EASTERN STATES
ARCHAEOLOGICAL FEDERATION

ALABAMA
CONNECTICUT
DELWARE
FLORIDA
GEORGIA
MAINE (2)
MARYLAND (2)
MASSACHUSETTS
MICHIGAN
MISSISSIPPI
NEW HAMPSHIRE
NEW JERSEY

NEW YORK
NORTH CAROLINA
ONTARIO, CANADA
PENNSYLVANIA
QUEBEC, CANADA
RHODE ISLAND
SOUTH CAROLINA
TENNESSEE
VERMONT
VIRGINIA
WEST VIRGINIA

BULLETIN NO. 29

JULY, 1970
MINUTES OF THE
EXECUTIVE BOARD MEETING — 1969

ESAF President, Howard A. MacCord Sr., called the 1969 meeting to order at the Holiday Inn in Morgantown, West Virginia, at 7:15 p.m. on November 7, 1969. A call for a quorum was positive. President MacCord then welcomed all officers, society delegates and guests to the 1969 meeting.

The minutes of the 1968 meeting in Ann Arbor, Michigan, could not be read due to the fact that they had not yet been received from Dr. Dorothy Cross, immediate past Recording Secretary. Ronald A. Thomas, present Recording Secretary, was asked to attempt to write up the minutes for publication in a later Bulletin.

Dr. Maurice Robbins, Corresponding Secretary, was then called on for a report. Dr. Robbins informed the Executive Board that the 1969 ESAF Directory had been mailed and a supplement had been added at a later date. He requested that, to insure against inaccurate information about member societies, every society provide information to him for publication in the next Directory. Dr. Robbins distributed mimeographed forms for this purpose.

The Treasurer’s report was given by Bettye J. Broyles, Treasurer. Miss Broyles reported that last year’s balance had been reported at $2,184.51. The present balance of November 1, 1969, was $4,088.09 which included advance registrations for the 1969 meeting. There is one outstanding bill for the amount of $1,043.28, the cost of the combined Bulletin, which leaves a balance of $3,044.81.

Exhibits chairman, Don Bond, announced that a room on the second floor of the Holiday Inn would be used as a display. At least 5 exhibits would be present.

Louis Brennan, Editorial Chairman, reported that the joint Bulletin No. 29, 1970, had been printed and mailed to member societies. It was reported that the printing of two bulletins had been accomplished at approximately the cost of a single Bulletin in former years.

Research Chairman Barry Kent, suggested that it might be worthwhile to consider the publishing of a new bibliography for the Federation to bring the previous publications up to date. Louis Brennan questioned the use of ESAF funds for such a project. James Fitting offered the suggestion that such a bibliography be published as a supplement to the regular Bulletin. It was pointed out by Elwood Wilkins that the Abstracts of New World Archaeology may be doing an adequate job of providing a bibliography of this area. The matter was not acted upon.

No report was given by Public Relations Chairman Bernard Stockley. It was reported that the local chairman had done a good job.

Program Chairman Bettye Broyles reported that two cancellations of papers had occurred. Ripley Bullen and Joseph Granger would not present their scheduled papers. There would be additions to the program.

Membership Chairman Dr. Alfred K. Guth reported that applications for membership had been received from organizations in Vermont, Mississippi and South Carolina. Dr. Guth recommended that these three organizations, the Vermont Archaeological Society, Inc., the Mississippi Archaeological Association and the Archeological Society of South Carolina, be accepted. Another application had been received from the Queens Institute of Anthropology, Inc. but was not recommended by Dr. Guth for acceptance in the Eastern States Archeological Federation.

President MacCord then issued a call for old business. Dale Kerby of the Archeological Society of Virginia asked if any further action had been taken on the publication of articles of widespread interest from society publications by the Eastern States Archeological Federation. James Fitting replied that he had had no response from potential publishers and the project had been suspended. It was suggested that the Eastern States Archeological Federation subsidize such a publication by soliciting advance subscriptions. President MacCord, after much discussion, appointed Dr. James Fitting to head a committee to work with Research Chairman Barry Kent on this matter.

With no further old business to consider, the call for new business was issued. The matter of the invitation by the Archeological Society of Virginia to hold the 1979 meeting at Natural Bridge, Virginia, was then brought up. President MacCord reminded the Board that the previous Executive Board had recommended that the invitation be accepted. An invitation to meet in Maine during 1970 was received from the Archeological Society of the Robert Abbe Museum. It was moved and seconded that the 1970 meeting be held in Maine.

Invitations were then received from Pennsylvania, Florida and Delaware for future meetings. Louis Brennan suggested that a pattern be set up and followed in the selection of sites for future meetings. He suggested that the meetings be held in central areas for the years in succession followed by one year each in the southern and northern areas. Based on the pattern it was moved and seconded that the Executive Board recommend that the following meeting sites be accepted: Florida in 1971, Pennsylvania in 1972, Delaware in 1973 and Maine in 1974. This motion was passed unanimously.

Recording Secretary, Ronald A. Thomas, reported that he had asked member societies to submit copies of their publications to the Eastern States Archeological Federation. It was mentioned that the previous Recording Secretary had inherited the archives from the previous Recording Secretary. A lengthy discussion followed during which it was decided to keep the library or archives temporarily in the custody of the Recording Secretary. All member societies were urged to bring their publications to the next meeting.

Mr. Kerby presented the applications of the three organizations in Vermont, Mississippi and South Carolina for membership in the Eastern States Archeological Federation were then considered. A motion was made by Dale Kerby and seconded by Dr. Don Dragoo that the Vermont Archeological Society, Inc., the Mississippi Archaeological Association, and the Archeological Society of South Carolina be accepted for membership. The motion was carried.

A motion for adjournment was then received and accepted. The motion was carried and the 1969 Executive Board Meeting of the Eastern States Archeological Federation was adjourned.

Respectfully submitted,
Ronald A. Thomas,
Recording Secretary

MINUTES OF THE ANNUAL MEETING: 1969

The 1969 Annual Meeting of the Eastern States Archeological Federation was held on November 7, 8, and 9 at the Holiday Inn and the West Virginia University in Morgantown, West Virginia. The Federation was hosted by the West Virginia Archeological Society.

The meeting began informally with a Friday afternoon workshop on Historic Ceramics held in the Holiday House of the Holiday Inn.

The Business Meeting was called to order at 8:30 a.m. on November 7, 1969, in the Holiday Inn by President Howard A. MacCord, Sr.

The minutes of the 1968 meeting in Ann Arbor, Michigan were not available. The Recording Secretary, Ronald A. Thomas, reported that he would try to obtain them from the former Recording Secretary, Dr. Dorothy Cross, and that they would be published in the Bulletin.

The Recording Secretary announced the decision of the Executive Board to urge all member societies to pay copies of their publications to the library of the Eastern States Archeological Federation. The library is under the custody of the Recording Secretary, Ronald A. Thomas, c/o Delaware Archaeological Board, R.D. 2, Box 156A, Dover, Delaware, 19901. The Recording Secretary also has in his custody copies of Volume I and II of An Anthropological Bibliography of the Eastern Seaboard, and back issues of the Bulletin of the Eastern States Archeological Federation. The bibliographies can be purchased at $3.00 per issue and the Bulletin for $1.00 per issue.

Dr. Maurice Robbins, Corresponding Secretary, called for the submission of society reports for the Bulletin and for lists of society officers which are to be published in the Directory. The last issue of
REPORTS OF THE STATE SOCIETIES – 1969

ALABAMA—David L. Defarnette reported by letter that the Alabama Archeological Society has a membership totaling 593 representing, through joint and family categories, more than 734 members. The tally shows 200 members outside the state. The main area of growth has been the Institutional Membership, which includes 39 University and College libraries in the United States and Canada. There are 14 Chapters and one very active auxiliary group, the Potholders, of Birmingham.

