cotton, after 1300 and not before, among the Hueco cave-dwellers should not be

Society for American Archaeology, NOTEBOOK, April, 1941

overlooked. To find a cave-dwelling with evidence of a cultivation of cotton should caution the finder that the ruin is not more than 1300A.D. in age.

In classification of biological material more than a single physical characteristic is used in establishing identity. In North America, mellons, millet and sweet potatoes are introductions but are, or were, frequently referred to as atypical. True, the native American used kindred plants of Old World species. However, even capable botanists are not always certain of an identification of a particular seed or stem other than its family or genus which means little in analytical consideration. Thus, we find it difficult to distinguish between the seeds of watermelons, cucumbers, squash and gourds. In developmental stages any one can easily be confused for the other.

If a group utilizes a particular animal or plant to the near exclusion of everything else then that animal or plant will delimit the culture area by its own biological zonation. Thus, a culture centered about sahuaro could only extend to the limits at which sahuaro would grow.

Yet, too often one finds that a single culture trait from one locality, turning up in a remote and otherwise muchly different culture area, is exploited as an intrusion, or even worse, interpreted as showing a basic relation between the groups. How often have Hopewellian traits occurred in recent archaeological discoveries! It would not be so bad if we only knew just what the Hopewell is.

The archaeological program has been so speeded up that we are apt to overlook, in the presence of imposing artifacts, the more important and less pretentious items such as seeds and pollen, and animal remains. Is our interest directed to museum displays or are we seeking insight into the life of prehistoric man?

\* \* \* \* \*

Society for American Archaeology, NOTEBOOK, April, 1941.

THE PROBLEM OF ARCHAEOLOGICAL TERMINOLOGY

Robert L. Stephenson

It has constantly been a source of great concern to me just what could be done about definitions of archaeological terms. How must archaeological language be organized so that a man working in Oregon archaeology will be able to grasp the significance of and understand exactly what is meant by the specific terminology of a man working in the Texas region or in Tennessee or in Maine or in any other specific locality? How may the language of one group of archaeologists - a group bound together by geographic location, or personal friendship, or whatever else may be the tie - be correlated and made understandable to all groups of such men however far removed from one another? True, it may be said "Well, just read the literature," but that is exactly what is confusing. The literature obviously does not correspond in its definitions any more than do the individuals who write the literature. To illustrate: such a simple term as "flint" is used by some individuals in the Pacific Northwest to mean some types of stone of the quartz family from which artifacts are made. Another individual in a far removed section states that a stone may only be called flint if it comes from limestone deposits and is a smooth, grey, readily fracturable stone of the quartz family. Someone else says flint may be found only in the chalk deposits of England and Europe. The result is that a great many individuals, thus confused by contradicting and misunderstood definitions tend to think of "flint artifacts" as something to laugh at and say "Well, there is no true flint in North America and none seems to know what they mean by 'flint', so we will eliminate the term."

"Flint" and many other such terms are perfectly good terms and should be used, but used only after proper definition. The same confusion exists in use of such terms as "mound-builder" or "midden sites" or "mound" also in the use of the term "blade" or "knife" or "arrowhead" or "grit temper" and so on ad infinitum. Each term means one thing to one group of archaeologists and is quite clearly understood by that group, yet means something else to another group, and still something else to a third group.

Society for American Archaeology, NOTEBOOK, April, 1941.

Perhaps this could be partly remedied by a complete glossary of terms to be included in every publication. But even this would not entirely remedy the situation, as it could not include all of the confusing terms. Some would seem so obvious to the individual writing the paper that they would not be included, yet just those, apparently obvious, terms would be confusing to someone else in another section of the country. To illustrate, in one section of the country, I used the term "knife" with considerable ease, and assumed that everyone had the same idea of what a "knife" was. Then I did some work in another section of the country and found that the term "knife" was not even used and "blade" was used instead to mean the same thing and with the same apparent ease. In my previous area it would have been wondered "what is a 'blade'. Is it necessarily an implement used with some hafting method or is it an ax blade or is it a dagger-like artifact or just what is it?"

It seems to me that the only real solution is for an archaeological Noah Webster to publish a dictionary, of archaeological terms. This would be a dictionary to cover all areas and all terms dealing with archaeology including just what is meant by the various horizons, phases, complexes, types of artifacts, materials from which artifacts are made and so on. If there were certain terms that of necessity must have one meaning in one area and another meaning in another area, then this information should all be included.

Obviously this could not be done by any one person but only the combined and coordinated efforts and contributions of many of the best archaeologists in all sections of the country. When published, it must be distributed as widely and as freely as possible. It could not be done in a short time and would never actually be completed, new editions being published at frequent intervals as evidence and conclusions about archaeological findings are changed.

