EASTERN STATES
ARCHEOLOGICAL FEDERATION

ALABAMA
CONNECTICUT
DELAWARE
FLORIDA
GEORGIA
MAINE
MARYLAND
MASSACHUSETTS
MICHIGAN
NEW HAMPSHIRE
NEW JERSEY
NEW YORK
NORTH CAROLINA
ONTARIO, CANADA
PENNSYLVANIA
QUEBEC, CANADA
RHODE ISLAND
VIRGINIA
WEST VIRGINIA

BULLETIN NO. 17

JANUARY 1958
CALL FOR HELP

The Research Committee concerned with producing a series of pottery type abstracts issued its first mimeographed publication in 1953. Since that time the project has lain essentially dormant. Much of the area of the Eastern States Archeological Federation is not yet represented in the published abstracts. If there is a continued interest in this project and need for it, the present Research Chairman will make plans to bring the project to completion.

Our problem is in knowing how much interest remains in the project. The Executive Board decided to "poll societies members" by way of this special announcement and to base future action on the project upon written response.
OPENING REMARKS

Baltimore Meeting—Nov. 9, 1957

By C. A. Weslager, President

This Annual Meeting, held in the 24th year of the Federation's history, has now been officially opened and I want to express our thanks to T. Latimer Ford, President of the Archeological Society of Maryland, and Thomson King, Director of the Maryland Academy of Sciences, for the words of greeting and their hospitality, for which Maryland is famous.

The Federation has had one previous meeting in Baltimore. This was held on October 19, 1935, at the Maryland Academy of Sciences, under the auspices of what was then its Archeological Section. There were 57 members and guests present at this meeting, representing the seven state societies which then constituted the Federation.

We have grown considerably since that time, and the Federation is now composed of 19 individual societies, representing 17 states and two of the Canadian provinces. It has been my earnest belief that archeological societies might be formed in South Carolina and Vermont during the present administration, which would give us complete representation of the seaboard states. To date, the hope has not yet been realized, although our Membership Chairman has been very active in this direction.

It is of particular interest that the Maryland Society, under whose auspices we are now meeting, is making splendid progress. It now can lay claim to its first chapter called the Northeastern Chapter, with headquarters in Cecil County. Your President addressed this new group at its September meeting in Elkton and can attest to the fact that it has a very enthusiastic membership and capable leadership under George M. Reynolds. The Maryland Society issued in July of this year the first edition of a new bulletin which deals with excavations at the Shepard site. This bulletin takes its place alongside a fine newsletter which the Society has been issuing regularly, and we want to extend our congratulations to its officers for this forward step.

At this meeting we are pleased to extend official greetings to three organizations which were accepted as members of the Federation last October at Trenton: namely, the Archaeological Association of Quebec, the Alabama Archaeological Society, and the Michigan Archeological Society. We hope their delegations all profit from the opportunity given them by our annual meetings to establish personal contact with professional and non-professional students from other areas. This forum for discussion of mutual problems which the Federation affords its membership is refreshing and stimulating, and has proved to be beneficial to those members who have availed themselves of the opportunity.

I have indicated to you that the 1953 meeting in Baltimore had an attendance of 57. When you compare this with the attendance at the Trenton meeting last October 27 and 28, you can realize how the interest in archology has expanded. Indeed, we reached an all-time record in attendance at a Federation meeting with 164 official registrants. Actually, the total attendance was considerably larger, for the voluntary letters and comments we received after the meeting I am sure that everyone felt his time was well spent, and I feel certain that the program to be presented today and tomorrow will elicit the same type of favorable response.

At this time it is appropriate that I make reference to the splendid work done by Dr. Dorothy Cross, our Program Chairman, in planning the agenda for this meeting, and to Mrs. Kathryn B. Grewezcz, our Corresponding Secretary, for the preliminary announcements which, incidentally, were mailed earlier this year and contained more details about the program than in the past. These two officers have devoted many hours to Federation business during the year, as they have in past years, and we are all deeply indebted to them.

At 9:30 sharp tomorrow morning, we will open our Business Meeting in the Caswell Room in the Lord Baltimore Hotel. The present administration has pursued a policy of devoting adequate time at the annual meetings to our business affairs and encouraging active participation by all member societies. At this Business Meeting each society will make its individual report by its official Representative and he will file a longer written report which will be published later in our Bulletin. At the same time, the Officers and Staff Chairman of the Federation will make official reports on progress in their various departments. We have arranged the program so that there is no other activity at the time the Business Meeting is being held, and I urge all of you to find a way of attending this important session. It is restricted to six delegates from each society, any member of the member group is free to attend and may speak on any issue that comes before us.

Following the Business Meeting, at 11:00 A.M., we have scheduled a Workshop Panel discussion relative to local society problems. This was a new feature on our program last year which proved to be of extreme interest and practical value to the member societies. In scheduling a similar workshop this year, we feel that we are taking another step in the direction of helping the member societies on questions relating to use of funds, publicizing their activities, holding meetings, and increasing membership.

Next year marks the Silver Anniversary of the Federation, and our Annual Meeting will be held in Wilmington, Delaware, on November 8 and 9, and under the auspices of the Delaware Society, one of our charter members, also celebrating its 25th anniversary. We expect to plan the program so that this 25th milestone in the Federation's history may be celebrated in a manner befitting the occasion, and invite you all to be present.

MINUTES OF THE ANNUAL MEETING

The 1957 Annual Meeting of the Eastern States Archeological Federation was held Saturday and Sunday, November 9th and 10th, at Baltimore, Maryland.

Registration for members and guests began at 9:00 A.M. at the Enoch Pratt Public Library.

A. Weslager, President, opened the general meeting at 10:00 A.M. by introducing "T. Latimer Ford, President of the Archeological Society of Maryland, who welcomed the delegates and guests. Mr. Ford then presented Thomason King, Director of the Maryland Academy of Sciences, who briefly described the work of the Academy, founded in 1797, and said it was the oldest institution for continuous scientific work in America. Mr. King also explained how proud the Academy was of its offspring, the Archeological Society of Maryland. In referring to "time," with which all are concerned, he said that only the past was real, solid, and valuable. In our meeting, Mr. Weslager then presented his opening remarks which are printed on page 3 of this bulletin.


An informal dinner was held at 6:30 P.M. in the Caswell Room of the Lord Baltimore Hotel. After a few words of greeting, Mr. Weslager turned the program over to Mr. Ford who introduced Allen C. Davis, President of the Maryland Academy of Sciences. Mr. Davis described the various sections of the Academy including the former archeological one which had been recently reactivated as the Archeological Society of Maryland. The Red Shield Boys Club then presented a number of Indian dances including the Scalp Dance, the Hoop Dance and the Blackfeet Medicine Pipe Dance. The main address followed with John M. Coryn, Staff Archaeologist of the National Park Service, speaking on "Archaeology in the National Park Service." The Business Meeting was opened by C. A. Weslager, President, at 9:30 A.M., on Sunday, October 10th, in the Caswell Room of the Lord Baltimore Hotel. The minutes of the Trenton meeting, October 27 and 28, 1956, were accepted as printed in Federation Bulletin No. 17.

For the Executive Board, Dorothy Cross, Recording Secretary, recommended the meeting at large that the membership dues of the Federation be continued as of last year with a $7.50 minimum for
societies of 100 or less members and $7.50 for each additional 100 members or fraction thereof; that Don Drago had been appointed Assistant Treasurer for the coming year because James L. Swauger, the Treasurer, may be out of the country most of the time; that the 1958 Annual Meeting was held Saturday and Sunday, November 8 and 10, at Wilmington Delaware.

Kathryn B. Greywacz, Corresponding Secretary, reported that she had handled the typing, mimeographing and mailing of special Federation Bulletins to the state Secretaries and the Executive Committee during the year, the annual meeting correspondence and follow-ups, inquiries, and general correspondence. Arrangements were made for the printing and distribution of Federation Bulletins and copies of the program and abstracts of the present meeting were prepared for printing and distribution in bulk to the Secretaries of the state societies. Sales of Bulletins and the Bibliography were handled and all receipts were turned over to the Treasurer. The Directory of the Federation membership was revised at intervals, and the Executive Committee and State Secretaries were notified as changes were reported.

James L. Swauger, Treasurer, reported a cash balance on hand of $203.52 as of October 22, 1957. Receipts during the year included $335.00 from the sale of 100 copies of the Delaware Society's 1957 Annual Meeting, $228.00 from registrations at the 1956 Annual Meeting, and $227.55 from the Archeological Society of New Jersey. Expenditures included printing and distribution of Bulletin 16 ($335.59), 1956 Annual Meeting announcements and programs ($66.00), letterheads and envelopes ($56.75), purchase of stamps ($3.00), Annual Dinner charges ($427.00), other 1956 Annual Meeting expenses ($18.90), bank service charges ($0.24), and bank service charges ($5.05).

William J. Mayer-Oakes, Research Chairman, reported that during the year a number of inquiries were made regarding the nature of desired research projects for the Federation and the decrease in the number of these possibilities were considered and four areas of interest have been selected for intensive effort in the coming year. These areas are: (1) Production of a standard scale for use by individual members in photographing artifacts in the field; (2) Preparation of a list of all radiocarbon dates containing to the Eastern States Federation area; (3) Investigation of the problems of projectile-point-typology standardization in the Eastern States Federation areas; (4) Preparation of a list of all radiocarbon dates containing to the Eastern States Federation area; (5) Investigation of the problems of projectile-point-typology standardization in the Eastern States Federation areas; (6) Continuation of the ceramic abstract project if there is the necessary amount of member response. Members of Federation societies who are interested in any of these projects are requested to contact the Research Chairman. He is anxious to find individuals willing to become members of a working Research Committee.

Frank Glyn, Editorial Chairman, reported that John Witthoff had continued his work on the supplement to the Bibliography. The annual Bulletin appeared. Particular thanks were due Dorothy Cross for carrying out the major part of the editorial process. A number of suggestions were made, some of which were acted on, and it is hoped possible other publications were investigated. Improvement of the Bulletin, while physically feasible, was contingent on available funds.

Arthur G. Vukman, Chairman of Public Relations, reported it was not possible for him to attend the following meetings. The Alabama Society sponsored a glossy print illustrating several birdstones. This series consists of four cards, which are mounted on heavy cards which can be folded to early Virginia for inclusion in James 350th Anniversary Historical Booklet. The Western Society has received extensive publicity concerning mounds between Moundsville and New Martinsville. Science News Letter, October 26, published the opening ceremonies of the Welcome Mound at Natrium under the direction of the Smithsonian Institution. College students were invited to the Annual Meeting at Wheeling College and some of them attended. The Rev. Clifford M. Johnson reported the annual meeting at Wilmington.

J. Alden Mason, Membership Chairman, regretted to report that there are no applications this year for membership in the Federation

Considering correspondence was had with individual archeologists in Vermont and West Virginia, urging the formation of state archeological societies in these two states, the only ones in the east that still lack such an organization, but without success. No attempt was made to interest or to organize such societies in the states to the west, or in the provinces of Canada.

Alfred K. Guth, Exhibits Chairman, said that a special exhibit dealing with archeology in Maryland can be seen in the exhibit hall of the Maryland Academy of Sciences located on the second floor of the Enoch Pratt Library on Cathedral St., Baltimore. Arrangements for this were made by T. Latimer Ford. Of particular interest are the disturbed points from Maryland and the Adena traits found at the Sandy Hill and West River sites in Maryland. In addition to this activity, Dr. Guthie said he has prepared and started the circulation of a series of photographic slides illustrating several birdstones. This series consists of four 8" x 10" glossy prints and short labels discussing their possible function, antiquity and geographic distribution. The materials of which these are used were Namibia, South Africa, North and South America. The photographs and labels are mounted on heavy cards which can be mounted separately or viewed as a booklet. There are two copies of this booklet. To date, this has been sent to the members societies in Connecticut, Delaware, Massachusetts, New York and Pennsylvania. Each
society is asked to send this to another society after they have displayed it. Certain complications have arisen since the number of meetings held by member societies varies and some consist of chapters. It is urged that reports be done for a reasonable period of time so that it may be seen by all groups. The response to this effort has been gratifying. Because of this, a second series is being considered. Suggestions are invited from the membership.