Two statewide meetings were held. At the Winter Annual Meeting at Huntsville, 1968, President David W. Chase presided, with Huntsville Chamber of Commerce as host. Guest Speakers and subjects were Nicholas H. Holmes, Jr., Mobile, "Maps, Drawings and Excavation of Fort Condé"; David W. Chase, Montgomery, "St. Louis, First Investigations, 1966"; and Houston Wight, Huntsville, "Fielding Techniques: Methods, Identification and Historical Significance." The next meeting was held in Knoxville, Tennessee, "Recent Archaeological Work in Tennessee: The Legacy and Tradition of Research."
Liability of 'Hawaiian Island'—John W. Griffin, Magoon, Ga., "The Archaic Lifeway."

The Summer Workshop Meeting, 1969, President T. Randolph Gray presiding, was held near the summer excavations in Franklin County, Alabama. Speakers were David L. DeJarnette, Carey Oakley, and Ralph Bunn.

The Journal of Alabama Archaeology, edited by David L. DeJarnette, is published semiannually. The two issues of Volume XV presented articles entitled "Evidence of Aboriginal Trade in Late Prehistoric Times", by Fletcher Jolly; "Three Finger Technology", by A. H. Hooper, III; "Ceremonial Stone Pipe", by Almos Wright and Roger Yates; "Early Artifacts of Candy Striped Flint", by Edward C. Mahan; "Painted Bone Ornaments", by Fletcher Jolly; "Catalog of Alabama Mound Sites", by Mrs. A. V. Lichfin; "Shells and Shell Mound Archaeology", by U. G. Roberts and E. M. Harris; and "One Foot in a Grave", by Mrs. Richard Battles. Nineteen hundred copies of each were printed.

The Society Newsletter is mailed monthly through the year to members and to 52 other individuals and organizations. The Newsletter, entitled Stones & Bones, contains 8 to 10 pages per issue. Each issue includes at least one informative or educational article, prepared by a member of one of the local chapters. A popular feature, added during the past couple of years, is the periodic review of other Societies' publications which are received through exchange agreements. Brittain Thompson is editor, Mr. and Mrs. E. M. Harris, editorial assistants.

CONNECTICUT—David H. Thompson reported that the Archaeological Society of Connecticut has a membership of 381. On January 20, 1969, Mrs. Eva L. Volmers, an assistant New England historian, passed away. Her lifetime collection of manuscripts and documents is kept in the Indian and Colonial Research Center, Mystic, Connecticut, and is available for public use.

The number of copies published each month was increased from 100 to 109 of the Newsletter were published. Erika E. Filler is now the editor of the Newsletter. Bulletin No. 36 should be published soon.

In the valley of the Quinipiac River the New Haven Chapter last year terminated its excavations at the Wilson Site, which yielded a component of small, stemmed quartz points and, under the direction of Lyent Russell, returned this season to Granisis Island, and also located the ancient Granisis Island Beach Site. At the latter, four feet of wet mud excavated on the river bank in order to reach a component of Orient fish tail and small, stemmed quartz points. This is below the tide mark. The biologically rich, but not polluted salt marsh where these sites are located is being filled in for a future building development.

The Albert Morgan Chapter has about terminated the excavation of the Ben Hollister Site.

Douglas Jordan, University of Connecticut, has excavated the Tinkham Site (6-TL-1) in Tolland County near Storrs. This has yielded a single component of small, stemmed quartz point complex.

In Shelter B at the Binette Site a stratified component of Orient fish tail and large, stemmed quartz points was discovered by David H. Thompson, Quinipiac College, and William 0. O'Connor.

The spring meeting of the ASC was held in the Jorgensen Auditorium at the University of Connecticut. George R. Walters, President of the Society, and the Special Fund Committee, estabished a memorial fund in her name was established, proceeds of which will be used for future museum publications. (Donations are welcome.)

Field work was carried out by the museum in 1969, but is contemplated for 1970. Society members Guy Metlern and Dean R. Snow were in the field, however.

A temporary exhibit of Maine Indian basket-making of the 19th and early 20th centuries has been mounted at the Maine State Museum at Augusta. A reproduction of the "Birch Bark Canoe Building" was readied for the print. 42,000 people visited the museum between May 30 and October 15. The principal concern is to contribute to the knowledge and understanding these people have of Maine Indian populations, prehistoric, historic, and current.

A motion was made and accepted to co-host the E.S.A.F. Conference with the Maine Archaeological Society and the University of Maine Department of Anthropology in November 1970 and 1971. The invitation is in the hands of the E.S.A.F. Corresponding Secretary.

Copies of Dean R. Snow's report are available for $1.00. Title: "A Summary of Excavations at the Hathaway Site in Passadumkeag, Maine, 1912, 1947 and 1968."

Maine—Ellenore W. Douillet reported that the Maine Archaeological Society has more than 200 members, approximately 60 percent of whom are student members. The Society has 16 local chapters, 60 members for the extended membership informed and interested in the Society and its activities.

At our meeting last spring Robert MacKay of the Anthropology Department of the University of Maine spoke on a dig conducted by the University the previous summer. At our meeting this fall Frances Soper gave a brief account, with slides, of the "Viking Settlement" in northern Newfoundland; Mr. MacKay showed various steps in a controlled dig as exemplified in a recent Maine University project; Dr. Kley of the Maine State Museum discussed the functions of the new museum now being built by the State, and explained a new law formed to protect archaeological material on State land.

The Wilson Museum, Castine, recently purchased a pre-Revolutionary home which it expects to restore and exhibit. Plans are being made for the Maine Archaeological Society to excavate the area about the house. Participation by members will be welcome; the work will be supervised and will provide experience in a controlled excavation. This is the most ambitious program projected by the Maine Archaeological Society and we hope it will be in operation by the summer of 1970.

Mason—Robert S. Cox reported that the biggest archeological news from Maryland for the past year is that they finally have an archeologist. He is Mr. Tyler Bastian, who will head the Division of Archaeology. Mr. Bastian is located in the Frederick Survey. Mr. Bastian's work and experience has been primarily centered in the Midwest, but he receives a hearty welcome to the East and particularly Maryland.

An excavation at "Lombardy Hall", the home of Gunning Bedford, Jr., an American patriot, proved to be unfruitful and was abandoned. This was carried out at the request of the Granite Lodge of the Masonic Order and was preliminary to restoration.

Members have assisted the State Archaeologist at the Island Field Site.

C. A. Westager's "Delaware's Buried Past" which has long been out-of-print has been reprinted by Rutgers University Press. The book has been reprinted with an addendum.

The Archaeological Society of Delaware and two of its members were honored in the dedication of I. Noel Hume's recent book, "Historical Archaeology".

FLORIDA—Ripley P. Bullen reported for the Florida Archaeological Society that the annual meeting, celebrating the Society's twenty years of existence, was held last March at Crystal River and included a symposium on Florida's rich sites. Scientific papers were presented and, at the evening meeting, "we had an account of the excavation of Osceola's body by John H. Griffin, the organizer of the Society, currently Chief Archaeologist, Southeastern District, Nation Park Service. (Osceola was buried.)"

The meeting this March will be held at Daytona Beach. During the past year, two new chapters, one in St. Petersburg and one in west Florida, were organized. The Society's membership continues to grow but "we must applaud our out-state members for the extended delay in publication of the Society's journal."
MARYLAND—Iris McMillan reported that the Archeological Society of Maryland has a membership of 473, including 150 institutional members, as of November 1, 1968. The Society is comprised of ten local chapters, the annual meeting of which was held in April 1969 at Annapolis. The annual meeting will be held in May 1970 at Williamsburg, Va., and the society will publish its newsletter quarterly.