Perhaps this is an over-idealistic undertaking, but I am convinced that something of this kind could and certainly must be done before very long. Archaeology, as a science, and not a romance, is rapidly

Society for American Archaeology, NOTEBOOK, April, 1941.

growing and developing. The day is already past when all of the professional archaeologists know each other personally and may get together on terminology and problems. The professional men as well as trained amateurs are rapidly increasing in numbers and archaeology is ever becoming one of the outstanding and well-known sciences. Coordinating machinery is not keeping pace with the science itself.

I am sure we all recognize the difficult problem of terminology and realize that a solution, must, some day soon, be attempted. If I am on the wrong track, may I call for volunteers to offer further suggestions and at least discuss the problem openly in printed form so that all may make suggestions and contributions toward a solution. Such an organ as our NOTEBOOK is the best possible place to present any such suggestions, contradictions or arguments along this line. It is an excellent means of answering the challenge that archaeology is making to all of us.

\* \* \* \* \*

#### A SITE ON THE YADKIN RIVER IN NORTH CAROLINA

Herbert M. Doerschuk

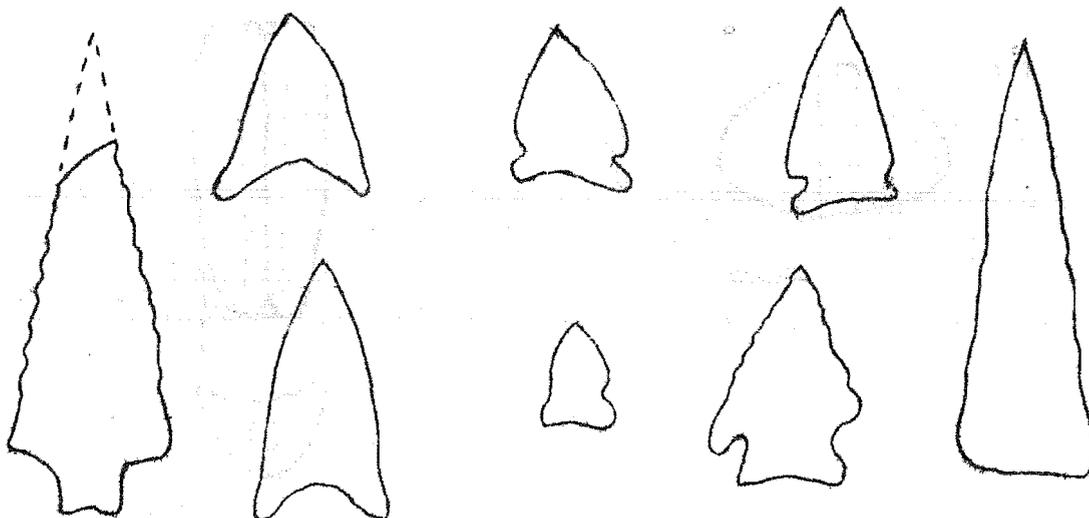
Surface collecting for a distance of about fifty miles along the Yadkin river in North Carolina has resulted in the identification of a number of sites. One site, which I have designated as "Site 4" has yielded, during about eight years of collecting, an interesting mass of material and this has been cataloged. The site is about 250 yards above and the same distance away from the river. At this point the river flows among a few small islands through a rock gorge. The site occupies the top of a hill next to the river. A small branch runs into the river on one side of the hill. The site covers most of the top of the hill and is approximately 500 feet long. It extends some 2000 feet back from the river. The artifacts are concentrated in an area 300 by 200 feet, the highest section of the hill. The ground is a dark red clay, it dries quickly and is very powdery. The soil of the small area noted above is darker in color than that of the surrounding areas.

Society for American Archaeology, NOTEBOOK, April, 1941.