All of the above reports were presented.

Mr. Weslager then appointed H. Geiger Omwake to serve as Public Relations Chairman in place of Arthur G. Volkman, who resigned. He also named the following to the Nominating Committee: Sigfus Olafson, Chairman; Elwood S. Wilkins, Jr., and J. Alden Mason.

The reports of the state societies by their Representatives were then presented. These are printed separately in the Bulletin.

The Business Session was brought to a close at 11:05 A.M. About sixty persons attended this session.

A workshop panel discussion concerning four specific problems confronting local societies was held with James L. Swauger as moderator. His summary is as follows.

The subjects and discussants were: "Use of Funds," Sigfus Olafson, President of the West Virginia Society; "Publicizing Activities," Charles F. Kier, Jr., President of the Delaware Society and Vice President of the New Jersey Society; "Best Types of Meetings," T. Latimer Ford, President of the Maryland Society; and "Increasing Memberships," P. Schuyler Miller, Past-President of the Pennsylvania Society. After each subject was discussed, a show of hands was taken. In the meeting the point, comments, additions, and suggestions from the floor and the panel were obtained. Fortunately in having a small museum as a Society function, the West Virginia Society's treasury rejeques in moneys from admission charges to its museum and from sales of souvenirs at the museum to augment dues from its members. It maintains a comfortable bank balance but spends money on publications, meeting expenses, and excavation. Speakers from the floor and the panel spoke about fund-raising operations of their organizations. No other uses for funds were mentioned than those discussed by Mr. Olafson. Success has attended the New Jersey Society's efforts to publicize activities ever since a representative for each county was appointed to make certain that the reports of the state societies are circulated to local societies. Special meetings and activities of state-wide import are handled through the State Museum. Exhibits at county and state fairs present Society interests and accomplishments to thousands of persons. Radio stations are pleased to have spot announcements of Society affairs for use as fillers in their programs. The same is true of television stations, and a television series conducted by a New Jersey member has been instrumental in initiating interest. The Society's program of having available a slide library and a handbook for organizations has been fruitful as a publicity technique. Mr. Kier said that a program of feature articles on local archeology, to be presented in newspapers in Delaware, had been accepted and was expected to bring good results. Remarks from the floor and the panel reminded the audience that there were occasions on which publicity was not advisable, for instance while a site was open and beckoning unwelcome diggers. There was general agreement on this point. Experience of some members proves that this situation can be alleviated by the technique of having explanatory material at the site to inform the public of the reason for the excavation and the reason why unauthorized persons are requested not to dig. It was agreed that the local situation and the particular activity involved should determine the kind and amount of publicity to be sought. The Maryland Society's experience with types of meetings proved that these kinds were particularly attractive to members: a guest speaker of stature in his field, a round-table discussion of specific problems in archeology, and motion pictures. A joint field trip by Mr. Forrester and remarks from the floor and the panel indicated that this experience is common to all societies represented. The workshop sessions that have been held by several societies have proved most attractive, but these require special conditions not available to many groups. When it comes to increasing membership, the Pennsylvania Society has found two techniques that are eminently successful. The first is that of personal attention being given by an officer of the Society to a prospective member, a new member, or even an old member who instructors or makes a request. It is a potent factor in gaining and holding members. The second important technique is that of a vigorous publication program including both State and Chapter Bulletins and News Letters. The floor and the panel agreed with Mr. Olmsted; in this case, as in all other ideas, as well, came from the general discussion. Attractive programs have often lured prospective members to meetings at which they were approached and given information about the Society and the opportunity to join. It is suggested that the bulletin be made of mailing lists of persons likely to be interested in the purposes of the various societies and then circulating letters of information and invitation would probably result in favorable replies. This technique had been tried on a limited scale by some societies and had proved successful. The consensus of the panel and the floor as summarized by the moderator was that unusual and a few unusual techniques for coping with the four problems had been discussed. It was apparent that the problems were not discrete items in a Society's existence but were intimately related. Vigorous and sensible protection of any one of them always has a favorable effect on the others.

The General Meeting was resumed in the Baltimore Museum of Art Auditorium at 2:15 P.M. with John Wiltzoff presiding. Six papers were then presented:

1. "Level - Time - and Coastal Archeology in the East," by George F. Carter, Johns Hopkins University, Baltimore, Maryland; "Some Lithic Sources in Cecil County, Maryland" (illustrated), by Elwood S. Wilkins, Jr., Archeological Society of Delaware; "Ceramic Relationships at Potomac Creek," by Carl Manson, Archeological Society of Maryland; "The Rif Site: An Influence from Pennsylvania" (illustrated), by Thomas Mayr, Archeological Society of Maryland; and "Archeology at Jamestown" (illustrated), by John L. Cotter, Regional Archeologist, National Park Service; "Williamsburg Textbook of 18th Century Archeology," (illustrated), by Ivo Odell Hume, Chief Archeologist, Colonial Williamsburg, Williamsburg, Virginia.

It was voted to extend appreciation and sincere thanks to the Archeological Society of Maryland and the Maryland Academy of Sciences for their cooperation and hospitality.

The meeting was adjourned at 4:25 P.M. A total of 121 members and guests attended the meetings. The 113 who registered were from the following areas: Connecticut - 5, Delaware - 9, Georgia - 1, Maine - 1, Maryland - 34, Massachusetts - 4, New Hampshire - 2, New Jersey - 15, New York - 7, Pennsylvania - 25, Virginia - 7, Washington, D.C. - 1, Ontario, Canada - 2, Colonial Williamsburg - 1.

Respectfully submitted,

DOROTHY CROSS
Recording Secretary

REPORTS OF THE STATE SOCIETIES

Alabama - Frank J. Soday reported that the Alabama Archaeological Society has 100 members.

The society has two chapters: Morgan-Limestone County Chapter and Madison County Chapter. The Morgan-Limestone County Chapter held ten meetings during the year on a monthly basis, while the Madison County Chapter held twelve meetings on the same basis. Two additional chapters are in process of formation.

The programs presented during the year included a number of local and out-of-state speakers, and covered a wide variety of subjects. All cultures present in the area, from Paleo-Indian to Historic, were discussed, and several papers on archeological methods and procedures were presented. The annual meeting is held in December of each year, and consists of a business session and the presentation of papers.

The work of the society is co-ordinated with that of the Birmingham Anthropological Society and the Tennessee Archeological Society. A substantial number of members of the Alabama society are also active members of these societies.

Two issues of the Alabama Archaeologist were published during the year. In addition, a number of articles by members were published in the Tennessee Archeologist.

The majority of the members are active field workers, and emphasis is placed on the "collecting, numbering, and recording procedures. Active site survey projects are under way, particularly in the northern section of the State, and several hundred sites have been mapped and recorded. Extensive field work is being carried out along the Tennessee River, where periodic rising and lowering of the water level by the TVA dams provides unusually favorable conditions for surface hunting. Several hundred sites are being systematically explored in this manner. A substantial amount of salvage digging also is in progress to recover burial mounds of a different kind and exposed by the water action. Several caves and rock shelters have been investigated, as well as the Site of Copena and other mounds. A rock shelter now being excavated contains early Archaic, and possibly Paleo-Indian, materials. Remains of the Pleistocene bear have recently been located in a cave in the northeastern part of the State. Several members have been locating and photographing petroglyphs.

Major emphasis is being placed on the Paleo-Indian problem, and a large number of sites have been located. Several are quite large, producing thousands of artifacts. Two of the members have been working...
on a comprehensive report on the Paleo-Indian during the past three years. Several thousand artifacts, including over 500 projectile points, have been classified, measured, weighed, and photographed. Some 65 different artifact types have been identified. The report is scheduled to be completed next year and will list statistical and other data on Paleo artifacts in the Tennessee Valley.

In cooperation with the Birmingham Anthropological Society, a television program "Souls and Bones" is broadcast from Birmingham over Channel 10 every Thursday evening. This program was initiated on June 6, 1957. A museum exhibit of artifacts typical of the cultures found in the area is maintained at Huntsville. Archeological exhibits have been prepared for state and local fairs.

Irving Rouse reported that the membership of the Archological Society of Connecticut has fallen somewhat during the year. It now numbers about 270. There are five chapters: in Danbury, Hartford, Middlesex, New Haven, and Niantic. Both the Danbury and Niantic chapters are dormant at the moment. The Hartford Chapter was revived last year and now has a membership of 40 people. It carried on excavations in three rock shelters, one of which yielded 400 artifacts. The Niantic Chapter has limited itself to indoor meetings during the winter time. Its membership remains about 20. The New Haven Chapter is continuing its perennial excavations at the Grannis Island site. The membership in this Chapter has grown to 44.

The Archaeological Society of New Jersey, under the direction of Robert B. Suggs, has placed on file. The Research Committee is sponsoring a project to record Indian place names. Well over a thousand names have been recorded and placed on file. The Committee does not sponsor field work, this being left to the chapters.

The Society has appointed a committee to inquire into the possibility of establishing a post of State Archaeologist. There is a real need for such an appointment, since Connecticut lacks a State Museum and there is no archaologist on the staff of the State University. There have been two excavations in the State and vicinity not directed by the Society: A State Library Project under the direction of Mrs. Eva L. Butler, did salvage work along the Nook-Fort Hill Highway in New London County. A group of Brown University students under the direction of Professor I. L. Gillies has been excavating a rock shelter discovered by Mrs. Butler just over the Connecticut-Rhode Island border. Finally, it may be of interest to note that Robert Suggs, of Columbia University, has obtained a radiocarbon date of 650 B.P., i.e., 1500 A.D., from his excavation at the Greenwich Point site, which belongs to the Glenora Point Focus.

Delaware — Elwood S. Wilkins, Jr., reported that the Archaeological Society of Delaware now has 121 members, an all time high. There has been an appreciable increase in the number of sustaining members which helps to finance our activities.

Since the last report five public meetings have been held with talks being given by the following speakers: "A Preliminary Report on the Minguannan Site," by Elwood S. Wilkins, Jr.; "The Overpeck Site," by John Wittich; "Problems of Lower Delaware Valley Archeology," by Jacob W. Gruber; "Recent Excavations of Delaware Indian Sites in New Jersey," by Dorothy Cross; "The Delaware Valley Flint Point Survey," by Ronald Mason; "Effect of Environment of Indian Art and Religion," by William A. H. McGough.

Five numbers of "Inkblots" have been distributed but our Bulletin is still in the hands of the printer.

Members of the Society assisted in the "Science Day" conducted by the Wilmington Board of Education and supported by the Delaware Historical Society. Christopher Bonsen and thirty outstanding high school students from Delaware and the surrounding states attended a series of field trips and lectures on various subjects.

A slide library has been started. The "Epic of Man No. 1" has been purchased from Life and mounted for projection. The balance of the Life series will be purchased during the coming year. These slides are available for school organizations, preferably with a speaker from the Society accompanying them.

The excavation at Minguannan is now in its third season. The work has been slowed this past summer due to the hardiness of the soil because of the drought.

Members and friends enjoyed a field trip to the restored colonial iron village of Batsto, New Jersey on October 6. The group then visited the late Judge King's Museum at Toms River, New Jersey.

After a long period of storage under very unsatisfactory conditions at the University of Delaware and in members homes, the Society is now in the process of moving its possessions to an excellent location at the Walker's Bank Mill of the Eleutherian Mills-Hagley Foundation. This is along the Brandywine Creek just outside Wilmington and near the fine new Museum of the Foundation. The Society is proud of the small part it played in assisting the Indian exhibitors.