MICHIGAN—Donald R. Hayes reported that the Michigan Archeological Society has a membership of 2,200, including 1,000 institutional members, as of November 1, 1968. The Society is comprised of ten local chapters, the annual meeting of which was held in October 1969 at Traverse City. The annual meeting will be held in April 1970 at Detroit. The society will publish its newsletter quarterly.

MASSACHUSETTS—Mabel A. Robinson reported that the Massachusetts Archaeological Society has a membership of 1,000, as of November 1, 1968. The Society is comprised of six local chapters, the annual meeting of which was held in May 1969 at Boston. The annual meeting will be held in May 1970 at New Bedford. The society will publish its newsletter quarterly.

NEW YORK—Louis A. Brennan reported that the New York State Archeological Society has a membership of 501, as of January 1, 1969. The Society is comprised of 11 chapters and members-at-large. The annual meeting will be held in May 1970 at Cooperstown. The society will publish its newsletter quarterly.

ONTARIO—Dr. R. Dean Axelson reported by letter that the 1968-69 season was another good year for the Ontario Archaeological Society. The membership continues to rise steadily and now stands at 289.

The meetings are still being held in the archeology lab, room 501, Science Building, University of Toronto, 100 St. George St., Toronto, on the third Wednesday of every month except July and August. Meetings begin at 8:00 p.m.

The speakers and topics for each meeting were as follows: Sept./Oct/Nov—R. M. Bailey, "The Five-Foot Square," "Village In The Dust," and "Legend of the Raven." Oct./Nov.—Rev. W. M. Russell (S.J.), gave a illustrated talk on the summer excavation of the Fourth Site at Midland.

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Jan./69 - A movie called "The Hunters," which deals with the Kung Bushmen of the Kalahari Desert and their problems of existence, was shown.

Feb./69 - Prof. Conrad Heidenreich spoke on "What Was the Population Size of Seventeenth Century Hurontia?"

Mar./69 - The Ontario Archaeological Society was the co-host, with the University of Toronto, of the Second Annual Meeting of the Canadian Archaeological Association held in Toronto March 14,15, and 16. This was a well attended and successful meeting.

Apr./69 - The speaker this month was Mr. Ian Kenyon who spoke on "Archaeology In The Niagara Peninsula" and "Glass Beads Of The Neutral Period." The Bulletin "ARCH-NOTES" continues to be published on a monthly basis. The publication Ontario Archaeology was increased to two issues per year and Nos. 11 and 12 were printed. No. 13 is scheduled for the fall of 1969.

Pennsylvania - Vivien Marshall reported that the most complete picture of the society for Pennsylvania Archaeology can be gained by attending the Annual Meeting, held during the week of March 16-17 at Warren, Penna., with the members of the Kinzua Chapter # 18 as hosts. The Society was observing its 40th Anniversary. The business meeting conducted by Jacob Grimm, President, is reported briefly. Through the efforts of the Awards Committee, chaired by Phil Watters and John Pharr, the Society established the "J. Alden Mason Award." This award may be presented annually by the SPA to a professional archaeologist, based upon contribution to education and encouragement of SPA publications in a field of his specialization. Lillian Picton announced that the newly revised and reprinted Susquehannock Miscellany is dedicated to Frances Dorrance and the late J. Alden Mason.

Don Tanner, Treasurer, reported that the membership (at that date) was 857.

Officers elected for 1969-1970 were: Melville Corl, President; Barry Kent, 1st Vice President; Elinor Fehr, 2nd Vice President; Vivien Marshall, Secretary; Don Tanner, Treasurer.

It was announced that the 1969 ESAF meeting would be held in Morgantown, W. Va. It was noted that at the 1968 meeting at Ann Arbor the number of persons attending the meeting from Pennsylvania was second only to the host state, Michigan.

A resolution of acknowledgement of recognition and appreciation for the help and services rendered the Society was sent to Charter member Frances Dorrance.

The 1970 State Meeting will be held at Franklin and Marshall College, Lancaster, Penna.

It was announced that a new publishing policy for the Pennsylvania Archaeologist had been adopted. The newly appointed Editor, Henry Heisey was introduced. He will start work at his new post in November.

Papers presented following the business meeting were as follows: "The Relationship of Iroquoian and Monongahela Cultures in the Upper Valley," by Dr. Don Dragoo; "The St. Albans Site," by Bettey Broyles; "A Preliminary Report on the Dundee Site of Luzerne County, Pennsylvania," by Leslie L. Delaney; "Archaeology of the Upper Allegheny Valley, Part I" by John Zavinski, and "Part II," by Stanley E. Beebe; "Preparation and Future for Historic Archaeology," by Dr. John L. Cotter.

At the dinner meeting, representatives from Cold Spring Longhouse, Seneca Indian Reservation, Steamburg, New York were introduced. They were: Mr. and Mrs. Henry Wast, and Mr. and Mrs. Archie Johnson and Mr. and Mrs. Kenneth Leonard. Dr. Wm. Ritcheson spoke on, "Recent Advances in the Archaeology of the Northeast."

The Archez Awards, presented by John Pharr, were given to: Helen Zavinski, "Ancestral Paper", and John Zavinski. This award is given annually to amateurs merit recognition.

The Society continues its policy of not sponsoring archeological field work. Each Chapter forms its own policy pertaining to this matter and the joint report from Warren is as follows: Allegheny Chapter # 1 is in its fourth year of work at the McAnjunk Site (36Al 17) under the direction of Kirk Wilson. Members Don Tanner and Dick George had the Carnegie Museum dig in Chardrin River Valley (36A139). Dick George (assisted by several chapter members) conducted a salvage dig at Harmarville (36Al120).

Southeastern Chapter # 2: although this Chapter cannot sponsor field work, members Frances Eymon and John Whithorn worked in the Bridger Basin, Wyoming, at the 1968 University Expedition there and collected materials that are being studied. Dr. Mary Butler started working again in October on the historical dig at Morrison House, Norwood Borough.

Francis Dorrance Chapter # 11 reports excavations were carried on at the Parker Site (36Lu14) and Kings Site (36Lu11).

Amoco # 17 opened a new area at the Ohio View Site (36L9).

Kinzua Chapter # 18 worked on rock shelters and, when the water level permitted, excavated in the Kinzua Dam Basin.

Paul R. Stewart Chapter # 19: has been working on the Hartley Site and has a display at the Washington Mall, Washington, Penna. It should be noted that the following Chapters have been putting out publications: Allegheny # 1, SPAAC Speaks, Editor: John Pharr, Pittsburgh.

Southeastern # 2, Newsletter, Editor: Dr. Mary Butler, Media.

Connoroch # 16, The Publication, Editor: John Ashman, Johnstown.

Amoco # 17, Newsletter, Editor: Dick Mitchell, Rogers, Ohio.

Kinzua # 18, Newsletter, Editor: Helen Chase, Warren.

The Society publication, Pennsylvania Archaeologist, Vol. # 34 Nos. 3-4 was sent to the membership. Past Editor, James Gifford has Vol. 36, No. 3-4 in the process of publication. Editor Henry Heisey (Washington Boro) will determine when and if the other past numbers (that are unpublished) will be issued. Authors with articles they wish published should send them to him for consideration.

The Carnegie Newsletter, Nos. 40, 41 and 42-43 were sent to the membership, also.

Rhode Island - Edward D. Cook reported that the Narragansett Archaeological Society of Rhode Island had no papers to be presented at the annual meeting at Morgantown, West Virginia, on November 7-9 and regrets that no members from the organization will be able to attend the annual meeting. However, as the Society's delegate to the Federation, he takes pleasure in sending this report of activities for 1969.

The membership of 68 includes 2 life, 3 honorary, 54 regular and 9 junior members.

Meetings are held at 8 p.m. on the second Monday of each month during the winter and spring; it is generally voted to omit the July, August, and December meetings. The June, September, and annual business meeting (October) are held at the field site on the 3rd Saturday of the month at 2 p.m.