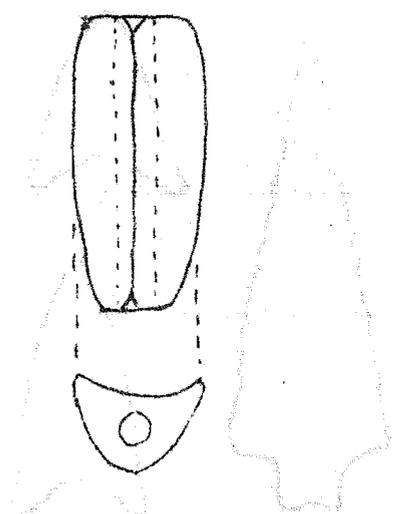
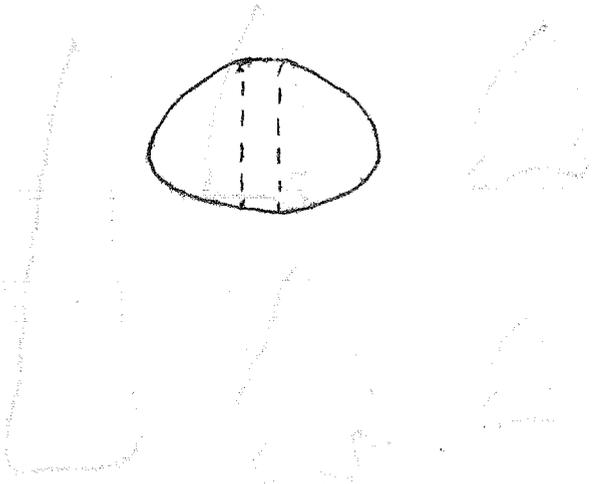
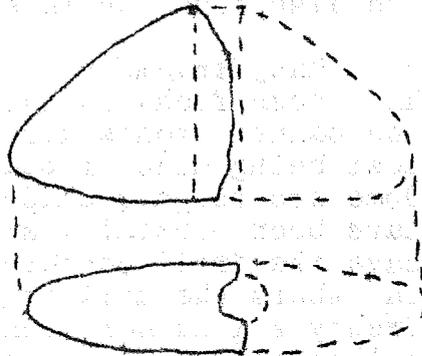
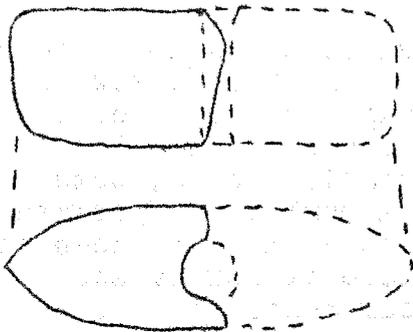
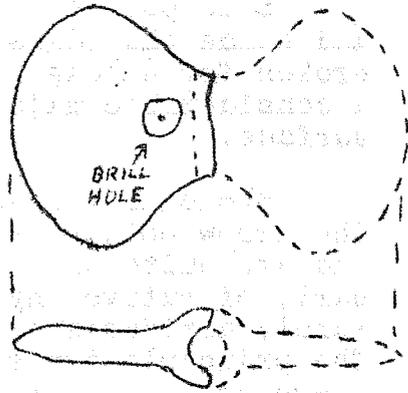
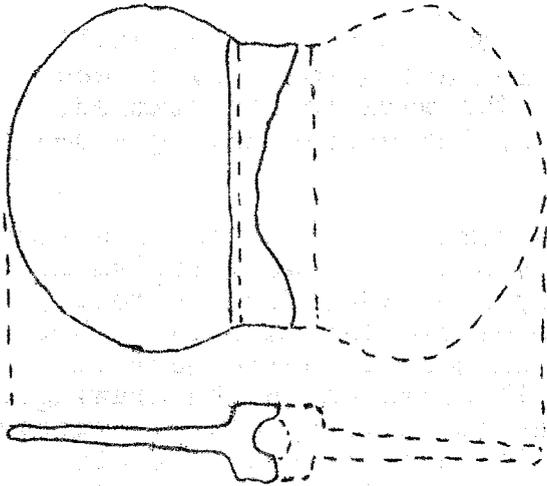
Some pot sherds are found but most are small and since the edges are rounded seem to have been broken for a long time. The ware is not stamped, a considerable majority of the sherds having a smooth surface.

Stone artifacts are commonly found on this site. The arrow points and knives are all well finished, and are quite thin. They are made, for the most part, of native rhyolite or similar material. More rarely artifacts have been made of white quartz. The principle types are illustrated in the drawings. There are very few of the small triangular arrowheads which are found in such large numbers in the river bottoms. Scrapers and some drills of various sizes are also found on this site.

Many fragments and a few complete banner stones have been found on the surface with these arrow points. The banner stones are in all stages of manufacture, most being made of blue veined slate or steatite. Some are roughly shaped being simply pecked, some have been partially smoothed. A number of specimens have the drill centers just started on both sides and in others the drilling is complete or nearly so. Twenty-six banner stones are represented in the collection. The principle types are illustrated below.



Society for American Archaeology, NOTEBOOK, April, 1941.



NOTES FROM THE EDITOR

This issue of the NOTEBOOK is late. The principle explanation is that our secretary has been in the hospital and the one who "filled in" for her could not cut stencils. It did not seem right to hire out the work because the Society can ill afford extra expense.