The Archibald Crozier Memorial Award was bestowed upon Charles F. Key, Jr., at our Annual Meeting on June 22, 1957. The award is a suitably inscribed plaque and is given to a member of the Society for distinguished service to Archeology during the preceding year. This award is believed to be unique in its field.

Florida — We are pleased to report that the Annual Meeting of the Florida Anthropological Society was held at Rollins College, Winter Park, Florida. It consisted of an all day meeting with a banquet luncheon. The morning session was devoted to a roundtable discussion on the present status of Florida Anthropology and the following papers were presented: "Accomplishments and Opportunities in Florida Indian Ethnology," by William C. Sturtevant; "Accomplishments and Opportunities in Florida Archeology," by John M. Goggin; "Archaeological Relationships of Florida with the Antilles," by Irving Rountree; "The Status and Problems of Linguistic Research in Florida Anthropology," by Julian Granberry; "Highway Salvage in Florida," by William H. Sears; "Summary Remarks," by Charles H. Fairbanks. The afternoon papers and speakers were: "Migration of the Apalechee into the Southwest," by James W. Grimes; "Diving in the Canoe of Dzibilchaltun, Yucatan," by David Conkly and Whitney Robbott; "Origin of the Glade Cross Mission," by Charles W. Tebeau; "The Importance of Faunal Remains from Archeological Sites," by Wilfred T. Neill.

Many members of our Society have been very active in archeological salvage work in order to preserve information from sites that were in danger of being destroyed by various public and private construction projects. The society of the Chapter of Florida Anthropological Society has been exceptionally busy recording and excavating sites which were in danger on account of highway construction and other similar projects.

The State of Florida has taken a great stride forward in the preservation of its archeological information by the Governor of an Archaelogical Advisory Board to work in conjunction with the State Road Department in order to determine if any archeological sites of importance were in danger of being destroyed. If any sites were found to be in the path of construction, the Board has called upon various members of the Society for volunteer help in order to determine the contents of the site. The program in its first year of operation has been successful. Our plans for the future include the continuation of this very essential work. Most of the important excavations during the past year have been previously reported in the Florida Archaeologist.

Maine — Eva L. Butler reported that the Annual Meeting of the Maine Archaeological Association and the Robert Abbe Museum was held at Bar Harbor, July 17, 1957. Sixteen members were present.

Wendell S. Hadlock gave a paper on the group-sponsored survey of various lake sites and the watershed of the St. John River Basin. He stated that an article describing his finds is almost ready for publication. It was voted to publish this along with a summary of the ethnographic field work of early explorer's narratives found in Maine. This account, prepared by Mrs. Eva L. Butler, seems to substantiate, in addition to the important excavations and theethno-history as found in early explorer's narratives.


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all members of the Association and given to Museum visitors. The previous leaflets included descriptions and illustrations of stone points, bone artifacts and birch-bark specimens in the Museum. The proposed leaflet for 1958 will be a brief summary of Red Paint culture traits as found in Maine, illustrated with drawings of the Museum specimens.

A copiously illustrated seventy-five page Bulletin, an elaboration of a paper given by Butler and Hadlock before the American Association for the Advancement of Science, on Birch-bark and its Use is now in press and will be ready for distribution to members within a month.

**Maryland**—T. Latimer Ford reported that the membership of the Archeological Society of Maryland was 82.

The Society held monthly meetings with the exception of December. In addition to talks and round-table discussions by members, the speakers and subjects were: Dr. Clifford Evans and Dr. Betty Meggers, who described their recent expedition to the headwaters of the Amazon in Ecuador and Brazil; Frank Setzer, who spoke on the location and excavation of the Colonial town of Marlborough in Stafford County, Virginia; Paul E. Desautels, who discussed General Geology as applied in Maryland; John Vitthoff, who spoke about the archeological history of the Susquehannock Indians.

Newsletters were published monthly throughout the year and the first Bulletin, a report on the Sheeped site, is finished and will be published before the November meeting.

No field work has been done as a Society project. Field surveys are being conducted toward finding a site suitable for a Society effort.

The Society will begin to publish a newsletter which will be distributed with the Bulletin. The first issue will be in May. The newsletter will contain reports of field surveys and any other archeological news.

**Massachusetts**—Eugene C. Winter reported that there were 314 members of the Massachusetts Archeological Society eligible to receive publication.

A Semi-Annual Meeting was held in April and an Annual Meeting in October. These meetings consisted of a Business Session in the morning, a Research Session in the afternoon at which papers were presented by members, and an Evening Session at which outstanding speakers were featured.

The Society continues to maintain and operate the Bronson Museum in Attleboro. Here, the general public, as well as the members, may view and study the results of local field work. Important exhibits are being added continually. An axe mounted in the original wooden haft and a dish of restored pottery are the most recent additions.

The Education Committee of the Society will continue to offer a course in archeology during the winter months. The Bulletin is published quarterly and contains papers of historical, ethnological and archeological interest. In January, 1958, an index covering volumes one through seventeen will be distributed.

Eleven regional chapters carry out most of the activities of the Society and hold monthly meetings throughout most of the year. Speakers and projects concerning local archeological problems are featured. Organized field work was carried out by most of the chapters during the summer months.

**Michigan**—Ira W. Butterfield reported that the Michigan Archeological Society now has 235 members.

The State Society held one Annual Meeting for business and program, and the six chapters held meetings varying from monthly to quarterly. The Michigan Archeologist, a quarterly, multilithed paper, size 8½ x 11, is presently running about 105 pages per year.

With a small grant from Cranbrook Institute of Science, Bloomfield Hills, Michigan, the State Society assumed responsibility for work on the potteries in Sanilac County. A contour map was made and test excavations were sunk with negative results. By using very low angle lighting from a single Coleman gasoline lantern, some previously undiscovered carvings were brought to light and photographed.

Members of Central Chapter have been excavating a mound under the supervision of Michigan State University personnel. This is associated with an undisturbed village site that is to be excavated. Southeastern Chapter members have made week-end excavating at the Barron Lake site, and George R. Fox, one of their number, is completing a detailed survey of sites in Cass County, making a house to house campaign. Some Southeastern Chapter members have excavated near the Riviere au Vase site near Detroit, reporting significant finds in an area previously excavated to an insufficient depth. Members of the Wright L. Collinsberry Chapter, near Grand Rapids, have continued excavating the Spring Creek and other village sites and mound groups and have conducted monthly field trips in good weather. The members of the Saginaw Valley Chapter have continued work on a group of earthworks, finding in one undisturbed area the post molds of nineteen lodges in a circle. The definition of this site and its uses is now in press and will be ready for distribution to members within a month.

**New Hampshire**—Colonel George L. Prindle reported that the New Hampshire Archeological Society is growing both in numbers and activities. At Annual Meeting held on October the 17th, 1958, the membership of all classes had reached 101, and still applications are coming in.

There is but one general meeting a year, held on the third Saturday in October. This year we celebrated our tenth anniversary. The Society was formed by a small group of men in Manchester on November 29, 1947. I am sure that very few of our members knew or realized that we had lived so long. At this Annual Meeting the constitution was amended, changing the age for active membership from 21 years to 18. We considered that youngsters of 18 were equally as qualified for the Society as those who had reached their majority, and might be encouraged to join and participate fully in the activities of the Society including voting.

There are now two chapters: the Monadnock Region Chapter, organized in the summer of 1956, and the Seacoast Region Chapter, voted in at the last Annual Meeting. The application of the Society for exemption from the Federal Income Tax has been approved by the Commissioner of Internal Revenue. The members have been encouraged to hold meetings for educational and scientific purposes, and that approval was not extended to the chapters. We are now working on a plan whereby we hope to have the chapters exempted also. The Society has applied for incorporation under the laws of New Hampshire. This is now in process.

Publications this past year have consisted of one issue of The New Hampshire Archeologist, one Newsletter, and the first two installments of a Guide Book on Field Archeology. This latter is also called a Field Manual. It consists of mimeographed sheets of instruction and forms to be filled in, and is enclosed in a dark blue cardboard binder. As new installments are written they can be added to the book. It is being written by Howard Sargent, Vice President of the Society in charge of Planning and Research, and intended as a guide to all members engaged in site surveys, research of various kinds and actual digging. We believe it will prove of great value.

The Society has conducted three digs this past season. Two at Pickpocket Falls near Exeter, and one near Brackett's Point on the south shore of Great Bay in the town of Greenland. At the latter site, many fragments of pottery were uncovered and are now being studied and classified.

The members, Solon Colby, Meredith, is writing a book on the New Hampshire Indians. Another member, Chester Price, Alton, has a coming manuscript and map covering the Historic Indian Trails of New Hampshire. This latter will probably appear in the next issue of The New Hampshire Archeologist.

**New Jersey**—Charles F. Kier, Jr., reported that the Archeological Society of New Jersey now has a total of 593 members, a gain of 42 over last year.

Four regular meetings were held during the year in January, March, May and October. Outstanding papers were presented at each meeting. The January meeting was held at Centenary College, Hackettstown, with Dr. Ernest B. Dalton, Curator of the College Museum as guest speaker. Dr. Dalton spoke, on "The Museum on the College Campus, and a Description of the Archeological Collection of the College," by G. Wyckoff Cummins. The March and May meetings were held in the State Museum at Trenton. The March meeting featured Dr. Richard Stillwell, Princeton University, who spoke on the "Excavations at Sera Orlando, Sicily," John Witthoft, Chief Curator of the Pennsylvania State Museum, spoke at the May meeting on "Protohistoric Lenape Archeology." The Fall Meeting was held in the Court House of historic Salem, H. Geiger, Owmkele presented an illustrated paper on "A Synopsis of Archeological Investigations in Eastern Sussex County, Delaware."

During the year, Newsletters 38 to 41 and Bulletins 12 and 13 were issued. Due to heavy demand, it was necessary to have two reprintings of the pamphlets and portfolio Indians of New Jersey, by Dorothy Cross. The sale of Volume II of The Archeology of New Jersey has far exceeded expectations; only 44 copies of the deluxe edition, and 76 copies of the regular edition are on hand. Paperbound copies of Volume I were bound and 40 copies still on hand.

The State Museum and the Archeological Society take great pride in announcing that the author of Volume II, Dorothy Cross, has been singled out by the American Association for State and Local History for an award resulting in publication: The Archaeology of New Jersey, Volume II, The Abbott Farm.

The Society and the State Museum have been aware for many months of the impending damming of the upper Delaware River for
the purpose of flood control. During the summer, Ronald J. Mason of the University of Michigan and Field Archaeologist of the State Museum, with assistants, and under the direction of Dr. Coats, conducted site surveys and test pittings with emphasis on the area that will be inundated.

Artifacts used by the Indians for fishing were selected from the collections of Society members, the Pennsylvania State Museum, and the New Jersey State Museum for inclusion in the special Fishing Exhibition at the State Museum. This exhibit drew special comment from the Department of Conservation publication, New Jersey Outdoors.

The Unalachtigo Chapter, celebrating its tenth Anniversary, continued making exploratory trips in southern New Jersey and to the steatite quarries at Gap, Pennsylvania. The Chapter also enjoyed a family trip to the American Museum of Natural History in New York City. Its membership provided speakers for more than twenty church, civic and scout groups as well as various schools and other organizations. The Kodachrome Slide Library continued to be in great demand by the membership, and its active work will be continued.

Preliminary meetings for the founding of Essex County and Atlantic County chapters have been held.

More than 20,000 persons were attracted to special exhibits at several New Jersey fairs which were sponsored by the Society. These fairs included: the Sussex Farm and Horse Show; the Morris County Fair; the Somerset County 4-H Club Fair; the Flemington Fair and the State Fair at Trenton. In every instance, new members were attracted.