The annual dinner meeting will be held at the Riverpoint Congregational Church on Nov. 12; a special program, not yet announced, will follow the harvest dinner.

Mr. Alfred L. Hawkes, executive secretary of the Audubon Society of Rhode Island, presented an illustrated talk on "Water Pollution and Accepted Methods of Prevention" at the annual dinner meeting, November, 1968.

On January 13, Milton B. Hall presented a talk titled "Basket Making Tools Used by the Indians in Northern Maine."

On February 10, Miss Carol Barnes, of Rhode Island College, presented a talk titled, "Stone Points of the Middle Atlantic States"; the talk was illustrated with representative artifacts.

On March 10, Dr. William S. Fowler, Research Director, spoke on the topic: The Bluff Site, Flat River, Connecitcut.

On April 14, Paul H. St. Pierre, past president of the Society, presented a program titled, "Potpourri of Words and Color Slides."

Field activities were resumed on May 17 at the Bluff Site. This site is located on a hill having an elevation of about 20 feet, and overlooking a bend in Flat River, about one half mile below the dam on the east side of Johnson's Pond, located in Coventry, Kent County.

Occupational evidence has been good; there have been an average of more than one hundred people a day excavating at the site. All saddle querns that have been strongly represented, as has the Late Archaic and the Transitional. During the later part of the summer several diagnostic finds were made that made the presence of an Early Archaic culture at this site definite.

Publications: In January, 1969, the Narragansett Archaeological Society published a Bulletin containing the following reports:
RHODE ISLAND—(This is the Rhode Island report for 1968; it was not available for publication in the previous issue of the Bulletin.)—Edward D. Cook reported that at this time, there have been no papers prepared by any member for presentation at the Eastern States Archaeological Federation. He added that the Rhode Island Archaeological Society held its annual meetings on November 1, 2, and 3, 1968. "As none of our members will be in attendance, I am submitting a summary of the activities of the Narragansett Archaeological Society of Rhode Island for 1968."

1. A summary of members and activities by Officer.
2. A list of 24 life members,
3. 3 honorary members, 36 active, and from 10 junior members.

Meetings are held at 8 p.m. on the second Monday of each month, during the winter and spring; it is generally voted to omit the July, August, and December meetings. The Fall, Spring, and annual business meeting (October) are held at the field site on the 3rd Saturday of the month at 2 p.m.

Plans for the annual dinner meeting held early in November are incomplete at this time.

The 1967 annual dinner meeting was held on November 8, 1967, at the Riverpoint Congregational Church, Col. Eugene S. Clark, research marine biologist of Sandwich, Massachusetts, presented as his program, "Fossil Fish in Ivy City." Following the meeting, a film "A Battle of a Lost Landscape" were shown before the speaker, Dr. John L. Cotter discussed and illustrated "Underground Crisis in Philadelphia."

On January 8, Victor P. Allen of the Rhode Island Development Council presented two sound films titled "Rhode Island Panorama" and "Rhode Island on the Go." These programs were filmed from the air. They were short but to the point. The films clearly showed the extensive farmland, farms, and natural beauty of our smallest state at its best. That these films are broadsides of Rhode Island's extensive aboriginal culture made the points forcibly and impressively.


The Annual Meeting of the Board of Directors and Officers of the Narragansett Archaeological Society was held at the Oak Island site, located at North River, Massachusetts. On April 25, as illustrated talk titled "Rhode Island Development Story" was presented by Dr. Robert J. Hadfield of the University of Rhode Island. His description of the development of the island from the earliest days and the succession of flora accompanying the development were most informative. Dr. Hadfield made mention of the value the development of the island from the earliest days and the uniqueness of plant life.

On the bed sediments are useful as a guide to both, the age and climate during the formation of the deposit.

In May 1967, the excavation at the site adjacent to the upper reaches of the Woonasquatucket River in Coventry, Kent County, that was closed.

To John, exploratory testing downstream from this site, it was determined the suburbs of a location at a point overlooking a bend in the Woonasquatucket River. This location is approximately 1 mile from the fall and is on an elevation of about 20 feet below the water. This excavation is approximately half mile below the dam on the East side of John. At the present occupational evidence is considered "fair", with an average of 7 recordings per 6 ft. square since the May excavation of field activities.

Publications: "Aboriginal Discovery at Flat River" was published in January 1968. Of special interest at this site was the finding of 6 parallel-stemmed points resembling Dalton point types of a hard quartzite material. The finding of this points type, we believe, is the first appearance in the Southeast. Additional Early Archaic evidence was abundant: a shopping tool was found at this site. Dr. Fowler mentions that the site is one of the earliest Archaic in Pennsylvania; its appearance in the same zone at Flat River should mark the artifact as a diagnostic trait of the Northeast. Carbon associated with a pit-making evidences of being crematory in nature was carefully preserved for radiocarbon tests performed by Yale University indicated an age of 3,400 plus or minus 110 years before 1950. Cultural evidence extended into the Ceramic Age. However, there was a break off evidence more recent than this pottery. Dr. Fowler hypothesizes that these artifacts can be identified by the likely reasons for abandonment of the site early in the Ceramic Age.

Special Activities: At present Dr. Fowler is editing and making illustrations for reports on sites excavated by three Narragansett Archaeological Society members.

1) Arnold Spring Rock Shelter, Greene, Rhode Island, excavated by Henry N. Arnold, shows evidence of the Late Archaic and Ceramic Age.
2) Church Brook Rock Shelter, Cranston, R.I., excavated by Morris T. Mitchell and Mr. Arthur Waddick shows evidence primarily Early Ceramic Age.
3) Furnace Brook Site, Cranston, R.I., Excavated by Arthur Waddick and Morris T. Mitchell, the site is located approximately 1 mile above the ridge at Oakham. Evidence indicates that the site was used by Early Aborigines.

The reports of these 3 sites will appear in a regular Society Bulletin in the near future.

TENNESSEE—Richard Polhemus reported that the Tennessee Archaeological Society had 709 members on September 30, 1969. Some of these members are organized into 10 chapters.

The 22nd Annual Meeting was held in Knoxville, Tennessee, on October 5, 6, and 7. The facilities of the Frank H. McClung Museum on the University of Tennessee Campus were available for the Saturday sessions. On Friday, Oct, 3, a welcome party was given by the Knoxville Chapter. This was held in the Sheraton Campus Inn. A field trip to the Little Tennessee River area inhabited by the Cherokee Indians in the 18th Century was made Sunday morning.


The following officers were elected for 1970: Lloyd Chapman, Rt. 4, Russellville, Ky., President; Terry Martin, Rte. 5, Glen Lily Rd., Bowling Green, Ky., 1st Vice-President; James Powers, 1407 N. Tennessee Blvd., Murfreesboro, Tennessee, 2nd Vice-President; Alfred K. Guth, Dept. of Anthropology, UT, Knoxville; Secretary-Treasurer; Dr. Guth will continue as editor of the Tennessee Archeologist. Charles H. Fulscher, Dept. of Anthropology, UT; Knoxville was appointed editor of Miscellaneous Papers.

During the bulletin, there was extensive discussion of the status of the legislation to create an adequately funded archaeological program with the state government. The bill was referred back to committee during the spring of 1969. Agreement was reached regarding revisions of the legislation and support of the bill was urged.

A spring meeting of the society was held April 12 in Russellville, Kentucky. There was a workshop session with the Southern Kentucky Chapter serving as host. Discussants included Charles H. Fulscher (pottery), Jack East (archaeology), James Cambron (pottery points) and Dr. Philip Drucker. A highlight of the meeting was a visit to Savage Cave in Adairville, Ky.

Publications issued by the Society included Newsletters and the Tennessee Archaeologist.