For a while it looked as though there was going to be enough copy to keep the NOTEBOOK going for several were kind enough to contribute some very interesting articles. All of a sudden these contributions stopped. I do hope that this was caused by summer vacations and that soon material will begin appearing. As has been said so many times the NOTEBOOK'S existence depends upon YOU, so take a deep breath and write down some of that stuff you have talked so much about. The rest of us are aching to hear about it.

In this issue the briefs of the papers which were delivered at the meetings in Minneapolis are published. From these, those of you who could not go, can see that the papers were interesting and important. The meeting was a fine one held in the congenial surroundings generously provided by the University of Minnesota. I am sure that those who attended enjoyed themselves and profited by the opportunity to discuss matters with their friends and colleagues.

Frederick Johnson

TITLES OF PAPERS PRESENTED AT MINNEAPOLIS MEETING

- (1) "THE BOYLSTON STREET FISHWEIR".  
Frederick Johnson, Phillips Academy, Andover, Mass.
- (2) "MASTODON BONES FROM MIDDLE MISSISSIPPI REFUSE PITS".  
Robert McCormick Adams, Academy of Science of St. Louis, St. Louis, Mo., (Illustrated).
- (3) "SITES ON ABANDONED BEACHES OF LAKE HURON, ONTARIO"  
Emerson F. Greenman, University of Michigan, Ann Arbor, Michigan. (Illustrated)

Society for American Archaeology, NOTEBOOK, August, 1941

- (4) "THE BAUMER FOCUS".  
Roger W. Willis, University of Chicago, Chicago, Illinois. (Illustrated)
- (5) "A HOPEWELL SCULPTURED HEAD".  
Richard G. Morgan, Ohio State Museum, Columbus, Ohio. (Illustrated)
- (6) "THREE WOODLAND ASPECTS OF NORTHERN MINNESOTA".  
Lloyd A. Wilford, University of Minnesota, Minneapolis, Minnesota.
- (7) "NOTES ON CHRONOLOGY IN SOUTHERN ILLINOIS".  
John Bennett, University of Chicago, Chicago, Ill.
- (8) "THE BROKEN KETTLE AND KIMBALL VILLAGE SITES".  
Charles R. Keyes, State Historical Society of Iowa, Iowa City, Iowa. (Illustrated)
- (9) "A PRELIMINARY SYNTHESIS OF EASTERN UNITED STATES ARCHAEOLOGY".  
James B. Griffin, University of Michigan, Ann Arbor, Mich. (Illustrated)
- (10) "THE RELATIONSHIP BETWEEN ARCHAEOLOGICAL CULTURES AND PHYSICAL TYPES IN THE EASTERN UNITED STATES".  
Georg Neumann, University of Michigan, Ann Arbor, Mich. (Illustrated)

\* \* \* \* \*

#### ABSTRACTS

##### THE BOYLSTON STREET FISHWEIR Frederick Johnson

In August 1939 the remains of what is supposed to be a Fishweir were discovered in the excavations for a building being erected by the New England Mutual Life Insurance Company. This occurrence is certainly the re-discovery of the remains reported by Shimer in 1918 and Willoughby in 1927. These authors, basing their interpretations upon hasty observations obtained during the construction of a subway, found that the fishweir was either some 2000 years old or perhaps about 1000 years old. Shimer also decided, after identifying molluscs, that at

Society for American Archaeology, NOTEBOOK, August, 1941

the time the fishweir was built the climate was somewhat warmer than it is at present. These interpretations were and still are important, but they have always been open to the doubts which accompany the interpretation of incomplete data.

The present discovery was made in a large open excavation about two acres in extent. The Turner Construction Company and the Insurance Company were extremely gracious allowing a complete study of the whole excavation and supplying engineering and other aids whenever desired. Because of this the present data is much more complete than that which was formerly known.

The Fishweir is composed of about 65,000 stakes driven vertically through silt and peat into an underlying stratum of blue clay. Among the stakes there are two layers of brush which has not been woven among them but rather forced down between them. For convenience these have been called "wattles". In general the stakes were driven in walls some three wide extending across the lot. The tops of the stakes are at 12 feet to 13 feet below present low tide. The upper layer of wattle is at this same depth and the lower layer is some two feet below. The identification of the walls is extremely tentative for many stakes had been driven between them. Whether the stakes outside the walls were part of the original structure or whether they are the remains of repairs to the weir is a problem which cannot be answered at present. It is certain however that the weir was used over a long period of time and that it was repaired frequently.

In general the deposits involving the weir are as follows.