The lending library continued to be in great demand by the membership, and to schools and other organizations, is using the Kodachrome Slide Library.

New York — Mrs. Margaret Coon Bowman reported that the New York State Archeological Association has 390 members, an increase of 58 over last year.

One state-wide convention was held at the Rochester Museum of Arts and Sciences in April. The meeting consisted of a morning Business Session, an Afternoon session at which illustrated papers were presented, and a dinner meeting at which Dr. J. Norman Emerson of the University of Toronto gave a very interesting and amusing account of his excavations on the Dorset and Siderhart ruins at Tununiquit. Other papers presented were: "The Fenn-Taverna-Flint Collection," by Arthur George Smith of the Lewis Henry Morgan Chapter, Rochester; "The Paleo-Indian in the Northeast," by William A. Ritchie of the Van Eps-Hartley Chapter; "Preliminary Report of the Smith Site, Shelter Island, N. Y." by Roy Latham of the Long Island Chapter; "Observations upon Skeletal Material from an Early Ontario Iroquois Cemetery," by J. E. Anderson of the University of Toronto; "A Sequence of Oneida Sites," by Peter P. Pratt of Syracuse; "A Biography of Reverend Father Prendergast," by Alexander M. Stewart, Morgan Chapter; "Gannagares Lives," by Robert Graham; Morgan Chapter; "The Four Kings of Canada," by William N. Fenno, Member-at-Large.

In the past year eight Bulletins were published. There were no issues of Researches and Transactions, but a paper entitled "Late Prehistoric Occupations in Southwestern New York," by Alfred K. Gutsch, has been accepted for publication this year. A new publication to be called Occasional Papers of the New York State Archeological Association was authorized at the April meeting. It will be a vehicle for manuscripts of a less formal nature than those that appear in Researches and Transactions.

The Association has sponsored no field work of its own, but each of the six chapters has carried on its own field work and projects.

Ontario — G. Ruth Marshall reported by letter that the membership in the Ontario Archeological Society, which meets once a month except during the summer, numbers 60.


Incorporation of the Society under the laws of the Province of Ontario was finalized in December, 1956.

In addition to the regular bulletin, Arch-Notes, one publication was produced — a preliminary report on the Boyd site.

Special Papers of the Society No. 7, "Ladachin. F. T. Boyd Conservation Area, and a series of weekly lab sessions dealing with the analysis of skeletal material.

Members spent a considerable amount of time in active field work. This included 75 new members for the Boyd site, as well as participation in the joint University of Toronto-National Museum of Canada "dig" at the Ault Park site, the Royal Ontario Museum's excavations at Inverhuron and at the Serpent Mound, and in the investigations at Manitoulin Island by Thomas E. Lee, National Museum of Canada.

Future projects include a publication dealing with some of the field work of the Society.


Two publications were issued of The Pennsylvania Archaeologist, a double number (Vol. XXVI, Nos. 3-4, pp 125-195, December, 1956) and one single number, (Vol. XXVII, No. 1, pp 1-54, June, 1957). At the Annual Meeting, new members were attracted to special exhibits at the Ault Park Site, an Early Hunting and Fishing Station in the Lower Delaware Valley is anxiously awaited.

The Society now has nine active chapters: Allegheny Chapter No. 1, Pittsburgh; Southeastern Chapter No. 2, Philadelphia; Conestoga Chapter No. 4, Lancaster; Andaste Chapter No. 5, Towanda; Erie Chapter No. 6, Erie; Beaver Valley Chapter No. 7, New Wilmington; North-Central Chapter No. 8, Willsburg; Lower-Susquehanna Chapter No. 9, York; Susquehannock Chapter No. 10, Harrisburg; A petition should be forthcoming for the Wyoming Valley Chapter in Wilkes-Barre, with several more in process of formation. These chapters carry on their own programs and are quite active, especially with excavations in their respective areas.

Quebec — J. D. McCall reported by letter that the Archaeological Association of Quebec listed 60 active members in 1957.

Meetings were held at regular monthly intervals during the winter months at which invited speakers addressed the Association. During the year the speakers and their topics were as follows: "AAQ Field Activities," by W. B. Rice; "Archaeology in Ontario with special reference to Mesolithic, Indian Island," by Tom Radio Carbon Dating," by Dr. John Elson; "Prehistory of Ireland," by Prof. C. P. Martin; "Archaeology of the Firth River District Yukon Territory," by Dr. R. S. MacNeil; "The Ault Park Site," by Dr. J. N. Emerson; "The Lac Blanc Site," by Prof. H. E. A. Murray.

The Association had an active year in the field. The members assisted again this year in the excavation of the Ault Park site under the direction of Prof. J. N. Emerson of the University of Toronto.
Exploration of the Ottawa and Richelieu river valleys was undertaken with the location of several potentially important sites. A Point Peninsula site at Oka on the Ottawa River, located last summer, was fully investigated and a report on this will be issued shortly. The annual fall "digging" at Apponaug was very productive, was held at St. Andrews East on the Ottawa River. No publications were issued by the Association during the past year.

Special projects included a trip, sponsored by McGill University, into western Quebec by Drs. Bird, Lowther and McColl to investigate and a report on this will be issued shortly. The annual a reported Místassini Albanel-like site.

Exploration of the EASTERN STATES ARCHEOLOGICAL evidence seems to indicate occupancy during the first half, at least, of our former Apponaug site. The writer is directing excavation at this small site at the spring-source of Sweet-Meadow Brook.

Regular members - 147; Libraries and subscriptions - 16.

Eight meetings were held during the year with the following subjects and speakers: "3000 Years of London Archeology," by Ivor Noel Hume, Colonial Williamsburg; "The Poverty Point Culture," by Joseph H. Marsh; "Historic Significance of Salt Pete Caves," by G. Alexander Robertson; "Romance of Archeological Chronology and the Mound Builders and Who They Were," by Col. Jennings C. Wine; "Red Man in the New World — His Relations with the White Man," by Col. Jennings C. Wise; "Jamestown Festival Park," by Donald G. Herold; "John Smith’s Map of Virginia," by Dr. B. C. McCurry.

Two moving pictures in sound and color — the first telling the story of the history of the Grand Canyon, and the second The Saga of the Hopi Indians who still work the stubborn soil of the Arizona Desert, were shown at the meeting.

West Virginia — Eugene McIntyre reported that the West Virginia Archeological Society has 78 members.

The Annual Meeting, the only one during the current year, was held at New Martinsville, on October 26, 1957. Speakers were William S. Webb, Professor Emeritus of the Department of Anthropology at the University of Kentucky, Dr. Raymond S. Baby of the Ohio State Museum, Dr. Forrest M. Setzer of the Smithsonian Institution. The program was devoted entirely to the Adena culture, which is such a prominent feature of West Virginia archeology, and was concluded by a visit to the Welcome Mound, now being excavated under the direction of Dr. Setzer.

The Society has not officially engaged in any site excavation projects during the current year but did have some part in working on the arrangements leading to the excavation of the Welcome Mound. This mound, located on the Miami river, is a large mounded earthwork, 110 feet in diameter, stands in close proximity to the manufacturing plant of the Columbia-Southern Chemical Corporation and its removal is made necessary by projected plant expansion. This company agreed to finance the excavation of the mound if enough manpower personnel could be obtained in the person of some qualified archeologist. The Smithsonian Institution was approached and as a result the project is now under way with Dr. Setzer as the archeologist. The action of this company and its manager, Mr. C. E. Wolf, as well as that of the Smithsonian, is worthy of more than casual mention and it is to be hoped that their example will be followed by others. In the line of future activities the Society is working on a project involving the excavation of an Adena mound near Moundsville, in the summer of 1958. This mound is also slated for destruction by Industrial expansion. As planned now it is hoped that the Carnegie Museum of Pittsburgh will furnish an archeologist and the Society will furnish the labor and publish the report.

ABSTRACT OF THE PAPERS DELIVERED AT THE MEETING

PRELIMINARY NOTES ON HURON DENTITION
By JACOB W. GRUBER

During the summer of 1947, under the auspices of the Royal Ontario Museum, Kenneth Kidd excavated an ossuary in the Lake Simcoe area northwest of Toronto. On the basis of the artifacts in the pit and through an analysis of the historical sources, Kidd is convinced that this is an ossuary of the Western Branch of the Huron, residing in or around the town of Ososso in 1636. The skeletal materials would represent those whose death occurred during the preceding decade. Kidd’s estimate of 1000 individuals interred is, I think, too high. A more reasonable figure is about 250 which would translate into a living population of about 1000 individuals.

The fragmentary nature of the material lessens the successful use of anthropometric techniques: most of the mandibles available to emerge from a study of skeletal material of this kind — aside from a demographic description of the town — is a compilation of the incidences of various specific traits, both normal and pathological, for the various bones. Such a compilation would provide a base line, fixed in time as well as ethnically, against which comparisons could be made with other populations.

An analysis of dentition fits such an investigative pattern. The teeth, though generally stable, exhibit a number of anomalous characters, some of which are presumably genetic in origin, whose shifting incidences may provide significant clues to population differences. The teeth, more particularly sensitive to certain ecological conditions — notably food and disease — with which the genetically derived structure interacts. The present report deals with one such character — the ante-mortem loss of the permanent teeth — as an index of dental breakdown. Such loss occurs usually through disease either of the tooth or of the alveolar portion of the jaw and less commonly through injury. While the incidence of caries can also serve as a useful index of dental breakdown, the large numbers of teeth lost after interment make such a count of doubtful validity.

In this Huron population, 49 mandibles or half-mandibles were examined. Of these, 45 were adult and 4 sub-adult (i.e., the third molar was in the process of eruption). Of this sample, 52 or 65% had lost at least one tooth prior to death. The total tooth losses (extrapolated in the case of half-mandibles) was 19% of a possible 784 teeth for a percentage loss of 24.6 for the population. As usually occurs, the molar series exhibited the largest number of loss with no significant difference between the left and right.

These figures believe, as others have in the past, the myth of the perfection of aboriginal dentition. Data from scattered Amerind populations indicate that the Huron loss rate was relatively high. 65% as against 47.6% for Pecos, ca. 45% for Texas crania, and 50% for California crania. The difference may reflect the fact that the Ososso people had lived for over a century under contact conditions. The relative similarity between these widely separated populations is, however, interesting in view of the severe ecological differences under which they lived.

THE DEVELOPMENT OF ABORIGINAL SETTLEMENT PATTERNS IN THE NORTHEAST: A PROGRESS REPORT
By WILLIAM A. RITCHIE

In July of this year, with the aid of a grant from the National Science Foundation, and with a six-man crew of field assistants, we began a three-year program of research into a long neglected aspect of northeastern prehistory, viz., the development of aboriginal settlement patterns and their correlations with other aspects of culture. (Ritchie, W. A., "Prehistoric Settlement Patterns in Northeastern North America," In, Prehistoric Settlement Patterns in the New World (Gordon R. Willey, ed.), Viking Fund Publications in Anthropology, No. 23, 1954, N. Y. pp. 72-80. This study, not previously possible due to lack of funds and manpower, will attempt a dynamic interpretation of the successive forms of settlement patterns in this Northeast, insofar as this may be possible from archeological vestiges, and the probable relationship between these patterns and the economic, socio-political
and religious organizations of the sundry groups represented. Clues to the comprehension of the later part of this sequence are to be found in the data of ethnography and ethnohistory.

Among our basic postulates may be outlined the following: (1) The transparent stages in this area were organized into clans and village leagues. (2) In the extreme Northeast lived nomadic hunters who knew little of agriculture and who lacked clans organization. B. The historical situation occurred over much of the Northeast in late prehistoric times. The successive stages of cultural stages which preceded the horstocultural village life, going back at least 5,500 years into Archaic times, where remains of hunting cultures suggest a way of life similar to the marginal hunters of later times.