No field work was conducted by the Society, but some chapters carried on excavations.

VIRGINIA—Dr. Ben C. McCarty reported that the Archeological Society of Virginia, membership is currently 1,200 with 20 local chapters. Each chapter meet and conducted its own programs, including some excavation projects. The Society as a whole met only once. This was the annual meeting at Staunton. The speakers were from the Virginia State Library and from various locations. The feature speaker was Miss Betty Broyles, who spoke on her work at the St. Albans Site, West Virginia. The present Officers were re-elected for 1970, as follows:

President coverage
Vice-President coverage
Secretary coverage
Treasurer coverage
Editor coverage

The Society issued four Newsletters during the year and four regular issues of The Quarterly Bulletin. A fifty-page "Bibliography of the Virginia Indians" was issued and is available for purchase from the Treasurers at a cost $1.50. A nine-day exhibit in the Virginia State Fair was installed and manned by members of the Society. A 150-page report on the excavation of the Shawnee Site in Montgomery County, Virginia, was issued by the Virginia State Library. This report is based on work largely done and financed by the Archeological Society of Virginia in 1966. The report was written by Joseph L. Bentinck, who also wrote the report. The report is available from the State Library for $4.

Excavations done by the various chapters were:

Greater Richmond Area Chapter
Northern Shenandoah Chapter
The Pratt Site, Caroline County, Virginia
The Fout Site, Frederick County, Virginia.
Northern Virginia Chapter
- The Fry Farm Site, Loudoun County, Va.
- The Donaldson Farm Site, Arlington, County, Va.
- The Leatherwood Site, Henry County, Va.
- The Brubaker Site, Franklin County, Va.
- The Lipes Site, Botetourt County, Va.
- The Onion Field Site, Campbell County, Va.

In addition, members assisted various state agencies in excavations at several sites.

A six-week-long summer school project was conducted jointly by the History Department of Roanoke College at Salem, Virginia, The Virginia State Library, and the Archeological Society of Virginia. The project was a search for traces of a French and Indian War fort, Fort Andrew Lewis, supposed to have been built at or near Salem. While no trace of the fort proper was found, a good sampling of prehistoric and historic materials was found. This project was under the direction of Dr. Alan Calmes of Roanoke College, assisted by Joseph L. Benthall representing the Virginia State Library. Member of the Society also assisted in an eight-day excavation at the Quickburg Site in Shenandoah County, Va. This project was a Society project conducted by Col. H. A. MacCord Sr., Archeologist on the staff of the Virginia State Library.

Other fieldwork done in Virginia included a continuation of the Chickahomin River survey being done by Dr. Norman F. Barka and Ben C. McCary of the College of William and Mary. Dr. C. G. Holland surveyed for sites in the area along the North River to be inundated by a dam to be built for the Appalachian Power Company. The Virginia Historic Landmarks Commission continued its inventory and sampling of historic sites and structures, and several members of the Archeological Society of Virginia participated in this work. In addition, several individual members of the Society conducted limited excavations.

Work planned for 1970 will continue to follow the pattern described above.

WES T VIRGINIA - Betty Broyles reported that on December 31, 1969, there was a total of 201 paid members in the Society. This includes 5 life and 7 contributing members and 55 individuals who have joined the Society as 1969 members. There is a total of 52 individuals who have not paid their dues for 1969. During recent weeks 17 individuals have applied for membership for 1970. Approximately two-thirds of the membership are residents of West Virginia, the remainder of the members being from a large number of States from Maine to California.

A meeting of the Board of Directors of the Society was held at the Holiday Inn, Morgantown, on the evening of November 7, 1969. In attendance were Sigifus Olafson, President; Del Norona, Vice President; Richard E. Jensen, Secretary-Treasurer; and Martin Cox who represented Earl Walter, a Director. The other Director, Paul H. Price, was absent due to a speaking engagement.

Mr. Norona made the motion that the Society donate $100.00 to the Eastern States Archeological Federation to help cover the cost of the social hour (pay the rent on the room at the Holiday Inn where the social hour was to be held). The motion was seconded by Mr. Jensen and was passed unanimously by those present.

Mr. Jensen moved that the Society donate $2,500 to matched by the Kanawha Valley Chapter, for the purpose of obtaining a radiocarbon date from an Early Archaic site which that chapter is excavating. Mr. Norona seconded the motion and it was passed unanimously.

Several other items of business were discussed, but no action was taken. The first was the disposition of Mr. Norona's extensive collection of original manuscripts, letters, and other material concerning the Grave Creek Mound. A possible change in the size of the WEST VIRGINIA ARCHEOLOGIST made it necessary for the Editor, Bettye J. Broyles, to suggest that an 8% by 11 inch size be more economical and would insure clearer photographs and drawings than can be obtained on the present small size. The board also discussed the possibility of finding a Physical Anthropologist who would analyze the human remains from the Fairchance Mound which was excavated by the Wheeling Area Chapter. The final item of business was the location of the next annual meeting.

ABSTRACTS OF THE PAPERS DELIVERED AT THE ANNUAL MEETING - 1969

THE MURRY SITE AND ITS ROLE IN SHENK'S FERRY CULTURE

W. FRED KINSEY AND HENRY HEISEY

On the basis of the imperfectly studied information retrieved from the Murry site and other sites we offer the following hypothetical reconstruction. The Murry site is a singlecomponent late Shenk's Ferry site, Funck phase, dating from A.D. 1450 to 1550 on the basis of ceramics and A.D. 1410 ± 100 years by radiocarbon analysis. During its time of occupation these people were under increasing pressure as a result of Susquehannock incursions into the Susquehanna Valley. The Susquehannock Indians did not move into the area after a single swift military conquest; instead they established hegemony after an extended series of probes, and guerrilla raids and encounters. We believe that this pressure influenced the politically backward Shenk's Ferry to band together for mutual protection into larger communities and to establish more easily defended villages. The Funck phase at the Murry site represents terminal Shenk's Ferry occupation of the Susquehanna Valley, at a time when the culture was under severe strain and pressure from the encroaching Susquehannock culture. Perhaps the demise of Shenk's Ferry was as an intact tribe at the Murry site.

The origins of the Shenk's Ferry culture remain obscure. There are hints that the Clemson's Island culture which occupied a similar area from about A.D. 900 to A.D. 1000 is the parent. Westford would also look to Piedmont Susquehannock for the Shenk's Ferry culture. Other more specific and names the southern Tutelo as the source, especially for the burial practices. Ceramic similarities between Lancaster Incised, Funck Incised and McFate Incised from western Pennsylvania cannot be ignored. This feature is particularly strong at the Johnson site in Indiana County. McFate pottery is, however, shell-tempered and, along with other Fort Ancient manifestations, this may be the source of shell-tempering in Susquehannock pottery. One thing seems clear, the Murry site is more non-Iroquoian than the Susquehannock site. If we can determine the source of the Murry site is the parent. Westford would also look to Piedmont Susquehannock for the Shenk's Ferry culture. Other more specific and names the southern Tutelo as the source, especially for the burial practices. Ceramic similarities between Lancaster Incised, Funck Incised and McFate Incised from western Pennsylvania cannot be ignored. This feature is particularly strong at the Johnson site in Indiana County. McFate pottery is, however, shell-tempered and, along with other Fort Ancient manifestations, this may be the source of shell-tempering in Susquehannock pottery. One thing seems clear, the Murry site is more non-Iroquoian than the Susquehannock site. If we can determine the source of the Murry site, we might have a better understanding of this culture. It is possible that the Susquehannock culture was enhanced by large scale settlement pattern studies. The culture is non-Iroquoian and the Susquehannock. Therefore, the strength of its strongest affinities are to the west with the Fort Ancient cultures of the Ohio Valley while the southeast coastal area of Virginia and the Carolinas is a possible secondary source of influence.