1. Blue Clay. A deposit of glacial outwash some 50 to 100 feet thick. The top of this deposit was laid down in salt water as evidenced by foraminifera. The top of this clay lies about 15 feet below present low tide.
2. Lower peat. A bed of peat rests upon the Blue Clay. This is some eighteen inches thick but probably it has been compacted. The peat was deposited at the high tide mark or possibly above, as tree stumps would indicate.

Society for American Archaeology, NOTEBOOK, August, 1941.

3. Silt. The stratum of silt rests upon the silt and the top of it lies approximately at low tide. Various molluscs and other organisms are included in the silt and also it has been possible to identify several old mud flat levels which existed for periods during which the process of silting was displaced by a process of erosion.
4. Upper Peat. A thin bed of peat rests upon the silt. This peat is that which was recognized by the first settlers of Boston.
5. On top of this peat there is a layer of colonial fill some 18 feet thick.

Upon arriving at the site it was immediately obvious that this was no ordinary archaeological job and consequently a number of specialists in several sciences were called in and asked for advice. The result of this and subsequent discussions has been that some fourteen men, working on as many different aspects of the problem, have produced the following studies: The Molluscs, The Analysis of the Oyster Bed, The Diatoms, The Pollen, The Identification of the Wood, The Chemical Analysis of the Wood, The Physical Analysis of the Silt and Clay, A Discussion of the Barnacles. To this list may be added the description of the fishweir as it was excavated and a description of the deposits as they occur generally in the Boston area. The final report will contain the analyses together with a detailed discussion of the geology of the region. These will tie together and interpret all the data. The study is an example of the advantages which come from the cooperation of various fields. By applying the results of so many different lines of investigation to a single problem a sounder and broader interpretation of it may be made. If for no other reason, the exhibition of these possibilities makes the report valuable.

The study is not quite complete for all the pollen has not been counted and the data organized and also some work remains to be done on the geology of the situation. In general and tentatively it may be said that the Fishweir was built during a period of rising sea level when the shore line was once some thirteen feet lower than it is now. Indications are that the hypothesis of a warmer climate, advanced by Shimer, is correct but for the moment we are not certain of just what this means. Details of changes in the character of the Charles River

Society for American Archaeology, NOTEBOOK, August, 1941.

Estuary are still to be finally determined, but it seems that there were times when conditions were first marine and then fresh water. The implications of this are not clear at the moment.

\* \* \* \* \*

MASTODON BONES FROM MIDDLE MISSISSIPPI REFUSE PITS

Robert McCormick Adams

This is a report of a significant discovery from a Middle Mississippi community south of St. Louis near the Mississippi River made by the Academy of St. Louis-W.P.A. Expedition.

Several bones of a very large animal have been found in combination refuse pits and cooking basins inside a large rectangular house having four center posts. These bones are mainly unmineralized mastodon bones.

There is no evidence that the bones were used either as implements or in ceremonies, leaving as possibilities either that they were obtained from a nearby bone bed as curios or that they are evidence that man and the late mastodon were contemporaneous and that man hunted and possibly cooked and ate mastodon meat.

Investigations now going on at a nearby bone bed next to a salt spring have revealed disarticulated and mainly unmineralized bones of the mastodon, ground sloth, elk and probably the bison.

There are suggestions that the village which is a community of the Kimmswick Focus is an early Middle Mississippi manifestation although there are also known late traits.

Curiosity or possibly contemporaneity? This must remain undecided on the basis of the present evidence.

\* \* \* \* \*

Society for American Archaeology, NOTEBOOK, August, 1941.

SITES ON ABANDONED BEACHES OF LAKE HURON, ONTARIO

E.F. Greenman

In MAN for May 1940 I described briefly the work of the Museum of Anthropology of the University of Michigan, in the Manitoulin District of Ontario during the summer of 1939. This work was continued during the summer of 1940 with results consistent with those of previous seasons.

A site for which a high antiquity is indicated was found in August, six miles northeast of Killarney, on a raised beach of Lake Huron 297 feet above the present level of that Lake, and about four miles inland from its present shore. It is a workshop where implements were made of white quartzite obtained from immediately adjacent outcrops, rather than the rounded quartzite pebbles and boulders of the beach itself. The following types were collected in an excavation 10 feet by 90 feet, from the surface and to a depth of about 15 inches: Semi-lunar knives from six to ten inches long, most of them very roughly flaked and quite thick, but two with thicknesses of less than half an inch, and small flakes along the edges suggesting pressure techniques; roughly flaked cleavers, oblate-pointed in outline and mostly plano-convex in cross-section, up to seven inches long; two narrow punch-like implements about an inch in length; and several points of large blades of which nothing can be said of the basal portions. Several thousand flakes were collected, and a few have been replaced in their original positions on artifacts, indicating that the latter had not been carried far from where they were made. No artifacts were found in water laid strata, but about a score were unmistakably water-worn. This includes half of a semi-lunar knife much worn on the angles of both faces, and on all edges including the broken edge. Much of the material is patinated, alike by discoloration to a uniform depth beneath one or both surfaces, and on the angles formed by flake scars by a glaze similar evidently to that on the flints from Savernake, England, and also in Rhodesia (see the Antiquity of Man in Rhodesia, etc., by A. Leslie Armstrong, in J.A.I., Volume 66, pp. 343-344).