C. Our problem is to inquire, through functional archeology, into the inception and growth of village life in the Northeast, with particular reference to its socio-political consequences, as reflected in the settlement pattern sequence and the beginnings of plant domestication.

Our work will involve the excavation of selected habitation sites in New York, New England, and Ontario, Canada, if necessary, representing historic and progressively earlier periods of time and stages of culture. We begin our studies with a field season on the Owasco site, Montgomery County, New York, the largest known early prehistoric Mohawk Iroquois village. This village was up and down by two centuries of plowing, this site where we have called the Charm City, a community of mixtures, and 5. "The Chance Horizon: An Early Stage of Mohawk Iroquois Cultural Development," New York State Museum Circular 95, 59, 52, (1959, Albany), was reported to us by Donald Lenig, of the Van Bogs-Hartley chapter, New York, N.Y. This site was first published.

It occupied the relatively level top of a long low ridge, some 4½ miles north of the Mohawk River, and had been fortified by a double row of stockade posts. These palisade lines, spaced between 2 and 3 feet apart, formed a continuous belt along the mid-line, and postmolds, interpreted as bed-lines, formed a continuous row along either side, parallel to the double rows of postmolds representing the house walls. The floor plan was rectangular with square ends.

We have yet processed the data from this site, by means of which we hope to estimate the village population and the chronological position of the settlement within the Chance horizon. Here, too, the following were examined, photographed and recorded: 33 blades and spearpoints, 3 one-hole gorgets, 30 flat-base quartz spearpoints, 3 hematite pyramids, 26 miscellaneous artifacts recovered from the base of the cliff and found in situ. A total of 17 artifacts were found in the reburial pit and 23 per cent of these were fire-burned. Radiocarbon dates, obtained through the courtesy of Professor H. R. Crane and the University of Michigan Memorial Phoenix Project Radiocarbon Laboratory, were as follows: crematory: sample M-418—15700 plus or minus 250; reburial pit: sample M-418—1630 plus or minus 400 and 2050 plus or minus 250 years B.P. The total number of artifacts recovered from the base of the cliff and found in situ were: 18 blocked-end tubes, 33 blades and spearpoints, 2 one-hole gorgets, 17 flat-base quartz spearpoints, 3 hematite pyramids, 26 miscellaneous small points, a piece of grooved hematite, 4 sharks' teeth, 2 copper beads and a sateen fiber. Ten per cent of these were fire-burned and 40 per cent were carbonized. The deposit was identified as the crematory type fire pits and was probably redeposited from one of them since there was no evidence of fire burning within the reburial pit. The one side of the cremation deposit was a group of whole artifacts consisting of 17 artifacts, 1 piece of charcoal, 4 large blades, 1 large indium stone and 3 small points. Above this group were three pieces of carbonized bark, and off to one side was another large piece. Further, a group of two intentionally killed artifacts were found scattered around the cemation and in the reburial pit. A total of 17 artifacts were found in the reburial pit and 23 per cent of these were fire-burned.

As a result of the findings at the West River site, it was deemed advisable to review the Sandy Hill site at (18D30) to help establish its identity. All available artifacts from this site were examined and discussed with the persons who salvaged them. Preliminary reports by Dr. J. Alden Mason and C. A. Weslager indicated the adverse conditions under which the artifacts were recovered. An unknown quantity of material was lost when the site was removed for commercial reasons. However, the following were examined, photographed and recorded: 40 blocked-end tubes, 172 gorgets of various shapes with a varying number of holes, 3 pendants, a birdstone, 2 bone points, 6 large blades and spearpoints, 34 flat-base quartz spearpoints, 79 miscellaneous small points, 12 various shaped pyramids, a cone, 12 paint cases of green and 160 green stesite, 1 of copper and 1 of pottery, 14 small slate pebbles, 3 sharks' teeth, 3 hammerstones, a reptile effigy pipe of the Copper phase and approximately 150 various sized copper beads. Of these artifacts four per cent were fire-burned, seven per cent were intentionally killed and nine per cent were still stained with red ochre. It is believed that these percentages should be higher, since much of the broken and damaged material was discarded. The materials used were identical to the West River site with the additional use of sandstone and green stesite.

All of the artifacts and burial traits agree with those of the West River site and the Adena trait list by Webb and Snow except for the following which were recovered: the burial of 15sized remains and the association of large quantities of red ochre with each burial. The entire aspect of these two sites is Ohioan and Adena and offers good proof of the close relationship which must have
existed between the Chesapeake Bay and Ohio River drainage areas during the late Adena period.

THE MORROW SITE

By Alfred K. Guthrie

During the Fall of 1956, heavy machines engaged in grading several acres of land prior to subdividing it into house lots dislodged cultural material and burials. The site lies along the northeast side of Honeoye Lake in Ontario County, New York.

For years it has been known that this area contained evidence of Indian occupation. In 1922, Arthur Parker's Archeological History of New York listed this as the location of a Seneca village destroyed by General Sullivan in 1779. Surface collections have been made here and their content indicated several prehistoric occupations as well as the historic one. But no indications of a Point Peninsula cemetery had been found.

At the time of the recent discovery, some members of the Lewis H. Morgan Chapter, New York State Archeological Association were present and arrangements were made for the rapid salvage of possible information and material. However, considerable attention and interest had been drawn to this discovery and efforts to obtain information and keep adequate records were hindered by many curious people who had no knowledge of archeology or archeological techniques.

Marrian E. White and myself spent ten days salvaging what we could of the deposed culture. We were joined by Harry L. Schoff and Charles F. Wray, of the New York State Museum and Science Service, who joined us for a four-day period.

As a result several burials were excavated and the former existence of others recorded. At least one burial, the cremated remains of an individual, had been partially filled with wash which also contained a few potsherds with bunches of grass, now carbonized. It is

The ditches were also located in the enclosed area. 'Cross sections of the ditch showed it to be parallel sandy spurs extending into the western margin of the former village located some 1000 feet north and west of the Point Peninsula cemetery. This village had been built on low ground which had formerly been lake bottom. It had been surrounded by a ditch which enclosed an oval area approximately 180 feet across its narrow dimension. Cross sections of the ditch showed it to be about 5 feet wide and 3 feet deep, with sides that sloped inward. The ditch had been partially filled with wash which also contained a few potsherds and refuse bone. At least one gateway was located. Several ten-foot squares were checked for postmolds, but those which were located did not present any clear house pattern. Three flexed burials and several pits were also located in the section of the site. One pit (Pit 5) had a diameter of 9 feet and a depth of 27 inches. The walls of this had been lined with bunches of grass, now carbonized. It is believed this served as a storage pit and was subsequently filled with dirt containing occupational refuse. Although the analysis of the cultural material is not completed, this component appears to be closely related to the Sackett site, a well-known Oswasco site of the Late Woodland II period.

A PRECERAMIC MANIFESTATION AT THE PYMATUNING RESERVOIR SITE

By John A. Zakula

A field survey conducted several seasons ago on the Ohio side of the Pymatuning Reservoir, brought to light numerous archeological manifestations. One in particular, the subject of this report, is of import because of the light it sheds on the Archaeic problem in the Beaver Valley.

The site (33AH2), primarily a surface one, is situated on two parallel sandy spurs extending into the western margin of the former Pymatuning Swamp. Fifty yards south of one of these spurs, and separated from it by a stream, it was a site which produced congeries attributable to the manifestation under consideration.

For most of the year the site is inundated, but in the late fall flood-control measures release volumes of water, which upon receding, expose a shallow sandy clay-loam mantle of the former humus mantle, revealing numerous fire hearths, chipped stone implements, ground stone tools, and polished slate bannerstones.

In the chipped stone category are a variety of stemmed side-, and corner-notched points, mostly of the broad-bladed form. A distinctive point provisionally typed as the Pymatuning Notched, characterizes the Archaeic period on this site. It is short, broad-bladed, and side-notched, with a heavily ground base that is equal to, or occasionally extends beyond, the widest part of the blade. It has its counterpart in the Ch trenchic and Exmore points of the Brewerton focus, as revealed by the comparative studies made through the kind co-operation of Alfred K. Guthrie of specimens sent to him from the Pymatuning site. A limited study of the areal distribution of the Pymatuning Notched points made some time ago by Guthe of specimens sent to him from the Pymatuning station. It is very rare along the Shenango, the portion of the Mahoning flowing through Pennsylvania, and along the Beaver River. It is found in profusion on Mosquito Reservoir sites, and on sites situated on the more westerly branches of the Mahoning. It is quite common on Archaic sites found in the Norwalk area in Ohio, as revealed by studies of material in the Firelands Museum and in the personal collection of Arthur George Smith.

Another type, a minority form on the Pymatuning site, is narrower at the base and shows no basal grinding. It has a wider distribution throughout the Beaver Valley, and characterizes most of the Archaic sites in the area. This point has its parallels in the Brewerton focus. End-scrapers, side-scrapers, and notched-scrapers are next in frequency. These are typologically identical with those from Brewerton. A series of expanded-base drills, cache blades, and flint knives round out the chipped flint inventory.

In one ground stone category are found the plano-convex adze, the beveled adze, and the celts. The gouge, a salient artifact type in the Brewerton focus, is conspicuously absent. It is a rare element in the Beaver River, and the study of the assemblage from the Norwalk area stations reveals its paucity. A few burials, pits, and flint knives, for the Lamoka focus, has a wider distribution in the area above, yet the diagnostic traits of Lamoka are lacking.

Chop sticks, roughly chipped by percussion, and showing an incipient graining of the face, have been found. To date three hammerstone types have been found: the notched butterfly, the geniculate, and a bimetallic form.

In summary, the assemblage pertaining to the Archaic component from the Pymatuning site, shows striking similarities to the Laurentian congeries recovered from Brewerton, and is a regional variant of the widespread Laurentian tradition which characterizes most of the Late Archaic sites in the Northeast.

THE TRANSITIONAL CULTURE IN THE UPPER OHIO VALLEY

By Don W. Dragoon

During the summer of 1957 a Carnegie Museum field party was active in the Beaver Valley drainage area in western Pennsylvania and eastern Ohio. Of particular interest to the field party was the recording of early sites and the study of many local collections from these sites. This account of the collection and analysis of these materials is part of the broader understanding of the Transitional culture of the Upper Ohio Valley. There is now ample evidence from several sites in the Beaver Valley and a few sites in the northern reaches of the Allegheny Valley for an extensive Transicional culture in the central Ohio Valley. The most important elements of this Transicional culture are the characteristic ceramic forms. Transitional components generally occur on sites which have predominant Archaic remains, but a clear horizontal separation of the two complexes was noted at several sites.

Typologically the Transitional materials are distinctive and not easily confused with items of the Archaic. The most important elements of the complex are various forms of the "Susquehanna Broad Point," steatite vessels usually with flat bottoms and small lugs, steatite beads, and on some sites crudely made axes with deep notches. The points are distinctive not only for their form but also for the rhyolite of which they were made. The use of rhyolite in the Upper Ohio Valley was rare except on the eastern fringe of the area near the Susquehanna drainage. Various forms of chert were the most common lithic supply of Archaic and Woodland peoples in the Upper Ohio Valley.

The Upper Ohio Valley Transitional materials conform in all major respects with those of the Transitional culture of the Susquehanna Valley as defined by Witthoft (1953). The Susquehanna site (3381) exhibits a wide array of the characteristic elements of the Transitional peoples from the center in the Susquehanna Valley.