THE USE OF ETHNOGRAPHIC DATA FOR ARCHAEOLOGICAL INTERPRETATIONS IN THE GREAT LAKES REGION

JAMES E. FITTING

During the past decade archaeological analysis in the Great Lakes Region has moved in new directions, largely through the use of ethnohistoric data. Ethnohistoric data has never been neglected by archaeologists in this region. Even a century ago, it was common practice to interpret archaeological features in terms of the rich Jesuit sources. The new directions of the past decade, however, have involved more than just the interpretation of material cultural remains; they have been directed at the interpretation of settlement and social systems.

The State of Michigan is a central area in the Great Lakes Region. Virtually the entire Great Lakes area has a record of early ethnohistoric and early historic cultural expression as well, are found within its borders. Two major biotic provinces, the Canadian and Carolinian, are found within Michigan. State and there is a distinctive transition zone between the two which may constitute a life zone in itself. In each of these biotic provinces, and in the transition between them, a distinctive adaptive pattern was present in the Early Historic period.
In the northern Canadian province we have identified the Chippewa adaptive pattern, named for the ethnic group known to have frequented the area in historic times. This is a region of scattered resources and it was only during the summer months that large camps could be supported, and then only at good fishing sites. During the winter, the Chippewa broke up into small family units and wintered in isolated areas before gathering again the following spring. The length of the great Iroquois and Iroquois Five Nations had an effective agricultural adaptation in this area.

To the south groups like the Potawatomi were able to pursue an agricultural way of life in the Carolinian biotic province. Population density was greater in the Carolinian than in the Chippewa. Women were responsible for agricultural activities in the summer while men hunted and fished near the villages. During the winter the entire group, with the exception of a few winter people, left the village for winter hunting groups where a large but temporary base camp was established.

The group which occupied the transitional area in Michigan in the historic period was the Ottawa. The Ottawas were traders who served as middle men in the exchange of goods between the agriculturists of the south and the hunters of the north. They lived in large villages which were moved at frequent intervals. During the summer the men left the village to trade, hunt and fish. During the winter the men again left the village, this time to hunt in small groups in the interior of the state.

We have located archaeological sites which confirm the expected patterns of each of the major life zones. In the north, there are large summer villages with a high ratio of ceramics. In the south, there are very few large sites. We have taken this ratio of ceramic vessels to chipped stone tools as a rough indicator of this ratio on Woodland sites. There are also a few small sites, probably winter hunting camps, where there also appears to have been a balanced relationship between the two.

In the southern part of Michigan there are both large permanent villages and villages and transient camps. Both show evidence of balanced settlement composition. In the transitional zone there is an extremely complex settlement pattern, and it is hard to compare the various villages. We have taken this ratio of ceramic vessels to chipped stone tools, as well as both coastal and interior sites with the same kind of stone tools as the village sites but few or no ceramics. In other words, the Chippewa, Ottawas and Potawatomi could not be used for periods before 1950 as early Woodland periods but do suggest the type of settlement patterns to look for in earlier horizons. As an example, the late Archaic and Early Woodland patterns are based on winter population concentration more than summer. The term "woodland" is used in this sense as an archaic period in the Middle Woodland periods. In the Middle Woodland periods there is a summer population concentration and winter population dispersal. This is the same type of adaptation as the Late Woodland period. However, it is found in all biotic provinces, in the Middle Woodland period.

Our use of ethnoarchaeological sources has involved more than the simple use of analogy. It has centered around the formulation of settlement models, deriving logical conclusions from these models, and testing these models with archaeological data. The historic models appear to be valid for the Late Woodland period but new models, in effect new hypotheses, had to be developed, and tested, for earlier time horizons.

A FURTHER DEFINITION OF STEPHENSON'S MIDDLE ATLANTIC SEABOARD CULTURE PROVINCE

LOUIS A. BRENNAN

The enormous amount of material recovered from the Accokeek Creek site, on the Potomac River directly across from Mt. Vernon, dug by the owner of the property on which the site was located, was analyzed by Robert L. Stepanian. Digging mainly with the pottery, Stephenson arrived at the hypothesis, which had been partially suggested by earlier workers, that there had existed along the Atlantic coast, and inward to the footstool of the Alleghenies, from the Rappahannock River to the Lower Hudson, a distinctive cultural facies which had maintained its uniformity through the centuries.

Stephenson's report appeared in 1963, before any of the work done by N. W. Rollins in the Archacan and the Carolinian indicated for the Province. The Province was divided by Stephenson with uncanny accuracy for the Archacan, and as well as the Woodland, beginning at about 5000 years ago.

A comparison of materials between the Accokeek Creek and sites in the Lower Hudson show a correspondence from the entrance to the Province of the stemmed point making Taconic Tradition, from further out on the coast, to the ceramic times of Stephenson's analysis. After entering the Province the Taconic Tradition continued its expansion up the major streams and far inland, into upper New York, and into Alabama and the lower south.

That the boundary was both at about the Tappan Zee Bridge and at the mouth of the Croton River northward, and of the Province, had been published. Nevertheless the southern and northern extremes of the Province were divided by Stephenson with uncanny accuracy for the Archacan, as well as the Woodland, beginning at about 5000 years ago.

Such an occasion occurred during the summer of 1969 when the writer managed, in sandwich a Saturday field class he conducted in historic archaeology and prehistory, to get his National Park Service week (plus some annual leave), in order to rescue artifacts and information being looted from the exposed bottoms of late 18th and early 19th century wells and other pits in the bottom of the Atlantic building foundation for the Federal Building on the (Sixth) Mall north of Independence Hall, bounded by Market and Arch, Sixth and Seventh Streets. With the help of 100 per cent of the "looters" (perfectly sincere and dedicated artifact collectors) who contributed their entire collections to be recorded, 11 members of the class surveyed, mapped, recorded at the site, set up a laboratory, cleaned, processed, reconstructed and recorded over 200 representative pieces of ceramic and glass ware from thousands of sherds, and did the historical documentation to produce an 89-page illustrated report on the site.

A RECENT DEFINITION OF THE TOCANCEHE WAYS OF LIFE

JOHN L. COTTER

Philadelphia, like every other American metropolis, has failed to meet its responsibility to conserve for posterity an orderly record and sampling of its archaeological past. Aside from a program of archaeological investigation at Independence National Historical Park instituted in the 1950's and continuing, no civic or scientific institution in Philadelphia has had a program of systematic or intensive archaeological investigation as the city grows and changes. Meanwhile, Philadelphia and New Jersey and all the others, like an unattended treasure chest, is haphazardly looted, or simply leveled into construction wreckage, with a few trinkets saved, studied, and appreciated, by an occasional trained archeologist who just happens to find it possible to work at a given site.

ARCHAEOLOGICAL TREASURE HUNT AT PHILADELPHIA

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CERAMIC TECHNOLOGY AND ITS ARCHAEOLOGICAL IMPLICATIONS

CHARLES C. KOLB

The vast majority of interpretations concerning human culture and its dynamic aspects made by archaeologists are ultimately based on artifact remains, which represent the material aspects of human activity. Often these interpretations depend upon technical studies that must be made for the archaeologist by specialists such as geologists, petrologists, chemists, physicists, biologists, and zoologists, to name a few. The study of prehistory itself cannot hope to master many, if any, of the sophisticated technical analyses, but he should be aware of some components of these.

This paper concerns one of the most basic units of human artifact material, the lowly potsherd. The sherds are a much maligned, seemingly insignificant and even useless fragment of ancient human garbage of little interest to anyone except students of archaeology and ceramic technologists whose interests include the development, manufacture, and diffusion of these bits of prehistory. But what wonders potsherds can tell us in their mute way of the peoples who made and used ceramic vessels!