This site shows no pottery and no flint, and none of the artifacts have ground surfaces. The beach where

Society for American Archaeology, NOTEBOOK, August, 1941.

the material is found is below the Lake Algonquian level (the last glacial Lake) which at this point should be at an elevation of about 485 feet above the present Lake Huron, according to Dr. George M. Stanley. It lies in a sheltered position in what was a deep narrow bay when the Lakes were 297 feet above their present level, a mile or more from the main Lake shore of that time, on the south slope of the pre-Cambrian quartzite of the Laurentian Shield. The age of this beach is placed by Dr. Stanley at between ten and fifteen thousand years. The beach is about 500 feet long east and west, with the materials occurring in greater concentration on the eastern two-thirds.

Some of the implement types from this site are similar to those occurring in the Folsom culture in New Mexico and Colorado, for which a minimum antiquity of ten thousand years is postulated by Howard. These types include the semi-lunar blade which, according to Frank Roberts (in correspondence) were found at Clovis, and Howard illustrates what appears to be a semi-lunar knife of flint, from Lindenmeier. One flake of the "channel" type from the site in Ontario, very similar to those from Clovis described by Roberts as detached from the median grooves of "Folsom" points, suggests the possibility that points of that type may be found in the future at the Ontario site. One graver from this site, much water worn, is another type which occurs associated with Folsom points at Clovis.

Large coarsely flaked semi-lunar knives similar to those from this Ontario site have been found on three other sites, to my knowledge, as follows: one in northern Labrador near Hopedale, on a raised marine beach, (reported by W.D. Strong), one in Quebec province at the junction of the Saguenay and St. Lawrence rivers on a raised beach (W.J. Wintemberg, mss) and near a small lake in Alberta (Leechman of the National Museum of Canada in 1940), all under conditions suggesting a high antiquity.

\* \* \* \* \*

Society for American Archaeology, NOTEBOOK, August, 1941.

THE BAUMER FOCUS  
Roger K. Willis

After work had been in progress on the Kincaid site for a short time it became apparent that in the river deposited clays under the Mississippi cultural deposit there were a few atypical sherds. In 1936 a pure site was found which produced these that were atypical to the sherd material of the Kincaid component.

The Baumer site was worked in 1936 and 1939. In 1939 and 1940 the Avery Lake component of the Baumer focus was worked in conjunction with excavations carried on at the Kincaid site.

The material Culture of the Baumer component is rather scanty in quality if not in quantity. Pottery, is coarse, clay or grit tempered (usually limestone) Fabric impressed (at least 70%); form, is flat bottomed with flaring sides which become smaller above the shoulder and either an excurving or in curving rim. Decoration, when present, is on plain surfaced sherds and is incised, single cord impressed, or punctate. The stone work is crude in the chipped types which have generalized Woodland shapes. There are a few ground stone axes and problematical pieces. Houses are square with posts set in holes, not trenches, and with no internal fire pits. Storage pits are common and of all sizes. Burials are probably flexed with no grave goods. The Avery Lake component bears out all these traits except the house type (none have been found) and adds one further trait; a roasting pit or very deep fire pit with a post hold on each side probably for forked sticks to hold a cross bar.

The Baumer focus seems to be related to the other fabric impressed pottery foci of the Southeast, and is at present the oldest pottery horizon in southern Illinois.

\* \* \* \* \*

A HOPEWELL SCULPTURED HEAD  
Richard G. Morgan

During the excavation of the Seip Mound (No.1), Ross County, Ohio in 1927, a sculptured human head was found. It was in a fragmentary condition and hence could not be

Society for American Archaeology, NOTEBOOK, August, 1941.

adequately described at the time the report on the site was written. Due to its unique character it has been considered worthy of a complete description.