Studies now in progress will greatly increase our knowledge of this important complex which arrived on the scene during late Archaic times. The extensive work being done in the region will no doubt shed further light on the arrival of true pottery in nearly identical forms. The Transitional has become a key complex in the understanding of the cultural development of large areas in the eastern United States.
THE REFUGEE WyANDOT TOWN OF 1748

By Marco M. Hervet

Recent surface finds on a bottom-land site, five miles south of New Castle, Pennsylvania, denoting an Indian occupancy of the early 18th century, has prompted me to conduct research in the hope of shedding some light on its history. It is evident from the archaeological analysis of the artifacts, and a thorough search for written references, that the site was contemporaneous with the heavy Cadzow pottery. The only objection to this interpretation, at the present time is that this latter site (sometimes called the Keller site), or the Carnegie Museum documented site No. 36 Lr.1, has several components, but it was only about three years ago, that the historic component was recognized, and enough contact material was gathered to place the artifacts into proper sequence.

John Witthoft has assisted me in identifying the artifacts as being in use between 1700 and 1760. Aided by the research work done by William A. Hunter, Department of Archives, Pennsylvania State Museum, on written references, we can ascertain that the Nicolai Band of Wyandots used them.

From the analysis of several hundred pieces of contact material picked up on the site, we have identified certain material that was widely distributed during this period. Of the 78 gunflints in my possession, 34 are of the button variety, with inscriptions: “The Forts of Carthage, Destroyed by A. D. Vernon 1741,” and “Long Live the Thirteen Colonies.” The beads are of many forms and types, but the most popular are the blue faceted wire-wound beads with conical areas between; collars are straight and high.

One lockplate and many ornamental pieces from flintlocks were found, in addition to a lead bar, scraps of lead, musket balls, beads made from musket balls, a bale-sealer of lead, and many other scraps. One matchlock was discovered, with a bearing inscription, “John Witthoft.”

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Midden pottery from these sites is different from that found in graves. The late pottery manufacture is more nearly equivalent to that from graves, and is usually better fired and more uniformly grey in color. Shell tempering is abundant and more coarsely crushed than in the grave vessels. Midden vessels are frequently quite large.

Ceramic types are distinguished:

1. Schultz Incised is distinguished by a narrow horizontal band of incising or punctates below the lip; vertical rectangular plates (4 to 6 parallel incised lines) flanked by diagonal rectangular plates with punch-like paddle markings or short rows of parallel incising filling the triangular areas between; collars are straight and high.

2. Schultz Fluted is similar in paste and quality to Schultz Incised and is characterized by a variable number of horizontal incised lines on medium height collars above present; flutes effigies usually present below each of the two noted castellations; rims are frequently dough-molded or simply flared; vertical or oblique incisions often cross one or several areas of the horizontal bands. This is a provisional type subject to further breakdown.

3. One or several closely related types from the Strickler, Oscar Leibhart, and Bert Leibhart sites are here considered under the designation Strickler Incised Collar, Strickler Flared Rim, Strickler Notched, and Strickler Incised; this pottery was contemporaneous with the heavy use of brass kettles and reflects de-emphasis on pottery manufacture.

Generally, Strickler pottery is more poorly fired than the earlier types, red and orange surfaces are more common, vessel surfaces are more coarsely cord-marked, although smooth-surfaced variants are known; incising is rather rare and is usually crude. Transitional and aberrant forms were seriated separately and then fitted into the ceramic sequence with good typographical agreement.

A PRELIMINARY REPORT ON SESQUEHANNOCK POTTERY TYPES

By W. Fred Kinsey

Four Susquehannock villages in the lower Susquehanna Valley in southeastern Pennsylvania, the Schultz, Washingtonboro, and Strickler sites in Lancaster County, and the Oscar Leibhart site in York County, have produced collections of pottery sufficiently large for typing and seriation.

Midden pottery from these sites is different from that found in graves. The late pottery manufacture is more nearly equivalent to that from graves, and is usually better fired and more uniformly grey in color. Shell tempering is abundant and more coarsely crushed than in the grave vessels. Midden vessels are frequently quite large.

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The Susquehannock pottery sequence in this area begins with the appearance of Schultz Incised which is later modified by the incorporation of horizontal design elements to form a short-lived transitional complex between Schultz and Washingtonboro types. The latter is typified by horizontal banding and face effigies and is found in the late village sites. Strickler types or phases shows rapid change and degeneration of workmanship, presumably reflecting the introduction of brass kettles.

Seriation indicates that within the large Washingtonboro site, the Keller and Ibaugh sites were closely related in time. At Ibaugh and Schultz, Keller Incised is entirely absent and it seems that Washingtonboro pottery persisted for a time in the older portions of the cemetery. The Oscar Leibhart site is fairly late in the sequence with a ratio of four Strickler to one Washingtonboro type vessel. The Bert Leibhart site is typologically even later.

THE IBAUTH SITE: A SUSQUEHANNOCK CEMETERY

By Charles H. Holzinger

The cemetery at Washingtonboro, Pennsylvania, known as the Albert Ibaugh site seems to locate a major village of the Susquehannock in the lower Susquehanna River Valley. The site discovered in 1955, was further excavated in the spring of 1957 by the Conestoga Chapter of the Society for Pennsylvania Archaeology and the Pennsylvania State Museum. W. Fred Kinsey, Arthur Pater and Charles Holzinger directed the excavation of a 23-foot square under controlled conditions. Twenty-nine burials were uncovered; 26 of these were fully cleared. In a majority of the burials, the bodies were moderately flexed, and oriented toward the southwest.

A preliminary anthropometric study of the skeletal remains completely fails to support the simplistic archeological model that Captain John Smith. Extensive white-Indian trade is indicated by the presence of many trade items among the grave goods recovered. These included axe and hoe blades, knives, a sword, brass kettles, large numbers of glass beads and brass jewelry, a brass pipe, and others. No guns were found. Goods of native manufacture included many pottery vessels, two-bone combs, triangular arrowpoints, a trumpet pipe, etc.

Since these materials closely resemble, in type and number, those reported from the West Pittsburgh site, or the Carnegie Museum documented site No. 2 and since this latter site is only a few hundred yards from the Ibaugh site, it seems possible that both are parts of a single very large cemetery which existed from about 1650 to 1700. The large Smoky Hollow site, five miles south of Washingtonboro, is the earliest occupation at this time. At Strickler, Shultz, and Keller Incised is entirely absent and it seems that Washingtonboro pottery persisted for a time in the older portions of the cemetery. The Oscar Leibhart site is fairly late in the sequence with a ratio of four Strickler to one Washingtonboro type vessel. The Bert Leibhart site is typologically even later.

The Farley Sink-Hole Site of North-Central Florida

By William E. Edwards

In August, 1957, the Farley site, near Gainesville, was studied by a University of Pittsburgh group. Five-foot square were dug in the bottom of a sink-hole and ten were excavated around the top. The sink-hole was measured 80 by 110 feet around the rim.

The study is significant because it apparently constitutes the first excavation among hundreds of such sites, occupied for their constant supply of good water, scattered over most of peninsular Florida. Second, the site yielded abundant cultural material from depths as great as 100 inches, indicating that similar sites would be comparatively productive. Thirdly, the abundance of mineralized bones in the carbonate-rich bottom sediments indicates preservation in most sinks of animal remains so readily leachable in the vast majority of sites in this acid soil region.

Finally, although the cultural and much of the natural materials of the site are relatively recent (various considerations indicate the occupation should be dated about 700 years ago). On the other hand, a few Early Hunter artifacts at varying depths), only through consideration of archeological, geological, and pedological data can either the
physical or cultural history of the site be adequately interpreted. Some 10 to 15 per cent of the sand covering the rimtop and filling its solution pipes is apparently derived from secondary weathering of the sandy clay residuum of the site. The remaining sand was transported to the general area during First and Second Interglacial inundations. Detailed testing of implications of alternative postulates indicates that 30 to 35 per cent of the sand represents wind redistribution of this marine sediment prior to sinkhole formation and quantitatively significant human occupation, while 50 per cent was wind deposited during late preceramic and ceramic occupation. Approximately 3 per cent of the sand was transported to the site by human agency. The site ethnoarchaeology reflects solution pipe enlargement, and extensive aboriginal “pitting” activities. Thus this study seems to exemplify the wide applicability of this broad type of multidisciplinary approach and to manifest the need for its wider utilization. Without this approach, potentially definitive interpretations of either geological or cultural history of many localities are impossible.

**RADIOCARBON DATES FROM THE UPPER OHIO VALLEY**

*By William J. Mayer-Oakes*

The dates presented in this paper have resulted from the work of the Upper Ohio Valley Archeological Survey, a program directed by the writer for Carnegie Museum from 1950-1956. During the survey we provided the Radiocarbon Laboratory at Carnegie Institute of Technology with carbon specimens for dating purposes. Details of the counting apparatus and first publication of the dates appear in Dieh (1956). Sample No. 4 presented here was dated by the University of Michigan Memorial-Phoenix Project Radiocarbon Laboratory. The dates discussed are:

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown's Island (46H6k)</td>
<td>1200±100</td>
</tr>
<tr>
<td>Watson Farm (46H3k-4)</td>
<td>500±100</td>
</tr>
<tr>
<td>Lock 3 (36A12)</td>
<td>50±100</td>
</tr>
<tr>
<td>Georgetown (56b29)</td>
<td>173±200</td>
</tr>
<tr>
<td>Lock 3 (36A12)</td>
<td>290±100</td>
</tr>
</tbody>
</table>

1) Charcoal sample from an undisturbed hearth directly associated with 5 “Watson Cordmarked” sherds, illustrated by Deago (1956) in Plate 4. It was on the edge of a stone mound at the level of the earliest Watson ware occupation here, beneath and prior to construction of the mound. Level was just above the zone of Half-Moon occupation on the opposite side of the mound. The date, thus, refers to the earliest Watson ware occupation at the site.

2) Charcoal sample from a hearth directly associated with “Watson Cordmarked” sherds, illustrated by Deago (1956) in Plate 4. It was on the edge of a stone mound at the level of the earliest Watson ware occupation here, beneath and prior to construction of the mound. Level was just above the zone of Half-Moon occupation on the opposite side of the mound. The date, thus, refers to the earliest Watson ware occupation at the site.

3) Charcoal sample from Cot A, adjacent to 1954 hearth, collected by Mayer-Oakes and associated with 3 “McKees Rocks Plain” and 6 Half-Moon ware sherds. The presence of plain types here is assumed to indicate lateness within the Half-Moon period, as at McKees Rocks.

4) Charcoal sample from a hearth associated with 2 “Watson Cordmarked” and 2 “Half-Moon Cordmarked” sherds. This represents the earliest level of a series dominated by “Watson Cordmarked” and the next to the last of a series dominated by “Half-Moon Cordmarked” which goes down 12” below the level of the date.

5) Charcoal sample from a hearth at the level of sample 3, and associated with Half-Moon sherds and a fragment of steatite vessel.

All of these samples are good quality with good associations and context. The least controlled is No. 5, the earliest Lock 3 date. A. Bauer, who collected this sample in 1956, relocated the hearth for us. The later date is from a charcoal area separate from the hearth, in the same 1’ level but 2”-8” higher and 2” distant, horizontally. The Georgetown date is in the lower part of a specific ceramic sequence. The Watson Island date is from the lower part of a specific ceramic sequence. The Brown’s Island date is from an isolated test, but with enough associated sherds to establish well its position in the general sequence.