The proper study of the broken bits of human culture often provides invaluable key segments in the jigsaw puzzle of accurately reconstructing the cultural lifeways of prehistoric peoples. Pottery attributes such as the physical properties of color, hardness, texture, temper, other nonplastic inclusions, and firing variations, together with cultural data concerning methods of manufacture, surface treatment, decoration type and methods, and vessel form and function normally constitute elements used for describing various ceramic "types" and "wares." Ceramic classificatory schemes depend upon the knowledge of pottery attributes. The obvious characteristics, such as shape, texture, decorative techniques, and aplastic (tempering) materials, may readily be identified by the archaeologist in the field with, perhaps, no more elaborate equipment than 1.5x or 10x hand lens.

Ceramic typologies may utilize any number of physical or cultural characteristics discernible by the archaeologist, and he may select as few or as many as he deems necessary to delineate a particular "type." The described typologies (taxonomies) and publication of the so-called objective data, without interpreting the results in terms of cultural history and its dynamic aspects, often constitute the goal of archaeological reporting. These should never be regarded as mere ends in themselves, but should be employed for the purposes of supplementing and elucidating ethnographic descriptions of prehistoric peoples. As Frederick R. Matson in Ceramics and Man (1965:202) has noted: "Unless ceramic studies lead to a better understanding of the cultural context in which the objects were made and used, they form a sterile record of limited worth."

What are these archaeological implications that may be derived from ceramic studies? The purposes of ceramic analyses are diverse, and have been considered in numerous articles and books, the most notable of which is Ceramics for the Archaeologist by Miss Anna O. Shepard (1963:336-363). These include relative dating, the identification of intrusive vs. indigenous pottery (and perhaps cultures), the chronological sequences, determinations from surface reconnaissance, observations of cultural change, and the establishment of contemporaneity of cultures from different regions. Also discernible are indications as to cultural interaction (ranging from militaristic conquest through trade to wife exchange), degree of craft specialization, mechanisms of economic exchange, and ceramic development as a component of technological history.

In an article "Some Aspects of Ceramic Technology," Matson (1963:489) has observed: "It is not necessary to have available expensive equipment in well-arranged laboratories to undertake the basic technological examination of pottery and other ceramic objects. Careful observations by one understanding the ceramic processes of pottery forming and firing can produce valuable information of direct use in the archaeological study of the wares." The primary tool utilized by a ceramic specialist is the binocular microscope and proper oblique lighting arranged so as to emphasize surface striations and textural variations, and to gain insight as to paste and aplastic characteristics. In many cases nothing more is necessary.

In this paper I would like to consider some of the following aspects of traditional approaches to ceramic studies.

Traditional Approaches to Ceramic Studies

1. Purposes.
   - Understand problems from the viewpoint of the potter.
   - Obtain more accurate and objective ceramic descriptions.
   - Understand ceramic processes.
   - Supplement and illuminate cultural historical reconstruction.

Technological Approaches to Ceramic Studies

2. Techniques.
   - Examination of potsherds to discern their attributes.
   - Examination of the local clays.
   - Analyses of physical properties:
     - Raw clays: types and colors.
     - Temper and nonplastic inclusions: material, amount, texture, shape, and color.
   - Color of the finished product (Munsell Color Standard).
   - Hardness (Mohs' Scale, values 3-7).
   - Paste texture: grit through pebble (Wentworth Classification).
   - Luster: glazed through unpolished.
   - Porosity (ratio of pore space to total volume).
   - Strength (transverse breaking formula).
   - Fracture (density and friability).

3. Application of the Techniques.
   - Binocular microscopic (paste and splastic characteristics).
   - Petrographic (specific splastic identification).
   - Microchemical (paint and glaze analyses).
   - Spectrographic (chemical constituents).
   - Neutron activation analyses (identification of intrusive wares).
   - Thermal test briquettes (aplastic, color, texture, and porosity determination from controlled firing).
   - X-ray analyses (diffraction, fluorescent spectrometry, microanalyzing).
   - Thermoluminescent dating.
   - Reproductive experimentation (vessels and decorative techniques).

SUPPORTING STATEMENT FOR A BILL TO AMEND PUBLIC LAW 86-523 OF JUNE 27, 1960

CARL CHAPMAN AND CHARLES R. McGIMSEY

This, basically, is a conservation bill designed to facilitate and promote the protection and recovery of one of America's great non-renewable resources—the evidence of the past. The need for action is urgent for it is estimated that a majority of our archeological sites will be damaged or destroyed within the next 25 years.

Background

The National Park Service, through the Secretary of the Interior, is charged with the responsibility for Federal action with regard to the nation's archaeological and historical resources. In addition to its own personnel, the National Park Service has established and maintained for more than 20 years a program of cooperative agreements with state and local institutions for recovery of archeological data about to be lost through flooding behind dams. The 1960 act (Public Law 86-523) required Federal agencies building dams or licensed the construction of dams to notify the Secretary of the Interior of such intentions and formalized the on-going reservoir archeological salvage program. Unfortunately, there has never been any provision for the recovery of archeological and historical data lost as a result of Federal programs other than dam construction. These losses far surpass those resulting from the building of dams.

The Proposed Bill

The bill amends and broadens the 1960 act as follows:

- Amends and broadens the 1960 act as follows:
(1) Coverage is extended to all Federal and Federally assisted or licensed programs which alter the terrain and thus potentially cause loss of scientific, prehistorical, historical, or archeological data.

(2) Federal agencies are directed to advise the Secretary of the Interior if in their operations archeological or other scientific data are released or threatened.

(3) The Secretary of the Interior upon notification by any responsible authority that a Federal program is threatening, damaging, or destroying such data shall evaluate the situation and cause a survey of or other investigation to be made to the extent necessary to protect the public interest.

(4) Federal agencies whose programs are causing damage or destruction of scientific, prehistorical, historical, or archeological data are authorized to transfer to the Secretary of the Interior a small portion of the program funds to protect or recover such data prior to its loss.

Advantages of the Bill

Both funds (Federal and other) and archeological personnel are limited and should be utilized where there is the greatest priority or scientific need. The bill will make it possible for some additional Federal funding and activities to recover data on our archeological and historical resources by extending the salvage archeological program to all Federal activities rather than limiting it to reservoirs. Of even greater importance, it will enable the archeologists to select which sites to concentrate their efforts upon upon the basis of scientific need rather than being restricted in their selection solely to those sites being destroyed from construction or reservoir flooding. In the past much extremely valuable scientific data has been lost due to lack of funds and available personnel at the critical time. By authorizing transfer of necessary funds from the program responsible for potential destruction or damage of the data, it would be possible to tie in directly and immediately the level of support needed to the amount of destruction and availability of personnel.

Because the responsibility for initiating action rests with the archeologists and the Federal agencies involved will not be burdened with unnecessary administrative problems or expense.

Possible Problems

The principle of transfer of funds by Federal agencies has been established by Executive order but its application in this particular instance needs to be cleared with the Bureau of the Budget.

It will also be desirable and necessary to assure the major agencies involved that neither the financial nor the administrative drain upon them will be serious and that both will be more than offset by the public benefit and improved public relations.

The bill is as follows:

AMENDMENT

In the nature of a substitution

To amend the Act of June 27, 1960 (74 Stat. 220), relating to the preservation of historical and archeological data.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "An Act to provide for the preservation of historical and archeological data (including relics and specimens) which might otherwise be lost as the result of the construction of dams by the United States or by any person or corporation carrying on a work in connection with the construction of a dam by any person or corporation, or for other purposes", approved June 27, 1960 (74 Stat. 220), is amended to read as follows:

"That it is the purpose of this Act to further the policy set forth in the Act entitled "An Act to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes", approved August 21, 1935 (16 U.S.C. 461-467), and the Act entitled "An Act to establish a program for the preservation of additional historic properties throughout the Nation, and for other purposes", approved October 15, 1906 (80 Stat. 915), by specifically providing for the preservation of scientific, prehistorical, historical, and archeological data (including relics and specimens) which might be adversely affected as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation carrying on a work in connection with the construction of a dam by any such agency; or (2) any alteration of the terrain caused as a result of any Federal, federally assisted, or federally licensed activity or program.