The specimen, which was modeled from clay and then fired, is 81 mm. in height, 65 mm. in width above the ears, and 53 mm. in width from the point of the chin to the back of the head at the base. The chin is receding, the cheeks are broad, and the lips are full giving the appearance of a partly opened mouth. The back of the head is flattened and there is a decided tapering of the head toward the top which perhaps represents artificial deformation. The ears contain three perforations along their margins. Above the forehead there is an incised line and there are deep incisions curving upward and then downward behind the ears to the base. On top of the head there are two holes which may have extended through the object to connect with a circular opening in the base.

The specimen was found with a cremated skeleton and was associated with several miniature artifacts. The suggestion is made that the head may have been a part of a complete human figurine made of some perishable material. The opening in the base may have served for attachment.

This head which has just been carefully restored is one more noteworthy example of the high degree of skill achieved by the unrecorded craftsmen of the prehistoric Hopewell peoples.

\* \* \* \* \*

THREE WOODLAND ASPECTS OF NORTHERN MINNESOTA

L.A. Wilford

Woodland manifestations in Minnesota are divided into aspects primarily on differences in pottery decoration and burial customs. Pottery decoration is intaglio and falls into two fields -- (1) all-over decoration of the body, and (2) the decoration of the area near the rim. The following summary presents the principal methods of decoration:

Society for American Archaeology, NOTEBOOK, August, 1941.

### Body Area

- I. Plain or smoothed
- II. Cord-wrapped paddle impressions
- III. Net or mesh impressions

### Rim Area

- I. Impressions of various objects
  - A. Discontinuous Impressions (Punctate) --Usually in linear arrangement, which may border continuous lines, or may be used as panels or to fill spaces. Found so generally, not only in Woodland but in many Mississippi wares, as to seem the most basic type. Deep punctate marks may be used to produce bosses either internally or externally, aspect differences being found in the usage.
  - B. Continuous Line Impressions
    - 1. String Impressions
      - a. Single twisted cord. Present but not frequent in Minnesota Woodland. Most highly developed in the Mandan pottery, presumably non-Woodland.
      - b. Cord-wrapped stick. One of the most common types in Minnesota Woodland.
    - 2. Stamped Impressions
      - a. Common roulette-rectangular impressions in continuous lines. Transversely notched stamp. Found in some Woodland Aspects of Minnesota. Very common in Hopewell Phase.
      - b. Triangular roulette-stamp notched on one edge only.
      - c. Wavy line roulette-stamp alternately notched on both edges.
- II. Drawn or Incised Lines. Includes trailed lines. Present but not frequent in Woodland, but one of chief decorative types of Mississippi Pattern, and frequent in Hopewell Phase.
 

A special type of incised lines is found in the Headwaters Lakes Aspect of Minnesota, where fine vertical brushed or combed lines are used in the rim area as a background for the other decorative impressions.

Society for American Archaeology, NOTEBOOK, August, 1941.

III. Push-and-pull Bands. A combination of impressions with motion to form continuous bands.

Three aspects in central and north central Minnesota show distinct differences in pottery decoration and burial customs. These are as follows:

Rainy River Aspect: Body area plain. Rim area decorated with all three roulette types, punctate, and with push-and-pull bands. Punctate bosses on exterior. No cord-wrapped stick. Dismembered burial in mounds. Stemmed projectile points.

Headwaters Lakes Aspect: Body area with cord wrapped paddled impressions. Rim area decorated with cord-wrapped stick and punctate, usually over combed background. Bosses on interior. No stamped decoration. Primary burial. Triangular projectile points predominate.

Mille Lacs Aspect: Body area is cord-wrapped paddle or plain. Rim area has both cord-wrapped stick and stamped lines, with punctate. Bosses on exterior. Burial is secondary bundle burial in mounds. Both types of projectile points.

The older sites have high percentages of stemmed points and of plain body sherds. Triangular and wavy line roulette and push-and-pull bands are present. More recent sites have high percentage of triangular points and of cord-wrapped paddle impressions on bodies of vessels. Common roulette common, triangular or wavy line roulette absent.

\* \* \* \* \*

#### NOTES ON CHRONOLOGY IN SOUTHERN ILLINOIS

John Bennett

Southern Illinois seems to have been an area archaeologically marginal to both the southeast and the northwest. At Kincaid a basically southeastern picture is presented, with the three components (Baumer, Lewis, and Kincaid) finding their closest relatives in the lower and middle Tennessee River

Society for American Archaeology, NOTEBOOK, August, 1941.

Valley, where they are represented by the limestone, clay-grit, and shell tempered horizons.

In the Carbondale regions, north of Kincaid, this same southeastern sequence is encountered, but here it is modified and interrupted by northern cultures: namely, an Illinois Hopewellian intrusive in the Baumer-like horizon, and a late Mississippi-Woodland blend preceding the Mississippi horizon.