The archeological contexts of all samples indicate either Early or Middle Woodland period units. The type of Watson ware is a Middle Woodland marker and Half-Moon ware as an Early Woodland diagnostic appears to be justified on the basis of these dates. For the moment, Brown’s Island gives us a terminal date for Middle Woodland at A.D. 1200. Georgetown’s date can be used as an initial date for Middle Woodland as well as near-terminal date for Early Woodland. We are faced with the prospect of Watson ware starting at the type site around A.D. 500 but being present at Georgetown at 173 B.C. One later Lock 3 date dates to A.D. 780, yet another Half-Moon type; this date may be most useful as an indicator of mound-building units. The Georgetown date is the last gasp of the Half-Moon ware at this site, so presumably the earliest appearance of pottery here is considerably prior to 173 B.C. The 290 B.C. date for Lock 3 apparently has no “McKees Rocks” Plain associations. From these five dates we clearly establish the upper and lower limits of Upper Ohio Valley Middle Woodland as A.D. 1200 to 173 B.C., and find the break between Early and Middle Woodland to be between 173 B.C. and A.D. 50. Half-Moon ware can be dated as ranging from 290 B.C.-A.D. 50 with strong indications for extending this range to times earlier. Watson ware now dates from 173 B.C. to A.D. 1200. Ohio Valley ceramic and more varied in nature than most people realize. Many regard the National Park Service as primarily a protective agency interested largely in the conservation of this Country’s outstanding scenic and natural wonders. Why is it, therefore, that the National Park Service devotes so much effort and activity to archeology?

These activities find their roots deep in the history of the development of archeology and anthropology in this Country. Thomas Jefferson is frequently referred to as the Father of American archeology, and he acted as an expert on the Antiquities of Virginia in 1807. The Smithsonian Institution was established for “the increase and diffusion of knowledge among men,” which phraseology included then the budding sciences of anthropology and archeology. In 1878 the expanding concept of the archeological and historical objects, monuments, and effigy mounds at A.D. 1000. Realizing the inadequacy of the Bureau of Ethnology within the Smithsonian Institution, in 1878 the Antiquities Act was signed into law, which act allowed the Bureau of Ethnology to establish field expeditions. In 1892 under a special provision of an Appropriation Act, the President set aside the Casa Grande ruin in Arizona in order to preserve and protect it. In 1906 Congress passed the Antiquities Act, which in addition to making it a Federal offense to remove, destroy, or injure antiquities on Federal lands, established the machinery whereby the President could, by proclamation, set aside Federal lands for the purpose of preserving antiquities.

In this same year Mesa Verde was made a National Park by Congress and Montezuma Castle became the first archeological National Monument to be established under the Antiquities Act. In the following year three other National Monuments were added, and today there is a total of 19 such areas, 15 of them being in the Southwestern part of the United States.

The Historic Sites Act. This basic legislation declared that it was a National policy to preserve and to protect prehistoric and historical objects, monuments, buildings, and sites whether they were on Federal land or not, and it authorized the National Park Service to investigate the same. It is this particular Act which allows the Park Service to carry out most of its archeological activities. The Historic Sites Act also gave rise to what is today the largest in terms of money and personnel, and the most important archeological program conducted by the National Park Service, the Inter-Agency Archeological Salvage Program. It is designed to salvage in advance of flooding a small representative amount of the material and scientific data which is threatened with inundation by the
construction of Federal multi-purpose dams. Up to date the Federal Government has made available almost two million dollars for this purpose. This is a large sum of money to be devoted to archeology, the largest so utilized that I know of since the WPA days and the days of salvage archeology in the TVA. A program of this magnitude, of course, could not be consummated without the assistance of many other agencies. A considerable amount of help has been received from State and local institutions, in addition to the invaluable aid rendered by the Smithsonian Institution. — both in advice and in actually carrying out salvage excavations.

In 1950 the Park Service started a series of cooperative agreements with qualified institutions whereby the Service supplied funds and the institutions did the actual work, which included everything from design and installation of signs and markers to acquisition of such magnitudes once thought impossible. In many cases these institutions have contributed large amounts of their own funds. Although no exact overall figures are available, without any doubt the contribution made by the cooperating agencies, including their funds and other services, more than matches the amount contributed by the Federal Government, which to date is slightly in excess of $300,000.

This Service over the years has carried on a considerable program of archeological work in the historical areas, a program that has become more commonly referred to as Historic Archeology. For example, we have under way a large program of excavations at Fort Frederica National Monument in Georgia, through which we hope to lay bare for visitor enjoyment a number of original house foundations in the colonial town established by General Oglethorpe in 1736. At Fort McHenry, here in Baltimore, starting in January of next year, we plan to undertake archeological excavations leading towards the location and identification of secondary burials associated with the fort commander who undertook to unload the old water front battery. Excavations have been carried out in other historical areas such as at Fort Necessity, Pennsylvania, and at Hopewell Village, Pennsylvania, where excavations were conducted in the old iron furnace area. Even such unusual places as Castillo Clément in New York, the old immigration center, and later the New York City aquarium, have been investigated by archeological methods.

Although funds for investigations and research in Service archeological remains have never been as extensive as those for archeology, we have made excavations in such places as Wupatki, Mesa Verde, Chaco Canyon, and others. Frequently, cooperating institutions will perform such investigations for us, as did the University of Colorado at Mesa Verde, where for three seasons they ran a summer field school.

One of the more important but lesser known activities of the Park Service is the Ruins Stabilization Program which functions largely in the Southwestern area. Here, ruins which have been uncovered in past years frequently need repairs. Once uncovered, they must be protected from the elements. In the case of pueblos which have standing walls still relatively intact, this work calls for considerable engineering skill on the part of the archeologist.

Starting this fiscal year, the Park Service is reinvigorating the Historic Sites Projects which began in the 30's and which was interrupted by the War. It is hoped that through this we can survey an area which contains all of the major and most important prehistoric and historic sites and buildings in the Country can be made. Thus, the Service will have a guide as to those buildings or sites which are representative of various important historic periods in our history and prehistoric — periods which are not currently represented in the Park System. Further, other sites may likewise be evaluated as to their regional, state, or local significance as an aid to state or local communities in appraising their own local resources.

The National Park Service is in the process of launching upon a ten year program for the improvement of all the Park Service areas. This program is known as MISSION 66, and it is hoped that by 1966 the American people of the Park Service and their facilities not only will be brought up to date for the enjoyment of the visitor, but also will be in keeping with the anticipated visitation of that date. In connection with these development and construction activities under MISSION 66 it is sometimes necessary to make archeological surveys in advance of construction, so that the building of new facilities won’t damage valuable remains. If it is impossible to locate the facilities elsewhere, then at least salvage operations can be carried out so that the archeological remains will be preserved.

There are other archeological programs in which the Park Service is also involved, although somewhat more indirectly. Such a program is the one of helping to coordinate, and lend general advice and assistance to, the salvage of archeological remains in reservoirs constructed by public power companies under licenses issued by the Federal Power Commission. For example, we have entered into a three-way agreement between the Service, the University of Washington, and the Public Utility District of Grants County, who are constructing the large Priest Rapids project on the Columbia River, whereby the company will bear the expenses of the necessary archeology. The University will carry out the excavations, and the Service supplies a liaison between the agencies concerned, general supervision and will review the work accomplished from time to time. A program of this magnitude, the company and the Federal Power Commission may know that this matter has been handled in a professional manner. Similarly, the Service frequently makes arrangements for the necessary salvage archeology along gas and oil pipelines. In these cases, the archeologists are paid directly by the company, but the Service makes the initial arrangements for their hire and reviews their accomplishments.

This Service also administers and enforces the Antiquities Act of 1906 on lands under its jurisdiction and frequently advises the Secretary of the Department of the Interior on antiquity matters relating to lands under the jurisdiction of the Department.

Finally, the Service has a publications program whereby scientific archeological reports are printed from time to time in the Archeological Research Series. Three numbers have appeared to date, and plans for a fourth are in the process of being formulated. We also hope to issue a handbook for each of our 19 archeological areas; one of these — on Ocmulgee National Monument — has already appeared. A second one, on Montersuma Castle, is going to press this year.

In the final analysis, however, all of the varied archeological programs of the Service lead to one main activity, and that activity is the Friends of the National Park System for their greater enjoyment by the visitor. The information, the data, and the material gathered by the archeologists is made available to the visitor through various interpretive media. Many of our areas have museums or visitor centers which attempt to explain to the visitor what the area is about. This fiscal year we hope to build and install displays in about 25 new museums and visitor centers, and to refurbish, or bring up to date, exhibits in about 20 other areas. Other interpretive programs which are now in progress include the upkeep and upkeep of signs and markers. In many of the Parks and Monuments, campfire talks are given by Service personnel. The best displays and exhibits of all, of course, are the ruins themselves. The outstanding example of this type is in Mesa Verde National Park with its very spectacular cliff dwelling remains. The largest prehistoric cliff dwelling in the United States — Cliff Palace — is located here at Mesa Verde and has been seen and enjoyed by many thousands of visitors over the years.

 **SEA LEVEL—TIME—AND COASTAL ARCHEOLOGY IN THE EAST**

By George P. Carter

Carbon dating of materials from below sea level has now progressed to the point that the position of the sea for the past 20,000 years is beginning to be known. One of the most fascinating activities of the Institute of Historical Archeology is that of coastal archeology.

Sea level rose from about minus 200 feet 20,000 years ago with varying speed. At first the rate of change was slow, then during the time of rapid glacial melt between 9000 and 11,000 years ago, it was very rapid, and between 7000 and 8000 years ago, it was rapid. Of particular significance is the absence of any evidence for a sea level higher than the present during the post glacial warm period, of 4000 to 7000 years ago. Instead the sea seems to have stood 15 to 50 feet lower than the present in that time.

All of this has direct application to coastal archeology. Four thousand to 7000 years ago falls squarely in Archaic times. With the sea level standing 15 to 50 feet lower than the present, the whole of our coastal archeology must have been different. For example, the Chesapeake Bay was greatly diminished by a fall of sea level even of 15 feet, and a 50 foot lowering of sea level would practically empty the bay today. On the Paleo-Indian level there would be no Chesapeake Bay, and there can then be no Paleo-Indian shell middens. This does not mean that these people did not like Chesapeake Bay oysters! It simply records the fact that there was no bay to support oysters. Nor would the Paleo-Indians have left shell middens on the ocean front where we could find them. With the sea nearly 100 feet below the present during Paleo-Indian times, the ocean shore line moved roughly 50 miles seaward of its present location. The shell middens, undoubtedly built at that time, have been overwhelmed by the sea, and the evidence will only be recovered until the sea rises again.

Shell middens are not expectable until the sea level approaches the present. Perhaps the earliest shell middens that we can hope to find along the East coast and the Gulf coast will date to about 8000 years ago. The physical condition of the coastal line at that time, and the underlying sea level, the modern bays were just coming into existence, and a midden built on a height of land above one of these bays might still be above sea level. The absence of earlier middens would not then indicate the
absence of earlier shell-fish using people — but only the absence of conditions favorable to the preservation of the record.

In a bay such as the Chesapeake Bay, it is possible to interpret the shell-fish record only in terms of the time of creation of the bay by the rising sea level. The bay probably did not come into existence until about 8000 years ago. The first shell-fish-rich resource would appear at the mouth of the present bay, and the shell-fish would slowly spread up the bay as the sea level rose. It is noteworthy that the earliest middens, and the longest occupied middens, and hence the largest and deepest middens would be in the lower end of the bay. This is indeed the case. The middens toward the head of the bay are few and thin, while those in the lower end of the bay are numerous and large. Further, the middens cease at the point where the present oyster bars cease.

Such finds are applicable to all stable coasts. They should be especially applicable south of the glacial border along all the East and Gulf coasts. They should lead us to expect much subaqueous archeology. The only area that holds any promise of shell middens would seem to be along the southern half of the east coast of Florida where the narrow continental shelf held the latest movement of the coastline to a minimum during the glacial period.

**SOME LITHIC SOURCES IN CECIL COUNTY, MARYLAND**

By Elwood S. Wilkins, Jr.

The Archaeological Society of Delaware has been excavating the Minguanan site in Chester County, Pennsylvania for some time. The predominance of Newark jasper in the mast of the material found has been the same as those in surface collections in upper New Castle County, Delaware, and adjacent portions of Pennsylvania and Maryland. Among these are Newark jasper, a black material, Broad Run chalcedony and beautifully colored materials.