SEC. 2. Before any agency of the United States shall undertake the construction of a dam, or issue a license to any private individual or corporation for the construction of a dam, it shall give written notice to the Secretary of the Interior (hereinafter referred to as the "Secretary") setting forth the site of the proposed dam and the approximate area, to be flooded and otherwise changed if such construction is undertaken. That the Secretary shall reserve lands which provide less than five thousand acre-feet of detention capacity and with respect to any other type of dam which creates a reservoir of less than forty square acres the provisions of this section shall apply only when the construction in the public interest. The Secretary is hereby authorized to transfer to the Secretary such funds as may be necessary in an amount not to exceed 1 percent of the total amount appropriated in connection with such activity or program, to enable the Secretary to conduct such survey or other investigation and to recover and preserve such data (including analysis and publication)." (a) The Secretary, upon notification by an agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (b) The Secretary, upon notification by such an agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (c) The Secretary, upon notification by any such agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (d) The Secretary, upon notification by any such agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity.

SEC. 3. (a) Whenever any Federal agency finds or is made aware by a responsible authority, that its operations in connection with any Federal, federally assisted, or federally licensed activity or program affects or may affect adversely significant scientific, prehistorical, historical, or archeological data, such agency is hereby authorized to extend, suspend, or terminate the program or activity. (b) The Secretary shall, upon notification by an agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (c) The Secretary, upon notification by any such agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (d) The Secretary, upon notification by any such agency or by any other Federal or State agency or responsible private organization that the scientific, prehistorical, historical, or archeological data is or may be adversely affected and shall provide the Secretary with appropriate information concerning the program or activity. (e) The Secretary may enter into contracts or make cooperative agreements with any Federal or State agency, any educational or scientific organization, or any institution, corporation, association, or qualified individual; (f) The Secretary shall consult with any interested Federal and State agencies, educational and scientific organizations, and private institutions or qualified individuals in determining the ownership of and the most appropriate repository for any relics and specimens recovered as a result of any work performed as provided for in this section.

SEC. 4. In the administration of the Act, the Secretary may—

(1) accept and utilize funds transferred to him by any federal agency pursuant to this Act;
(2) enter into contracts or make cooperative agreements with any Federal or State agency, any educational or scientific organization, or any institution, corporation, association, or qualified individual; (3) obtain the services of experts and consultants or organizations thereof in accordance with section 3109 of title 5, United States Code; and
(4) accept and utilize funds made available for salvage archeological purposes by any private person or corporation.

SEC. 5. There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act."
EROSION AND ARCHAEOLOGY IN THE SOUTHERN APPALACHIANS

SIGFUS OLAFSON

Insofar as topography is concerned, the terrain in the southern Appalachians is perhaps the roughest in the eastern United States. Most of the lesser streams have steep gradients and narrow valleys. The ridges, too, have steep slopes and are high and generally narrow, in many places rising to elevations of more than 3,000 feet. Rainfall is moderately heavy and in such terrain runoff is rapid, so that flash floods are not uncommon. Usually they are limited to relatively small areas, but it is doubtful if a single valley in the region has not felt their powerful erosive force many times. They scour out the valley floors, uprooting large trees and removing and replacing soil. It is rare indeed that a prehistoric site is found on the valley floors and early ones simply do not exist.

Perhaps because the valleys have so little to offer, archaeologists have given the region little attention and it has often been assumed that such terrain was not well suited to man and could support only a small population. Such assumptions were made without any examination of the tops of the ridges. This is understandable because they do not look like attractive places for Indian sites. Then, too, they are in general heavily wooded areas overgrown with brush, making examination most difficult, and because of lack of roads few could be reached except by exhausting climbs.

Within the last few years industrial activities, such as coal mining, dewatering for natural gas, and lumbering, have brought about the building of jeep and truck roads to the tops of these mountain ridges in many places, and in some cases along their tops for varying distances. These have exposed concentrations of flint chips, burned rocks, and artifacts that have led to the discovery of a large number of mountaintop sites which yield a surprising amount of cultural material. For instance, a pipeline and truck road 4½ miles long, built on a ridge in Boone County, West Virginia, revealed sites from which local collectors have gathered several thousand projectile points, as well as a large number of other artifacts.

While these concentrations of artifacts are referred to here as "sites" they are not in that sense that they have ever been lived on for appreciable lengths of time. They are likely to be found on any flat spot on the ridges, in gaps, and at the junctions of ridges. They always surround the little depressions locally called "bear wallows" in which water is found most of the year. They appear to be favored camping spots where travelers, hunters, and food gatherers have been stopping intermittently over a long period of time.

Such a theory is supported by the fact that the identifiable diagnostic artifacts range from fluted points of the Paleo-Indian period to the small triangular points and pottery of the late prehistoric era. No one time period seems to be predominant. Paleo-Indian artifacts are scarce and most of the artifacts recovered are of the Archaic period, no doubt because of the long span it covers. Artifacts attributable to the Woodland period are rather scarce and very little pottery is present.

Projectile points are by far the most numerous type of artifact and in much of the Archaic are the only diagnostic one. The St. Albans site is about 50 miles to the north and in it a long series of well stratified Archaic zones have been C-14 dated at from about 6150 to 7900 B.C. All the projectile point types found in these zones are present in these mountaintop sites, plus a large variety of unidentified types, some of which may be earlier. There are also knives, drills, and scrapers. Many milling stones and pitted stones have been found, and it might be mentioned that the forests here were composed largely of nut bearing trees, oak, chestnut, hickory, black walnut, and butternut. Aflati weights are scarce. Hammerstones made from igneous or metamorphic rocks not found in West Virginia are numerous. These are found as stream transported debris in the bed of New River, 40 miles to the east, and Ohio River, 100 miles to the north. Since many show no battering on their ends they were probably used as pestles or manos in connection with the milling stones.

At first glance the presence of so much cultural material on the ridges and its absence in the valleys is surprising, but the answer is simple. The ridges have not been subjected to the erosive forces that have scour ed the valleys. There have been no spates on them, no torrents of water strong enough to carry away stone artifacts. Much of what man left on them is still there. And, there are enough of these artifacts to cast doubt on the accuracy of estimates that have been made of the population density in the Appalachians and their suitability for man. He appears to have been as numerous and gotten along as well here as elsewhere.

The principal area that has been tested for these types of sites is in Boone County, West Virginia, and all counties that adjoin it, with some spot checking farther afield. In this area water erosion rather than crustal folding created the topography and there are several thousand square miles of this type of terrain in West Virginia and adjacent states, in all of which the ridges offer interesting archaeological possibilities.

EXCAVATION OF THE 19th CENTURY MISSOURI RIVER STEAMBOAT BERTRAND

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In 1968 and 1969 the National Park Service conducted archeological investigations of a steam packet which sank in the Missouri River April 3, 1863 30 miles north of Omaha, Nebraska. The project, which began as a private salvage effort directed at recovering mercury, whiskey and gold the ship allegedly contained, developed into one of the most unusual and important historic site excavations in this country. Although the treasure had apparently been recovered at the time of sinking, a more important treasure was discovered in the boat's cargo of goods and supplies destined for the farms, gold fields, and stores of Montana Territory. The nearly 2,000,000 artifacts recovered were exceptionally well preserved and constitute one of the largest and most significant collections of precisely dated 19th century artifacts in the United States. The Park Service is now confronted with one of the most complex and extensive programs of artifact preservation ever undertaken.