Still farther north, the typical central Illinois (Fulton County) sequences take over, the southeastern influences apparently dying out, but possibly generically represented in the Baumer-like horizon by the Red Ochre Culture.

A comparative analysis of the cultural relations of these Illinois sequences with the Southeast, Cahokia, Ft. Ancient and other regions and cultures establishes a relative chronology that agrees well with current concepts of time in both the north and south. There is some indication that the three horizons at Kincaid appeared there later than elsewhere on the Tennessee River, however.

For example, the Kincaid component is tentatively considered as rather early "protohistoric" (ca. 1575-1625), having appeared in the area relatively late, and enduring a comparatively short time - in contrast to the southeastern horizons of comparable culture.

\* \* \* \* \*

#### THE BROKEN KETTLE AND KIMBALL VILLAGE SITES

Charles R. Keyes

The Broken Kettle focus of the Hill Creek aspect, to which belong the Broken Kettle and Kimball components, does not yield readily to further classification as to phase. While clearly belonging to the Mississippi pattern, the traits are a strange mixture of features belonging to the Upper and Middle Mississippi phases. The large and small pottery vessels with flaring rims or vertical collars, and rather low bodies with rounded bases; the many implements of bison bone and horn, including fleshers, hoes, and scapula digging tools; the shallow milling stones of

Society for American Archaeology, NOTEBOOK, August, 1941.

Sioux quartzite; these suggest the farmer. The rectangular houses of rather light construction; the shallow basins and bowls with effigy handles, the numerous ornaments made from marine shells suggest the latter. A further complication are the secondary burials and the notched and barbed projectile points, which may be borrowings from the Woodland.

\* \* \* \* \*

A PRELIMINARY SYNTHESIS OF EASTERN UNITED STATES

ARCHAEOLOGY

James B. Griffin

The archaeological cultures in the area east of the Rockies can be considered from the standpoint of at least four successive major chronological levels. The evidence for such an arrangement varies from area to area and from definite stratigraphy to comparative typology. There is considerable latitude in each of these levels throughout the general area and sites typologically belonging to one level might persist in an area after the beginning of the succeeding level in another region. The earliest cultural level is represented by the non-ceramic zones of the shell middens of Florida, Georgia, Alabama and Kentucky, and the lower levels of the Archaic and Laurentian aspects in the northeast. The second level is characterized by the appearance of pottery and presumably by early agriculture. The fiber tempered pottery bearing sites of the southeast, Tchefuncte and the related sand tempered Alexander series of northern Alabama, early Adena and the stone mounds of the Ohio valley, the Round Grave people and Baumer, Red Ochre, Glacial Kame and Morton focus, early Effigy Mound, Signal Butte I and early Woodland of the Plains, and the late levels of the Archaic and Laurentian, and the Middlesex and Orient foci of Vine Valley. The third general level is the Hopewellian-Marksville-Copena-Swift Creek stage. Some Adena sites in Kentucky may have continued into this period. It is the ceremonial and classic development of the early Woodland cultures. The Mississippi Pattern spread constitutes a more drastic cultural shift than anything which came before and apparently overran the Mississippi Valley

Society for American Archaeology, NOTEBOOK, August, 1941.

in less than 200 years. Assuming that this last major level began to develop around 1500 plus or minus 50 years, Hopewellian-Swift Creek would be from 1100 to 1450, and Adena-Tchefuncte from 900-1100. The earliest level is simply before Adena some hundreds of years.

\* \* \* \* \*

THE RELATIONSHIP BETWEEN ARCHAEOLOGICAL CULTURES  
AND PHYSICAL TYPES IN THE EASTERN UNITED STATES

Georg K. Neumann

In this paper I have listed the diagnostic complexes of morphological attributes of three primary and two secondary physical types that contributed to the racial history of the American Indian of eastern United States. These types were followed through four archaeological horizons: the first, characterized by the extensive pre-pottery shell middens and the Archaic aspect, dating roughly to 900 A.D.; the second, comprising the cultural manifestations with the early fiber and granular tempered pottery, tentatively dated as circa 900 to 1100; the third, including the Marksville-Troyville, Hopewellian, Swift Creek, Early Weeden Island, and Copena cultural groups, flourishing sometime between 1100 and 1400; and the fourth, dated as between 1400 and 1550 and noted as the period of greatest development of the cultural subdivisions of the Mississippi pattern. Two long-headed physical types make their appearance early and persist through to historic times. The first appearance of relatively round-headed groups falls into the second horizon, but these groups do not become dominant until the expansion of the Mississippi peoples. A theory of a trihybrid origin of the Plains tribes was also advanced.

\* \* \* \* \*