A source of Newark jasper was located on Iron Hill, New Castle County, Delaware, in the spring of 1955. Since that time its distribution has been traced to Chestnut Hill, Delaware, and into Cecil County, Maryland, at least as far as North East and Elkton. It also occurs in the "State Line Serpentine Barren" of the western part of the County, which has the same geologic make-up. The jasper is usually of poor quality, but in certain pockets it is of excellent grade. It is always associated with limonite and hematite and is actually the silice rich formed in the geologic process that produced these.

The sources of the black material, now called Cecil black flint, and the beautifully colored materials were located in January, 1957. Page 131 of the 1902 Geological Survey of Cecil County, Maryland refers to limonite opal being exposed in the Pennsylvania Railroad cut below Iron Hill Station and on Mr. Jackson's farm, on the left bank of the Big Elk Creek, two miles north of Elkton. The railway cut produced boulders of good grade Newark jasper and Cecil black flint, some boulders containing both. Cecil, chalcedony, hematite and the beautifully colored materials were also present. Big Elk Creek proved to be mainly a source of Cecil black flint. There are no quarry pits visible here but farms operations could have obliterated them, or the materials could have been obtained from surface boulders. It is conceivable that the area was once strewn with boulders, for the foundations of the farm buildings and an earlier house, and the barnyard wall have been proved to contain boulders of good grade Newark jasper and some grades of these materials are not readily distinguished from one another.

It is sometimes difficult to assign a material to a definite source and jasper is but one example. Maybe chemical analysis or emission spectroscopy will hold the answer for us.

**THE RUF SITE: AN INFLUENCE FROM PENNSYLVANIA**

By Thomas Mayr

The Ruf site is located in Anne Arundel County, Maryland, in the central section of the Patuxent Valley, about eighteen miles east of Washington, D. C. It is an extensive multi-component site, showing evidence of at least three different occupations. The first was a crude quartzite industry with large stemmed and leaf-shaped points and blades, and notched axes, suggestive of affinities with some of the Archaic cultures of southeastern Pennsylvania. The second occupation contains full-grooved projectile points, bannister-tempered and Marcy Creek ware (straw-tempered), which is here associated with a crushed-quartz-tempered ware related to the gravel-tempered Prince George Series of Virginia, and with a soft, sand-tempered ware which is not assignable to any established series. The third occupation is an importation from southeastern Pennsylvania and from the middle Delaware Valley of lithic materials and of diagnostic flaked artifact types: lanceolate and narrow-bladed, wide-stemmed projectile points and large blades of the imported materials, rhyolite, argillite and jasper. Excavation of a small undisturbed section of midden revealed in situ this imported assemblage of material culture traits and confirmed its identity as a distinct complex.

Below a deposit of nine inches of windblown sand occurred an undisturbed dark zone, from four to eight inches deep, quite homogeneous throughout, and rich in typical midden refuse: numerous sherds of shell-tempered, and falls in the middle Delaware Valley of lithic materials and of diagnostic flaked artifact types: lanceolate and narrow-bladed, wide-stemmed projectile points and large blades of the imported materials, rhyolite, argillite and jasper. Excavation of a small undisturbed section of midden revealed in situ this imported assemblage of material culture traits and confirmed its identity as a distinct complex.

<table>
<thead>
<tr>
<th>Newark Jasper</th>
<th>Cecil Black Flint</th>
<th>Black Particles from Cecil Black Flint</th>
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</thead>
<tbody>
<tr>
<td>Silica</td>
<td>95.55%</td>
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<td>Iron as Fe 203</td>
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<tr>
<td>Iron as Fe 304</td>
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</tr>
<tr>
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<td>0.03-0.15%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>0.1-1.0%</td>
<td>0.1-1.0%</td>
</tr>
<tr>
<td>Titanium</td>
<td>0.01-0.05%</td>
<td>0.01-0.05%</td>
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</table>

**ARCHEOLOGY AT JAMESTOWN**

By John L. Cotter

I suppose it could be said truthfully that had there never been a Jamestown Island, the English settlers would have landed at another spot in Virginia and had as much rough luck there. Perhaps the fact remains that they could have chosen a worse spot from Maine to Cape Hatteras. Actually, it was a mixture of ignorance of the new land and hard-headed British business sense that made the choice. The Virginia Company of London was to risk the modern equivalent of 20 million dollars of stockholders' money and instructions to keep
out of trouble and find ways of making a fast return on the investment. But above all, they had to keep out of the reach of the Spaniards.

Jamestown Island looked pretty good at first. It was safely up a river, away from the exposed coastline, as the Company's instructions specified. Three years went by. But the colonists were further than they had thought from the trees. The island was over half marshy, but it looked easy to defend from possibly hostile natives, as well as predatory Spaniards. They settled there. That was 1607. By the spring of 1610, some 59 remained and about 40 were dead. John Smith, along with a determined and able soldier and adventurer, had dared and done his best for the settlement and was gone—sent back to England by an accidental spark from his matchlock fuse in a pouch of gunpowder at his side. It was not a promising start.

At first the settlers did everything to turn a fast pound. They sent back a cargo of iron pyrite and mica in sand in a fevered gold rush only to have it pronounced worthless. They made pitch, clapboards and soap ashes and sent supplies of these himself if useful products back. It was all welcome in wood-starved England, but the profit was slow and small. They tried glass making, but that venture was to make no profit at Glasshouse Point until 1957, and the Virginia Company of London ceased to exist 326 years before. For a time the colony itself contributed all its resources eventually to the point where it provided a suit of clothes for Charles the First, then expired, leaving only a bank of raw silk for the Virginia Historical Society to cherish.

Sir Edwin Sandys, Treasurer of the Virginia Company back in England, made it possible to hold the first popularly elected legislative assembly to the consternation of James the First and sow the acorn that grew into an indestructible oak of human rights in the New World. But the man who put the golden bloom of success on the enterprise was none other than our romantic hero and accredited ancestor of most native Virginians—John Rolfe. And he did it with tobacco.

Since the days of Raleigh it had been known that Virginia tobacco had the bite of a deerfly and the flavor of Stigian smoke of the pit that is bottomless. Rolfe, taking time off from courting Pocahontas, simply blended some Venetian and West Indies tobacco, produced a sweet and mild leaf, and soon the settlers were growing tobacco in the very streets of Jamestown. By the time of the Indian massacre of 1622, tobacco was the cash and currency of Virginia. It was then that the Crown, recognizing the need to protect the plantations against the Indians and the convenience of channeling tobacco commerce directly into the royal treasury, cancelled the charter of the Virginia Company.

So, the fortunes of Jamestown fluctuated with the price of tobacco, and by 1677 the colony was prosperous enough to afford its first rebellion. This was when young Nathaniel Bacon set out to exterminate the Indians in order to safeguard the plantations, notably his own. This brought him into conflict with Governor Berkeley who preferred to protect the Indians and who was only for trade with them. By 1698 the colonists had sufficient means to move to Williamsburg and Jamestown was abandoned as the capitol. Today Williamsburg remains the most expensive town in which to live in all Virginia, thus preserving a tradition of 2/4 centuries.

Meanwhile, what happened to Jamestown? For 250 years the site of the First Capitol was plowed above every 17th century building trace except the church tower. Only foundations, cellars, wells and pits, remained protected. Destruction far greater than at Pompeii was wrought. Here was a challenge for archaeophily.

Fortunately, neglect had effectively sealed off the archeological treasure from all but a few curiosity seekers and relic hunters. Then, in 1954, the National Park Service began excavations of a site with time out for wars and lapsed funds until 1954 when an intensive campaign began to finish major exploration. Now about half the estimated 40-acre town-site has been tested. Altogether we know the locations of 141 houses and other structures, including 24 wells, 300 clay pipes, 214000 artifacts, and 64 property line ditches. Approximately half a million objects are stored or on display at the Jamestown visitor center.

**WILLIAMSBURG—TEXTBOOK OF 18TH CENTURY COLONIAL ARCHAEOLOGY**

By Ivan Noel Hume

It is impossible to do justice to 30 years of Williamsburg archaeology in the short time available, so it was thought prudent to give only a brief sketch of the archeological history of the Williamsburg Restoration project devoting most of the time to a plea for an increasing interest in colonial archeology among the member societies.

The lack of interest in, and resulting paucity of knowledge about the archeology of the 17th and 18th centuries is not confined to the New World, nor is it confined to the United States or the archaeologists who deem the "modern period" to be unworthy of notice. Many people believe that the 17th and 18th centuries are sufficiently well documented to require any need for archeology. This is quite erroneous. Innumerable questions remain to be answered, and the majority relating to social life in the Colonial period, but others being concerned with the unrecorded details of historic events. In the latter cases we may frequently expect to prove, archeologically, that the written word can be both inaccurate and misunderstood. The colonial archeologist is, therefore, the bittress of the historian and consequently the former's findings should constitute an integral part of historical research.

Practical archeology can be both arduous and expensive; nevertheless its results can frequently go far in "bringing the past to life" and thus creating public interest. The visual interpretation of prehistoric life is inevitably sketchy and conjectural, and the average person may find it hard to project himself into a period of which he knows practically nothing. On the other hand, does he know something about the history of his country and, therefore, when he can see material relics of people and places known to him from his history book, he can more readily grasp the value of archeological research. In Williamsburg's summer season an average of 25,000 and 50,000 people look at exhibits in the archeological museum. Some 180,000 people visited the National Park Service Museum on Jamestown Island. It may be suggested from these healthy figures that a latent interest in the material remains of the Colonial period does exist.

I think it is fair to claim that the excavation of Williamsburg has provided the most exacting task ever set before a group of archeologists. Nowhere else, not even at Pompeii, has so much information been demanded. The word "demanded" is used intentionally, for it has been imperative that every minute second of attention be retrieved. Failure to do this in Williamsburg is not a misfortune, but a misfortune. Normally the end product of an excavation is the published report, but in Williamsburg the end product is not only a report, but also a living re-creation of the archeologist's and historians' findings. The archeologist knows that the next man's work must depend on him, and that man is, of course, the architect.

Colonial Williamsburg is generally described as a restoration project, for 82 original buildings have survived from the 18th century. When Mr. John D. Rockefeller, Jr., first became interested in the city his intention was to preserve the colonial buildings in their appropriate settings. To achieve this aim it was also necessary to remove many buildings of 19th and 20th century origin and rebuild more than 400 other structures, most of which have been identified on the sites of their original foundations. Much of what was revealed by archeological investigation.

Williamsburg archeology does not end with the reconstruction of the lost buildings. The town is as close to being a living 18th century city as the 20th century city is to the 17th century city. The buildings must be authentically furnished and the hostesses, craftsmen, musicians, and servants must be correctly dressed and equipped. These tasks are the problems of individual departments and all of them can find precedent for their household and sartorial fittings among the archeological collections which result from the site excavations.

While Williamsburg is undoubtedly the key piece in the jigsaw puzzle of 18th century colonial Virginian archeology, it is not by any means the whole picture. Much information is still needed regarding colonial life on the plantations. Some original sites still stand, and so forth, many of which are now lost and await rediscovery as a result of ploughing, erosion or building projects. There are still too few people sufficiently interested to ensure that when these sites do come to light, they will not pass unnoticed. The majority of archeological sites are first located by amateur enthusiasts, and we can but hope that the societies who do such valuable work in locating and recording Indian sites, will see their way to doing a similar service for sites of the Colonial period.

Interest in colonial archeology is growing daily, not only here, but all over the world. It makes no difference whether the sites are Dutch, French, Spanish or English; their finds will duplicate to a greater or lesser extent those found in the town and Williamsburg and, indeed, elsewhere in the eastern states of America. It is Colonial Williamsburg's avowed and much proclaimed intention that "the future may learn from the past," and it is the aim and duty of its archeological staff to ensure that within that field this ambition is fulfilled.